Appendix G: Analytical Data

G-1: SDGs
G-2: Data Validation Reports

This Page Intentionally Left Blank

Appendix G-1: SDGs

This Page Intentionally Left Blank

APPL
AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES
A METIRI GROUP COMPANY

908 N. Temperance Ave., Clovis, CA 93611 - Phone 559-275-2175 - www.metirigroup.com

NELAP Certification Number: CA00046
DoD-ELAP Certification Number 4064.01
State Certification Number: C790

March 22, 2024

Mitch Baron
Tetra Tech, Inc. Bothell
19803 North Creek Parkway
Bothell, WA 98011

RE: NB Kitsap Bangor CTO NW194112, WA
24C0028

Enclosed are the results of analyses for samples received by our laboratory on 3/7/2024. If you have any questions concerning this report, please feel free to contact me.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or designee, as verified by the following signature.

Sincerely,

[redacted]

Eric Ogden For Monica Garcia-Strickland
Project Manager

monica.garcia-strickland@metirigroup.com
559-825-9005

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

Table of Contents

Cover Letter 1

Case Narrative 3

Sample Results 5

QC Results 9

Notes and Definitions 10

Login Summary 11

Chain of Custody 12

Other Documents or Sub Lab Data 13

Fraction (Solids) 14

- SampleResults (ISM02.2) 15
  - Duplicates (BDC0111) 20

Fraction (WETC) 23

- Sample Data (EPA 353.2) 24
- SampleResults (EPA 353.2) 25
  - Method Blank Summary (BDC0162) 34
  - Blanks (BDC0162) 35
  - Preparation Bench Sheet (BDC0162) 36
  - Laboratory Control Recovery (BDC0162) 40
  - Matrix Spike Summary (BDC0162) 41
  - Injection Log (SD00978) 43

Standard Traceability 44

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Data Validatable Report

Analysis Case Narrative

In the MS/MSD performed on sample X7-TP-CO3-2436, Nitrocellulose recovered below control limits. Corrective action: the client was notified.

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
24C0028-01	X7-TP-C01-3642	Solid	03/06/2024 09:00	03/07/2024
24C0028-02	X7-TP-C02-2430	Solid	03/06/2024 09:25	03/07/2024
24C0028-03	FD-03062401	Solid	03/06/2024 09:35	03/07/2024
24C0028-04	X7-TP-C03-2436	Solid	03/06/2024 09:55	03/07/2024

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Containers Received

Lab ID	Container Type	Count	Preservation Check
24C0028-01			
	4oz Jar Wmouth	1	
24C0028-02			
	4oz Jar Wmouth	1	
24C0028-03			
	4oz Jar Wmouth	1	
24C0028-04			
	4oz Jar Wmouth	1	

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Sample Results

Sample: X7-TP-C01-3642
24C0028-01 (Solid)

WetLab

Analyte	Result	/Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	84.6		2.00	1.50	0.750	%	03/11/24	1	ISM02.2	BDC0111
NITROCELLULOSE	9.4	U	12	9.4	4.7	mg/kg dry	03/22/24	1	EPA 353.2	BDC0162

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Sample Results
(Continued)

Sample: X7-TP-C02-2430
24C0028-02 (Solid)

WetLab

Analyte	Result	/Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	84.6		2.00	1.50	0.750	%	03/11/24	1	ISM02.2	BDC0111
NITROCELLULOSE	9.4	U	12	9.4	4.7	mg/kg dry	03/22/24	1	EPA 353.2	BDC0162

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Sample Results
(Continued)

Sample: FD-03062401
24C0028-03 (Solid)

WetLab

Analyte	Result	/Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	86.9		2.00	1.50	0.750	%	03/11/24	1	ISM02.2	BDC0111
NITROCELLULOSE	9.1	U	11	9.1	4.6	mg/kg dry	03/22/24	1	EPA 353.2	BDC0162

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Sample Results
(Continued)

Sample: X7-TP-C03-2436
24C0028-04 (Solid)

WetLab

Analyte	Result	/Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	83.1		2.00	1.50	0.750	%	03/11/24	1	ISM02.2	BDC0111
NITROCELLULOSE	9.6	U	12	9.6	4.8	mg/kg dry	03/22/24	1	EPA 353.2	BDC0162

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Quality Control

WetLab

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Method: ISM02.2										
Batch: BDC0111 - ISM02.2										
Duplicate (BDC0111-DUP1)	**Source: 24C0028-04**					Prepared & Analyzed: 03/11/24 08:49				
	%									
% Solids	84.5					83.1			1.69	20
MOISTURE	15.5					16.9			8.75	20
Method: EPA 353.2										
Batch: BDC0162 - EPA 353.2										
Blank (BDC0162-BLK1)						Prepared: 03/12/24 12:19		Analyzed: 03/22/24 09:49		
	mg/kg wet									
NITROCELLULOSE	7.8 U	9.8	7.8	3.9						
LCS (BDC0162-BS1)						Prepared: 03/12/24 12:19		Analyzed: 03/22/24 09:49		
	mg/kg wet									
NITROCELLULOSE	42.0				97.1		43.3	40-120		
LCS Dup (BDC0162-BSD1)						Prepared: 03/12/24 12:19		Analyzed: 03/22/24 09:49		
	mg/kg wet									
NITROCELLULOSE	45.9				99.0		46.4	40-120	8.80	20
Matrix Spike (BDC0162-MS1)	**Source: 24C0028-04**					Prepared: 03/12/24 12:19		Analyzed: 03/22/24 09:49		
	mg/kg dry									
NITROCELLULOSE	14.0 MS1				117	9.63 U	11.9	40-120		
Matrix Spike Dup (BDC0162-MSD1)	**Source: 24C0028-04**					Prepared: 03/12/24 12:19		Analyzed: 03/22/24 09:49		
	mg/kg dry									
NITROCELLULOSE	15.1 MS1				119	9.63 U	12.7	40-120	8.07	20

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Notes and Definitions

Item	Definition
MS1	Matrix spike recovered below the lower control limit
U	Not detected
Dry	Sample results reported on a dry weight basis.
DF	Dilution Factor
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
*	Value outside control limits
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.

LOQ, Limit of Quantitation = Method Reporting Limit (MRL).

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL
AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES
A METIRI GROUP COMPANY

WORK ORDER

24C0028

Printed: 03/22/2024 3:26 pm

Project: NB Kitsap Bangor CTO NW194112, WA
Project Number: 28023939
Project Manager: Monica Garcia-Strickland
PO Number: 1132337

Report To:
Tetra Tech, Inc. Bothell
Mitch Baron
19803 North Creek Parkway
Bothell, WA 98011
Phone: (206) 908-3246

Invoice To:
Tetra Tech, Inc. Bothell
Mitch Baron
19803 North Creek Parkway
Bothell, WA 98011
Phone: (206) 908-3246

Date Received: 03/07/2024 09:55 AM
Date Due: 03/21/2024 (10.00 day TAT)

Logged In By: Eric Ogden
Received By: Jake Henige

Analysis	Comments
24C0028-01 X7-TP-C01-3642 [Solid] Sampled 3/6/2024 9:00:00AM	
% Solids	NONE
353.2M	NONE
24C0028-02 X7-TP-C02-2430 [Solid] Sampled 3/6/2024 9:25:00AM	
% Solids	NONE
353.2M	NONE
24C0028-03 FD-03062401 [Solid] Sampled 3/6/2024 9:35:00AM	
% Solids	NONE
353.2M	NONE
24C0028-04 X7-TP-C03-2436 [Solid] Sampled 3/6/2024 9:55:00AM	
Sample Comments: MS.MSD	
% Solids	NONE
353.2M	NONE

24C0028 **Sample Receipt Log**

Default Cooler

Samples Received at: **4.0°C**

Custody Seals	No	Were all containers sealed in separate bags?	Yes
Containers Intact	Yes	Did all containers arrive in good condition?	Yes
COC/Labels Agree	Yes	Correct containers/preserv. for tests indicated?	Yes
Preservation Confirmed	Yes	Sufficient volume sent for tests requested?	Yes
Received On Ice	Yes	Were bubbles absent in volatile samples?	No
Was a chain of custody received?	Yes	Sufficient remaining holding time for analyses?	Yes
COCs complete/signed in the appropriate places?	Yes	pH of non-VOA preserved containers documented?	No
Sample labels complete? Sample ID, date/time, etc.	Yes	Unpreserved vials received for VOA analysis?	No
Did all container labels agree with COCs?	Yes	If "yes", are unpreserved VOA vials noted on Work	No

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

Bottle Order 23K0023

C.O.C. 61943

Report to: PLEASE PRINT

Company Name: Tetra Tech Phone: 360-908-3246

Address: 661 Anderson Dr. Pittsburgh, PA 15220 Fax:

Attn: Mitch Baron

Email: mitch.baron@tetratech

Invoice to: PLEASE PRINT

Company Name: Tetra Tech Phone:

Address: 661 Anderson Dr., Foster Plaza 7 Pittsburgh, PA 15220 Fax:

Attn: Accounts Payable

Email: NUS.AP@tetratech.com

Project Name/Number: NB Kitsap Bangor CTO NW19412

Purchase Order Number: 1132337

Sampler (Print): Mitch Baron

Sampler (Signature): [redacted]

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	Analysis Requested/Method Number: 353.2M Nitrate Nitrite	Date Shipped: / Carrier: / Waybill No.: / Comments:
X7-TP-C01-3642	NBK Bangor	3-6-24	0900	PST	1			X	X	
X7-TP-C02-2430	NBK Bangor	3-6-24	0925	PST	1			X	X	
D-03062401	NBK Bangor	3-6-24	0935	PST	1			X	X	
7-TP-C03-2436	NBK Bangor	3-6-24	0955	PST	1			X	X	MS/MSD

[redacted]24

Shuttle Temperature: 5.5/4.0°C

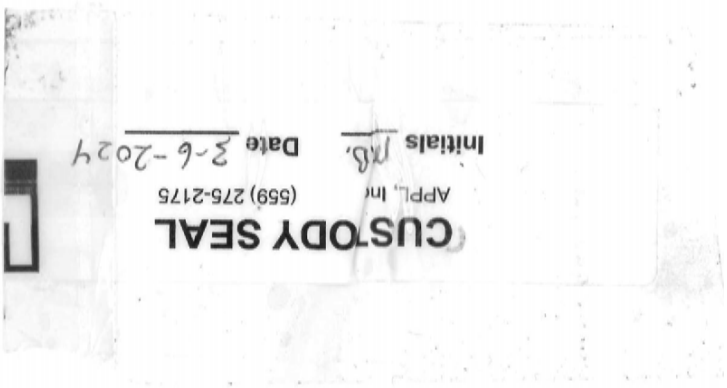
Turnaround Requested: Check one
☒ Standard 2-3 wk ☐ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
[redacted] Sealed in Cooler	3-6-24	1340					
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date 03/07/24	Time 9:55am	[redacted] Appl Inc

White: Return to client with report Yellow: Laboratory Copy See reverse side for Container Preservative and Sampling Information

Table of Contents


CUSTODY SEAL
APPL, Inc (559) 275-2175
Initials RB
Date 3-6-2024

Solids

SAMPLE DATA
Solids

ANALYSIS DATA SHEET

X7-TP-C01-3642

Laboratory:	APPL, LLC	SDG:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Matrix:	Solid	Laboratory ID:	24C0028-01
Sampled:	03/06/24 09:00		
% Solids:	84.61		

Analyte	Concentration (%)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
% Solids	84.6	2.00	1.50	0.750	1		BDC0111	03/11/24 08:49	ISM02.2

ANALYSIS DATA SHEET

X7-TP-C02-2430

Laboratory:	APPL, LLC	SDG:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Matrix:	Solid	Laboratory ID:	24C0028-02
Sampled:	03/06/24 09:25		
% Solids:	84.62		

Analyte	Concentration (%)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
% Solids	84.6	2.00	1.50	0.750	1		BDC0111	03/11/24 08:49	ISM02.2

ANALYSIS DATA SHEET

FD-03062401

Laboratory:	APPL, LLC	SDG:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Matrix:	Solid	Laboratory ID:	24C0028-03
Sampled:	03/06/24 09:35		
% Solids:	86.90		

Analyte	Concentration (%)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
% Solids	86.9	2.00	1.50	0.750	1		BDC0111	03/11/24 08:49	ISM02.2

ANALYSIS DATA SHEET

X7-TP-C03-2436

Laboratory:	APPL, LLC	SDG:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Matrix:	Solid	Laboratory ID:	24C0028-04
Sampled:	03/06/24 09:55		
% Solids:	83.09		

Analyte	Concentration (%)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
% Solids	83.1	2.00	1.50	0.750	1		BDC0111	03/11/24 08:49	ISM02.2

DUPLICATES

X7-TP-C03-2436

Laboratory:	APPL, LLC	Work Order:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Matrix:	Solid	Laboratory ID:	BDC0111-DUP1
Batch:	BDC0111	Initial/Final:	6 g / 6 g
Preparation:	ISM02.2	Analysis:	ISM02.2
% Solids:	83.09		

ANALYTE	SAMPLE CONC. (%)	DUPLICATE CONC. (%)	RPD %	Q	CONTROL LIMIT
% Solids	83.1	84.5	1.69		20
MOISTURE	16.9	15.5	8.75		20

PREPARATION BENCH SHEET
Organics

Print Date/Time: 03/12/2024 9:19 am

BDC0111

(Continued)

Matrix: Solid

Prepared using: WetLab - ISM02.2

Lab Number	Sample and Source ID ID Confirmed By:		Extract by	Initial (g)	Final (g)	ul Spike 1	ul Spike 2	ul Surr 1	ul Surr 2	pH	Extraction Comments
24C0028-01 A	X7-TP-C01-3642	F	04/03/24	6	6						
24C0028-02 A	X7-TP-C02-2430	F	04/03/24	6	6						
24C0028-03 A	FD-03062401	F	04/03/24	6	6						
24C0028-04 A	X7-TP-C03-2436	F	04/03/24	6	6						
24C0045-01 A	P3HWMU-SKPL-3040	G	04/05/24	6	6						
24C0049-01 A	P3HWMU-SKPL-2939.2		04/05/24	6	6						
24C0049-02 A	P3HWMU-SKPL-2940.2		04/05/24	6	6						
BDC0111-DUP1	Duplicate [24C0028-04]			6	6						

Analyses

% Solids

Spiking Solution(s)

Surrogate Solution(s)

Start Date/Time _____

Stop Date/Time _____

Equipment Used:

Balances:

Hotblock/Plate:

Sonic Horns:

Pipettes:

Water Baths:

Ovens:

Desiccator:

pH Probes:

Reagents

Standard	Description	LotNum

atch Comments:
ettler (WB-3)

Spiking Witnessed By _____ Date _____ Preparation Reviewed By _____ Date _____ Extracts Received By _____ Date _____

Page 21 of 59 24C0028 APPL_L4_DOD (Rev0).PDF

Table of Contents

Percent Solid

Method: CLP 4.0 **Analyst:** yml
Oven Temp: 104°c
QCG: BDC0111
Date in Oven: 3/11/2024 **Time in Oven:** 8:49
Date out Oven: 3/12/2024 **Time out Oven:** 6:38
Date in Oven: **Time in Oven:**
Date out Oven: **Time out Oven:**

Formula Locked Cell

APPL ID	Pan (g)	Pan Wet (g)	Pan Dry 1 (g)	Pan Dry 2 (g)	% Solid	% MOIST
24C0028-01	0.8398	9.3341	8.0272	8.0272	84.6144	15.3856
24C0028-02	0.8495	9.7743	8.4015	8.4015	84.6181	15.3819
24C0028-03	0.8424	9.8772	8.6938	8.6938	86.9018	13.0982
24C0028-04	0.8396	9.6559	8.1648	8.1648	83.0870	16.9130
BDC0111-DUP1	0.8463	9.3384	8.0226	8.0226	84.5056	15.4944
24C0045-01	0.8677	9.7216	8.6121	8.6121	87.4688	12.5312
24C0049-01	0.8534	9.8855	8.6713	8.6713	86.5568	13.4432
24C0049-02	0.8705	9.5909	8.3632	8.3632	85.9215	14.0785

WET_C

SAMPLE DATA

SAMPLE DATA
WET_C

ANALYSIS DATA SHEET

X7-TP-C01-3642

Laboratory:	APPL, LLC	SDG:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Matrix:	Solid	Laboratory ID:	24C0028-01
Sampled:	03/06/24 09:00		
% Solids:	84.61		

Analyte	Concentration (mg/kg dry)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
NITROCELLULOSE	9.4 U	12	9.4	4.7	1		BDC0162	03/22/24 09:49	EPA 353.2

ANALYSIS DATA SHEET

X7-TP-C02-2430

Laboratory:	APPL, LLC	SDG:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Matrix:	Solid	Laboratory ID:	24C0028-02
Sampled:	03/06/24 09:25		
% Solids:	84.62		

Analyte	Concentration (mg/kg dry)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
NITROCELLULOSE	9.4 U	12	9.4	4.7	1		BDC0162	03/22/24 09:49	EPA 353.2

ANALYSIS DATA SHEET

FD-03062401

Laboratory:	APPL, LLC	SDG:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Matrix:	Solid	Laboratory ID:	24C0028-03
Sampled:	03/06/24 09:35		
% Solids:	86.90		

Analyte	Concentration (mg/kg dry)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
NITROCELLULOSE	9.1 U	11	9.1	4.6	1		BDC0162	03/22/24 09:49	EPA 353.2

ANALYSIS DATA SHEET

X7-TP-C03-2436

Laboratory:	APPL, LLC	SDG:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Matrix:	Solid	Laboratory ID:	24C0028-04
Sampled:	03/06/24 09:55		
% Solids:	83.09		

Analyte	Concentration (mg/kg dry)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
NITROCELLULOSE	9.6 U	12	9.6	4.8	1		BDC0162	03/22/24 09:49	EPA 353.2

NO2

Prep Date: 3/21/2024

Exp Date: 3/28/2024 **Prep'd By (Initials):** KTF

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Product Number	Conc. (ppm)	Lot Number - QA Number	Exp. Date	Aliquot from Stock(uL)	Final Volume(mL)	Solvent	Final Standard Conc (µg/mL)
1 ppm	Inorganic Ventures		1000	R2-NOX700200	1/27/2025	4000	6	DI Water	1
ICV	Inorganic Ventures		1000	T2-NOX721185	8/15/2027	35.0	25	DI Water	1.4
CCV	Inorganic Ventures		1000	R2-NOX700200	1/27/2025	61.6	25	DI Water	0.75
HP	Inorganic Ventures		1000	R2-NOX700200	1/27/2025	123.2	25	DI Water	1.5

NO3/TOXN

Prep Date: 3/21/2024

Exp Date: 3/28/2024 **Prep'd By (Initials):** KTF

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Product Number	Conc. (ppm)	Lot Number - QA Number	Exp. Date	Aliquot from Stock(uL)	Final Volume(mL)	Solvent	Final Standard Conc (µg/mL)
1 ppm	Inorganic Ventures		1000	T2-NOX723937	9/28/2027	1000	6	DI Water	1
ICV	Inorganic Ventures		1000	S2-NOX700816	1/25/2025	75	25	DI Water	3
CCV	Inorganic Ventures		1000	T2-NOX723937	9/28/2027	75	25	DI Water	3
HP	Inorganic Ventures		1000	T2-NOX723937	9/28/2027	150	25	DI Water	6

AQ2 Tray Report

Software version : 2.4.13
Report requested by : Kiersten F
Date \ Time : 2024-03-22 09:51:53
Tray number : 19
Tray name : 240321C Nitro

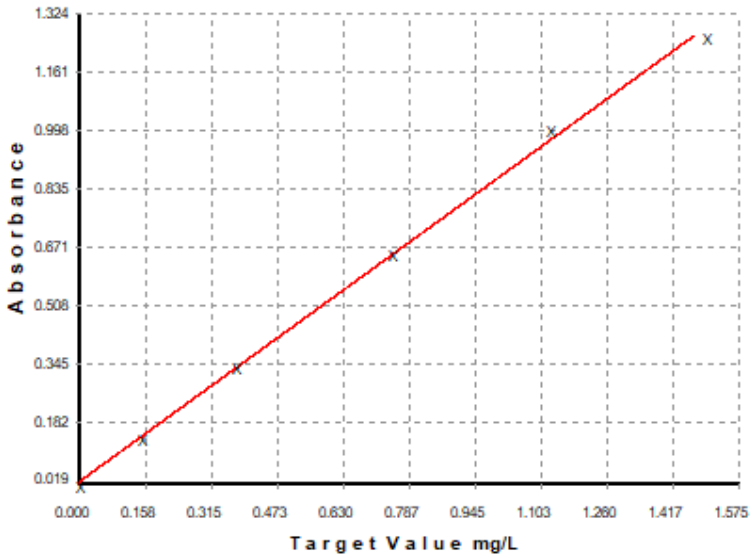
Nitrite-N

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0189	-0.0090	0.0000	
S90	0.1472	0.1437	0.1500	-4.22
S91	0.3454	0.3793	0.3750	1.16
S92	0.6594	0.7527	0.7500	0.35
S93	1.0066	1.1654	1.1250	3.60
S94	1.2610	1.4679	1.5000	-2.14
S0	0.0218	-0.0054	0.0000	

Polynomial Order : 1
Correlation Coefficient : 0.9992
Carryover(%) : 0.2
Calibration equation: y = bx + a
y =: Concentration mg/L
x =: Measured absorbance
a =: -3.140682E-02
b =: 1.189004E+00
Date & Time : 2024-03-22 08:57:16

Calibration Graph



Test Results

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time & Date
	S1	Standard 1	0.0189			0.018852			KTF	2024-03-22 08:46:01
	S90	Standard 90	0.1472			0.147248			KTF	2024-03-22 08:47:50
	S91	Standard 91	0.3454			0.345450			KTF	2024-03-22 08:49:39
	S92	Standard 92	0.6594			0.659425			KTF	2024-03-22 08:51:33
	S93	Standard 93	1.0066			1.006599			KTF	2024-03-22 08:53:27
	S94	Standard 94	1.2610			1.260969			KTF	2024-03-22 08:55:21
	S0	Standard 0	0.0218			0.021849			KTF	2024-03-22 08:57:16
	CCV	Seq-CCV	0.7559	mg/L		0.658187			KTF	2024-03-21 14:23:24
	CCB	Seq-CCB	-0.0037	mg/L		0.022039			KTF	2024-03-21 14:24:23
1	U1	Seq-ICV1	1.4199	mg/L		1.214304			KTF	2024-03-21 14:25:21
2	U2	Seq-ICV2	-0.0030ELL	mg/L		0.022635			KTF	2024-03-21 14:26:20
3	U3	Seq-ICB1 NO2 NO3	-0.0057ELL	mg/L		0.020399			KTF	2024-03-21 14:27:21
4	U4	BDC0162-BLK1	-0.0132	mg/L		0.023606		x7.0700	KTF	2024-03-21 14:28:22
5	U5	Seq-CCB	2.8815	mg/L		0.366495		x7.0700	KTF	2024-03-21 14:29:20
6	U6	BDC0162-BSD1	2.6676	mg/L		0.341158		x7.0700	KTF	2024-03-21 14:30:19
7	U7	BDC0162-MS1	0.6160	mg/L		0.098142		x7.0700	KTF	2024-03-21 14:31:18
8	U8	BDC0162-MSD1	0.9142	mg/L		0.133457		x7.0700	KTF	2024-03-21 14:32:17
9	U9	Seq-CCB	1.0137	mg/L		0.874123			KTF	2024-03-21 14:33:19
10	U10	1 PPM NO3	-0.0035ELL	mg/L		0.022230			KTF	2024-03-21 14:34:19
	CCV	Seq-CCV	0.7567	mg/L		0.658874			KTF	2024-03-21 14:36:25
	CCB	Seq-CCB	-0.0037	mg/L		0.022102			KTF	2024-03-21 14:38:15
11	U11	24C0028-01	0.0188	mg/L		0.027398		x7.0700	KTF	2024-03-21 14:40:04
12	U12	24C0028-02	0.3247	mg/L		0.063636		x7.0700	KTF	2024-03-21 14:41:51
13	U13	24C0028-03	0.1411	mg/L		0.041886		x7.0700	KTF	2024-03-21 14:43:37
14	U14	24C0028-04	0.0768	mg/L		0.034268		x7.0700	KTF	2024-03-21 14:45:23
	CCV	Seq-CCV	0.7144	mg/L		0.623480			KTF	2024-03-21 14:47:10

CCB	Seq-CCB	-0.0036	mg/L	0.022126	KTF	2024-03-21 14:48:56

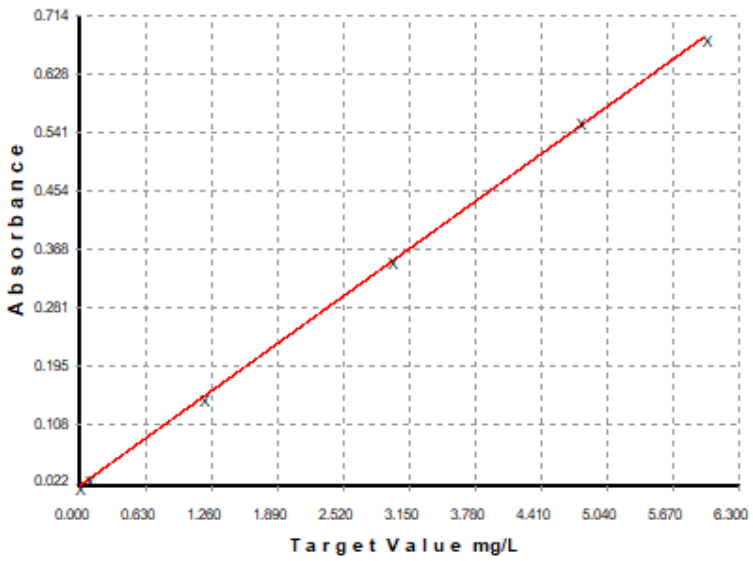
TOXN

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0217	0.0015	0.0000	
S90	0.0330	0.1039	0.1000	3.92
S91	0.1519	1.1789	1.2000	-1.76
S92	0.3532	3.0001	3.0000	0.00
S93	0.5585	4.8576	4.8000	1.20
S94	0.6801	5.9580	6.0000	-0.70
S0	0.0228	0.0116	0.0000	

Polynomial Order :	1
Correlation Coefficient :	0.9999
Carryover(%) :	0.2
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-1.950484E-01
b =:	9.047411E+00
Date & Time :	2024-03-22 09:19:01

Calibration Graph



Test Results

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time & Date
	S1	Standard 1	0.0217			0.021722			KTF	2024-03-22 09:08:23
	S90	Standard 90	0.0330			0.033045			KTF	2024-03-22 09:10:10
	S91	Standard 91	0.1519			0.151858			KTF	2024-03-22 09:11:56
	S92	Standard 92	0.3532			0.353157			KTF	2024-03-22 09:13:43
	S93	Standard 93	0.5585			0.558463			KTF	2024-03-22 09:15:29
	S94	Standard 94	0.6801			0.680093			KTF	2024-03-22 09:17:15
	S0	Standard 0	0.0228			0.022841			KTF	2024-03-22 09:19:01
	CCV	Seq-CCV	2.8522	mg/L		0.336811			KTF	2024-03-22 09:20:48
	CCV	Seq-CCV	2.5797	mg/L		0.333367			KTF	2024-03-22 08:31:25
	CCV	Seq-CCV	2.6268	mg/L		0.338880			KTF	2024-03-22 08:03:02
	CCV	Seq-CCV	2.5873	mg/L		0.334262			KTF	2024-03-22 07:30:43
	CCB	Seq-CCB	0.0011	mg/L		0.021682			KTF	2024-03-22 09:22:34
	CCB	Seq-CCB	-0.0841	mg/L		0.021849			KTF	2024-03-22 08:33:12
	CCB	Seq-CCB	-0.0822	mg/L		0.022071			KTF	2024-03-22 08:04:49
	CCB	Seq-CCB	-0.0694	mg/L		0.023574			KTF	2024-03-22 07:32:29
2	U2	Seq-ICV2	3.0964	mg/L		0.363802			KTF	2024-03-22 09:24:24
2	U2	Seq-ICV2	2.7573	mg/L		0.354145			KTF	2024-03-22 07:34:18
2	U2	Seq-ICV2	2.9935	mg/L		0.381762			KTF	2024-03-21 14:59:53
3	U3	Seq-ICB1 NO2 NO3	0.0074AVF	mg/L		0.022380			KTF	2024-03-22 09:26:12
3	U3	Seq-ICB1 NO2 NO3	-0.0676	mg/L		0.023789			KTF	2024-03-22 07:36:07
3	U3	Seq-ICB1 NO2 NO3	-0.0519	mg/L		0.025618			KTF	2024-03-21 15:01:42
4	U4	BDC0162-BLK1	0.1564	mg/L		0.024004		x7.0700	KTF	2024-03-22 09:27:58
4	U4	BDC0162-BLK1	-0.2754	mg/L		0.027133		x7.0700	KTF	2024-03-21 15:03:28
5	U5	Seq-CCB	7.2115	mg/L		0.134300		x7.0700	KTF	2024-03-22 09:29:44
5	U5	Seq-CCB	6.9920	mg/L		0.147343		x7.0700	KTF	2024-03-21 15:05:14
6	U6	BDC0162-BSD1	7.3044	mg/L		0.135751		x7.0700	KTF	2024-03-22 09:31:34
6	U6	BDC0162-BSD1	5.4796	mg/L		0.122326		x7.0700	KTF	2024-03-21 15:07:04
7	U7	BDC0162-MS1	1.8050	mg/L		0.049777		x7.0700	KTF	2024-03-22 09:33:22
7	U7	BDC0162-MS1	1.1242	mg/L		0.050285		x7.0700	KTF	2024-03-21 15:08:52
8	U8	BDC0162-MSD1	2.1843	mg/L		0.055706		x7.0700	KTF	2024-03-22 09:35:12
8	U8	BDC0162-MSD1	1.5455	mg/L		0.057253		x7.0700	KTF	2024-03-21 15:09:49
10	U10	1 PPM NO3	0.0022AVF	mg/L		0.021801			KTF	2024-03-22 09:37:01
10	U10	1 PPM NO3	0.9213	mg/L		0.139428			KTF	2024-03-21 15:10:42
11	U11	24C0028-01	0.2474	mg/L		0.025426		x7.0700	KTF	2024-03-22 09:38:50
11	U11	24C0028-01	-0.2448	mg/L		0.027640		x7.0700	KTF	2024-03-21 15:11:36
12	U12	24C0028-02	0.6546	mg/L		0.031793		x7.0700	KTF	2024-03-22 09:40:39
12	U12	24C0028-02	0.1342	mg/L		0.033908		x7.0700	KTF	2024-03-21 15:12:29
	CCV	Seq-CCV	2.9644	mg/L		0.349210			KTF	2024-03-22 09:41:36

	CCV	Seq-CCV	2.9155	mg/L	0.372645		KTF	2024-03-21 15:13:22
	CCB	Seq-CCB	0.0088	mg/L	0.022531		KTF	2024-03-22 09:42:29
	CCB	Seq-CCB	-0.0288	mg/L	0.028324		KTF	2024-03-21 15:14:15
13	U13	24C0028-03	0.3248	mg/L	0.026636	x7.0700	KTF	2024-03-22 09:43:23
13	U13	24C0028-03	-0.1455	mg/L	0.029283	x7.0700	KTF	2024-03-21 15:15:09
14	U14	24C0028-04	0.2632	mg/L	0.025674	x7.0700	KTF	2024-03-22 09:44:16
14	U14	24C0028-04	0.1243	mg/L	0.033745	x7.0700	KTF	2024-03-21 15:16:02
	CCV	Seq-CCV	2.8648	mg/L	0.338206		KTF	2024-03-22 09:45:09
	CCV	Seq-CCV	2.8228	mg/L	0.361801		KTF	2024-03-21 15:16:55
	CCB	Seq-CCB	0.0107	mg/L	0.022738		KTF	2024-03-22 09:46:03
	CCB	Seq-CCB	-0.0646	mg/L	0.024132		KTF	2024-03-21 15:17:48
	CCV	Seq-CCV	2.8277	mg/L	0.334099		KTF	2024-03-22 09:46:56
	CCV	Seq-CCV	2.7743	mg/L	0.356128		KTF	2024-03-22 07:27:10
	CCB	Seq-CCB	0.0013	mg/L	0.021698		KTF	2024-03-22 09:47:50
	CCB	Seq-CCB	-0.0604	mg/L	0.024627		KTF	2024-03-22 07:28:56
	CCV	Seq-CCV	2.6329	mg/L	0.339589		KTF	2024-03-22 09:04:48
	CCB	Seq-CCB	-0.0817	mg/L	0.022134		KTF	2024-03-22 09:06:36
	CCV	Seq-CCV	2.8699	mg/L	0.338765		KTF	2024-03-22 09:48:44
	CCB	Seq-CCB	-0.0030	mg/L	0.021222		KTF	2024-03-22 09:49:37

Nitrate-N

Test Results

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time & Date
2	U2	Seq-ICV2	3.0994	mg/L		0.000000			KTF	2024-03-22 09:49:05
2	U2	Seq-ICV2				0.000000			KTF	2024-03-22 09:49:05
3	U3	Seq-ICB1 NO2 NO3	0.0131	mg/L		0.000000			KTF	2024-03-22 09:49:05
3	U3	Seq-ICB1 NO2 NO3				0.000000			KTF	2024-03-22 09:49:05
4	U4	BDC0162-BLK1	0.1696	mg/L		0.000000		x7.0700	KTF	2024-03-22 09:49:05
4	U4	BDC0162-BLK1				0.000000		x7.0700	KTF	2024-03-22 09:49:05
5	U5	Seq-CCB	4.3300	mg/L		0.000000		x7.0700	KTF	2024-03-22 09:49:05
5	U5	Seq-CCB				0.000000		x7.0700	KTF	2024-03-22 09:49:05
6	U6	BDC0162-BSD1	4.6368	mg/L		0.000000		x7.0700	KTF	2024-03-22 09:49:05
6	U6	BDC0162-BSD1				0.000000		x7.0700	KTF	2024-03-22 09:49:05
7	U7	BDC0162-MS1	1.1890	mg/L		0.000000		x7.0700	KTF	2024-03-22 09:49:05
7	U7	BDC0162-MS1				0.000000		x7.0700	KTF	2024-03-22 09:49:05
8	U8	BDC0162-MSD1	1.2701	mg/L		0.000000		x7.0700	KTF	2024-03-22 09:49:05
8	U8	BDC0162-MSD1				0.000000		x7.0700	KTF	2024-03-22 09:49:05
10	U10	1 PPM NO3	0.0057	mg/L		0.000000			KTF	2024-03-22 09:49:05
10	U10	1 PPM NO3				0.000000			KTF	2024-03-22 09:49:05
11	U11	24C0028-01	0.2286	mg/L		0.000000		x7.0700	KTF	2024-03-22 09:49:05
11	U11	24C0028-01				0.000000		x7.0700	KTF	2024-03-22 09:49:05
12	U12	24C0028-02	0.3299	mg/L		0.000000		x7.0700	KTF	2024-03-22 09:49:05
12	U12	24C0028-02				0.000000		x7.0700	KTF	2024-03-22 09:49:05
13	U13	24C0028-03	0.1836	mg/L		0.000000		x7.0700	KTF	2024-03-22 09:49:05
13	U13	24C0028-03				0.000000		x7.0700	KTF	2024-03-22 09:49:05
14	U14	24C0028-04	0.1864	mg/L		0.000000		x7.0700	KTF	2024-03-22 09:49:05
14	U14	24C0028-04				0.000000		x7.0700	KTF	2024-03-22 09:49:05

METHOD BLANK SUMMARY

EPA 353.2

Laboratory:	APPL, LLC			Work Order:	24C0028
Client:	Tetra Tech Inc, Bothell			Project:	28023939
Blank ID:	BDC0162-BLK1	Batch:	BDC0162	Prepared:	03/12/2024 12:19

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
Matrix Spike Dup	BDC0162-MSD1	240321C Nitro rev-040	09:49
Matrix Spike	BDC0162-MS1	240321C Nitro rev-037	09:49
LCS Dup	BDC0162-BSD1	240321C Nitro rev-034	09:49
LCS	BDC0162-BS1	240321C Nitro rev-031	09:49
X7-TP-C03-2436	24C0028-04	240321C Nitro rev-060	09:49
FD-03062401	24C0028-03	240321C Nitro rev-057	09:49
X7-TP-C02-2430	24C0028-02	240321C Nitro rev-052	09:49
X7-TP-C01-3642	24C0028-01	240321C Nitro rev-049	09:49

Blank Results

EPA 353.2

Laboratory:	APPL, LLC	Work Order:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939

Lab Sample ID	Analyte	Found	Units	LOD	PQL	MDL	Q
BDC0162-BLK1	NITROCELLULOSE	7.8 U	mg/kg wet	7.8	9.8	3.9	

PREPARATION BATCH SUMMARY

EPA 353.2

Laboratory:	APPL, LLC	Work Order:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Batch:	BDC0162 Batch Matrix: Solid	Preparation:	EPA 353.2

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT g	FINAL VOL. mL
X7-TP-C01-3642	24C0028-01	03/12/24 12:19	2.01	20.00
X7-TP-C02-2430	24C0028-02	03/12/24 12:19	2.02	20.00
FD-03062401	24C0028-03	03/12/24 12:19	2.02	20.00
X7-TP-C03-2436	24C0028-04	03/12/24 12:19	2.00	20.00
Blank	BDC0162-BLK1	03/12/24 12:19	2.05	20.00
LCS	BDC0162-BS1	03/12/24 12:19	2.06	20.00
LCS Dup	BDC0162-BSD1	03/12/24 12:19	2.02	20.00
X7-TP-C03-2436	BDC0162-MS1	03/12/24 12:19	2.05	20.00
X7-TP-C03-2436	BDC0162-MSD1	03/12/24 12:19	2.02	20.00

PREPARATION BENCH SHEET
Organics

Print Date/Time: 03/22/2024 10:53 am

BDC0162

(Continued)

Matrix: Solid

Prepared using: WetLab - EPA 353.2

Lab Number	Sample and Source ID ID Confirmed By:		Extract by	Initial (g)	Final (mL)	ul Spike 1	ul Spike 2	ul Surr 1	ul Surr 2	pH	Extraction Comments
24C0028-01 A	X7-TP-C01-3642	F	04/03/24	2.01	20						
24C0028-02 A	X7-TP-C02-2430	F	04/03/24	2.02	20						
24C0028-03 A	FD-03062401	F	04/03/24	2.02	20						
24C0028-04 A	X7-TP-C03-2436	F	04/03/24	2	20						
BDC0162-BLK1	Blank			2.05	20						
BDC0162-BS1	LCS			2.06	20	200					
BDC0162-BSD1	LCS Dup			2.02	20	200					
BDC0162-MS1	Matrix Spike [24C0028-04]			2.05	20	200					
BDC0162-MSD1	Matrix Spike Dup [24C0028-04]			2.02	20	200					

Analyses

353.2M

Spiking Solution(s)

23C0228 Nitrocellulose Standard 1,000 ug/mL

Surrogate Solution(s)

Start Date/Time _____

Stop Date/Time _____

Equipment Used:

Balances:

Hotblock/Plate:

Sonic Horns:

Pipettes:

Water Baths:

Ovens:

Desiccator:

pH Probes:

Reagents

Standard	Description	LotNum

Spiking Witnessed By _____ Date _____ Preparation Reviewed By _____ Date _____ Extracts Received By _____ Date _____

Table of Contents

PREPARATION BENCH SHEET
Organics

Print Date/Time: 03/15/2024 7:11 am

BDC0162

(Continued)

Matrix: Solid

Prepared using: WetLab - EPA 353.2

Lab Number	Sample and Source ID ID Confirmed By:		Extract by	Initial (g)	Final (mL)	ul Spike 1	ul Spike 2	ul Surr 1	ul Surr 2	pH	Extraction Comments
24C0028-01 A	X7-TP-C01-3642	F	04/03/24	2	20						
24C0028-02 A	X7-TP-C02-2430	F	04/03/24	2	20						
24C0028-03 A	FD-03062401	F	04/03/24	2	20						
24C0028-04 A	X7-TP-C03-2436	F	04/03/24	2	20						
BDC0162-BLK1	Blank			2	20						
BDC0162-BS1	LCS			2	20						
BDC0162-BSD1	LCS Dup			2	20						
BDC0162-MS1	Matrix Spike [24C0028-04]			2	20						
BDC0162-MSD1	Matrix Spike Dup [24C0028-04]			2	20						

Analyses
353.2M

Spiking Solution(s)

Surrogate Solution(s)

Start Date/Time _____

Stop Date/Time _____

Equipment Used:

Balances:

Hotblock/Plate:

Sonic Horns:

Pipettes:

Water Baths:

Ovens:

Desiccator:

pH Probes:

Reagents

Standard	Description	LotNum

Spiking Witnessed By _____ Date _____ Preparation Reviewed By _____ Date _____ Extracts Received By _____ Date _____

Table of Contents

PREPARATION BENCH SHEET
Organics

Print Date/Time: 03/15/2024 7:10 am

BDC0162

(Continued)

Matrix: Solid

Prepared using: WetLab - EPA 353.2

Lab Number	Sample and Source ID ID Confirmed By:		Extract by	Initial (g)	Final (mL)	ul Spike 1	ul Spike 2	ul Surr 1	ul Surr 2	pH	Extraction Comments
24C0028-01 A	X7-TP-C01-3642	F	04/03/24	2	20						
24C0028-02 A	X7-TP-C02-2430	F	04/03/24	2	20						
24C0028-03 A	FD-03062401	F	04/03/24	2	20						
24C0028-04 A	X7-TP-C03-2436	F	04/03/24	2	20						
BDC0162-BLK1	Blank			2	20						
BDC0162-BS1	LCS			2	20						
BDC0162-BS2	LCS			2	20						
BDC0162-BSD1	LCS Dup			2	20						
BDC0162-BSD2	LCS Dup			2	20						
BDC0162-MS1	Matrix Spike [24C0028-04]			2	20						
BDC0162-MSD1	Matrix Spike Dup [24C0028-04]			2	20						

Analyses

353.2M

Spiking Solution(s)

Surrogate Solution(s)

Start Date/Time _____

Stop Date/Time _____

Equipment Used:

Balances:

Hotblock/Plate:

Sonic Horns:

Pipettes:

Water Baths:

Ovens:

Desiccator:

pH Probes:

Reagents

Standard	Description	LotNum

Spiking Witnessed By _____ Date _____ Preparation Reviewed By _____ Date _____ Extracts Received By _____ Date _____

Table of Contents

LCS / LCS DUPLICATE RECOVERY

EPA 353.2

Laboratory:	APPL, LLC	Work Order:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Matrix:	Solid	Preparation:	EPA 353.2
Batch:	BDC0162	Laboratory ID:	BDC0162-BS1
Column:	0		

ANALYTE	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC.	QC LIMITS REC.
NITROCELLULOSE	97.1	42.0	43.3	40 - 120

ANALYTE	SPIKE ADDED (mg/kg wet)	LCSD CONCENTRATION (mg/kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
NITROCELLULOSE	99.0	45.9	46.4	8.80	20	40 - 120

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

X7-TP-C03-2436

Laboratory:	APPL, LLC	Work Order:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Matrix:	Solid	Analysis:	EPA 353.2
Batch:	BDC0162	Preparation:	EPA 353.2
% Solids:	83.09	Laboratory ID:	BDC0162-MS1
Column:	0	Sample Lab ID:	24C0028-04

ANALYTE	SPIKE ADDED (mg/kg	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC.		QC LIMITS REC.
NITROCELLULOSE	117	ND	14.0	11.9	*	40 - 120

ANALYTE	SPIKE ADDED (mg/kg	MSD CONCENTRATION (mg/kg dry)	MSD % REC. #		% RPD	QC LIMITS RPD	QC LIMITS REC.
NITROCELLULOSE	119	15.1	12.7	*	8.07	20	40 - 120

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 353.2

Laboratory:	APPL, LLC	Work Order:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Instrument ID:	EVE	Calibration:	UNASSIGNED
		Sequence:	SD00978

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SD00978-CCV1	NITROCELLULOSE	3.00	2.63	87.8	ug/mL	+/- 15.00%
SD00978-CCV2	NITROCELLULOSE	3.00	2.85	95.1	ug/mL	+/- 15.00%
SD00978-CCV3	NITROCELLULOSE	3.00	2.96	98.8	ug/mL	+/- 15.00%
SD00978-ICV1	NITROCELLULOSE	3.00	3.10	103	ug/mL	+/- 15.00%

INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 353.2

Laboratory:	APPL, LLC	SDG:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Sequence:	SD00978	Instrument:	EVE
Calibration:	UNASSIGNED		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	SD00978-CCV1	240321C Nitro rev-067	03/22/24 09:04
Calibration Blank	SD00978-CCB1	240321C Nitro rev-068	03/22/24 09:06
Calibration Check	SD00978-CCV2	240321C Nitro rev-016	03/22/24 09:20
Calibration Blank	SD00978-CCB2	240321C Nitro rev-018	03/22/24 09:22
Calibration Check	SD00978-CCV3	240321C Nitro rev-053	03/22/24 09:41
Calibration Blank	SD00978-CCB3	240321C Nitro rev-054	03/22/24 09:42
X7-TP-C01-3642	24C0028-01	240321C Nitro rev-049	03/22/24 09:49
X7-TP-C02-2430	24C0028-02	240321C Nitro rev-052	03/22/24 09:49
X7-TP-C03-2436	24C0028-04	240321C Nitro rev-060	03/22/24 09:49
Blank	BDC0162-BLK1	240321C Nitro rev-028	03/22/24 09:49
LCS	BDC0162-BS1	240321C Nitro rev-031	03/22/24 09:49
LCS Dup	BDC0162-BSD1	240321C Nitro rev-034	03/22/24 09:49
FD-03062401	24C0028-03	240321C Nitro rev-057	03/22/24 09:49
X7-TP-C03-2436	BDC0162-MSD1	240321C Nitro rev-040	03/22/24 09:49
Initial Cal Check	SD00978-ICV1	240321C Nitro rev-022	03/22/24 09:49
Initial Cal Blank	SD00978-ICB1	240321C Nitro rev-025	03/22/24 09:49
X7-TP-C03-2436	BDC0162-MS1	240321C Nitro rev-037	03/22/24 09:49

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 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).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNO31
Lot Number:	S2-NOX700816
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Nitrate as N
Starting Material:	Sodium nitrate
Starting Material Lot#:	1571
Starting Material Purity:	100.0000%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1006 ± 4 µg/mL

Density: 1.002 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **1001 ± 4 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

Assay Method #2 **1007 ± 2 µg/mL**
IC Assay NIST SRM 3185 Lot Number: 170309

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

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

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

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

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

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

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

X_a = mean of Assay Method A with

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

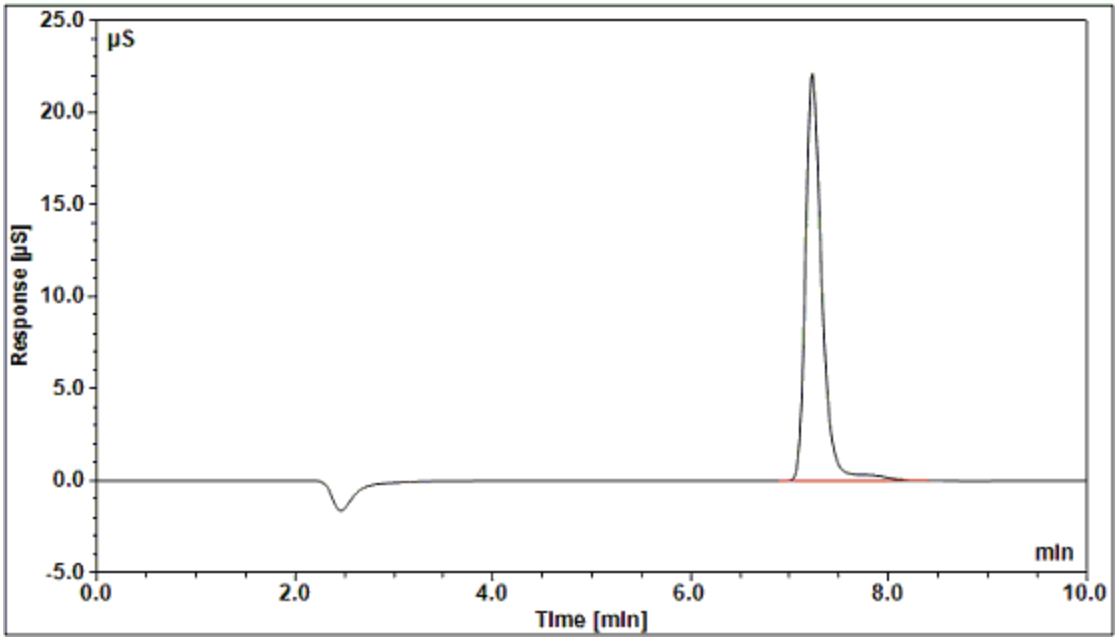
4.2 Balance Calibration

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

4.3 Glassware Calibration

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

5.0 CHROMATOGRAM



Dionex ICS-1000 Ion Chromatograph

Analytical Column:	IonPac AS22 4 x 250 mm	**Eluent:**	4.5mM Na2CO3 / 1.4mM NaHCO3
Guard Column:	IonPac AG22 4 x 50 mm	**Eluent Flow Rate:**	1.2 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	AERS 500 4 mm	**Column Temp:**	20°C
		Cell Temp:	35°C
		Scale X-Axis:	minutes
Cation Self Regen Suppressor/ Chemical Suppression:	N/A	**Scale Y-Axis:**	26 µS/cm
		Concentration:	20 µg/g
Suppressor Current/ Chemical Suppressant:	31mA		

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

[redacted]

Certificate Approved By:

Michael Booth
Director, Quality Control

[redacted]

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

[redacted]

Analytical Standard Record

22D0530

Description:	Nitrate as N Standard 1000 ug/mL New not used yet	Expires:	01/25/2025
Standard Type:	Analyte Spike	Prepared:	01/25/2021
Solvent:	NA	Prepared By:	Inorganic Ventures (Lot#: S2-NOX700816)
Final Volume (mls):	125	Department:	WetLab
Vials:	1	Last Edit:	04/28/2022 07:26 by KMS

Analyte	Parent	CAS Number	Concentration	Units
NITRATE		NO3	1000	ug/mL
NITRATE-N		NO3N	1000	ug/mL
NITRATE-NITRITE-N		NO3N-NO2N	1000	ug/mL

Analytical Standard Record

23C0228

Description:	Nitrocellulose Standard 1,000 ug/mL	Expires:	02/09/2028
Standard Type:	Analyte Spike	Prepared:	02/09/2023
Solvent:	Acetone/220128-BOO2554	Prepared By:	Absolute Standards (Lot#: 020928)
Final Volume (mls):	20	Department:	WetLab
Vials:	5	Last Edit:	03/14/2023 07:58 by KMS
Lot Number:	020928		

Analyte	Parent	CAS Number	Concentration	Units
NITROCELLULOSE		9004-70-0	1000	ug/mL

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number:	**93505**	**Solvent:**	**Lot#**
Lot Number:	020923	Acetone	220128-BOO2554
Description:	Cellulose nitrate [Nitrocellulose]		
Expiration Date:	020928		
Recommended Storage:	Refrigerate (4 °C)		
Nominal Concentration (µg/mL):	1000		
NIST Test ID#:	6UTB	5E-05 Balance Uncertainty	
Weight(s) shown below were combined and diluted to (mL):	100.0	0.057 Flask Uncertainty	

[redacted] 020923
Formulated By: Prashant Chauhan DATE

[redacted] 020923
Reviewed By: Pedro L. Rentas DATE

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Cellulose nitrate	2358	01327PI	1000	99	0.2	0.10102	0.10118	1001.6	4.3	9004-70-0	N/A	N/A

- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

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).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNO31
Lot Number:	T2-NOX723937
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Nitrate as N
Starting Material:	Sodium nitrate
Starting Material Lot#:	1571
Starting Material Purity:	99.0000%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.002 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **1003 ± 5 µg/mL**
IC Assay NIST SRM 3185 Lot Number: 170309

Assay Method #2 **1002 ± 4 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

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

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

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

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

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

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

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

X_a = mean of Assay Method A with

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

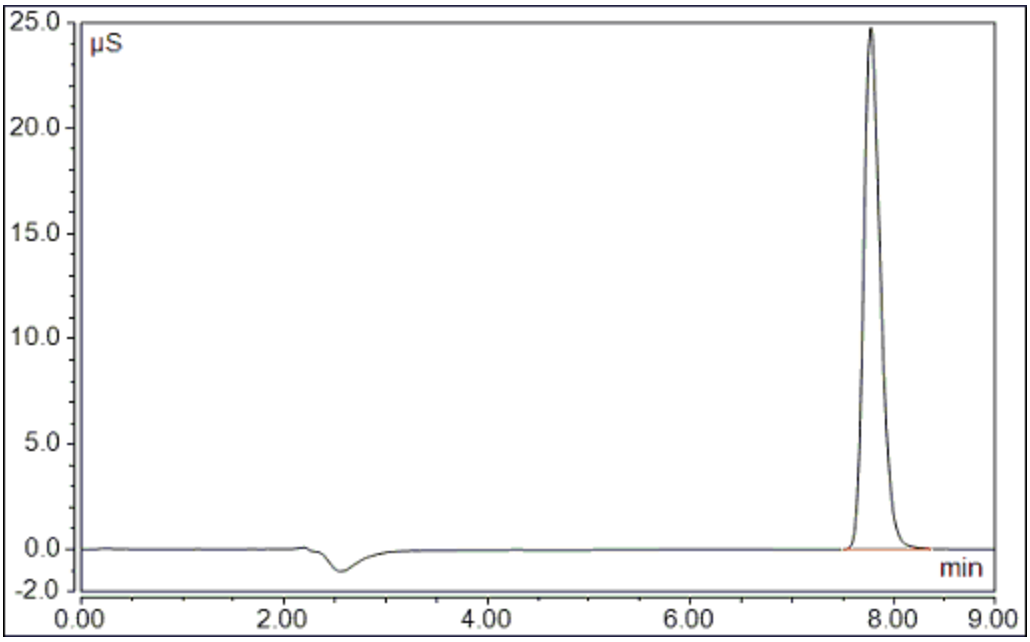
4.2 Balance Calibration

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

4.3 Glassware Calibration

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

5.0 CHROMATOGRAM



Thermo Easion Ion Chromatograph

Analytical Column:	IonPac AS22 4 x 250 mm	**Eluent:**	4.5mM Na2CO3/1.4mM NaHCO3
Guard Column:	IonPac AG22 4 x 50 mm	**Eluent Flow Rate:**	1.2 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	ACRS 500 4 mm/36mM H2SO4	**Column Temp:**	20°C
		Cell Temp:	35°C
		Scale X-Axis:	minutes
Cation Self Regen Suppressor/ Chemical Suppression:	N/A	**Scale Y-Axis:**	25 µS/cm
		Concentration:	20 µg/g
Suppressor Current/ Chemical Suppressant:	N/A		

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

September 28, 2022

- 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

- **September 28, 2027**

- 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

[redacted]

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

[redacted]

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

[redacted]

Analytical Standard Record

23C0450

Description:	Nitrate as N Standard 1000 ug/mL	Expires:	09/28/2027
Standard Type:	Analyte Spike	Prepared:	09/28/2022
Solvent:	NA	Prepared By:	Inorganic Ventures (Lot#: T2-NOX723937)
Final Volume (mls):	125	Department:	WetLab
Vials:	1	Last Edit:	03/27/2023 14:44 by KMS
Lot Number:	T2-NOX723937		

Analyte	Parent	CAS Number	Concentration	Units
NITRATE		NO3	4430	ug/mL
NITRATE-N		NO3N	1000	ug/mL
NITRATE-NITRITE-N		NO3N-NO2N	1000	ug/mL
NITROCELLULOSE		9004-70-0	1000	ug/mL

Analytical Standard Record

24C0442

Description:	NO3 353 ICV	Expires:	03/28/2024
Standard Type:	Calibration Standard	Prepared:	03/21/2024
Solvent:	NA	Prepared By:	Kiersten Friesen
Final Volume (mls):	25	Department:	WetLab
Vials:	1	Last Edit:	03/21/2024 08:38 by KTF
Lot Number:	NA		

Analyte	Parent	CAS Number	Concentration	Units
NITRATE	22D0530	NO3	13.3	ug/mL
NITRATE-N	22D0530	NO3N	3	ug/mL
NITRATE-NITRITE-N	22D0530	NO3N-NO2N	3	ug/mL
NITROCELLULOSE	22D0530	9004-70-0	3	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit		(mls)
22D0530	Nitrate as N Standard 1000 ug/mL ss eve	01/25/2021	Inorganic Ventures	S2-NOX700816	01/25/2025	03/08/2024 13:32	by KMS	0.075

Analytical Standard Record

24C0443

Description:	NO3 353 CCV	Expires:	03/28/2024
Standard Type:	Calibration Standard	Prepared:	03/21/2024
Solvent:	NA	Prepared By:	Kiersten Friesen
Final Volume (mls):	25	Department:	WetLab
Vials:	1	Last Edit:	03/21/2024 08:39 by KTF
Lot Number:	NA		

Analyte	Parent	CAS Number	Concentration	Units
NITRATE	23C0450	NO3	13.3	ug/mL
NITRATE-N	23C0450	NO3N	3	ug/mL
NITRATE-NITRITE-N	23C0450	NO3N-NO2N	3	ug/mL
NITROCELLULOSE	23C0450	9004-70-0	3	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit		(mls)
23C0450	Nitrate as N Standard 1000 ug/mL eve+Charlie	09/28/2022	Inorganic Ventures	T2-NOX723937	09/28/2027	03/08/2024 13:33	by KMS	0.075

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mitch Baron
Tetra Tech, Inc.
19803 North Creek Parkway
Bothell WA 98011

Generated 3/22/2024 11:41 AM

JOB DESCRIPTION

NB Kitsap Bangor CTO NW194112, WA

JOB NUMBER

280-188555-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

my EOL

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

[redacted]

Generated
3/22/2024 11:41 AM

Authorized for release by
Shelby R McCabe, Project Manager I
Shelby.McCabe@et.eurofinsus.com
303 736-0165

Table of Contents

Cover Title Page 1

Data Summaries 6

Definitions 6

Case Narrative 7

Detection Summary 9

Client Sample Results 10

Default Detection Limits 15

Surrogate Summary 16

QC Sample Results 18

QC Association 25

Chronicle 28

Certification Summary 31

Method Summary 32

Sample Summary 33

Manual Integration Summary 34

Reagent Traceability 54

COAs 109

Organic Sample Data 616

GC/MS Semi VOA 616

8270E_DOD5 616

8270E_DOD5 QC Summary 617

8270E_DOD5 Sample Data 632

Standards Data 654

8270E_DOD5 ICAL Data 654

8270E_DOD5 CCAL Data 869

Raw QC Data 893

Table of Contents

8270E_DOD5 Tune Data 893
8270E_DOD5 Blank Data 935
8270E_DOD5 LCS/LCSD Data 943
8270E_DOD5 MS/MSD Data 950
8270E_DOD5 Run Logs 966
8270E_DOD5 Prep Data 973
HPLC/IC 982
8330B_DOD5 982
8330B_DOD5 QC Summary 983
8330B_DOD5 Sample Data 1001
Standards Data 1058
8330B_DOD5 ICAL Data 1058
8330B_DOD5 CCAL Data 1279
Raw QC Data 1369
8330B_DOD5 Blank Data 1369
8330B_DOD5 LCS/LCSD Data 1373
8330B_DOD5 MS/MSD Data 1382
8330B_DOD5 Duplicate/Triplicate Data 1439
8330B_DOD5 Run Logs 1469
8330B_DOD5 Prep Data 1474
LCMS 1488
8321B_NGu 1488
8321B_NGu QC Summary 1489
8321B_NGu Sample Data 1493
Standards Data 1505
8321B_NGu ICAL Data 1505

Table of Contents

8321B_NGu CCAL Data 1523

Raw QC Data 1529

8321B_NGu Blank Data 1529

8321B_NGu LCS/LCSD Data 1535

8321B_NGu MS/MSD Data 1538

8321B_NGu Run Logs 1544

8321B_NGu Prep Data 1545

Inorganic Sample Data 1553

General Chemistry Data 1553

Gen Chem Cover Page 1554

Gen Chem MDL 1555

Gen Chem Analysis Run Log 1556

Gen Chem Prep Data 1559

Gen Chem Raw Data 1560

Shipping and Receiving Documents 1561

Client Chain of Custody 1562

Sample Receipt Checklist 1563

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

LCMS

Qualifier	Qualifier Description
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
280-188555-1

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 3/7/2024 9:30 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 0.5°C.

Method 8270E - Semivolatile Organic Compounds (GC/MS)
Samples X7-TP-C01-3642 (280-188555-1), X7-TP-C02-2430 (280-188555-2), FD-03062401 (280-188555-3), X7-TP-C03-2436 (280-188555-4), X7-TP-C03-2436 (280-188555-4MS) and X7-TP-C03-2436 (280-188555-4MSD) were analyzed for Semivolatile Organic Compounds (GC/MS). The samples were prepared on 3/12/2024 and analyzed on 3/15/2024.

The CCVC for batch 280-646066 failed the lower control limits for 2,4-Dinitrophenol (-55.9%, limit -50%). The opening CCV, LCS, MS, and MSD were in control for 2,4-Dinitrophenol. The failing analyte is due to sample matrix; therefore, the data have been reported.

Method 8330B - Nitroaromatics and Nitramines (HPLC)
Samples X7-TP-C01-3642 (280-188555-1), X7-TP-C02-2430 (280-188555-2), FD-03062401 (280-188555-3), X7-TP-C03-2436 (280-188555-4), X7-TP-C03-2436 (280-188555-4MS) and X7-TP-C03-2436 (280-188555-4MSD) were analyzed for Nitroaromatics and Nitramines (HPLC). The samples were leached on 3/11/2024, prepared on 3/13/2024 and analyzed on 3/20/2024 and 3/21/2024.

Samples X7-TP-C02-2430 (280-188555-2)[10x], FD-03062401 (280-188555-3)[5x] and FD-03062401 (280-188555-3)[50x] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Per client request the samples were treated as discrete samples where they were air dried and aliquotted, but did not have ISM performed and were not sieved. The prep for these samples deviated from SOP as they were not sieved or ISM aliquotted as required by DV-OP-0013 sections 10.5 and 10.6, DV-OP-0018 section 2.0, and DOD QSM 5.4 appendix B table B-3.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 280-645628 and 280-645871 and analytical batch 280-646412 were outside control limits. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected.

Surrogate recovery for the following sample in preparation batch 280-645628 and 280-645871 and analytical batch 280-646567 was outside the lower control limits: FD-03062401 (280-188555-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8321B - Nitroguanidine (LC/MS)
Samples X7-TP-C01-3642 (280-188555-1), X7-TP-C02-2430 (280-188555-2), FD-03062401 (280-188555-3), X7-TP-C03-2436 (280-188555-4), X7-TP-C03-2436 (280-188555-4MS) and X7-TP-C03-2436 (280-188555-4MSD) were analyzed for Nitroguanidine (LC/MS). The samples were leached on 3/11/2024, prepared on 3/12/2024 and 3/13/2024 and analyzed on 3/14/2024 and 3/15/2024.

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Per client request the samples were treated as discrete samples where they were air dried and aliquotted, but did not have ISM performed and were not sieved. The prep for these samples deviated from SOP as they were not sieved or ISM aliquotted as required by DV-OP-0013 sections 10.5 and 10.6, DV-OP-0018 section 2.0, and DOD QSM 5.4 appendix B table B-3.

Method D 2216 - Percent Moisture
Samples X7-TP-C01-3642 (280-188555-1), X7-TP-C02-2430 (280-188555-2), FD-03062401 (280-188555-3) and X7-TP-C03-2436 (280-188555-4) were analyzed for Percent Moisture. The samples were analyzed on 3/12/2024.

Detection Summary

Client: Tetra Tech, Inc.
Job ID: 280-188555-1
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Client Sample ID: X7-TP-C01-3642
Lab Sample ID: 280-188555-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
RDX	71	J	200	42	ug/Kg	1		8330B	Total/NA

Client Sample ID: X7-TP-C02-2430
Lab Sample ID: 280-188555-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
HMX	1600	M	92	21	ug/Kg	1		8330B	Total/NA
RDX - DL	36000	D	1800	390	ug/Kg	10		8330B	Total/NA

Client Sample ID: FD-03062401
Lab Sample ID: 280-188555-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
2,4,6-Trinitrotoluene	40	J	100	31	ug/Kg	1		8330B	Total/NA
HMX - DL	12000	D	500	110	ug/Kg	5		8330B	Total/NA
RDX - DL2	250000	D Q	10000	2100	ug/Kg	50		8330B	Total/NA

Client Sample ID: X7-TP-C03-2436
Lab Sample ID: 280-188555-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: X7-TP-C01-3642 — Lab Sample ID: 280-188555-1

Date Collected: 03/06/24 09:00 — **Matrix: Solid**
Date Received: 03/07/24 09:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U	98	14	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
1,3-Dinitrobenzene	39	U	98	16	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
2,4,6-Trinitrotoluene	69	U	98	30	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
3,5-Dinitroaniline	20	U	98	8.8	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
2,4-Dinitrotoluene	39	U	98	14	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
2,6-Dinitrotoluene	39	U	98	19	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
2-Amino-4,6-dinitrotoluene	69	U	98	32	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
2-Nitrotoluene	98	U	200	46	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
3-Nitrotoluene	150	U	200	63	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
4-Amino-2,6-dinitrotoluene	69	U	98	29	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
4-Nitrotoluene	98	U	200	36	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
Nitrobenzene	200	U	290	83	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
Nitroglycerin	690	U	2000	210	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
HMX	69	U	98	22	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
PETN	980	U	2000	480	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
Picric acid	79	U	98	55	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
RDX	**71**	**J**	200	42	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
Tetryl	98	U	200	43	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
2,4 diamino 6 nitrotoluene	980	U	2000	510	ug/Kg		03/13/24 13:25	03/20/24 05:58	1
2,6 diamino 4 nitrotoluene	980	U	2000	320	ug/Kg		03/13/24 13:25	03/20/24 05:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*102*		*78 - 119*	*03/13/24 13:25*	*03/20/24 05:58*	*1*
1,2 Dinitrobenzene	*95*	*M*	*78 - 119*	*03/13/24 13 25*	*03/20/24 20 16*	*1*

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	24	U	39	10	ug/Kg		03/13/24 13:09	03/14/24 14:30	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	**14.7**		0.1	0.1	%			03/12/24 15:02	1

Client Sample ID: X7-TP-C01-3642 — Lab Sample ID: 280-188555-1

Date Collected: 03/06/24 09:00 — **Matrix: Solid**
Date Received: 03/07/24 09:30 — **Percent Solids: 85.3**

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	1100	U Q	1800	380	ug/Kg	☼	03/12/24 10:29	03/15/24 18:40	1
Diphenylamine	190	U	380	51	ug/Kg	☼	03/12/24 10:29	03/15/24 18:40	1
N-Nitrosodiphenylamine	77	U	380	24	ug/Kg	☼	03/12/24 10:29	03/15/24 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*44 - 115*	*03/12/24 10:29*	*03/15/24 18:40*	*1*
2-Fluorophenol (Surr)	*67*		*35 - 115*	*03/12/24 10:29*	*03/15/24 18:40*	*1*
2,4,6-Tribromophenol (Surr)	*92*		*39 - 132*	*03/12/24 10:29*	*03/15/24 18:40*	*1*
Nitrobenzene-d5 (Surr)	*64*		*37 - 122*	*03/12/24 10:29*	*03/15/24 18:40*	*1*
Phenol-d5 (Surr)	*68*		*33 - 122*	*03/12/24 10:29*	*03/15/24 18:40*	*1*
Terphenyl-d14 (Surr)	*87*		*54 - 127*	*03/12/24 10:29*	*03/15/24 18:40*	*1*

Client Sample ID: X7-TP-C02-2430 — Lab Sample ID: 280-188555-2

Date Collected: 03/06/24 09:25 — **Matrix: Solid**
Date Received: 03/07/24 09:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	37	U	92	13	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
1,3-Dinitrobenzene	37	U	92	15	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
2,4,6-Trinitrotoluene	64	U M	92	28	ug/Kg		03/13/24 13:25	03/20/24 20:52	1
3,5-Dinitroaniline	18	U	92	8.3	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
2,4-Dinitrotoluene	37	U	92	13	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
2,6-Dinitrotoluene	37	U	92	18	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
2-Amino-4,6-dinitrotoluene	64	U	92	30	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
2-Nitrotoluene	92	U	180	43	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
3-Nitrotoluene	140	U	180	59	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
4-Amino-2,6-dinitrotoluene	64	U	92	27	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
4-Nitrotoluene	92	U	180	34	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
Nitrobenzene	180	U	280	78	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
Nitroglycerin	640	U	1800	200	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
HMX	**1600**	**M**	92	21	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
PETN	920	U	1800	450	ug/Kg		03/13/24 13:25	03/20/24 06:21	1
Picric acid	73	U	92	52	ug/Kg		03/13/24 13 25	03/20/24 06 21	1
Tetryl	92	U	180	40	ug/Kg		03/13/24 13 25	03/20/24 06 21	1
2,4-diamino-6-nitrotoluene	920	U	1800	470	ug/Kg		03/13/24 13 25	03/20/24 06 21	1
2,6 diamino 4 nitrotoluene	920	U	1800	300	ug/Kg		03/13/24 13:25	03/20/24 06:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*103*		*78 119*	*03/13/24 13:25*	*03/20/24 06:21*	*1*
1,2 Dinitrobenzene	*103*		*78 - 119*	*03/13/24 13 25*	*03/20/24 20 52*	*1*

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
RDX	**36000**	**D**	1800	390	ug/Kg		03/13/24 13:25	03/20/24 17:52	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2 Dinitrobenzene	*98*	*D*	*78 - 119*	*03/13/24 13 25*	*03/20/24 17 52*	*10*

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U	40	10	ug/Kg		03/13/24 13:09	03/14/24 14:33	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	**14.1**		0.1	0.1	%			03/12/24 15:02	1

Client Sample ID: X7-TP-C02-2430 — Lab Sample ID: 280-188555-2

Date Collected: 03/06/24 09:25 — **Matrix: Solid**
Date Received: 03/07/24 09:30 — **Percent Solids: 85.9**

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	1200	U Q	1800	380	ug/Kg	☼	03/12/24 10:29	03/15/24 19:01	1
Diphenylamine	190	U	380	51	ug/Kg	☼	03/12/24 10:29	03/15/24 19:01	1
N-Nitrosodiphenylamine	77	U	380	24	ug/Kg	☼	03/12/24 10:29	03/15/24 19:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*44 - 115*	*03/12/24 10:29*	*03/15/24 19:01*	*1*

Client Sample ID: X7-TP-C02-2430 — Lab Sample ID: 280-188555-2

Date Collected: 03/06/24 09:25 — **Matrix: Solid**
Date Received: 03/07/24 09:30 — **Percent Solids: 85.9**

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	*58*		*35 - 115*	*03/12/24 10:29*	*03/15/24 19:01*	*1*
2,4,6-Tribromophenol (Surr)	*87*		*39 - 132*	*03/12/24 10:29*	*03/15/24 19:01*	*1*
Nitrobenzene-d5 (Surr)	*56*		*37 - 122*	*03/12/24 10:29*	*03/15/24 19:01*	*1*
Phenol-d5 (Surr)	*58*		*33 - 122*	*03/12/24 10:29*	*03/15/24 19:01*	*1*
Terphenyl-d14 (Surr)	*80*		*54 - 127*	*03/12/24 10:29*	*03/15/24 19:01*	*1*

Client Sample ID: FD-03062401 — Lab Sample ID: 280-188555-3

Date Collected: 03/06/24 09:35 — **Matrix: Solid**
Date Received: 03/07/24 09:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	40	U	100	14	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
1,3-Dinitrobenzene	40	U	100	17	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
2,4,6-Trinitrotoluene	**40**	**J**	100	31	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
3,5-Dinitroaniline	20	U	100	9.0	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
2,4-Dinitrotoluene	40	U	100	15	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
2,6-Dinitrotoluene	40	U	100	19	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
2-Amino-4,6-dinitrotoluene	70	U	100	33	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
2-Nitrotoluene	100	U	200	47	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
3-Nitrotoluene	150	U	200	64	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
4-Amino-2,6-dinitrotoluene	70	U	100	30	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
4-Nitrotoluene	100	U	200	36	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
Nitrobenzene	200	U	300	85	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
Nitroglycerin	700	U	2000	210	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
PETN	1000	U	2000	490	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
Picric acid	80	U	100	56	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
Tetryl	100	U	200	44	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
2,4-diamino-6-nitrotoluene	1000	U	2000	510	ug/Kg		03/13/24 13:25	03/20/24 06:43	1
2,6-diamino-4-nitrotoluene	1000	U	2000	330	ug/Kg		03/13/24 13:25	03/20/24 06:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	*103*		*78 - 119*	*03/13/24 13:25*	*03/20/24 06:43*	*1*

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
HMX	**12000**	**D**	500	110	ug/Kg		03/13/24 13:25	03/20/24 18:15	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	*98*	*D*	*78 - 119*	*03/13/24 13:25*	*03/20/24 18:15*	*5*

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) - DL2

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
RDX	**250000**	**D Q**	10000	2100	ug/Kg		03/13/24 13:25	03/20/24 18:38	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	*0*	*D Q*	*78 - 119*	*03/13/24 13:25*	*03/20/24 18:38*	*50*

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	23	U	37	9.7	ug/Kg		03/13/24 13:09	03/14/24 14:36	1

Client Sample ID: FD-03062401 — Lab Sample ID: 280-188555-3

Date Collected: 03/06/24 09:35 — **Matrix: Solid**
Date Received: 03/07/24 09:30

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	14.2		0.1	0.1	%			03/12/24 15:02	1

Client Sample ID: FD-03062401 — Lab Sample ID: 280-188555-3

Date Collected: 03/06/24 09:35 — **Matrix: Solid**
Date Received: 03/07/24 09:30 — **Percent Solids: 85.8**

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	1100	U Q	1800	370	ug/Kg	☼	03/12/24 10:29	03/15/24 19:23	1
Diphenylamine	190	U M	370	49	ug/Kg	☼	03/12/24 10:29	03/15/24 19:23	1
N-Nitrosodiphenylamine	74	U	370	23	ug/Kg	☼	03/12/24 10:29	03/15/24 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*44 - 115*	*03/12/24 10:29*	*03/15/24 19:23*	*1*
2-Fluorophenol (Surr)	*62*		*35 - 115*	*03/12/24 10:29*	*03/15/24 19:23*	*1*
2,4,6-Tribromophenol (Surr)	*90*		*39 - 132*	*03/12/24 10:29*	*03/15/24 19:23*	*1*
Nitrobenzene-d5 (Surr)	*58*		*37 - 122*	*03/12/24 10:29*	*03/15/24 19:23*	*1*
Phenol-d5 (Surr)	*62*		*33 - 122*	*03/12/24 10:29*	*03/15/24 19:23*	*1*
Terphenyl-d14 (Surr)	*81*		*54 - 127*	*03/12/24 10:29*	*03/15/24 19:23*	*1*

Client Sample ID: X7-TP-C03-2436 — Lab Sample ID: 280-188555-4

Date Collected: 03/06/24 09:55 — **Matrix: Solid**
Date Received: 03/07/24 09:30

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

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	39	U	97	13	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
1,3-Dinitrobenzene	39	U	97	16	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
2,4,6-Trinitrotoluene	68	U	97	30	ug/Kg		03/13/24 13:25	03/21/24 00:28	1
3,5-Dinitroaniline	19	U	97	8.7	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
2,4-Dinitrotoluene	39	U	97	14	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
2,6-Dinitrotoluene	39	U	97	18	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
2-Amino-4,6-dinitrotoluene	68	U	97	32	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
2-Nitrotoluene	97	U	190	46	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
3-Nitrotoluene	150	U	190	62	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
4-Amino-2,6-dinitrotoluene	68	U	97	29	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
4-Nitrotoluene	97	U	190	35	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
Nitrobenzene	190	U	290	82	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
Nitroglycerin	680	U	1900	210	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
HMX	68	U	97	22	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
PETN	970	U	1900	480	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
Picric acid	77	U J1	97	55	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
RDX	97	U M	190	42	ug/Kg		03/13/24 13:25	03/21/24 00:28	1
Tetryl	97	U	190	42	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
2,4-diamino-6-nitrotoluene	970	U J1	1900	500	ug/Kg		03/13/24 13:25	03/20/24 07:52	1
2,6-diamino-4-nitrotoluene	970	U J1	1900	320	ug/Kg		03/13/24 13:25	03/20/24 07:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*101*		*78 - 119*	*03/13/24 13:25*	*03/20/24 07:52*	*1*
1,2-Dinitrobenzene	*98*	*M*	*78 - 119*	*03/13/24 13:25*	*03/21/24 00:28*	*1*

Client Sample ID: X7-TP-C03-2436 — Lab Sample ID: 280-188555-4

Date Collected: 03/06/24 09:55 — **Matrix: Solid**
Date Received: 03/07/24 09:30

Method: SW846 8321B - Nitroguanidine (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	24	U	39	10	ug/Kg		03/13/24 13:09	03/14/24 14:39	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (ASTM D 2216)	17.4		0.1	0.1	%			03/12/24 15:02	1

Client Sample ID: X7-TP-C03-2436 — Lab Sample ID: 280-188555-4

Date Collected: 03/06/24 09:55 — **Matrix: Solid**
Date Received: 03/07/24 09:30 — **Percent Solids: 82.6**

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	1200	U Q	1900	400	ug/Kg	☼	03/12/24 10:29	03/15/24 19:44	1
Diphenylamine	200	U	400	53	ug/Kg	☼	03/12/24 10:29	03/15/24 19:44	1
N-Nitrosodiphenylamine	80	U	400	25	ug/Kg	☼	03/12/24 10:29	03/15/24 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*44 - 115*	*03/12/24 10:29*	*03/15/24 19:44*	*1*
2-Fluorophenol (Surr)	*64*		*35 - 115*	*03/12/24 10:29*	*03/15/24 19:44*	*1*
2,4,6-Tribromophenol (Surr)	*93*		*39 - 132*	*03/12/24 10:29*	*03/15/24 19:44*	*1*
Nitrobenzene-d5 (Surr)	*61*		*37 122*	*03/12/24 10:29*	*03/15/24 19:44*	*1*
Phenol-d5 (Surr)	*65*		*33 122*	*03/12/24 10:29*	*03/15/24 19:44*	*1*
Terphenyl-d14 (Surr)	*74*		*54 127*	*03/12/24 10:29*	*03/15/24 19:44*	*1*

Default Detection Limits

Client: Tetra Tech, Inc. Job ID: 280-188555-1
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Prep: 3550C

Analyte	LOQ	DL	Units
2,4-Dinitrophenol	1600	330	ug/Kg
Diphenylamine	330	44	ug/Kg
N-Nitrosodiphenylamine	330	21	ug/Kg

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Prep: 8330B
Drying: Prep/Air Dry

Analyte	LOQ	DL	Units
1,3,5-Trinitrobenzene	100	14	ug/Kg
1,3-Dinitrobenzene	100	17	ug/Kg
2,4,6-Trinitrotoluene	100	31	ug/Kg
2,4 diamino 6 nitrotoluene	2000	520	ug/Kg
2,4 Dinitrotoluene	100	15	ug/Kg
2,6 diamino 4 nitrotoluene	2000	330	ug/Kg
2,6-Dinitrotoluene	100	19	ug/Kg
2-Amino-4,6-dinitrotoluene	100	33	ug/Kg
2-Nitrotoluene	200	47	ug/Kg
3,5-Dinitroaniline	100	9.0	ug/Kg
3-Nitrotoluene	200	64	ug/Kg
4-Amino-2,6-dinitrotoluene	100	30	ug/Kg
4-Nitrotoluene	200	37	ug/Kg
HMX	100	23	ug/Kg
Nitrobenzene	300	85	ug/Kg
Nitroglycerin	2000	220	ug/Kg
PETN	2000	490	ug/Kg
Picric acid	100	56	ug/Kg
RDX	200	43	ug/Kg
Tetryl	200	44	ug/Kg

Method: 8321B - Nitroguanidine (LC/MS)

Prep: 8330B
Drying: Prep/Air Dry

Analyte	LOQ	DL	Units
Nitroguanidine	40	11	ug/Kg

General Chemistry

Analyte	LOQ	DL	Units
Percent Moisture	0.1	0.1	%

Surrogate Summary

Client: Tetra Tech, Inc. Job ID: 280-188555-1
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(44-115)	(35-115)	(39-132)	(37-122)	(33-122)	(54-127)
280-188555-1	X7-TP-C01-3642	73	67	92	64	68	87
280-188555-2	X7-TP-C02-2430	64	58	87	56	58	80
280-188555-3	FD-03062401	67	62	90	58	62	81
280-188555-4	X7-TP-C03-2436	69	64	93	61	65	74
280-188555-4 MS	X7-TP-C03-2436	57	46	91	45	48	78
280-188555-4 MSD	X7-TP-C03-2436	69	57	97	56	60	83
LCS 280-645670/2-A	Lab Control Sample	62	52	82	52	53	73
MB 280-645670/1-A	Method Blank	70	63	81	62	64	80

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

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

		Percent Surrogate Recovery (Acceptance Limits)
		12DNB1
Lab Sample ID	Client Sample ID	(78-119)
280-188555-1	X7-TP-C01-3642	102
280-188555-2	X7-TP-C02-2430	103
280-188555-2 - DL	X7-TP-C02-2430	98 D
280-188555-3	FD-03062401	103
280-188555-3 - DL	FD-03062401	98 D
280-188555-3 - DL2	FD-03062401	0 D Q
280-188555-4	X7-TP-C03-2436	101
280-188555-4 DU	X7-TP-C03-2436	102
280-188555-4 MS	X7-TP-C03-2436	100
280-188555-4 MS	X7-TP-C03-2436	101
280-188555-4 MSD	X7-TP-C03-2436	100
280-188555-4 MSD	X7-TP-C03-2436	104
280-188555-4 TRL	X7-TP-C03-2436	102
LCS 280-645871/2-A	Lab Control Sample	101
LCS 280-645871/3-A	Lab Control Sample	101
MB 280-645871/1-A	Method Blank	101

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

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

		Percent Surrogate Recovery (Acceptance Limits)
		12DNB2
Lab Sample ID	Client Sample ID	(78-119)
280-188555-1	X7-TP-C01-3642	95 M
280-188555-2	X7-TP-C02-2430	103

Surrogate Summary

Client: Tetra Tech, Inc. Job ID: 280-188555-1
Project/Site: NB Kitsap Bangor CTO NW194112, WA

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

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

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	12DNB2 (78-119)							
280-188555-4	X7-TP-C03-2436	98 M							
280-188555-4 DU	X7-TP-C03-2436	101							
280-188555-4 MS	X7-TP-C03-2436	108							
280-188555-4 MSD	X7-TP-C03-2436	110							
280-188555-4 TRL	X7-TP-C03-2436	100 M							

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-645670/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646066 **Prep Batch: 645670**

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	1000	U	1600	330	ug/Kg		03/12/24 10:29	03/15/24 17:36	1
Diphenylamine	170	U	330	44	ug/Kg		03/12/24 10:29	03/15/24 17:36	1
N-Nitrosodiphenylamine	67	U	330	21	ug/Kg		03/12/24 10:29	03/15/24 17:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*44 - 115*	*03/12/24 10:29*	*03/15/24 17:36*	*1*
2-Fluorophenol (Surr)	*63*		*35 - 115*	*03/12/24 10:29*	*03/15/24 17:36*	*1*
2,4,6-Tribromophenol (Surr)	*81*		*39 - 132*	*03/12/24 10:29*	*03/15/24 17:36*	*1*
Nitrobenzene-d5 (Surr)	*62*		*37 - 122*	*03/12/24 10:29*	*03/15/24 17:36*	*1*
Phenol-d5 (Surr)	*64*		*33 - 122*	*03/12/24 10:29*	*03/15/24 17:36*	*1*
Terphenyl-d14 (Surr)	*80*		*54 - 127*	*03/12/24 10:29*	*03/15/24 17:36*	*1*

Lab Sample ID: LCS 280-645670/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646066 **Prep Batch: 645670**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2,4-Dinitrophenol			5330	4220		ug/Kg		79	46 - 120		
Diphenylamine			2270	1770		ug/Kg		78	48 - 111		
N-Nitrosodiphenylamine			2670	2040		ug/Kg		77	38 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*62*		*44 - 115*
2-Fluorophenol (Surr)	*52*		*35 - 115*
2,4,6-Tribromophenol (Surr)	*82*		*39 - 132*
Nitrobenzene-d5 (Surr)	*52*		*37 - 122*
Phenol-d5 (Surr)	*53*		*33 - 122*
Terphenyl-d14 (Surr)	*73*		*54 - 127*

Lab Sample ID: 280-188555-4 MS **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646066 **Prep Batch: 645670**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
2,4-Dinitrophenol	1200	U Q	6270	5640		ug/Kg	☼	90	46 - 120		
Diphenylamine	200	U	2660	2210		ug/Kg	☼	83	48 - 111		
N-Nitrosodiphenylamine	80	U	3130	2510		ug/Kg	☼	80	38 - 127		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*57*		*44 - 115*
2-Fluorophenol (Surr)	*46*		*35 - 115*
2,4,6-Tribromophenol (Surr)	*91*		*39 - 132*
Nitrobenzene-d5 (Surr)	*45*		*37 - 122*
Phenol-d5 (Surr)	*48*		*33 - 122*
Terphenyl-d14 (Surr)	*78*		*54 - 127*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-188555-4 MSD **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646066 **Prep Batch: 645670**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-Dinitrophenol	1200	U Q	5940	5740		ug/Kg	☼	97	46 - 120	2	20
Diphenylamine	200	U	2520	2240		ug/Kg	☼	89	48 - 111	1	20
N-Nitrosodiphenylamine	80	U	2970	2510		ug/Kg	☼	85	38 - 127	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*69*		*44 - 115*
2-Fluorophenol (Surr)	*57*		*35 - 115*
2,4,6-Tribromophenol (Surr)	*97*		*39 - 132*
Nitrobenzene-d5 (Surr)	*56*		*37 - 122*
Phenol-d5 (Surr)	*60*		*33 - 122*
Terphenyl-d14 (Surr)	*83*		*54 - 127*

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-645871/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646412 **Prep Batch: 645871**

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	40	U	100	14	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
1,3-Dinitrobenzene	40	U	100	17	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
2,4,6-Trinitrotoluene	70	U	100	31	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
3,5-Dinitroaniline	20	U	100	9.0	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
2,4-Dinitrotoluene	40	U	100	15	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
2,6-Dinitrotoluene	40	U	100	19	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
2-Amino-4,6-dinitrotoluene	70	U	100	33	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
2-Nitrotoluene	100	U	200	47	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
3-Nitrotoluene	150	U	200	64	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
4-Amino-2,6-dinitrotoluene	70	U	100	30	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
4-Nitrotoluene	100	U	200	37	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
Nitrobenzene	200	U	300	85	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
Nitroglycerin	700	U	2000	220	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
HMX	70	U	100	23	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
PETN	1000	U	2000	490	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
Picric acid	80	U	100	56	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
RDX	100	U	200	43	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
Tetryl	100	U	200	44	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
2,4-diamino-6-nitrotoluene	1000	U	2000	520	ug/Kg		03/13/24 13:25	03/20/24 04:49	1
2,6-diamino-4-nitrotoluene	1000	U	2000	330	ug/Kg		03/13/24 13:25	03/20/24 04:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*101*		*78 - 119*	*03/13/24 13:25*	*03/20/24 04:49*	*1*

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

Lab Sample ID: LCS 280-645871/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 646412 — **Prep Batch: 645871**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	1000	1140		ug/Kg		114	80 - 116
1,3-Dinitrobenzene	1000	1110		ug/Kg		111	73 - 119
2,4,6-Trinitrotoluene	1000	1040		ug/Kg		104	71 - 120
3,5-Dinitroaniline	1000	1090		ug/Kg		109	86 - 118
2,4-Dinitrotoluene	1000	1060		ug/Kg		106	75 - 121
2,6-Dinitrotoluene	1000	1080		ug/Kg		108	79 - 117
2-Amino-4,6-dinitrotoluene	1000	1070		ug/Kg		107	71 - 123
2-Nitrotoluene	1000	1100		ug/Kg		110	70 - 124
3-Nitrotoluene	1000	1100		ug/Kg		110	67 - 129
4-Amino-2,6-dinitrotoluene	1000	1060		ug/Kg		106	64 - 127
4-Nitrotoluene	1000	1100		ug/Kg		110	71 - 124
Nitrobenzene	1000	1140		ug/Kg		114	67 - 129
Nitroglycerin	10000	11800		ug/Kg		118	73 - 124
HMX	1000	918	M	ug/Kg		92	74 - 124
PETN	10000	11100		ug/Kg		111	72 - 128
Picric acid	1000	1190		ug/Kg		119	38 - 154
RDX	1000	1020		ug/Kg		102	67 - 129
Tetryl	1000	1060		ug/Kg		106	68 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*101*		*78 - 119*

Lab Sample ID: LCS 280-645871/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 646412 — **Prep Batch: 645871**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-diamino-6-nitrotoluene	2000	1590	J	ug/Kg		80	10 - 150
2,6-diamino-4-nitrotoluene	2000	1860	J	ug/Kg		93	10 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*101*		*78 - 119*

Lab Sample ID: 280-188555-4 MS — **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 646412 — **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	39	U	990	1110		ug/Kg		112	80 - 116
1,3-Dinitrobenzene	39	U	990	1090		ug/Kg		110	73 - 119
3,5-Dinitroaniline	19	U	990	958		ug/Kg		97	86 - 118
2,4-Dinitrotoluene	39	U	990	1060	M	ug/Kg		107	75 - 121
2,6-Dinitrotoluene	39	U	990	1070	M	ug/Kg		108	79 - 117
2-Amino-4,6-dinitrotoluene	68	U	990	1000	M	ug/Kg		101	71 - 123
2-Nitrotoluene	97	U	990	1090	M	ug/Kg		110	70 - 124
3-Nitrotoluene	150	U	990	1070	M	ug/Kg		108	67 - 129
4-Amino-2,6-dinitrotoluene	68	U	990	855	M	ug/Kg		86	64 - 127
4-Nitrotoluene	97	U	990	1080	M	ug/Kg		110	71 - 124

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

Lab Sample ID: 280-188555-4 MS **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646412 **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrobenzene	190	U	990	1110		ug/Kg		112	67 - 129
Nitroglycerin	680	U	9900	11400		ug/Kg		115	73 - 124
HMX	68	U	990	879	M	ug/Kg		89	74 - 124
PETN	970	U	9900	11000		ug/Kg		112	72 - 128
Picric acid	77	U J1	990	291	J1	ug/Kg		29	38 - 154
Tetryl	97	U	990	974		ug/Kg		98	68 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dinitrobenzene	*100*		*78 - 119*

Lab Sample ID: 280-188555-4 MS **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646412 **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-diamino-6-nitrotoluene	970	U J1	1930	960	U M J1	ug/Kg		0	10 - 150
2,6-diamino-4-nitrotoluene	970	U J1	1930	960	U M J1	ug/Kg		0	10 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dinitrobenzene	*101*		*78 - 119*

Lab Sample ID: 280-188555-4 MS **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646572 **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,6-Trinitrotoluene	68	U	990	1100		ug/Kg		111	71 120
RDX	97	U M	990	958		ug/Kg		97	67 - 129

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dinitrobenzene	*108*		*78 - 119*

Lab Sample ID: 280-188555-4 MSD **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646412 **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	39	U	949	1060		ug/Kg		112	80 - 116	5	20
1,3-Dinitrobenzene	39	U	949	1040		ug/Kg		109	73 - 119	5	20
3,5-Dinitroaniline	19	U	949	940		ug/Kg		99	86 - 118	2	20
2,4-Dinitrotoluene	39	U	949	1010		ug/Kg		107	75 - 121	5	20
2,6-Dinitrotoluene	39	U	949	1020		ug/Kg		107	79 - 117	5	20
2-Amino-4,6-dinitrotoluene	68	U	949	976		ug/Kg		103	71 - 123	3	20
2-Nitrotoluene	97	U	949	1030		ug/Kg		109	70 124	6	20
3-Nitrotoluene	150	U	949	1020		ug/Kg		107	67 129	5	20
4-Amino-2,6-dinitrotoluene	68	U	949	884		ug/Kg		93	64 127	3	20
4 Nitrotoluene	97	U	949	1020		ug/Kg		108	71 - 124	6	20
Nitrobenzene	190	U	949	1060		ug/Kg		112	67 - 129	5	20

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

Lab Sample ID: 280-188555-4 MSD — **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 646412 — **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitroglycerin	680	U	9490	11000		ug/Kg		116	73 - 124	3	20
HMX	68	U	949	878		ug/Kg		93	74 - 124	0	20
PETN	970	U	9490	10400		ug/Kg		110	72 - 128	6	20
Picric acid	77	U J1	949	107	J1	ug/Kg		11	38 - 154	93	20
Tetryl	97	U	949	901		ug/Kg		95	68 - 135	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*100*		*78 - 119*

Lab Sample ID: 280-188555-4 MSD — **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 646412 — **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-diamino-6-nitrotoluene	970	U J1	1940	970	U M J1	ug/Kg		0	10 - 150	NC	20
2,6-diamino-4-nitrotoluene	970	U J1	1940	970	U M J1	ug/Kg		0	10 - 150	NC	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*104*		*78 - 119*

Lab Sample ID: 280-188555-4 MSD — **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 646572 — **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,6-Trinitrotoluene	68	U	949	1050		ug/Kg		110	71 - 120	5	20
RDX	97	U M	949	889		ug/Kg		94	67 - 129	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*110*		*78 - 119*

Lab Sample ID: 280-188555-4 DU — **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 646412 — **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
1,3,5-Trinitrobenzene	39	U		39	U	ug/Kg				NC	20
1,3-Dinitrobenzene	39	U		39	U	ug/Kg				NC	20
3,5-Dinitroaniline	19	U		20	U	ug/Kg				NC	20
2,4-Dinitrotoluene	39	U		39	U	ug/Kg				NC	20
2,6-Dinitrotoluene	39	U		39	U	ug/Kg				NC	20
2-Amino-4,6-dinitrotoluene	68	U		68	U	ug/Kg				NC	20
2-Nitrotoluene	97	U		98	U	ug/Kg				NC	20
3-Nitrotoluene	150	U		150	U	ug/Kg				NC	20
4-Amino-2,6-dinitrotoluene	68	U		68	U	ug/Kg				NC	20
4 Nitrotoluene	97	U		98	U	ug/Kg				NC	20
Nitrobenzene	190	U		200	U	ug/Kg				NC	20
Nitroglycerin	680	U		680	U	ug/Kg				NC	20

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

Lab Sample ID: 280-188555-4 DU **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646412 **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
HMX	68	U		68	U	ug/Kg				NC	20
PETN	970	U		980	U	ug/Kg				NC	20
Picric acid	77	U J1		78	U	ug/Kg				NC	20
Tetryl	97	U		98	U	ug/Kg				NC	20
2,4-diamino-6-nitrotoluene	970	U J1		980	U	ug/Kg				NC	20
2,6-diamino-4-nitrotoluene	970	U J1		980	U	ug/Kg				NC	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
1,2-Dinitrobenzene	*102*		*78 - 119*

Lab Sample ID: 280-188555-4 DU **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646572 **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
2,4,6-Trinitrotoluene	68	U		68	U	ug/Kg				NC	20
RDX	97	U M		98	U	ug/Kg				NC	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
1,2-Dinitrobenzene	*101*		*78 - 119*

Lab Sample ID: 280-188555-4 TRL **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646412 **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier		TRL Result	TRL Qualifier	Unit	D			RSD	RSD Limit
1,3,5-Trinitrobenzene	39	U		39	U	ug/Kg				NC	20
1,3-Dinitrobenzene	39	U		39	U	ug/Kg				NC	20
3,5-Dinitroaniline	19	U		20	U	ug/Kg				NC	20
2,4-Dinitrotoluene	39	U		39	U	ug/Kg				NC	20
2,6-Dinitrotoluene	39	U		39	U	ug/Kg				NC	20
2-Amino-4,6-dinitrotoluene	68	U		68	U	ug/Kg				NC	20
2-Nitrotoluene	97	U		98	U	ug/Kg				NC	20
3-Nitrotoluene	150	U		150	U	ug/Kg				NC	20
4-Amino-2,6-dinitrotoluene	68	U		68	U	ug/Kg				NC	20
4-Nitrotoluene	97	U		98	U	ug/Kg				NC	20
Nitrobenzene	190	U		200	U	ug/Kg				NC	20
Nitroglycerin	680	U		680	U	ug/Kg				NC	20
HMX	68	U		68	U	ug/Kg				NC	20
PETN	970	U		980	U	ug/Kg				NC	20
Picric acid	77	U J1		78	U	ug/Kg				NC	20
Tetryl	97	U		98	U	ug/Kg				NC	20
2,4-diamino-6-nitrotoluene	970	U J1		980	U	ug/Kg				NC	20
2,6-diamino-4-nitrotoluene	970	U J1		980	U	ug/Kg				NC	20

Surrogate	*TRL %Recovery*	*TRL Qualifier*	*Limits*
1,2-Dinitrobenzene	*102*		*78 - 119*

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

Lab Sample ID: 280-188555-4 TRL **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 646572 **Prep Batch: 645871**

Analyte	Sample Result	Sample Qualifier		TRL Result	TRL Qualifier	Unit	D			RSD	RSD Limit
2,4,6-Trinitrotoluene	68	U		68	U	ug/Kg				NC	20
RDX	97	U M		98	U M	ug/Kg				NC	20

Surrogate	*TRL %Recovery*	*TRL Qualifier*	*Limits*
1,2-Dinitrobenzene	*100*	*M*	*78 - 119*

Method: 8321B - Nitroguanidine (LC/MS)

Lab Sample ID: MB 280-645870/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 645982 **Prep Batch: 645870**

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitroguanidine	25	U	40	11	ug/Kg		03/13/24 13:09	03/14/24 14:23	1

Lab Sample ID: LCS 280-645870/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 645982 **Prep Batch: 645870**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitroguanidine			203	186		ug/Kg		92	50 - 150		

Lab Sample ID: 280-188555-4 MS **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 645982 **Prep Batch: 645870**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitroguanidine	24	U	199	152		ug/Kg		76	50 - 150		

Lab Sample ID: 280-188555-4 MSD **Client Sample ID: X7-TP-C03-2436**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 645982 **Prep Batch: 645870**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitroguanidine	24	U	189	152		ug/Kg		81	50 - 150	0	20

GC/MS Semi VOA

Prep Batch: 645670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-1	X7-TP-C01-3642	Total/NA	Solid	3550C	
280-188555-2	X7-TP-C02-2430	Total/NA	Solid	3550C	
280-188555-3	FD-03062401	Total/NA	Solid	3550C	
280-188555-4	X7-TP-C03-2436	Total/NA	Solid	3550C	
MB 280-645670/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 280-645670/2-A	Lab Control Sample	Total/NA	Solid	3550C	
280-188555-4 MS	X7-TP-C03-2436	Total/NA	Solid	3550C	
280-188555-4 MSD	X7-TP-C03-2436	Total/NA	Solid	3550C	

Analysis Batch: 646066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-1	X7-TP-C01-3642	Total/NA	Solid	8270E	645670
280-188555-2	X7-TP-C02-2430	Total/NA	Solid	8270E	645670
280-188555-3	FD-03062401	Total/NA	Solid	8270E	645670
280-188555-4	X7-TP-C03-2436	Total/NA	Solid	8270E	645670
MB 280-645670/1-A	Method Blank	Total/NA	Solid	8270E	645670
LCS 280-645670/2-A	Lab Control Sample	Total/NA	Solid	8270E	645670
280-188555-4 MS	X7-TP-C03-2436	Total/NA	Solid	8270E	645670
280-188555-4 MSD	X7-TP-C03-2436	Total/NA	Solid	8270E	645670

HPLC/IC

Drying Batch: 645628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-1	X7-TP-C01-3642	Total/NA	Solid	Prep/Air Dry	
280-188555-2	X7-TP-C02-2430	Total/NA	Solid	Prep/Air Dry	
280-188555-2 - DL	X7-TP-C02-2430	Total/NA	Solid	Prep/Air Dry	
280-188555-3 - DL2	FD-03062401	Total/NA	Solid	Prep/Air Dry	
280-188555-3	FD-03062401	Total/NA	Solid	Prep/Air Dry	
280-188555-3 - DL	FD-03062401	Total/NA	Solid	Prep/Air Dry	
280-188555-4	X7-TP-C03-2436	Total/NA	Solid	Prep/Air Dry	
280-188555-4 MS	X7-TP-C03-2436	Total/NA	Solid	Prep/Air Dry	
280-188555-4 MSD	X7-TP-C03-2436	Total/NA	Solid	Prep/Air Dry	
280-188555-4 DU	X7-TP-C03-2436	Total/NA	Solid	Prep/Air Dry	
280-188555-4 TRL	X7-TP-C03-2436	Total/NA	Solid	Prep/Air Dry	

Prep Batch: 645871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-1	X7-TP-C01-3642	Total/NA	Solid	8330B	645628
280-188555-2	X7-TP-C02-2430	Total/NA	Solid	8330B	645628
280-188555-2 - DL	X7-TP-C02-2430	Total/NA	Solid	8330B	645628
280-188555-3	FD-03062401	Total/NA	Solid	8330B	645628
280-188555-3 - DL	FD-03062401	Total/NA	Solid	8330B	645628
280-188555-3 - DL2	FD-03062401	Total/NA	Solid	8330B	645628
280-188555-4	X7-TP-C03-2436	Total/NA	Solid	8330B	645628
MB 280-645871/1-A	Method Blank	Total/NA	Solid	8330B	
LCS 280-645871/2-A	Lab Control Sample	Total/NA	Solid	8330B	
LCS 280-645871/3-A	Lab Control Sample	Total/NA	Solid	8330B	
280-188555-4 MS	X7-TP-C03-2436	Total/NA	Solid	8330B	645628
280-188555-4 MS	X7-TP-C03-2436	Total/NA	Solid	8330B	645628
280-188555-4 MSD	X7-TP-C03-2436	Total/NA	Solid	8330B	645628

HPLC/IC (Continued)

Prep Batch: 645871 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-4 MSD	X7-TP-C03-2436	Total/NA	Solid	8330B	645628
280-188555-4 DU	X7-TP-C03-2436	Total/NA	Solid	8330B	645628
280-188555-4 TRL	X7-TP-C03-2436	Total/NA	Solid	8330B	645628

Analysis Batch: 646412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-1	X7-TP-C01-3642	Total/NA	Solid	8330B	645871
280-188555-2	X7-TP-C02-2430	Total/NA	Solid	8330B	645871
280-188555-3	FD-03062401	Total/NA	Solid	8330B	645871
280-188555-4	X7-TP-C03-2436	Total/NA	Solid	8330B	645871
MB 280-645871/1-A	Method Blank	Total/NA	Solid	8330B	645871
LCS 280-645871/2-A	Lab Control Sample	Total/NA	Solid	8330B	645871
LCS 280-645871/3-A	Lab Control Sample	Total/NA	Solid	8330B	645871
280-188555-4 MS	X7-TP-C03-2436	Total/NA	Solid	8330B	645871
280-188555-4 MS	X7-TP-C03-2436	Total/NA	Solid	8330B	645871
280-188555-4 MSD	X7-TP-C03-2436	Total/NA	Solid	8330B	645871
280-188555-4 MSD	X7-TP-C03-2436	Total/NA	Solid	8330B	645871
280-188555-4 DU	X7-TP-C03-2436	Total/NA	Solid	8330B	645871
280-188555-4 TRL	X7-TP-C03-2436	Total/NA	Solid	8330B	645871

Analysis Batch: 646567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-2 - DL	X7-TP-C02-2430	Total/NA	Solid	8330B	645871
280-188555-3 - DL	FD-03062401	Total/NA	Solid	8330B	645871
280-188555-3 - DL2	FD-03062401	Total/NA	Solid	8330B	645871

Analysis Batch: 646572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-1	X7-TP-C01-3642	Total/NA	Solid	8330B	645871
280-188555-2	X7-TP-C02-2430	Total/NA	Solid	8330B	645871
280-188555-4	X7-TP-C03-2436	Total/NA	Solid	8330B	645871
280-188555-4 MS	X7-TP-C03-2436	Total/NA	Solid	8330B	645871
280-188555-4 MSD	X7-TP-C03-2436	Total/NA	Solid	8330B	645871
280-188555-4 DU	X7-TP-C03-2436	Total/NA	Solid	8330B	645871
280-188555-4 TRL	X7-TP-C03-2436	Total/NA	Solid	8330B	645871

LCMS

Drying Batch: 645628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-1	X7-TP-C01-3642	Total/NA	Solid	Prep/Air Dry	
280-188555-2	X7-TP-C02-2430	Total/NA	Solid	Prep/Air Dry	
280-188555-3	FD-03062401	Total/NA	Solid	Prep/Air Dry	
280 188555 4	X7 TP C03 2436	Total/NA	Solid	Prep/Air Dry	
280 188555 4 MS	X7 TP C03 2436	Total/NA	Solid	Prep/Air Dry	
280 188555 4 MSD	X7 TP C03 2436	Total/NA	Solid	Prep/Air Dry	

Prep Batch: 645870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-1	X7-TP-C01-3642	Total/NA	Solid	8330B	645628
280-188555-2	X7-TP-C02-2430	Total/NA	Solid	8330B	645628

LCMS (Continued)

Prep Batch: 645870 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-3	FD-03062401	Total/NA	Solid	8330B	645628
280-188555-4	X7-TP-C03-2436	Total/NA	Solid	8330B	645628
MB 280-645870/1-A	Method Blank	Total/NA	Solid	8330B	
LCS 280-645870/2-A	Lab Control Sample	Total/NA	Solid	8330B	
280-188555-4 MS	X7-TP-C03-2436	Total/NA	Solid	8330B	645628
280-188555-4 MSD	X7-TP-C03-2436	Total/NA	Solid	8330B	645628

Analysis Batch: 645982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-1	X7-TP-C01-3642	Total/NA	Solid	8321B	645870
280-188555-2	X7-TP-C02-2430	Total/NA	Solid	8321B	645870
280-188555-3	FD-03062401	Total/NA	Solid	8321B	645870
280-188555-4	X7-TP-C03-2436	Total/NA	Solid	8321B	645870
MB 280-645870/1-A	Method Blank	Total/NA	Solid	8321B	645870
LCS 280-645870/2-A	Lab Control Sample	Total/NA	Solid	8321B	645870
280-188555-4 MS	X7-TP-C03-2436	Total/NA	Solid	8321B	645870
280-188555-4 MSD	X7-TP-C03-2436	Total/NA	Solid	8321B	645870

General Chemistry

Analysis Batch: 645751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-188555-1	X7-TP-C01-3642	Total/NA	Solid	D 2216	
280-188555-2	X7-TP-C02-2430	Total/NA	Solid	D 2216	
280-188555-3	FD-03062401	Total/NA	Solid	D 2216	
280-188555-4	X7-TP-C03-2436	Total/NA	Solid	D 2216	

Client Sample ID: X7-TP-C01-3642 — Lab Sample ID: 280-188555-1

Date Collected: 03/06/24 09:00 — **Matrix: Solid**
Date Received: 03/07/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B			10.18 g	40 mL	645871	03/13/24 13:25	DCL	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	646572	03/20/24 20:16	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B			10.18 g	40 mL	645871	03/13/24 13:25	DCL	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	646412	03/20/24 05:58	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B			10.37 g	20 mL	645870	03/13/24 13:09	EKB	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	645982	03/14/24 14:30	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			645751	03/12/24 15:02	CLP	EET DEN

Client Sample ID: X7-TP-C01-3642 — Lab Sample ID: 280-188555-1

Date Collected: 03/06/24 09:00 — **Matrix: Solid**
Date Received: 03/07/24 09:30 — **Percent Solids: 85.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.6 g	1 mL	645670	03/12/24 10:29	JPG	EET DEN
Total/NA	Analysis	8270E		1	500 uL	500 uL	646066	03/15/24 18:40	RJC	EET DEN

Client Sample ID: X7-TP-C02-2430 — Lab Sample ID: 280-188555-2

Date Collected: 03/06/24 09:25 — **Matrix: Solid**
Date Received: 03/07/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B			10.89 g	40 mL	645871	03/13/24 13:25	DCL	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	646572	03/20/24 20:52	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B			10.89 g	40 mL	645871	03/13/24 13:25	DCL	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	646412	03/20/24 06:21	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry	DL		1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B	DL		10.89 g	40 mL	645871	03/13/24 13:25	DCL	EET DEN
Total/NA	Analysis	8330B	DL	10	1 mL	1 mL	646567	03/20/24 17:52	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B			10.09 g	20 mL	645870	03/13/24 13:09	EKB	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	645982	03/14/24 14:33	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			645751	03/12/24 15:02	CLP	EET DEN

Client Sample ID: X7-TP-C02-2430 — Lab Sample ID: 280-188555-2

Date Collected: 03/06/24 09:25 — **Matrix: Solid**
Date Received: 03/07/24 09:30 — **Percent Solids: 85.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.2 g	1 mL	645670	03/12/24 10:29	JPG	EET DEN
Total/NA	Analysis	8270E		1	500 uL	500 uL	646066	03/15/24 19:01	RJC	EET DEN

Client Sample ID: FD-03062401 — Lab Sample ID: 280-188555-3

Date Collected: 03/06/24 09:35 — **Matrix: Solid**
Date Received: 03/07/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B			10.04 g	40 mL	645871	03/13/24 13:25	DCL	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	646412	03/20/24 06:43	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry	DL		1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B	DL		10.04 g	40 mL	645871	03/13/24 13:25	DCL	EET DEN
Total/NA	Analysis	8330B	DL	5	1 mL	1 mL	646567	03/20/24 18:15	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry	DL2		1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B	DL2		10.04 g	40 mL	645871	03/13/24 13:25	DCL	EET DEN
Total/NA	Analysis	8330B	DL2	50	1 mL	1 mL	646567	03/20/24 18:38	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B			10.83 g	20 mL	645870	03/13/24 13:09	EKB	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	645982	03/14/24 14:36	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			645751	03/12/24 15:02	CLP	EET DEN

Client Sample ID: FD-03062401 — Lab Sample ID: 280-188555-3

Date Collected: 03/06/24 09:35 — **Matrix: Solid**
Date Received: 03/07/24 09:30 — **Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			31.5 g	1 mL	645670	03/12/24 10:29	JPG	EET DEN
Total/NA	Analysis	8270E		1	500 uL	500 uL	646066	03/15/24 19:23	RJC	EET DEN

Client Sample ID: X7-TP-C03-2436 — Lab Sample ID: 280-188555-4

Date Collected: 03/06/24 09:55 — **Matrix: Solid**
Date Received: 03/07/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B			10.33 g	40 mL	645871	03/13/24 13:25	DCL	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	646572	03/21/24 00:28	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B			10.33 g	40 mL	645871	03/13/24 13:25	DCL	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	646412	03/20/24 07:52	JZ	EET DEN
Total/NA	Drying	Prep/Air Dry			1.0 g	1.0 g	645628	03/11/24 16:58	DCL	EET DEN
Total/NA	Prep	8330B			10.27 g	20 mL	645870	03/13/24 13:09	EKB	EET DEN
Total/NA	Analysis	8321B		1	1 mL	1 mL	645982	03/14/24 14:39	AGCM	EET DEN
Total/NA	Analysis	D 2216		1			645751	03/12/24 15:02	CLP	EET DEN

Client Sample ID: X7-TP-C03-2436 — Lab Sample ID: 280-188555-4

Date Collected: 03/06/24 09:55 — **Matrix: Solid**
Date Received: 03/07/24 09:30 — **Percent Solids: 82.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.3 g	1 mL	645670	03/12/24 10:29	JPG	EET DEN
Total/NA	Analysis	8270E		1	500 uL	500 uL	646066	03/15/24 19:44	RJC	EET DEN

Laboratory References:

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

Accreditation/Certification Summary

Client: Tetra Tech, Inc. Job ID: 280-188555-1
Project/Site: NB Kitsap Bangor CTO NW194112, WA

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
Washington	State	C583	08-03-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8321B	8330B	Solid	Nitroguanidine
8330B	8330B	Solid	2,4-diamino-6-nitrotoluene
8330B	8330B	Solid	2,6-diamino-4-nitrotoluene

Method Summary

Client: Tetra Tech, Inc. Job ID: 280-188555-1
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Method	Method Description	Protocol	Laboratory
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET DEN
8330B	Nitroaromatics and Nitramines (HPLC)	EPA	EET DEN
8321B	Nitroguanidine (LC/MS)	SW846	EET DEN
D 2216	Percent Moisture	ASTM	EET DEN
3550C	Ultrasonic Extraction	SW846	EET DEN
8330B	Sonication Extraction (Explosives)	SW846	EET DEN
Prep/Air Dry	Preparation, Air drying	None	EET DEN

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

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: Tetra Tech, Inc. Job ID: 280-188555-1
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-188555-1	X7-TP-C01-3642	Solid	03/06/24 09:00	03/07/24 09:30
280-188555-2	X7-TP-C02-2430	Solid	03/06/24 09:25	03/07/24 09:30
280-188555-3	FD-03062401	Solid	03/06/24 09:35	03/07/24 09:30
280-188555-4	X7-TP-C03-2436	Solid	03/06/24 09:55	03/07/24 09:30

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Analysis Batch Number: 644801

Lab Sample ID: ICIS 280-644801/3 Client Sample ID:

Date Analyzed: 03/04/24 10:17 Lab File ID: G6_b030424003.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
N-Nitrosodimethylamine	2.23	Incomplete Integration	HPV7	03/04/24 12:47
Pyridine	2.26	Incomplete Integration	HPV7	03/04/24 12:47
Phenol-d5 (Surr)	4.01	Incomplete Integration	HPV7	03/04/24 12:17
Phenol	4.02	Incomplete Integration	HPV7	03/04/24 12:47
Aniline	4.03	Incomplete Integration	HPV7	03/04/24 12:47
Bis(2-chloroethyl)ether	4.09	Incomplete Integration	HPV7	03/04/24 12:47
2-Chlorophenol	4.14	Incomplete Integration	HPV7	03/04/24 12:47
1,3-Dichlorobenzene	4.28	Incomplete Integration	HPV7	03/04/24 12:48
1,4-Dichlorobenzene	4.33	Incomplete Integration	HPV7	03/04/24 12:48
Benzyl alcohol	4.44	Incomplete Integration	HPV7	03/04/24 12:50
1,2-Dichlorobenzene	4.47	Incomplete Integration	HPV7	03/04/24 12:48
2-Methylphenol	4.55	Incomplete Integration	HPV7	03/04/24 12:50
2,2'-oxybis[1-chloropropane]	4.56	Incomplete Integration	HPV7	03/04/24 12:49
Acetophenone	4.68	Incomplete Integration	HPV7	03/04/24 12:49
3 & 4 Methylphenol	4.69	Incomplete Integration	HPV7	03/04/24 12:50
N-Nitrosodi-n-propylamine	4.69	Incomplete Integration	HPV7	03/04/24 12:50
Hexachloroethane	4.78	Incomplete Integration	HPV7	03/04/24 12:49
Nitrobenzene-d5 (Surr)	4.81	Incomplete Integration	HPV7	03/04/24 12:18
Nitrobenzene	4.83	Incomplete Integration	HPV7	03/04/24 12:51
Isophorone	5.06	Incomplete Integration	HPV7	03/04/24 12:51
2-Nitrophenol	5.13	Incomplete Integration	HPV7	03/04/24 12:51
2,4-Dimethylphenol	5.18	Incomplete Integration	HPV7	03/04/24 12:51
Bis(2-chloroethoxy)methane	5.26	Incomplete Integration	HPV7	03/04/24 12:52
Benzoic acid	5.32	Incomplete Integration	HPV7	03/04/24 12:52
2,4-Dichlorophenol	5.36	Incomplete Integration	HPV7	03/04/24 12:52
1,2,4-Trichlorobenzene	5.44	Incomplete Integration	HPV7	03/04/24 12:52
Naphthalene	5.50	Incomplete Integration	HPV7	03/04/24 12:52
4-Chloroaniline	5.56	Incomplete Integration	HPV7	03/04/24 12:53
2,6-Dichlorophenol	5.57	Incomplete Integration	HPV7	03/04/24 12:52
Hexachlorobutadiene	5.64	Incomplete Integration	HPV7	03/04/24 12:53

8270E

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Analysis Batch Number: 644801

Lab Sample ID: ICIS 280-644801/3 Client Sample ID:

Date Analyzed: 03/04/24 10:17 Lab File ID: G6_b030424003.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Chloro-3-methylphenol	6.03	Incomplete Integration	HPV7	03/04/24 12:53
2-Methylnaphthalene	6.16	Incomplete Integration	HPV7	03/04/24 12:53
1-Methylnaphthalene	6.26	Incomplete Integration	HPV7	03/04/24 13:43
1,2,4,5-Tetrachlorobenzene	6.33	Incomplete Integration	HPV7	03/04/24 12:56
Hexachlorocyclopentadiene	6.33	Incomplete Integration	HPV7	03/04/24 12:56
2,4,6-Trichlorophenol	6.44	Incomplete Integration	HPV7	03/04/24 13:40
2,4,5-Trichlorophenol	6.47	Incomplete Integration	HPV7	03/04/24 13:42
2-Fluorobiphenyl	6.53	Incomplete Integration	HPV7	03/04/24 12:18
1,1'-Biphenyl	6.62	Incomplete Integration	HPV7	03/04/24 13:42
2-Chloronaphthalene	6.63	Incomplete Integration	HPV7	03/04/24 13:42
2-Nitroaniline	6.73	Incomplete Integration	HPV7	03/04/24 13:42
1,3-Dinitrobenzene	6.93	Incomplete Integration	HPV7	03/04/24 13:44
Dimethyl phthalate	6.93	Incomplete Integration	HPV7	03/04/24 13:43
2,6-Dinitrotoluene	6.97	Incomplete Integration	HPV7	03/04/24 13:43
Acenaphthylene	7.03	Incomplete Integration	HPV7	03/04/24 13:44
3-Nitroaniline	7.13	Incomplete Integration	HPV7	03/04/24 13:44
Acenaphthene	7.20	Incomplete Integration	HPV7	03/04/24 13:44
2,4-Dinitrophenol	7.23	Incomplete Integration	HPV7	03/04/24 13:44
4-Nitrophenol	7.32	Incomplete Integration	HPV7	03/04/24 13:44
2,4-Dinitrotoluene	7.36	Incomplete Integration	HPV7	03/04/24 13:44
Dibenzofuran	7.37	Incomplete Integration	HPV7	03/04/24 13:45
2,3,4,6-Tetrachlorophenol	7.50	Incomplete Integration	HPV7	03/04/24 13:46
Diethyl phthalate	7.62	Incomplete Integration	HPV7	03/04/24 13:51
Fluorene	7.70	Incomplete Integration	HPV7	03/04/24 13:52
4-Chlorophenyl phenyl ether	7.71	Incomplete Integration	HPV7	03/04/24 13:52
4-Nitroaniline	7.73	Incomplete Integration	HPV7	03/04/24 13:52
4,6-Dinitro-2-methylphenol	7.77	Incomplete Integration	HPV7	03/04/24 13:52
Diphenylamine	7.83	Incomplete Integration	HPV7	03/04/24 13:52
N-Nitrosodiphenylamine	7.83	Incomplete Integration	HPV7	03/04/24 13:52
1,2-Diphenylhydrazine	7.86	Incomplete Integration	HPV7	03/04/24 13:52

8270E

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Analysis Batch Number: 644801

Lab Sample ID: ICIS 280-644801/3 Client Sample ID:

Date Analyzed: 03/04/24 10:17 Lab File ID: G6_b030424003.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Azobenzene	7.86	Incomplete Integration	HPV7	03/04/24 13:52
2,4,6-Tribromophenol (Surr)	7.94	Incomplete Integration	HPV7	03/04/24 12:19
4-Bromophenyl phenyl ether	8.19	Incomplete Integration	HPV7	03/04/24 13:52
Hexachlorobenzene	8.25	Incomplete Integration	HPV7	03/04/24 13:52
Pentachlorophenol	8.45	Incomplete Integration	HPV7	03/04/24 13:52
Phenanthrene	8.64	Incomplete Integration	HPV7	03/04/24 13:53
Anthracene	8.69	Incomplete Integration	HPV7	03/04/24 13:53
Carbazole	8.85	Incomplete Integration	HPV7	03/04/24 13:53
Alachlor	9.01	Incomplete Integration	HPV7	03/04/24 13:54
Di-n-butyl phthalate	9.22	Incomplete Integration	HPV7	03/04/24 13:54
Fluoranthene	9.81	Incomplete Integration	HPV7	03/04/24 13:54
Pyrene	10.03	Incomplete Integration	HPV7	03/04/24 13:55
Terphenyl-d14 (Surr)	10.21	Incomplete Integration	HPV7	03/04/24 12:19
Butyl benzyl phthalate	10.77	Incomplete Integration	HPV7	03/04/24 13:55
Benzo[a]anthracene	11.45	Incomplete Integration	HPV7	03/04/24 13:55
Chrysene-d12 (IS)	11.46	Incomplete Integration	HPV7	03/04/24 12:17
Chrysene	11.50	Incomplete Integration	HPV7	03/04/24 13:55
Bis(2-ethylhexyl) phthalate	11.59	Incomplete Integration	HPV7	03/04/24 13:55
Di-n-octyl phthalate	12.64	Incomplete Integration	HPV7	03/04/24 13:55
Benzo[b]fluoranthene	13.15	Incomplete Integration	HPV7	03/04/24 13:55
Benzo[k]fluoranthene	13.20	Incomplete Integration	HPV7	03/04/24 13:56
Benzo[a]pyrene	13.71	Incomplete Integration	HPV7	03/04/24 13:56
Indeno[1,2,3-cd]pyrene	15.77	Incomplete Integration	HPV7	03/04/24 13:56
Dibenz(a,h)anthracene	15.82	Incomplete Integration	HPV7	03/04/24 13:56
Benzo[g,h,i]perylene	16.18	Incomplete Integration	HPV7	03/04/24 13:56

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Analysis Batch Number: 644801

Lab Sample ID: STD020 280-644801/6 IC Client Sample ID:

Date Analyzed: 03/04/24 11:21 Lab File ID: G6_b030424006.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitroaniline	7.72	Incomplete Integration	HPV7	03/04/24 14:21

Lab Sample ID: STD050 280-644801/7 IC Client Sample ID:

Date Analyzed: 03/04/24 11:43 Lab File ID: G6_b030424007.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	5.30	Incomplete Integration	HPV7	03/04/24 14:25

Lab Sample ID: STD200 280-644801/10 IC Client Sample ID:

Date Analyzed: 03/04/24 12:47 Lab File ID: G6_b030424010.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	5.38	Incomplete Integration	HPV7	03/04/24 14:41

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Analysis Batch Number: 646066

Lab Sample ID: CCVIS 280-646066/3 Client Sample ID:

Date Analyzed: 03/15/24 14:12 Lab File ID: G6_031524003.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoranthene	9.81	Incomplete Integration	HPV7	03/15/24 14:50

Lab Sample ID: 280-188555-3 Client Sample ID: FD-03062401

Date Analyzed: 03/15/24 19:23 Lab File ID: G6_031524017.D GC Column: Rxi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Diphenylamine		Invalid Compound ID	HPV7	03/18/24 14:11

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 627290

Lab Sample ID: IC 280-627290/10 Client Sample ID:

Date Analyzed: 09/25/23 18:42 Lab File ID: 09250010.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.65	Baseline	LV5D	09/26/23 13:59
4-Nitrotoluene	15.73	Baseline	LV5D	09/26/23 13:59

Lab Sample ID: IC 280-627290/14 Client Sample ID:

Date Analyzed: 09/25/23 21:05 Lab File ID: 09250014.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	24.21	Baseline	LV5D	09/26/23 14:02

Lab Sample ID: IC 280-627290/15 Client Sample ID:

Date Analyzed: 09/25/23 21:42 Lab File ID: 09250015.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DNX	6.13	Baseline	LV5D	09/26/23 14:00
HMX	6.77	Baseline	LV5D	09/26/23 14:00
MNX	7.62	Baseline	LV5D	09/26/23 14:00
Picric acid	8.65	Baseline	LV5D	09/26/23 14:00
RDX	9.00	Baseline	LV5D	09/26/23 14:00
PETN	24.23	Baseline	LV5D	09/26/23 14:02

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 627290

Lab Sample ID: IC 280-627290/16 Client Sample ID:

Date Analyzed: 09/25/23 22:18 Lab File ID: 09250016.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DNX	6.14	Baseline	LV5D	09/26/23 14:00
HMX	6.78	Baseline	LV5D	09/26/23 14:00
MNX	7.63	Baseline	LV5D	09/26/23 14:00
Picric acid	8.69	Baseline	LV5D	09/26/23 14:00
RDX	9.02	Baseline	LV5D	09/26/23 14:00
PETN	24.22	Baseline	LV5D	09/26/23 14:02

Lab Sample ID: IC 280-627290/17 Client Sample ID:

Date Analyzed: 09/25/23 22:54 Lab File ID: 09250017.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.77	Baseline	LV5D	09/26/23 14:01
MNX	7.62	Baseline	LV5D	09/26/23 14:01
Picric acid	8.68	Baseline	LV5D	09/26/23 14:01
RDX	9.01	Baseline	LV5D	09/26/23 14:01
Nitrobenzene	11.55	Baseline	LV5D	09/26/23 14:01
1,2-Dinitrobenzene	12.48	Baseline	LV5D	09/26/23 14:01
3,5-Dinitroaniline	14.34	Baseline	LV5D	09/26/23 14:01
1,3-Dinitrobenzene	14.64	Baseline	LV5D	09/26/23 14:01
2-Nitrotoluene	15.68	Baseline	LV5D	09/26/23 14:02
4-Nitrotoluene	15.91	Unspecified		
4-Amino-2,6-dinitrotoluene	16.42	Baseline	LV5D	09/26/23 14:01
3-Nitrotoluene	16.74	Baseline	LV5D	09/26/23 14:01
2-Amino-4,6-dinitrotoluene	17.22	Baseline	LV5D	09/26/23 14:01
1,3,5-Trinitrobenzene	17.44	Baseline	LV5D	09/26/23 14:01
2,6-Dinitrotoluene	18.52	Baseline	LV5D	09/26/23 14:01
2,4-Dinitrotoluene	18.98	Baseline	LV5D	09/26/23 14:01
PETN	24.17	Baseline	LV5D	09/26/23 14:02

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 627290

Lab Sample ID: IC 280-627290/18 Client Sample ID:

Date Analyzed: 09/25/23 23:30 Lab File ID: 09250018.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.77	Baseline	LV5D	09/26/23 14:03
MNX	7.62	Baseline	LV5D	09/26/23 14:03
Picric acid	8.70	Baseline	LV5D	09/26/23 14:03
RDX	9.01	Baseline	LV5D	09/26/23 14:03
Nitrobenzene	11.55	Baseline	LV5D	09/26/23 14:03
1,2-Dinitrobenzene	12.49	Baseline	LV5D	09/26/23 14:03
3,5-Dinitroaniline	14.36	Baseline	LV5D	09/26/23 14:04
1,3-Dinitrobenzene	14.66	Baseline	LV5D	09/26/23 14:04
2-Nitrotoluene	15.70	Baseline	LV5D	09/26/23 14:04
4-Nitrotoluene	15.93	Baseline	LV5D	09/26/23 14:04
4-Amino-2,6-dinitrotoluene	16.44	Baseline	LV5D	09/26/23 14:04
3-Nitrotoluene	16.75	Baseline	LV5D	09/26/23 14:04
2-Amino-4,6-dinitrotoluene	17.24	Baseline	LV5D	09/26/23 14:04
1,3,5-Trinitrobenzene	17.45	Baseline	LV5D	09/26/23 14:04
2,6-Dinitrotoluene	18.56	Baseline	LV5D	09/26/23 14:04
2,4-Dinitrotoluene	19.02	Baseline	LV5D	09/26/23 14:04
PETN	24.18	Baseline	LV5D	09/26/23 14:02

Lab Sample ID: IC 280-627290/20 Client Sample ID:

Date Analyzed: 09/26/23 00:42 Lab File ID: 09250020.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.20	Peak assignment corrected	LV5D	09/26/23 14:14

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 627290

Lab Sample ID: IC 280-627290/21 Client Sample ID:

Date Analyzed: 09/26/23 01:18 Lab File ID: 09250021.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.21	Peak assignment corrected	LV5D	09/26/23 14:14

Lab Sample ID: IC 280-627290/22 Client Sample ID:

Date Analyzed: 09/26/23 01:54 Lab File ID: 09250022.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.22	Peak assignment corrected	LV5D	09/26/23 14:14

Lab Sample ID: IC 280-627290/23 Client Sample ID:

Date Analyzed: 09/26/23 02:30 Lab File ID: 09250023.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.23	Peak assignment corrected	LV5D	09/26/23 14:14

Lab Sample ID: IC 280-627290/24 Client Sample ID:

Date Analyzed: 09/26/23 03:06 Lab File ID: 09250024.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.22	Peak assignment corrected	LV5D	09/26/23 14:14

Lab Sample ID: IC 280-627290/25 Client Sample ID:

Date Analyzed: 09/26/23 03:42 Lab File ID: 09250025.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.23	Peak assignment corrected	LV5D	09/26/23 14:14

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 627290

Lab Sample ID: IC 280-627290/26 Client Sample ID:

Date Analyzed: 09/26/23 04:18 Lab File ID: 09250026.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.23	Peak assignment corrected	LV5D	09/26/23 14:14

Lab Sample ID: IC 280-627290/27 Client Sample ID:

Date Analyzed: 09/26/23 04:54 Lab File ID: 09250027.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.23	Peak assignment corrected	LV5D	09/26/23 14:14

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 646572

Lab Sample ID: CCV 280-646572/7 Client Sample ID:

Date Analyzed: 03/20/24 18:28 Lab File ID: 03200007.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.90	Baseline Smoothing	LV5D	03/20/24 19:16
PETN	24.04	Baseline Smoothing	LV5D	03/20/24 19:16

Lab Sample ID: 280-188555-1 Client Sample ID: X7-TP-C01-3642

Date Analyzed: 03/20/24 20:16 Lab File ID: 03200012.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	8.85	Baseline Smoothing	LV5D	03/21/24 14:43
1,2-Dinitrobenzene	12.28	Baseline Smoothing	LV5D	03/21/24 14:43

Lab Sample ID: 280-188555-2 Client Sample ID: X7-TP-C02-2430

Date Analyzed: 03/20/24 20:52 Lab File ID: 03200013.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	03/21/24 16:12
3-Nitrotoluene		Invalid Compound ID	LV5D	03/21/24 16:12
Tetryl		Invalid Compound ID	LV5D	03/21/24 16:12
2,4,6-Trinitrotoluene	22.86	Baseline Smoothing	LV5D	03/21/24 16:12

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 646572

Lab Sample ID: CCV 280-646572/18 Client Sample ID:

Date Analyzed: 03/20/24 23:52 Lab File ID: 03200018.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene	11.44	Baseline Smoothing	LV5D	03/21/24 16:16
1,2-Dinitrobenzene	12.34	Baseline Smoothing	LV5D	03/21/24 16:15
3,5-Dinitroaniline	14.14	Baseline Smoothing	LV5D	03/21/24 16:15
1,3-Dinitrobenzene	14.46	Baseline Smoothing	LV5D	03/21/24 16:15
Nitroglycerin	14.89	Baseline Smoothing	LV5D	03/21/24 16:15
2-Nitrotoluene	15.54	Baseline Smoothing	LV5D	03/21/24 16:15
4-Nitrotoluene	15.76	Baseline Smoothing	LV5D	03/21/24 16:15
4-Amino-2,6-dinitrotoluene	16.24	Baseline Smoothing	LV5D	03/21/24 16:15
3-Nitrotoluene	16.60	Baseline Smoothing	LV5D	03/21/24 16:15
2-Amino-4,6-dinitrotoluene	17.02	Baseline Smoothing	LV5D	03/21/24 16:15
1,3,5-Trinitrobenzene	17.24	Baseline Smoothing	LV5D	03/21/24 16:15
2,6-Dinitrotoluene	18.36	Baseline Smoothing	LV5D	03/21/24 16:15
2,4-Dinitrotoluene	18.80	Baseline Smoothing	LV5D	03/21/24 16:15
PETN	24.02	Baseline Smoothing	LV5D	03/21/24 16:15

Lab Sample ID: 280-188555-4 Client Sample ID: X7-TP-C03-2436

Date Analyzed: 03/21/24 00:28 Lab File ID: 03200019.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	8.75	Baseline Smoothing	LV5D	03/21/24 16:16
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	03/21/24 16:16
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	03/21/24 16:16
3,5-Dinitroaniline		Invalid Compound ID	LV5D	03/21/24 16:16
3-Nitrotoluene		Invalid Compound ID	LV5D	03/21/24 16:16
1,2-Dinitrobenzene	12.26	Baseline Smoothing	LV5D	03/21/24 16:16
2,6-Dinitrotoluene	18.31	Baseline Smoothing	LV5D	03/21/24 16:16

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 646572

Lab Sample ID: 280-188555-4 MS Client Sample ID: X7-TP-C03-2436 MS

Date Analyzed: 03/21/24 01:04 Lab File ID: 03200020.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.07	Baseline Smoothing	LV5D	03/21/24 16:17
1,3-Dinitrobenzene	14.38	Baseline Smoothing	LV5D	03/21/24 16:17
Nitroglycerin	14.85	Baseline Smoothing	LV5D	03/21/24 16:17
2-Nitrotoluene	15.50	Baseline Smoothing	LV5D	03/21/24 16:18
4-Nitrotoluene	15.66	Baseline Smoothing	LV5D	03/21/24 16:18
4-Amino-2,6-dinitrotoluene	16.18	Baseline Smoothing	LV5D	03/21/24 16:18
3-Nitrotoluene	16.54	Baseline Smoothing	LV5D	03/21/24 16:18
2-Amino-4,6-dinitrotoluene	17.09	Baseline Smoothing	LV5D	03/21/24 16:18
1,3,5-Trinitrobenzene	17.20	Baseline Smoothing	LV5D	03/21/24 16:18
2,6-Dinitrotoluene	18.32	Baseline Smoothing	LV5D	03/21/24 16:17
2,4-Dinitrotoluene	18.76	Baseline Smoothing	LV5D	03/21/24 16:17
PETN	24.01	Baseline Smoothing	LV5D	03/21/24 16:17

Lab Sample ID: 280-188555-4 MSD Client Sample ID: X7-TP-C03-2436 MSD

Date Analyzed: 03/21/24 01:40 Lab File ID: 03200021.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.09	Baseline Smoothing	LV5D	03/21/24 16:18
1,3-Dinitrobenzene	14.39	Baseline Smoothing	LV5D	03/21/24 16:18
Nitroglycerin	14.87	Baseline Smoothing	LV5D	03/21/24 16:18
2-Nitrotoluene	15.53	Baseline Smoothing	LV5D	03/21/24 16:18
4-Nitrotoluene	15.67	Baseline Smoothing	LV5D	03/21/24 16:18
4-Amino-2,6-dinitrotoluene	16.20	Baseline Smoothing	LV5D	03/21/24 16:18
3-Nitrotoluene	16.57	Baseline Smoothing	LV5D	03/21/24 16:18
2-Amino-4,6-dinitrotoluene	17.10	Unspecified		
1,3,5-Trinitrobenzene	17.21	Baseline Smoothing	LV5D	03/21/24 16:18
2,6-Dinitrotoluene	18.33	Baseline Smoothing	LV5D	03/21/24 16:18
2,4-Dinitrotoluene	18.77	Baseline Smoothing	LV5D	03/21/24 16:18

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 646572

Lab Sample ID: 280-188555-4 DU Client Sample ID: X7-TP-C03-2436 DU

Date Analyzed: 03/21/24 02:15 Lab File ID: 03200022.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	03/21/24 16:19
2-Nitrotoluene		Invalid Compound ID	LV5D	03/21/24 16:19
3-Nitrotoluene		Invalid Compound ID	LV5D	03/21/24 16:19

Lab Sample ID: 280-188555-4 TRL Client Sample ID: X7-TP-C03-2436 TRL

Date Analyzed: 03/21/24 02:51 Lab File ID: 03200023.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	03/21/24 16:19
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	03/21/24 16:19
3,5-Dinitroaniline		Invalid Compound ID	LV5D	03/21/24 16:19
3-Nitrotoluene		Invalid Compound ID	LV5D	03/21/24 16:19
HMX		Invalid Compound ID	LV5D	03/21/24 16:19
RDX		Invalid Compound ID	LV5D	03/21/24 16:19
Tetryl		Invalid Compound ID	LV5D	03/21/24 16:19
1,2-Dinitrobenzene	12.26	Baseline Smoothing	LV5D	03/21/24 16:19
2,6-Dinitrotoluene	18.32	Baseline Smoothing	LV5D	03/21/24 16:19

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 646572

Lab Sample ID: CCV 280-646572/24 Client Sample ID:

Date Analyzed: 03/21/24 03:27 Lab File ID: 03200024.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.13	Baseline Smoothing	LV5D	03/21/24 16:20
1,3-Dinitrobenzene	14.45	Baseline Smoothing	LV5D	03/21/24 16:19
Nitroglycerin	14.89	Baseline Smoothing	LV5D	03/21/24 16:19
2-Nitrotoluene	15.54	Baseline Smoothing	LV5D	03/21/24 16:20
4-Nitrotoluene	15.76	Baseline Smoothing	LV5D	03/21/24 16:19
4-Amino-2,6-dinitrotoluene	16.24	Baseline Smoothing	LV5D	03/21/24 16:19
3-Nitrotoluene	16.60	Baseline Smoothing	LV5D	03/21/24 16:19
2-Amino-4,6-dinitrotoluene	17.03	Baseline Smoothing	LV5D	03/21/24 16:19
1,3,5-Trinitrobenzene	17.25	Baseline Smoothing	LV5D	03/21/24 16:19
2,6-Dinitrotoluene	18.38	Baseline Smoothing	LV5D	03/21/24 16:19
2,4-Dinitrotoluene	18.82	Baseline Smoothing	LV5D	03/21/24 16:19
PETN	24.01	Baseline Smoothing	LV5D	03/21/24 16:19

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 640909

Lab Sample ID: IC 280-640909/11 Client Sample ID:

Date Analyzed: 01/24/24 16:05 Lab File ID: 01240011.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	10.52	Baseline	LV5D	01/24/24 19:42

Lab Sample ID: IC 280-640909/12 Client Sample ID:

Date Analyzed: 01/24/24 16:28 Lab File ID: 01240012.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	10.53	Baseline	LV5D	01/24/24 19:42

Lab Sample ID: IC 280-640909/13 Client Sample ID:

Date Analyzed: 01/24/24 16:51 Lab File ID: 01240013.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	10.54	Baseline	LV5D	01/24/24 19:42

Lab Sample ID: IC 280-640909/14 Client Sample ID:

Date Analyzed: 01/24/24 17:14 Lab File ID: 01240014.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	10.54	Baseline	LV5D	01/24/24 19:42

Lab Sample ID: IC 280-640909/15 Client Sample ID:

Date Analyzed: 01/24/24 17:37 Lab File ID: 01240015.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	10.53	Baseline	LV5D	01/24/24 19:41

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 640909

Lab Sample ID: IC 280-640909/16 Client Sample ID:

Date Analyzed: 01/24/24 18:00 Lab File ID: 01240016.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	10.54	Baseline	LV5D	01/24/24 19:41

Lab Sample ID: IC 280-640909/17 Client Sample ID:

Date Analyzed: 01/24/24 18:23 Lab File ID: 01240017.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	10.55	Baseline	LV5D	01/24/24 19:41

Lab Sample ID: IC 280-640909/19 Client Sample ID:

Date Analyzed: 01/24/24 19:09 Lab File ID: 01240019.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	9.97	Baseline	LV5D	01/24/24 19:41
Tetryl	10.07	Baseline	LV5D	01/24/24 19:41
Nitroglycerin	10.54	Baseline	LV5D	01/24/24 19:41
PETN	14.64	Baseline	LV5D	01/24/24 19:41

Lab Sample ID: IC 280-640909/18 Client Sample ID:

Date Analyzed: 01/24/24 19:38 Lab File ID: 01240020.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	10.55	Baseline	LV5D	01/24/24 20:02
PETN	14.65	Baseline	LV5D	01/24/24 20:02

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 646412

Lab Sample ID: LCS 280-645871/2-A Client Sample ID:

Date Analyzed: 03/20/24 05:12 Lab File ID: 03190042.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	03/20/24 12:26

Lab Sample ID: 280-188555-2 Client Sample ID: X7-TP-C02-2430

Date Analyzed: 03/20/24 06:21 Lab File ID: 03190045.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	03/20/24 12:26

Lab Sample ID: 280-188555-4 MS Client Sample ID: X7-TP-C03-2436 MS

Date Analyzed: 03/20/24 08:15 Lab File ID: 03190050.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	03/20/24 12:27
2,4,6-Trinitrotoluene	10.94	Baseline	LV5D	03/20/24 12:27
4-Amino-2,6-dinitrotoluene	11.13	Baseline	LV5D	03/20/24 12:27
2-Amino-4,6-dinitrotoluene	11.38	Baseline	LV5D	03/20/24 12:27
2,6-Dinitrotoluene	11.53	Baseline	LV5D	03/20/24 12:27
2,4-Dinitrotoluene	11.70	Baseline	LV5D	03/20/24 12:27
2-Nitrotoluene	12.50	Baseline	LV5D	03/20/24 12:27
4-Nitrotoluene	12.92	Baseline	LV5D	03/20/24 12:27
3-Nitrotoluene	13.48	Baseline	LV5D	03/20/24 12:27

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 646412

Lab Sample ID: 280-188555-4 MS Client Sample ID: X7-TP-C03-2436 MS

Date Analyzed: 03/20/24 09:01 Lab File ID: 03190052.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.50	Baseline	LV5D	03/20/24 12:27
2,4-diamino-6-nitrotoluene	6.63	Unspecified		

Lab Sample ID: 280-188555-4 MSD Client Sample ID: X7-TP-C03-2436 MSD

Date Analyzed: 03/20/24 09:24 Lab File ID: 03190053.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.51	Baseline	LV5D	03/20/24 12:28
2,4-diamino-6-nitrotoluene	6.63	Unspecified		

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 646567

Lab Sample ID: 280-188555-2 DL Client Sample ID: X7-TP-C02-2430 DL

Date Analyzed: 03/20/24 17:52 Lab File ID: 03200012.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	03/20/24 18:24

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8270_AP9_LCS_00113	06/29/24	02/29/24	Methylene Chloride, Lot MeCl2_Cycl_00628	50 mL	MS-567680_00134	1 mL	3-Methylcholanthrene	80 ug/mL
							6-Methylchrysene	80 ug/mL
					MS-567680_00135	1 mL	3-Methylcholanthrene	80 ug/mL
							6-Methylchrysene	80 ug/mL
					OP-567681_00267	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	59.2 ug/mL
							Diallate Peak 2	20.8 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567681_00268	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	59.2 ug/mL
							Diallate Peak 2	20.8 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567681_00269	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	59.2 ug/mL
							Diallate Peak 2	20.8 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567681_00271	1 mL	Aramite Peak 1	40.8 ug/mL
							Aramite Peak 2	39.2 ug/mL
							Aramite, Total	80 ug/mL
							Diallate	80 ug/mL
							Diallate Peak 1	59.2 ug/mL
							Diallate Peak 2	20.8 ug/mL
							Dimethoate	80 ug/mL
							Disulfoton	80 ug/mL
							Ethyl Parathion	80 ug/mL
							Famphur	80 ug/mL
							Methyl parathion	80 ug/mL
							o,o',o''-Triethylphosphorothioate	80 ug/mL
							Phorate	80 ug/mL
							Safrole, Total	80 ug/mL
							Sulfotepp	80 ug/mL
							Thionazin	80 ug/mL
					OP-567682_00122	1 mL	Methapyrilene	80 ug/mL
					OP-567682_00123	1 mL	Methapyrilene	80 ug/mL
					OP-568727_00152	1 mL	Dibenz[a,j]acridine	80.72 ug/mL
					OP-568727_00153	1 mL	Dibenz[a,j]acridine	80.72 ug/mL
					OP-569733_00266	1 mL	1,4-Naphthoquinone	80 ug/mL
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL
							Pentachloroethane	80 ug/mL
					OP-569733_00267	1 mL	1,4-Naphthoquinone	80 ug/mL
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL
							Pentachloroethane	80 ug/mL
					OP-569733_00268	1 mL	1,4-Naphthoquinone	80 ug/mL
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL
							Pentachloroethane	80 ug/mL
					OP-569733_00269	1 mL	1,4-Naphthoquinone	80 ug/mL
							1-Chloronaphthalene	80 ug/mL
							2,3,5,6-Tetrachlorophenol	80 ug/mL
							7,12-Dimethylbenz(a)anthracene	80 ug/mL
							Chlorobenzilate	80 ug/mL
							Dinoseb	80 ug/mL
							Ethyl methanesulfonate	80 ug/mL
							Hexachloropropene	80 ug/mL
							Isodrin	80 ug/mL
							Isosafrole	80 ug/mL
							Isosafrole Peak 1	12.8 ug/mL
							Isosafrole Peak 2	67.2 ug/mL
							Methyl methanesulfonate	80 ug/mL
							Pentachlorobenzene	80 ug/mL
							Pentachloroethane	80 ug/mL
					OP-570667_00230	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Picoline	80 ug/mL
							2-Toluidine	80 ug/mL
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL
							p-Phenylene diamine	80 ug/mL
							Pentachloronitrobenzene	80 ug/mL
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
					OP-570667_00257	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL
							2-Picoline	80 ug/mL
							2-Toluidine	80 ug/mL
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							p-Phenylene diamine	80 ug/mL
							Pentachloronitrobenzene	80 ug/mL
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
					OP-570667_00258	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL
							2-Picoline	80 ug/mL
							2-Toluidine	80 ug/mL
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL
							p-Phenylene diamine	80 ug/mL
							Pentachloronitrobenzene	80 ug/mL
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
					OP-570667_00259	1 mL	1,3,5-Trinitrobenzene	80 ug/mL
							1,4-Dinitrobenzene	80 ug/mL
							1-Naphthylamine	80 ug/mL
							2-Acetylaminofluorene	80 ug/mL
							2-Naphthylamine	80 ug/mL
							2-Picoline	80 ug/mL
							2-Toluidine	80 ug/mL
							3,3'-Dimethylbenzidine	80 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	80 ug/mL
							4-Aminobiphenyl	80 ug/mL
							4-Nitroquinoline-1-oxide	80 ug/mL
							Acrylamide	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							alpha,alpha-Dimethyl phenethylamine	80 ug/mL
							Dibenz[a,h]acridine	80 ug/mL
							N-Nitro-o-toluidine	80 ug/mL
							N-Nitrosodi-n-butylamine	80 ug/mL
							N-Nitrosodiethylamine	80 ug/mL
							N-Nitrosomethylethylamine	80 ug/mL
							N-Nitrosomorpholine	80 ug/mL
							N-Nitrosopiperidine	80 ug/mL
							N-Nitrosopyrrolidine	80 ug/mL
							p-Dimethylamino azobenzene	80 ug/mL
							p-Phenylene diamine	80 ug/mL
							Pentachloronitrobenzene	80 ug/mL
							Phenacetin	80 ug/mL
							Pronamide	80 ug/mL
							Quinoline	80 ug/mL
.MS-567680_00134	10/31/24		Restek, Lot A0202688		(Purchased Reagent)		3-Methylcholanthrene	2000 ug/mL
							6-Methylchrysene	2000 ug/mL
.MS-567680_00135	10/31/24		Restek, Lot A0202688		(Purchased Reagent)		3-Methylcholanthrene	2000 ug/mL
							6-Methylchrysene	2000 ug/mL
.OP-567681_00267	10/31/25		Restek, Lot A0203600		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	740 ug/mL
							Diallate Peak 2	260 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL
							o,o',o''-Triethylphosphorothioate	1000 ug/mL
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL
							Thionazin	1000 ug/mL
.OP-567681_00268	10/31/25		Restek, Lot A0203600		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	740 ug/mL
							Diallate Peak 2	260 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							o,o',o''-Triethylphosphorothioate	1000 ug/mL
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL
							Thionazin	1000 ug/mL
.OP-567681_00269	10/31/25		Restek, Lot A0203600		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	740 ug/mL
							Diallate Peak 2	260 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL
							o,o',o''-Triethylphosphorothioate	1000 ug/mL
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL
							Thionazin	1000 ug/mL
.OP-567681_00271	10/31/25		Restek, Lot A0203600		(Purchased Reagent)		Aramite Peak 1	510 ug/mL
							Aramite Peak 2	490 ug/mL
							Aramite, Total	1000 ug/mL
							Diallate	1000 ug/mL
							Diallate Peak 1	740 ug/mL
							Diallate Peak 2	260 ug/mL
							Dimethoate	1000 ug/mL
							Disulfoton	1000 ug/mL
							Ethyl Parathion	1000 ug/mL
							Famphur	1000 ug/mL
							Methyl parathion	1000 ug/mL
							o,o',o''-Triethylphosphorothioate	1000 ug/mL
							Phorate	1000 ug/mL
							Safrole, Total	1000 ug/mL
							Sulfotepp	1000 ug/mL
							Thionazin	1000 ug/mL
.OP-567682_00122	07/31/25		Restek, Lot A0199703		(Purchased Reagent)		Methapyrilene	2000 ug/mL
.OP-567682_00123	07/31/25		Restek, Lot A0199703		(Purchased Reagent)		Methapyrilene	2000 ug/mL
.OP-568727_00152	10/31/26		Restek, Lot A0195365		(Purchased Reagent)		Dibenz[a,j]acridine	2018 ug/mL
.OP-568727_00153	10/31/26		Restek, Lot A0195365		(Purchased Reagent)		Dibenz[a,j]acridine	2018 ug/mL
.OP-569733_00266	07/31/24		Restek, Lot A0199741		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzilate	1000 ug/mL
							Dinoseb	1000 ug/mL
							Ethyl methanesulfonate	1000 ug/mL
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-569733_00267	07/31/24		Restek, Lot A0199741		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Chlorobenzilate	1000 ug/mL
							Dinoseb	1000 ug/mL
							Ethyl methanesulfonate	1000 ug/mL
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-569733_00268	07/31/24		Restek, Lot A0199741		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Chlorobenzilate	1000 ug/mL
							Dinoseb	1000 ug/mL
							Ethyl methanesulfonate	1000 ug/mL
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-569733_00269	07/31/24		Restek, Lot A0199741		(Purchased Reagent)		1,4-Naphthoquinone	1000 ug/mL
							1-Chloronaphthalene	1000 ug/mL
							2,3,5,6-Tetrachlorophenol	1000 ug/mL
							7,12-Dimethylbenz(a)anthracene	1000 ug/mL
							Chlorobenzilate	1000 ug/mL
							Dinoseb	1000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethyl methanesulfonate	1000 ug/mL
							Hexachloropropene	1000 ug/mL
							Isodrin	1000 ug/mL
							Isosafrole	1000 ug/mL
							Isosafrole Peak 1	160 ug/mL
							Isosafrole Peak 2	840 ug/mL
							Methyl methanesulfonate	1000 ug/mL
							Pentachlorobenzene	1000 ug/mL
							Pentachloroethane	1000 ug/mL
.OP-570667_00230	08/31/24		Restek, Lot A0198786		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL
.OP-570667_00257	06/30/24		Restek, Lot A0199198		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL
.OP-570667_00258	06/30/24		Restek, Lot A0199198		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.OP-570667_00259	06/30/24		Restek, Lot A0199198		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,4-Dinitrobenzene	1000 ug/mL
							1-Naphthylamine	1000 ug/mL
							2-Acetylaminofluorene	1000 ug/mL
							2-Naphthylamine	1000 ug/mL
							2-Picoline	1000 ug/mL
							2-Toluidine	1000 ug/mL
							3,3'-Dimethylbenzidine	1000 ug/mL
							4,4'-Methylene bis(2-chloroaniline)	1000 ug/mL
							4-Aminobiphenyl	1000 ug/mL
							4-Nitroquinoline-1-oxide	1000 ug/mL
							Acrylamide	1000 ug/mL
							alpha,alpha-Dimethyl phenethylamine	1000 ug/mL
							Dibenz[a,h]acridine	1000 ug/mL
							N-Nitro-o-toluidine	1000 ug/mL
							N-Nitrosodi-n-butylamine	1000 ug/mL
							N-Nitrosodiethylamine	1000 ug/mL
							N-Nitrosomethylethylamine	1000 ug/mL
							N-Nitrosomorpholine	1000 ug/mL
							N-Nitrosopiperidine	1000 ug/mL
							N-Nitrosopyrrolidine	1000 ug/mL
							p-Dimethylamino azobenzene	1000 ug/mL
							p-Phenylene diamine	1000 ug/mL
							Pentachloronitrobenzene	1000 ug/mL
							Phenacetin	1000 ug/mL
							Pronamide	1000 ug/mL
							Quinoline	1000 ug/mL
8270_LCS_Main_00090	11/13/24	11/13/23	P&T Methanol, Lot MethanolP&T_00345	500 mL	571995_00171	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Diphenylamine	68 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160.42 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL
					571995_00172	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Diphenylamine	68 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160.42 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL
					571995_00173	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Diphenylamine	68 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160.42 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL
					571995_00174	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Diphenylamine	68 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160.42 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL
					571995_00178	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diphenylamine	68 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160.42 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL
					571995_00179	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Diphenylamine	68 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160.42 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL
					571995_00180	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Diphenylamine	68 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160.42 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					571995_00181	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Diphenylamine	68 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	160.42 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	80 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	160 ug/mL
					OP-569731_00099	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
					OP-569731_00100	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
					OP-569731_00101	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
					OP-569731_00102	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
					OP-572556_00055	5 mL	Hexachlorocyclopentadiene	160.42 ug/mL
					OP-572556_00062	5 mL	Hexachlorocyclopentadiene	160.42 ug/mL
.571995_00171	09/30/24		Restek, Lot A0195772		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.571995_00172	09/30/24		Restek, Lot A0195772		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.571995_00173	09/30/24		Restek, Lot A0195772		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.571995_00174	09/30/24		Restek, Lot A0195772		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.571995_00178	09/30/24		Restek, Lot A0195772		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.571995_00179	09/30/24		Restek, Lot A0195772		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.571995_00180	09/30/24		Restek, Lot A0195772		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.571995_00181	09/30/24		Restek, Lot A0195772		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.OP-569731_00099	01/31/25		Restek, Lot A0199925		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.OP-569731_00100	01/31/25		Restek, Lot A0199925		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.OP-569731_00101	01/31/25		Restek, Lot A0199925		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.OP-569731_00102	01/31/25		Restek, Lot A0199925		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.OP-572556_00055	06/30/26		Restek, Lot A0186275		(Purchased Reagent)		Hexachlorocyclopentadiene	4021 ug/mL
.OP-572556_00062	06/30/26		Restek, Lot A0186275		(Purchased Reagent)		Hexachlorocyclopentadiene	4021 ug/mL
8270_LCS_Supp_00598	03/14/24	03/07/24	P&T Methanol, Lot MethanolP&T_00349	50 mL	OP-569730_00226	4 mL	3,3'-Dichlorobenzidine	160 ug/mL
							Benzidine	160 ug/mL
					OP-569732_00146	2 mL	Atrazine	80 ug/mL
							Benzaldehyde	80 ug/mL
							Caprolactam	80 ug/mL
.OP-569730_00226	08/31/24		Restek, Lot A0194453		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
.OP-569732_00146	02/28/25		Restek, Lot A0200906		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
8270Surrogate_00174	03/07/25	03/07/24	ACETONE, Lot Acetone_00946	1000 mL	8270SurStkHL_00451	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00452	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00454	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00455	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
.8270SurStkHL_00451	06/30/28		Restek, Lot A0198748		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00452	06/30/28		Restek, Lot A0198748		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00454	06/30/28		Restek, Lot A0198748		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00455	06/30/28		Restek, Lot A0198748		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
8330 DMT_00015	01/20/24	07/20/23	Acetonitrile, Lot 222063	5 mL	MNX,TNX,DNX_00080	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							TNX	20.06 ug/mL
.MNX,TNX,DNX_00080	02/29/24		Agilent, Lot 0006725091		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.3 ug/mL
8330 DMT_00016	06/30/24	01/24/24	Acetonitrile, Lot 233799	5 mL	MNX,TNX,DNX_00092	1 mL	DNX	20.04 ug/mL
							MNX	23.38 ug/mL
							TNX	20.08 ug/mL
.MNX,TNX,DNX_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_00130	01/01/24	08/09/23	Acetonitrile, Lot Acetonitrile_00080	100 mL	3,5-DNA Stock_00046	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330_NG_Stk_00137	1.2 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00138	0.8 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00141	0.4 mL	PETN	100 ug/mL
					8330_PETN_Stk_00144	1.4 mL	PETN	100 ug/mL
					8330_PETN_Stk_00145	0.2 mL	PETN	100 ug/mL
					8330LCSMix1_00145	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					8330LCSmix2_00043	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					PicricARestek_00118	1 mL	Picric acid	10 ug/mL
.3,5-DNA Stock_00046	08/09/24		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330_NG_Stk_00137	08/09/24		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00138	08/09/24		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00141	07/01/24		Restek, Lot A0197735		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00144	08/09/24		Restek, Lot A0197735		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00145	08/09/24		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00145	08/09/24		Restek, Lot A0163590		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00043	08/09/24		Restek, Lot A0192237		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
.PicricARestek_00118	08/09/24		Restek, Lot A0183202		(Purchased Reagent)		Picric acid	1000 ug/mL
8330 LCS_00133	06/18/24	12/18/23	Acetonitrile, Lot Acetonitrile_00082	100 mL	3,5-DNA Stock_00055	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330 LCSMix2_00115	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_00144	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00146	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00150	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00151	1 mL	PETN	100 ug/mL
					8330LCSMix1_00149	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_00121	1 mL	Picric acid	10 ug/mL
.3,5-DNA Stock_00055	12/18/24		Restek, Lot A0202640		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330 LCSMix2_00115	12/18/24		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_00144	12/18/24		Restek, Lot A0201048		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00146	12/18/24		Restek, Lot A0201048		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00150	12/18/24		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00151	12/18/24		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00149	12/18/24		Restek, Lot A0183848		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.PicricARestek_00121	12/18/24		Restek, Lot A0195778		(Purchased Reagent)		Picric acid	1000 ug/mL
8330 LCS_00134	08/29/24	02/29/24	Acetonitrile, Lot Acetonitrile_00086	100 mL	3,5-DNA Stock_00051	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330 LCSMix2_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
					8330LCSMix1_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
					PicricARestek_00122	1 mL	Ammonium Picrate	10.74 ug/mL
							Picric acid	10 ug/mL
.3,5-DNA Stock_00051	02/28/25		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330 LCSMix2_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
.8330LCSMix1_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
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.PicricARestek_00122	02/28/25		Restek, Lot A0195778		(Purchased Reagent)		Ammonium Picrate	1074 ug/mL
							Picric acid	1000 ug/mL
8330_ADDs_00037	11/04/23	05/04/23	Acetonitrile, Lot ACN_237	5 mL	2,4Diamino6NT_00095	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00096	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.2,4Diamino6NT_00095	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00096	05/04/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
8330_ADDs_00038	04/10/24	10/13/23	Acetonitrile, Lot 233272	5 mL	2,4Diamino6NT_00096	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00097	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
.2,4Diamino6NT_00096	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00097	06/03/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
8330DiaminLCS_00060	04/10/24	07/26/23	Acetonitrile, Lot Acetonitrile_00080	10 mL	2,4Diamino6NT_00110	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,4Diamino6NT_00111	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00113	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00114	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
.2,4Diamino6NT_00110	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00111	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00113	06/03/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00114	06/03/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
8330DiaminLCS_00064	12/13/24	12/13/23	Acetonitrile, Lot Acetonitrile_00082	20 mL	2,4Diamino6NT_00118	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,4Diamino6NT_00119	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,4Diamino6NT_00120	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,4Diamino6NT_00121	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00121	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00122	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00123	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00124	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
.2,4Diamino6NT_00118	12/13/24	AccuStandard, Lot 223051392			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00119	12/13/24	AccuStandard, Lot 223051392			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00120	12/13/24	AccuStandard, Lot 223051392			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00121	12/13/24	AccuStandard, Lot 223051392			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00121	12/13/24	AccuStandard, Lot 223091111			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00122	12/13/24	AccuStandard, Lot 223091111			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00123	12/13/24	AccuStandard, Lot 223091111			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00124	12/13/24	AccuStandard, Lot 223091111			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
8330DiaminLCS_00065	12/13/24	03/05/24	Acetonitrile, Lot Acetonitrile_00086	20 mL	2,4Diamino6NT_00122	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,4Diamino6NT_00123	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,4Diamino6NT_00124	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,4Diamino6NT_00125	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00125	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00126	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00127	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00128	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
.2,4Diamino6NT_00122	03/05/25	AccuStandard, Lot 223051392			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00123	03/05/25	AccuStandard, Lot 223051392			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00124	03/05/25	AccuStandard, Lot 223051392			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00125	03/05/25	AccuStandard, Lot 223051392			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00125	03/05/25	AccuStandard, Lot 223091111			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.2,6Diamino4NT_00126	03/05/25	AccuStandard, Lot 223091111			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00127	03/05/25	AccuStandard, Lot 223091111			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00128	03/05/25	AccuStandard, Lot 223091111			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
8330IntermStk_00078	02/03/24	09/20/23	Acetonitrile, Lot ACN_239	10 mL	8330_NG_AUX_00007	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00013	1 mL	PETN	100 ug/mL
					833035DNAStk_00056	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00034	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00073	1 mL	Picric acid	10 ug/mL
.8330_NG_AUX_00007	09/20/24	Restek, Lot A0192092			(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00013	09/20/24	Restek, Lot A0194158			(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00056	05/14/24	Accustandard, Lot 223041214			(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00034	02/03/24	02/03/23	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00023	1 mL	1,3,5-Trinitrobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							2,4,6-Trinitrotoluene	100 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Amino-4,6-dinitrotoluene	100 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100 ug/mL
							4-Amino-2,6-dinitrotoluene	100 ug/mL
							4-Nitrotoluene	100 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100 ug/mL
							RDX	100 ug/mL
							Tetryl	100 ug/mL
					8330SurrStock_00172	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00023	02/03/24	Agilent, Lot 0006684308			(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock_00172	02/03/24	AccuStandard, Lot 219051500			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00073	09/20/24	AccuStandard, Lot 223031306			(Purchased Reagent)		Picric acid	100 ug/mL
8330IntermStk_00079	05/14/24	01/23/24	Acetonitrile, Lot ACN_239	10 mL	8330_NG1000_00011	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00015	1 mL	PETN	100 ug/mL
					833035DNAStk_00057	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_00074	1 mL	Picric acid	10 ug/mL
.8330_NG1000_00011	01/23/25	Restek, Lot A0197032			(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00015	01/23/25	Restek, Lot A0198747			(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00057	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock_00173	01/23/25		AccuStandard, Lot 219051500		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00074	01/23/25		AccuStandard, Lot 223031306		(Purchased Reagent)		Picric acid	100 ug/mL
8330Surrogate_00150	02/22/24	08/22/23	Acetonitrile, Lot Acetonitrile_00080	500 mL	8330SurrStkSS_00285	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00293	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00294	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00295	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00296	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00285	08/22/24		Restek, Lot A0197062		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00293	08/22/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00294	08/22/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00295	08/22/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00296	08/22/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00152	05/10/24	11/10/23	Acetonitrile, Lot Acetonitrile_00082	500 mL	8330SurrStkSS_00301	1.3 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00302	1.2 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00303	1.2 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00304	1.2 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00305	0.1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00301	11/10/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00302	11/10/24		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00303	11/10/24		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00304	11/10/24		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00305	11/10/24		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 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
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00311	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00312	1 mL	1,2-Dinitrobenzene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00314	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00315	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00310	03/01/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00311	03/01/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00312	03/01/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00314	03/01/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00315	03/01/25		Restek, Lot A0200577		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
MS-DFTPP_00072							Aramite, Total	
							Diallate	
							Isosafrole	
							Methyl Phenols,Total	
							Tentatively Identified Compound	
							Total Cresols	
							TPAH	
					MS-31615_00014	1.5 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL
					MS-31615_00016	0.5 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL
					MS-31615_00018	0.5 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL
.MS-31615_00014	09/30/25		Restek, Lot A0189454		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MS-31615_00016	09/30/25		Restek, Lot A0189454		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
.MS-31615_00018	09/30/25		Restek, Lot A0189454		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
MS-DFTPP_00073							Aramite, Total	
							Diallate	
							Isosafrole	
							Methyl Phenols,Total	
							Tentatively Identified Compound	
							Total Cresols	
							TPAH	
					MS-31615_00010	1 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL
					MS-31615_00017	1 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL
					MS-31615_00018	0.5 mL	4,4'-DDD	0.05 ug/mL
							4,4'-DDE	0.05 ug/mL
							4,4'-DDT	50 ug/mL
							Benzidine_T	50 ug/mL
							DFTPP	50 ug/mL
							Pentachlorophenol_T	50 ug/mL
.MS-31615_00010	07/31/25		Restek, Lot A0187536		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
.MS-31615_00017	09/30/25		Restek, Lot A0189454		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
.MS-31615_00018	09/30/25		Restek, Lot A0189454		(Purchased Reagent)		4,4'-DDD	1 ug/mL
							4,4'-DDE	1 ug/mL
							4,4'-DDT	1000 ug/mL
							Benzidine_T	1000 ug/mL
							DFTPP	1000 ug/mL
							Pentachlorophenol_T	1000 ug/mL
MS-HSL-ICV1_00010	04/29/24	02/29/24	Methylene Chloride, Lot 00599	5 mL	MS-571995.SEC_00023	1 mL	2,4-Dinitrophenol	400 ug/mL
							Diphenylamine	170 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
.MS-571995.SEC_00023	07/31/24		Restek, Lot A0194078		(Purchased Reagent)		2,4-Dinitrophenol	2000 ug/mL
							Diphenylamine	850 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
MS-HSL-WS_00010	10/12/24	02/28/24	Methylene Chloride, Lot 00614	10 mL	571995_00189	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Diphenylamine	170 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	200 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					8270SurStkHL_00437	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-581076_00002	0.5 mL	Alachlor	200 ug/mL
					OP-569731_00088	2 mL	Benzoic acid	400 ug/mL
.571995_00189	06/30/25		Restek, Lot A0205288		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Diphenylamine	850 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	2000 ug/mL
.8270SurStkHL_00437	10/12/24		Restek, Lot A0184539		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.MS-581076_00002	06/30/25		Restek, Lot A0205766		(Purchased Reagent)		Alachlor	4000 ug/mL
.OP-569731_00088	01/31/25		Restek, Lot A0199925		(Purchased Reagent)		Benzoic acid	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MS-IS_00037	10/09/24	10/09/23	Methylene Chloride, Lot MeCl2_Cycl_00563	50 mL	MS-567684_00045	10 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
.MS-567684_00045	01/31/28	Restek, Lot A0193798			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
NGu Cal 00006	02/27/25	02/27/24	Methanol, Lot 123456	10 mL	NGu_00006	1 mL	Nitroguanidine	10.13 ug/mL
.NGu_00006	05/21/25	Accustandard, Lot 223041226			(Purchased Reagent)		Nitroguanidine	101.3 ug/mL
NGuWorkingICV 00004	08/24/24	02/27/24	Methanol, Lot 123456	10 mL	NGu ICV_00003	0.1 mL	Nitroguanidine	10.01 ug/mL
.NGu ICV_00003	09/30/25	restek, Lot A0164275			(Purchased Reagent)		Nitroguanidine	1001 ug/mL

Reagent

2,4Diamino6NT_00095

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

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

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

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

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

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

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

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

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

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

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

Certified By: [redacted]
Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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

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

Reagent

2,4Diamino6NT_00096

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

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

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

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

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

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

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

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

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

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

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

Certified By: [redacted]
Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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

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

Reagent

2,4Diamino6NT_00110

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

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

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

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

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

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

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

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

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

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

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

Certified By: [redacted]
Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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

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

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,4Diamino6NT_00111

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

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

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

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

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

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

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

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

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

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

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

Certified By: [redacted]
Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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

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

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,4Diamino6NT_00118

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 223051392
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 17, 2023
Expiration: Jun 17, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	101.0	100.0

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: [redacted]

For use in routine laboratory analysis.

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

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

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,4Diamino6NT_00119

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 223051392
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 17, 2023
Expiration: Jun 17, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	101.0	100.0

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: [redacted]

For use in routine laboratory analysis.

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

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

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,4Diamino6NT_00120

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 223051392
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 17, 2023
Expiration: Jun 17, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	101.0	100.0

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 [redacted]

For use in routine laboratory analysis.

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

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

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,4Diamino6NT_00121

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 223051392
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 17, 2023
Expiration: Jun 17, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	101.0	100.0

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: [redacted]

For use in routine laboratory analysis.

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

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

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,4Diamino6NT_00122

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 223051392
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 17, 2023
Expiration: Jun 17, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	101.0	100.0

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: [redacted]

For use in routine laboratory analysis.

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

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

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,4Diamino6NT_00123

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 223051392
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 17, 2023
Expiration: Jun 17, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	101.0	100.0

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: [redacted]

For use in routine laboratory analysis.

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,4Diamino6NT_00124

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 223051392
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 17, 2023
Expiration: Jun 17, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	101.0	100.0

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 [redacted]

For use in routine laboratory analysis.

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

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

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,4Diamino6NT_00125

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 223051392
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 17, 2023
Expiration: Jun 17, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	101.0	100.0

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: [redacted]

For use in routine laboratory analysis.

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

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

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00096

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

ANAB AR-1463

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

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

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

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

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

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

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

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

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

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

Certified By: [redacted]
Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

2,6Diamino4NT_00113

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

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

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

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

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

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

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

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

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

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

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

Certified By: [redacted]
Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00114

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

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

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

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

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

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

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

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

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

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

Certified By: [redacted]
Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00121

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 223091111
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Sep 13, 2023
Expiration: Oct 13, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	100.0	100.1	100.1

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: [redacted]

For use in routine laboratory analysis.

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00122

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 223091111
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Sep 13, 2023
Expiration: Oct 13, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	100.0	100.1	100.1

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: [redacted]

For use in routine laboratory analysis.

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00124

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 223091111
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Sep 13, 2023
Expiration: Oct 13, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	100.0	100.1	100.1

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: [redacted]

For use in routine laboratory analysis.

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00125

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 223091111
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Sep 13, 2023
Expiration: Oct 13, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	100.0	100.1	100.1

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: [redacted]

For use in routine laboratory analysis.

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00126

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 223091111
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Sep 13, 2023
Expiration: Oct 13, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	100.0	100.1	100.1

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: [redacted]

For use in routine laboratory analysis.

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00127

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 223091111
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Sep 13, 2023
Expiration: Oct 13, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	100.0	100.1	100.1

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: [redacted]

For use in routine laboratory analysis.

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00128

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 223091111
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Sep 13, 2023
Expiration: Oct 13, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

AR-1463

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	100.0	100.1	100.1

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: [redacted]

For use in routine laboratory analysis.

1. **Quality Standards:**

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

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

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

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

3,5-DNA Stock_00046

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 3,5-Dinitroaniline Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,5-Dinitroaniline	618-87-1	10311HS	99%	1,004.0 µg/mL	+/- 37.4502

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

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

3,5-DNA Stock_00051

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 3,5-Dinitroaniline Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,5-Dinitroaniline	618-87-1	10311HS	99%	1,004.0 µg/mL	+/- 37.4502

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

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

3,5-DNA Stock_00055

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31661 **Lot No.:** A0202640

Description : 3,5-Dinitroaniline Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

Page 179 of 1563

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

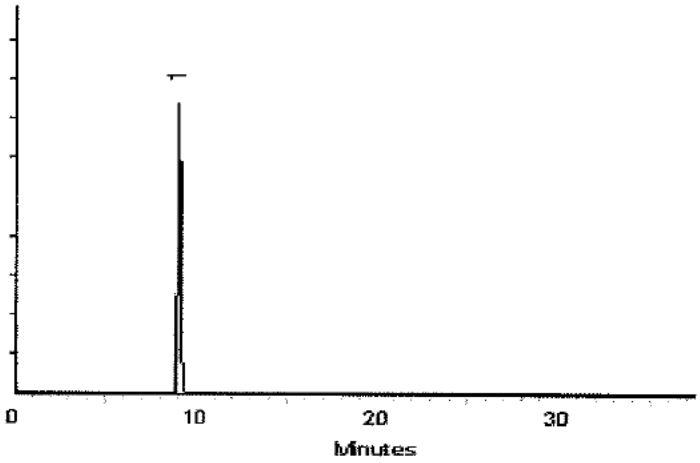
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Dakota Pars [redacted] Technician I **Date Mixed:** 29-Sep-2023 **Balance Serial #** 1128342314

[redacted] Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 09-Oct-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

571995_00171

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 571995 **Lot No.:** A0195772

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	1,005.4 µg/mL	+/- 18.5755
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.2 µg/mL	+/- 18.5718
3	Pyridine	110-86-1	SHBN7324	99%	2,010.1 µg/mL	+/- 37.1374
4	Phenol	108-95-2	MKCK1120	99%	1,005.1 µg/mL	+/- 18.5706
5	Aniline	62-53-3	X22F726	99%	1,005.2 µg/mL	+/- 18.5718
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,005.0 µg/mL	+/- 18.5681
7	n-Decane (C10)	124-18-5	SHBN8619	99%	1,004.9 µg/mL	+/- 18.5669
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.1 µg/mL	+/- 18.5706
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.9 µg/mL	+/- 18.5669
10	1,4-Dichlorobenzene	106-46-7	MKBS4401V	99%	1,005.1 µg/mL	+/- 18.5706
11	Benzyl alcohol	100-51-6	SHBK5943	99%	1,004.9 µg/mL	+/- 18.5669
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,005.1 µg/mL	+/- 18.5706
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.3 µg/mL	+/- 18.5743
14	2,2'-oxybis(1-chloropropane)	108-60-1	2-KMW-57-8	99%	1,005.3 µg/mL	+/- 18.5730
15	Acetophenone	98-86-2	STBH8205	99%	1,005.4 µg/mL	+/- 18.5755
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.3 µg/mL	+/- 9.2831

17	4-Methylphenol (p-cresol)	106-44-5	SHBN1151	99%	502.7	µg/mL	+/- 9.2893
18	N-Nitroso-di-n-propylamine	621-64-7	2D5VJ	99%	1,005.1	µg/mL	+/- 18.5706
19	Hexachloroethane	67-72-1	QTORH	99%	1,004.9	µg/mL	+/- 18.5656
20	Nitrobenzene	98-95-3	10224044	99%	1,004.9	µg/mL	+/- 18.5656
21	Isophorone	78-59-1	MKCC9506	99%	1,005.1	µg/mL	+/- 18.5706
22	2-Nitrophenol	88-75-5	BCCB2407	99%	1,004.9	µg/mL	+/- 18.5669
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,005.2	µg/mL	+/- 18.5718
24	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,004.9	µg/mL	+/- 18.5669
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,005.4	µg/mL	+/- 18.5755
26	1,2,4-Trichlorobenzene	120-82-1	SHBM0526	99%	1,005.2	µg/mL	+/- 18.5718
27	Naphthalene	91-20-3	MKCH0219	99%	1,004.7	µg/mL	+/- 18.5619
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,005.0	µg/mL	+/- 18.5681
29	4-Chloroaniline	106-47-8	H24K	99%	1,004.9	µg/mL	+/- 18.5669
30	Hexachlorobutadiene	87-68-3	664800	99%	1,004.9	µg/mL	+/- 18.5669
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.9	µg/mL	+/- 18.5656
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,005.0	µg/mL	+/- 18.5680
33	1-Methylnaphthalene	90-12-0	5234.00-3	99%	1,005.1	µg/mL	+/- 18.5706
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCS1444	99%	1,005.2	µg/mL	+/- 18.5718
35	Hexachlorocyclopentadiene	77-47-4	0012019	99%	1,005.2	µg/mL	+/- 18.5718
36	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.9	µg/mL	+/- 18.5656
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,005.1	µg/mL	+/- 18.5697
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.9	µg/mL	+/- 18.5669
39	Biphenyl	92-52-4	MKCJ6240	99%	1,005.3	µg/mL	+/- 18.5743
40	2-Nitroaniline	88-74-4	MKCK7278	99%	1,005.0	µg/mL	+/- 18.5681
41	Acenaphthylene	208-96-8	U25W	96%	1,005.0	µg/mL	+/- 18.5680
42	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,005.3	µg/mL	+/- 18.5743
43	Dimethylphthalate	131-11-3	10117699	99%	1,005.1	µg/mL	+/- 18.5706
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.0	µg/mL	+/- 18.5681
45	3-Nitroaniline	99-09-2	MKCH5457	99%	1,005.1	µg/mL	+/- 18.5706
46	Acenaphthene	83-32-9	MKCR7169	99%	1,004.7	µg/mL	+/- 18.5619
47	2,4-Dinitrophenol	51-28-5	DR221221RSR	99%	2,010.0	µg/mL	+/- 37.1362
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.3	µg/mL	+/- 18.5743
49	4-Nitrophenol	100-02-7	MKCN1089	99%	2,009.8	µg/mL	+/- 37.1325
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,005.2	µg/mL	+/- 18.5718
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,004.8	µg/mL	+/- 18.5644
52	Fluorene	86-73-7	10217947	99%	1,005.3	µg/mL	+/- 18.5743

53	n-Hexadecane (C16)	544-76-3	SHBQ0897	99%	1,004.9	µg/mL	+/- 18.5669
54	Diethylphthalate	84-66-2	BCCD3396	99%	1,005.2	µg/mL	+/- 18.5718
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCQ0984	99%	1,005.1	µg/mL	+/- 18.5693
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.0	µg/mL	+/- 18.5681
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	221221JIM	99%	2,010.3	µg/mL	+/- 37.1411
58	Diphenylamine	122-39-4	MKCH1042	99%	854.3	µg/mL	+/- 15.7844
59	Azobenzene	103-33-3	BCCC9136	99%	1,004.9	µg/mL	+/- 18.5656
60	4-Bromophenyl phenyl ether	101-55-3	STBB9729V	99%	1,004.8	µg/mL	+/- 18.5644
61	Hexachlorobenzene	118-74-1	13994200	99%	1,004.9	µg/mL	+/- 18.5669
62	Pentachlorophenol	87-86-5	RP221012	99%	2,010.1	µg/mL	+/- 37.1374
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,005.0	µg/mL	+/- 18.5685
64	Phenanthrene	85-01-8	MKCQ2033	99%	1,004.9	µg/mL	+/- 18.5669
65	Anthracene	120-12-7	MKCP3968	99%	1,005.4	µg/mL	+/- 18.5755
66	Carbazole	86-74-8	13058900	99%	1,005.1	µg/mL	+/- 18.5693
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.3	µg/mL	+/- 18.5730
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,005.1	µg/mL	+/- 18.5693
69	Pyrene	129-00-0	BCCG7845	99%	1,005.1	µg/mL	+/- 18.5706
70	Benzyl butyl phthalate	85-68-7	MKCN9008	99%	1,005.1	µg/mL	+/- 18.5693
71	Benz(a)anthracene	56-55-3	0012022BAA	99%	1,005.1	µg/mL	+/- 18.5706
72	Chrysene	218-01-9	468677R25M	99%	1,004.9	µg/mL	+/- 18.5669
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,005.0	µg/mL	+/- 18.5681
74	Di-n-octyl phthalate	117-84-0	13651900	99%	1,005.3	µg/mL	+/- 18.5743
75	Benzo(b)fluoranthene	205-99-2	012022B	99%	1,004.9	µg/mL	+/- 18.5669
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.1	µg/mL	+/- 18.5693
77	Benzo(a)pyrene	50-32-8	J6IUE	99%	1,005.1	µg/mL	+/- 18.5706
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	99%	1,005.3	µg/mL	+/- 18.5730
79	Dibenz(a,h)anthracene	53-70-3	ER032211-01	99%	1,005.1	µg/mL	+/- 18.5706
80	Benzo(g,h,i)perylene	191-24-2	PMEVE	98%	1,005.2	µg/mL	+/- 18.5721

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

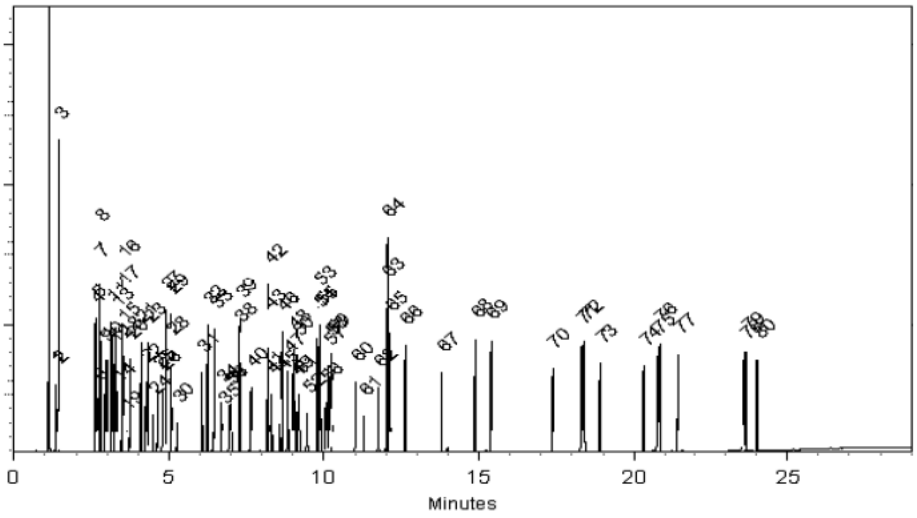
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min

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.

[redacted]

Date Mixed: 10-Mar-2023 **Balance Serial #** B442140311

[redacted]
Christie Mills - Operations Tech II - 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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

571995_00172

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 571995 **Lot No.:** A0195772

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	1,005.4 µg/mL	+/- 18.5755
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.2 µg/mL	+/- 18.5718
3	Pyridine	110-86-1	SHBN7324	99%	2,010.1 µg/mL	+/- 37.1374
4	Phenol	108-95-2	MKCK1120	99%	1,005.1 µg/mL	+/- 18.5706
5	Aniline	62-53-3	X22F726	99%	1,005.2 µg/mL	+/- 18.5718
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,005.0 µg/mL	+/- 18.5681
7	n-Decane (C10)	124-18-5	SHBN8619	99%	1,004.9 µg/mL	+/- 18.5669
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.1 µg/mL	+/- 18.5706
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.9 µg/mL	+/- 18.5669
10	1,4-Dichlorobenzene	106-46-7	MKBS4401V	99%	1,005.1 µg/mL	+/- 18.5706
11	Benzyl alcohol	100-51-6	SHBK5943	99%	1,004.9 µg/mL	+/- 18.5669
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,005.1 µg/mL	+/- 18.5706
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.3 µg/mL	+/- 18.5743
14	2,2'-oxybis(1-chloropropane)	108-60-1	2-KMW-57-8	99%	1,005.3 µg/mL	+/- 18.5730
15	Acetophenone	98-86-2	STBH8205	99%	1,005.4 µg/mL	+/- 18.5755
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.3 µg/mL	+/- 9.2831

17	4-Methylphenol (p-cresol)	106-44-5	SHBN1151	99%	502.7	µg/mL	+/- 9.2893
18	N-Nitroso-di-n-propylamine	621-64-7	2D5VJ	99%	1,005.1	µg/mL	+/- 18.5706
19	Hexachloroethane	67-72-1	QTORH	99%	1,004.9	µg/mL	+/- 18.5656
20	Nitrobenzene	98-95-3	10224044	99%	1,004.9	µg/mL	+/- 18.5656
21	Isophorone	78-59-1	MKCC9506	99%	1,005.1	µg/mL	+/- 18.5706
22	2-Nitrophenol	88-75-5	BCCB2407	99%	1,004.9	µg/mL	+/- 18.5669
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,005.2	µg/mL	+/- 18.5718
24	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,004.9	µg/mL	+/- 18.5669
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,005.4	µg/mL	+/- 18.5755
26	1,2,4-Trichlorobenzene	120-82-1	SHBM0526	99%	1,005.2	µg/mL	+/- 18.5718
27	Naphthalene	91-20-3	MKCH0219	99%	1,004.7	µg/mL	+/- 18.5619
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,005.0	µg/mL	+/- 18.5681
29	4-Chloroaniline	106-47-8	H24K	99%	1,004.9	µg/mL	+/- 18.5669
30	Hexachlorobutadiene	87-68-3	664800	99%	1,004.9	µg/mL	+/- 18.5669
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.9	µg/mL	+/- 18.5656
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,005.0	µg/mL	+/- 18.5680
33	1-Methylnaphthalene	90-12-0	5234.00-3	99%	1,005.1	µg/mL	+/- 18.5706
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCS1444	99%	1,005.2	µg/mL	+/- 18.5718
35	Hexachlorocyclopentadiene	77-47-4	0012019	99%	1,005.2	µg/mL	+/- 18.5718
36	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.9	µg/mL	+/- 18.5656
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,005.1	µg/mL	+/- 18.5697
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.9	µg/mL	+/- 18.5669
39	Biphenyl	92-52-4	MKCJ6240	99%	1,005.3	µg/mL	+/- 18.5743
40	2-Nitroaniline	88-74-4	MKCK7278	99%	1,005.0	µg/mL	+/- 18.5681
41	Acenaphthylene	208-96-8	U25W	96%	1,005.0	µg/mL	+/- 18.5680
42	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,005.3	µg/mL	+/- 18.5743
43	Dimethylphthalate	131-11-3	10117699	99%	1,005.1	µg/mL	+/- 18.5706
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.0	µg/mL	+/- 18.5681
45	3-Nitroaniline	99-09-2	MKCH5457	99%	1,005.1	µg/mL	+/- 18.5706
46	Acenaphthene	83-32-9	MKCR7169	99%	1,004.7	µg/mL	+/- 18.5619
47	2,4-Dinitrophenol	51-28-5	DR221221RSR	99%	2,010.0	µg/mL	+/- 37.1362
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.3	µg/mL	+/- 18.5743
49	4-Nitrophenol	100-02-7	MKCN1089	99%	2,009.8	µg/mL	+/- 37.1325
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,005.2	µg/mL	+/- 18.5718
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,004.8	µg/mL	+/- 18.5644
52	Fluorene	86-73-7	10217947	99%	1,005.3	µg/mL	+/- 18.5743

53	n-Hexadecane (C16)	544-76-3	SHBQ0897	99%	1,004.9	µg/mL	+/- 18.5669
54	Diethylphthalate	84-66-2	BCCD3396	99%	1,005.2	µg/mL	+/- 18.5718
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCQ0984	99%	1,005.1	µg/mL	+/- 18.5693
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.0	µg/mL	+/- 18.5681
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	221221JIM	99%	2,010.3	µg/mL	+/- 37.1411
58	Diphenylamine	122-39-4	MKCH1042	99%	854.3	µg/mL	+/- 15.7844
59	Azobenzene	103-33-3	BCCC9136	99%	1,004.9	µg/mL	+/- 18.5656
60	4-Bromophenyl phenyl ether	101-55-3	STBB9729V	99%	1,004.8	µg/mL	+/- 18.5644
61	Hexachlorobenzene	118-74-1	13994200	99%	1,004.9	µg/mL	+/- 18.5669
62	Pentachlorophenol	87-86-5	RP221012	99%	2,010.1	µg/mL	+/- 37.1374
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,005.0	µg/mL	+/- 18.5685
64	Phenanthrene	85-01-8	MKCQ2033	99%	1,004.9	µg/mL	+/- 18.5669
65	Anthracene	120-12-7	MKCP3968	99%	1,005.4	µg/mL	+/- 18.5755
66	Carbazole	86-74-8	13058900	99%	1,005.1	µg/mL	+/- 18.5693
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.3	µg/mL	+/- 18.5730
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,005.1	µg/mL	+/- 18.5693
69	Pyrene	129-00-0	BCCG7845	99%	1,005.1	µg/mL	+/- 18.5706
70	Benzyl butyl phthalate	85-68-7	MKCN9008	99%	1,005.1	µg/mL	+/- 18.5693
71	Benz(a)anthracene	56-55-3	0012022BAA	99%	1,005.1	µg/mL	+/- 18.5706
72	Chrysene	218-01-9	468677R25M	99%	1,004.9	µg/mL	+/- 18.5669
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,005.0	µg/mL	+/- 18.5681
74	Di-n-octyl phthalate	117-84-0	13651900	99%	1,005.3	µg/mL	+/- 18.5743
75	Benzo(b)fluoranthene	205-99-2	012022B	99%	1,004.9	µg/mL	+/- 18.5669
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.1	µg/mL	+/- 18.5693
77	Benzo(a)pyrene	50-32-8	J6IUE	99%	1,005.1	µg/mL	+/- 18.5706
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	99%	1,005.3	µg/mL	+/- 18.5730
79	Dibenz(a,h)anthracene	53-70-3	ER032211-01	99%	1,005.1	µg/mL	+/- 18.5706
80	Benzo(g,h,i)perylene	191-24-2	PMEVE	98%	1,005.2	µg/mL	+/- 18.5721

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

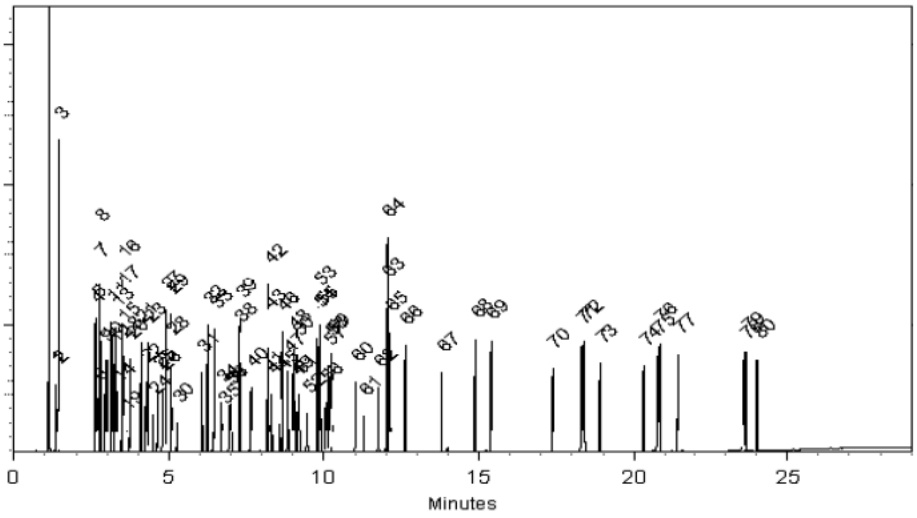
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min

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.

[redacted]

Date Mixed: 10-Mar-2023 **Balance Serial #** B442140311

[redacted]
Christie Mills - Operations Tech II - 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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

571995_00173

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 571995 **Lot No.:** A0195772

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	1,005.4 µg/mL	+/- 18.5755
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.2 µg/mL	+/- 18.5718
3	Pyridine	110-86-1	SHBN7324	99%	2,010.1 µg/mL	+/- 37.1374
4	Phenol	108-95-2	MKCK1120	99%	1,005.1 µg/mL	+/- 18.5706
5	Aniline	62-53-3	X22F726	99%	1,005.2 µg/mL	+/- 18.5718
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,005.0 µg/mL	+/- 18.5681
7	n-Decane (C10)	124-18-5	SHBN8619	99%	1,004.9 µg/mL	+/- 18.5669
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.1 µg/mL	+/- 18.5706
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.9 µg/mL	+/- 18.5669
10	1,4-Dichlorobenzene	106-46-7	MKBS4401V	99%	1,005.1 µg/mL	+/- 18.5706
11	Benzyl alcohol	100-51-6	SHBK5943	99%	1,004.9 µg/mL	+/- 18.5669
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,005.1 µg/mL	+/- 18.5706
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.3 µg/mL	+/- 18.5743
14	2,2'-oxybis(1-chloropropane)	108-60-1	2-KMW-57-8	99%	1,005.3 µg/mL	+/- 18.5730
15	Acetophenone	98-86-2	STBH8205	99%	1,005.4 µg/mL	+/- 18.5755
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.3 µg/mL	+/- 9.2831

17	4-Methylphenol (p-cresol)	106-44-5	SHBN1151	99%	502.7	µg/mL	+/- 9.2893
18	N-Nitroso-di-n-propylamine	621-64-7	2D5VJ	99%	1,005.1	µg/mL	+/- 18.5706
19	Hexachloroethane	67-72-1	QTORH	99%	1,004.9	µg/mL	+/- 18.5656
20	Nitrobenzene	98-95-3	10224044	99%	1,004.9	µg/mL	+/- 18.5656
21	Isophorone	78-59-1	MKCC9506	99%	1,005.1	µg/mL	+/- 18.5706
22	2-Nitrophenol	88-75-5	BCCB2407	99%	1,004.9	µg/mL	+/- 18.5669
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,005.2	µg/mL	+/- 18.5718
24	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,004.9	µg/mL	+/- 18.5669
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,005.4	µg/mL	+/- 18.5755
26	1,2,4-Trichlorobenzene	120-82-1	SHBM0526	99%	1,005.2	µg/mL	+/- 18.5718
27	Naphthalene	91-20-3	MKCH0219	99%	1,004.7	µg/mL	+/- 18.5619
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,005.0	µg/mL	+/- 18.5681
29	4-Chloroaniline	106-47-8	H24K	99%	1,004.9	µg/mL	+/- 18.5669
30	Hexachlorobutadiene	87-68-3	664800	99%	1,004.9	µg/mL	+/- 18.5669
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.9	µg/mL	+/- 18.5656
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,005.0	µg/mL	+/- 18.5680
33	1-Methylnaphthalene	90-12-0	5234.00-3	99%	1,005.1	µg/mL	+/- 18.5706
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCS1444	99%	1,005.2	µg/mL	+/- 18.5718
35	Hexachlorocyclopentadiene	77-47-4	0012019	99%	1,005.2	µg/mL	+/- 18.5718
36	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.9	µg/mL	+/- 18.5656
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,005.1	µg/mL	+/- 18.5697
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.9	µg/mL	+/- 18.5669
39	Biphenyl	92-52-4	MKCJ6240	99%	1,005.3	µg/mL	+/- 18.5743
40	2-Nitroaniline	88-74-4	MKCK7278	99%	1,005.0	µg/mL	+/- 18.5681
41	Acenaphthylene	208-96-8	U25W	96%	1,005.0	µg/mL	+/- 18.5680
42	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,005.3	µg/mL	+/- 18.5743
43	Dimethylphthalate	131-11-3	10117699	99%	1,005.1	µg/mL	+/- 18.5706
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.0	µg/mL	+/- 18.5681
45	3-Nitroaniline	99-09-2	MKCH5457	99%	1,005.1	µg/mL	+/- 18.5706
46	Acenaphthene	83-32-9	MKCR7169	99%	1,004.7	µg/mL	+/- 18.5619
47	2,4-Dinitrophenol	51-28-5	DR221221RSR	99%	2,010.0	µg/mL	+/- 37.1362
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.3	µg/mL	+/- 18.5743
49	4-Nitrophenol	100-02-7	MKCN1089	99%	2,009.8	µg/mL	+/- 37.1325
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,005.2	µg/mL	+/- 18.5718
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,004.8	µg/mL	+/- 18.5644
52	Fluorene	86-73-7	10217947	99%	1,005.3	µg/mL	+/- 18.5743

53	n-Hexadecane (C16)	544-76-3	SHBQ0897	99%	1,004.9	µg/mL	+/- 18.5669
54	Diethylphthalate	84-66-2	BCCD3396	99%	1,005.2	µg/mL	+/- 18.5718
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCQ0984	99%	1,005.1	µg/mL	+/- 18.5693
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.0	µg/mL	+/- 18.5681
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	221221JIM	99%	2,010.3	µg/mL	+/- 37.1411
58	Diphenylamine	122-39-4	MKCH1042	99%	854.3	µg/mL	+/- 15.7844
59	Azobenzene	103-33-3	BCCC9136	99%	1,004.9	µg/mL	+/- 18.5656
60	4-Bromophenyl phenyl ether	101-55-3	STBB9729V	99%	1,004.8	µg/mL	+/- 18.5644
61	Hexachlorobenzene	118-74-1	13994200	99%	1,004.9	µg/mL	+/- 18.5669
62	Pentachlorophenol	87-86-5	RP221012	99%	2,010.1	µg/mL	+/- 37.1374
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,005.0	µg/mL	+/- 18.5685
64	Phenanthrene	85-01-8	MKCQ2033	99%	1,004.9	µg/mL	+/- 18.5669
65	Anthracene	120-12-7	MKCP3968	99%	1,005.4	µg/mL	+/- 18.5755
66	Carbazole	86-74-8	13058900	99%	1,005.1	µg/mL	+/- 18.5693
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.3	µg/mL	+/- 18.5730
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,005.1	µg/mL	+/- 18.5693
69	Pyrene	129-00-0	BCCG7845	99%	1,005.1	µg/mL	+/- 18.5706
70	Benzyl butyl phthalate	85-68-7	MKCN9008	99%	1,005.1	µg/mL	+/- 18.5693
71	Benz(a)anthracene	56-55-3	0012022BAA	99%	1,005.1	µg/mL	+/- 18.5706
72	Chrysene	218-01-9	468677R25M	99%	1,004.9	µg/mL	+/- 18.5669
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,005.0	µg/mL	+/- 18.5681
74	Di-n-octyl phthalate	117-84-0	13651900	99%	1,005.3	µg/mL	+/- 18.5743
75	Benzo(b)fluoranthene	205-99-2	012022B	99%	1,004.9	µg/mL	+/- 18.5669
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.1	µg/mL	+/- 18.5693
77	Benzo(a)pyrene	50-32-8	J6IUE	99%	1,005.1	µg/mL	+/- 18.5706
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	99%	1,005.3	µg/mL	+/- 18.5730
79	Dibenz(a,h)anthracene	53-70-3	ER032211-01	99%	1,005.1	µg/mL	+/- 18.5706
80	Benzo(g,h,i)perylene	191-24-2	PMEVE	98%	1,005.2	µg/mL	+/- 18.5721

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

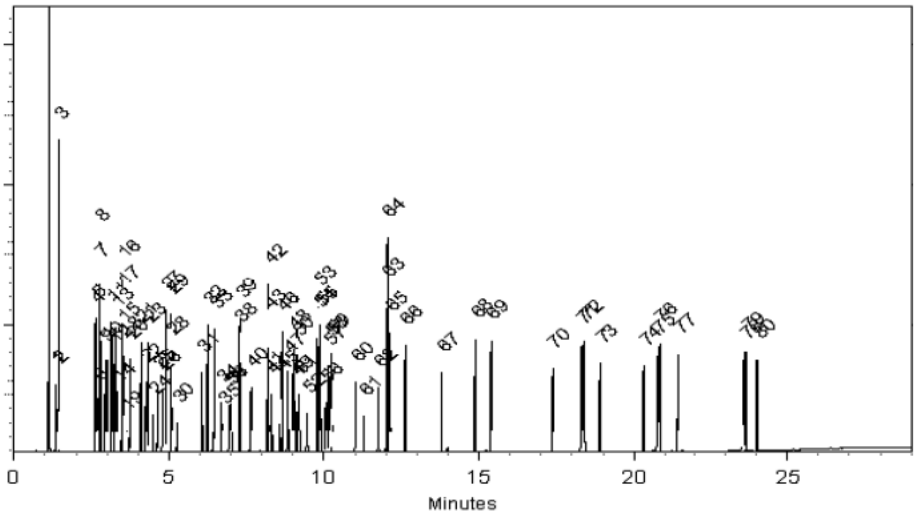
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min

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.

[redacted]
Nick Yaw - Operations Tech I

Date Mixed: 10-Mar-2023 **Balance Serial #** B442140311

[redacted]
Christie Mills - Operations Tech II - 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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

571995_00174

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 571995 **Lot No.:** A0195772

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	1,005.4 µg/mL	+/- 18.5755
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.2 µg/mL	+/- 18.5718
3	Pyridine	110-86-1	SHBN7324	99%	2,010.1 µg/mL	+/- 37.1374
4	Phenol	108-95-2	MKCK1120	99%	1,005.1 µg/mL	+/- 18.5706
5	Aniline	62-53-3	X22F726	99%	1,005.2 µg/mL	+/- 18.5718
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,005.0 µg/mL	+/- 18.5681
7	n-Decane (C10)	124-18-5	SHBN8619	99%	1,004.9 µg/mL	+/- 18.5669
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.1 µg/mL	+/- 18.5706
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.9 µg/mL	+/- 18.5669
10	1,4-Dichlorobenzene	106-46-7	MKBS4401V	99%	1,005.1 µg/mL	+/- 18.5706
11	Benzyl alcohol	100-51-6	SHBK5943	99%	1,004.9 µg/mL	+/- 18.5669
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,005.1 µg/mL	+/- 18.5706
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.3 µg/mL	+/- 18.5743
14	2,2'-oxybis(1-chloropropane)	108-60-1	2-KMW-57-8	99%	1,005.3 µg/mL	+/- 18.5730
15	Acetophenone	98-86-2	STBH8205	99%	1,005.4 µg/mL	+/- 18.5755
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.3 µg/mL	+/- 9.2831

17	4-Methylphenol (p-cresol)	106-44-5	SHBN1151	99%	502.7	µg/mL	+/- 9.2893
18	N-Nitroso-di-n-propylamine	621-64-7	2D5VJ	99%	1,005.1	µg/mL	+/- 18.5706
19	Hexachloroethane	67-72-1	QTORH	99%	1,004.9	µg/mL	+/- 18.5656
20	Nitrobenzene	98-95-3	10224044	99%	1,004.9	µg/mL	+/- 18.5656
21	Isophorone	78-59-1	MKCC9506	99%	1,005.1	µg/mL	+/- 18.5706
22	2-Nitrophenol	88-75-5	BCCB2407	99%	1,004.9	µg/mL	+/- 18.5669
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,005.2	µg/mL	+/- 18.5718
24	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,004.9	µg/mL	+/- 18.5669
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,005.4	µg/mL	+/- 18.5755
26	1,2,4-Trichlorobenzene	120-82-1	SHBM0526	99%	1,005.2	µg/mL	+/- 18.5718
27	Naphthalene	91-20-3	MKCH0219	99%	1,004.7	µg/mL	+/- 18.5619
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,005.0	µg/mL	+/- 18.5681
29	4-Chloroaniline	106-47-8	H24K	99%	1,004.9	µg/mL	+/- 18.5669
30	Hexachlorobutadiene	87-68-3	664800	99%	1,004.9	µg/mL	+/- 18.5669
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.9	µg/mL	+/- 18.5656
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,005.0	µg/mL	+/- 18.5680
33	1-Methylnaphthalene	90-12-0	5234.00-3	99%	1,005.1	µg/mL	+/- 18.5706
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCS1444	99%	1,005.2	µg/mL	+/- 18.5718
35	Hexachlorocyclopentadiene	77-47-4	0012019	99%	1,005.2	µg/mL	+/- 18.5718
36	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.9	µg/mL	+/- 18.5656
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,005.1	µg/mL	+/- 18.5697
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.9	µg/mL	+/- 18.5669
39	Biphenyl	92-52-4	MKCJ6240	99%	1,005.3	µg/mL	+/- 18.5743
40	2-Nitroaniline	88-74-4	MKCK7278	99%	1,005.0	µg/mL	+/- 18.5681
41	Acenaphthylene	208-96-8	U25W	96%	1,005.0	µg/mL	+/- 18.5680
42	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,005.3	µg/mL	+/- 18.5743
43	Dimethylphthalate	131-11-3	10117699	99%	1,005.1	µg/mL	+/- 18.5706
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.0	µg/mL	+/- 18.5681
45	3-Nitroaniline	99-09-2	MKCH5457	99%	1,005.1	µg/mL	+/- 18.5706
46	Acenaphthene	83-32-9	MKCR7169	99%	1,004.7	µg/mL	+/- 18.5619
47	2,4-Dinitrophenol	51-28-5	DR221221RSR	99%	2,010.0	µg/mL	+/- 37.1362
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.3	µg/mL	+/- 18.5743
49	4-Nitrophenol	100-02-7	MKCN1089	99%	2,009.8	µg/mL	+/- 37.1325
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,005.2	µg/mL	+/- 18.5718
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,004.8	µg/mL	+/- 18.5644
52	Fluorene	86-73-7	10217947	99%	1,005.3	µg/mL	+/- 18.5743

53	n-Hexadecane (C16)	544-76-3	SHBQ0897	99%	1,004.9	µg/mL	+/- 18.5669
54	Diethylphthalate	84-66-2	BCCD3396	99%	1,005.2	µg/mL	+/- 18.5718
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCQ0984	99%	1,005.1	µg/mL	+/- 18.5693
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.0	µg/mL	+/- 18.5681
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	221221JIM	99%	2,010.3	µg/mL	+/- 37.1411
58	Diphenylamine	122-39-4	MKCH1042	99%	854.3	µg/mL	+/- 15.7844
59	Azobenzene	103-33-3	BCCC9136	99%	1,004.9	µg/mL	+/- 18.5656
60	4-Bromophenyl phenyl ether	101-55-3	STBB9729V	99%	1,004.8	µg/mL	+/- 18.5644
61	Hexachlorobenzene	118-74-1	13994200	99%	1,004.9	µg/mL	+/- 18.5669
62	Pentachlorophenol	87-86-5	RP221012	99%	2,010.1	µg/mL	+/- 37.1374
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,005.0	µg/mL	+/- 18.5685
64	Phenanthrene	85-01-8	MKCQ2033	99%	1,004.9	µg/mL	+/- 18.5669
65	Anthracene	120-12-7	MKCP3968	99%	1,005.4	µg/mL	+/- 18.5755
66	Carbazole	86-74-8	13058900	99%	1,005.1	µg/mL	+/- 18.5693
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.3	µg/mL	+/- 18.5730
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,005.1	µg/mL	+/- 18.5693
69	Pyrene	129-00-0	BCCG7845	99%	1,005.1	µg/mL	+/- 18.5706
70	Benzyl butyl phthalate	85-68-7	MKCN9008	99%	1,005.1	µg/mL	+/- 18.5693
71	Benz(a)anthracene	56-55-3	0012022BAA	99%	1,005.1	µg/mL	+/- 18.5706
72	Chrysene	218-01-9	468677R25M	99%	1,004.9	µg/mL	+/- 18.5669
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,005.0	µg/mL	+/- 18.5681
74	Di-n-octyl phthalate	117-84-0	13651900	99%	1,005.3	µg/mL	+/- 18.5743
75	Benzo(b)fluoranthene	205-99-2	012022B	99%	1,004.9	µg/mL	+/- 18.5669
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.1	µg/mL	+/- 18.5693
77	Benzo(a)pyrene	50-32-8	J6IUE	99%	1,005.1	µg/mL	+/- 18.5706
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	99%	1,005.3	µg/mL	+/- 18.5730
79	Dibenz(a,h)anthracene	53-70-3	ER032211-01	99%	1,005.1	µg/mL	+/- 18.5706
80	Benzo(g,h,i)perylene	191-24-2	PMEVE	98%	1,005.2	µg/mL	+/- 18.5721

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

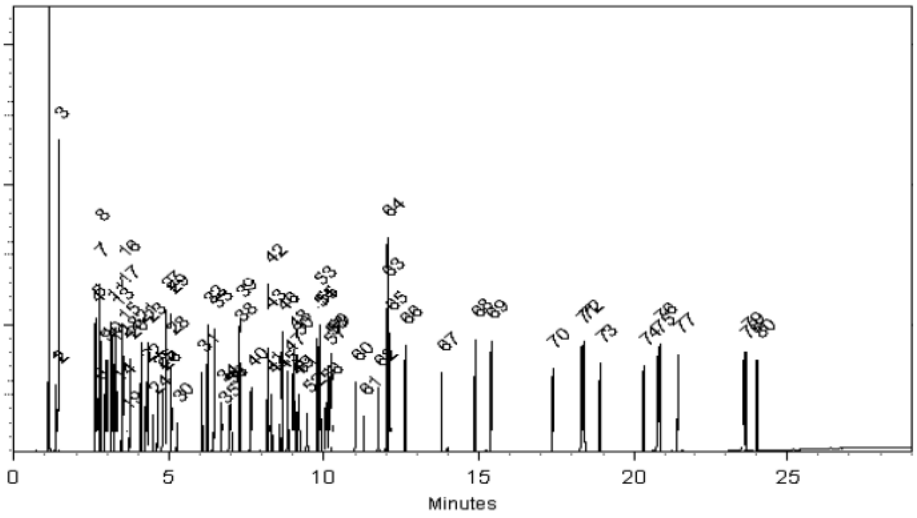
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min

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.

[redacted]
Nick Yaw - Operations Tech I

Date Mixed: 10-Mar-2023 **Balance Serial #** B442140311

[redacted]
Christie Mills - Operations Tech II - 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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

571995_00178

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 571995 **Lot No.:** A0195772

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	1,005.4 µg/mL	+/- 18.5755
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.2 µg/mL	+/- 18.5718
3	Pyridine	110-86-1	SHBN7324	99%	2,010.1 µg/mL	+/- 37.1374
4	Phenol	108-95-2	MKCK1120	99%	1,005.1 µg/mL	+/- 18.5706
5	Aniline	62-53-3	X22F726	99%	1,005.2 µg/mL	+/- 18.5718
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,005.0 µg/mL	+/- 18.5681
7	n-Decane (C10)	124-18-5	SHBN8619	99%	1,004.9 µg/mL	+/- 18.5669
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.1 µg/mL	+/- 18.5706
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.9 µg/mL	+/- 18.5669
10	1,4-Dichlorobenzene	106-46-7	MKBS4401V	99%	1,005.1 µg/mL	+/- 18.5706
11	Benzyl alcohol	100-51-6	SHBK5943	99%	1,004.9 µg/mL	+/- 18.5669
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,005.1 µg/mL	+/- 18.5706
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.3 µg/mL	+/- 18.5743
14	2,2'-oxybis(1-chloropropane)	108-60-1	2-KMW-57-8	99%	1,005.3 µg/mL	+/- 18.5730
15	Acetophenone	98-86-2	STBH8205	99%	1,005.4 µg/mL	+/- 18.5755
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.3 µg/mL	+/- 9.2831

17	4-Methylphenol (p-cresol)	106-44-5	SHBN1151	99%	502.7	µg/mL	+/- 9.2893
18	N-Nitroso-di-n-propylamine	621-64-7	2D5VJ	99%	1,005.1	µg/mL	+/- 18.5706
19	Hexachloroethane	67-72-1	QTORH	99%	1,004.9	µg/mL	+/- 18.5656
20	Nitrobenzene	98-95-3	10224044	99%	1,004.9	µg/mL	+/- 18.5656
21	Isophorone	78-59-1	MKCC9506	99%	1,005.1	µg/mL	+/- 18.5706
22	2-Nitrophenol	88-75-5	BCCB2407	99%	1,004.9	µg/mL	+/- 18.5669
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,005.2	µg/mL	+/- 18.5718
24	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,004.9	µg/mL	+/- 18.5669
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,005.4	µg/mL	+/- 18.5755
26	1,2,4-Trichlorobenzene	120-82-1	SHBM0526	99%	1,005.2	µg/mL	+/- 18.5718
27	Naphthalene	91-20-3	MKCH0219	99%	1,004.7	µg/mL	+/- 18.5619
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,005.0	µg/mL	+/- 18.5681
29	4-Chloroaniline	106-47-8	H24K	99%	1,004.9	µg/mL	+/- 18.5669
30	Hexachlorobutadiene	87-68-3	664800	99%	1,004.9	µg/mL	+/- 18.5669
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.9	µg/mL	+/- 18.5656
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,005.0	µg/mL	+/- 18.5680
33	1-Methylnaphthalene	90-12-0	5234.00-3	99%	1,005.1	µg/mL	+/- 18.5706
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCS1444	99%	1,005.2	µg/mL	+/- 18.5718
35	Hexachlorocyclopentadiene	77-47-4	0012019	99%	1,005.2	µg/mL	+/- 18.5718
36	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.9	µg/mL	+/- 18.5656
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,005.1	µg/mL	+/- 18.5697
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.9	µg/mL	+/- 18.5669
39	Biphenyl	92-52-4	MKCJ6240	99%	1,005.3	µg/mL	+/- 18.5743
40	2-Nitroaniline	88-74-4	MKCK7278	99%	1,005.0	µg/mL	+/- 18.5681
41	Acenaphthylene	208-96-8	U25W	96%	1,005.0	µg/mL	+/- 18.5680
42	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,005.3	µg/mL	+/- 18.5743
43	Dimethylphthalate	131-11-3	10117699	99%	1,005.1	µg/mL	+/- 18.5706
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.0	µg/mL	+/- 18.5681
45	3-Nitroaniline	99-09-2	MKCH5457	99%	1,005.1	µg/mL	+/- 18.5706
46	Acenaphthene	83-32-9	MKCR7169	99%	1,004.7	µg/mL	+/- 18.5619
47	2,4-Dinitrophenol	51-28-5	DR221221RSR	99%	2,010.0	µg/mL	+/- 37.1362
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.3	µg/mL	+/- 18.5743
49	4-Nitrophenol	100-02-7	MKCN1089	99%	2,009.8	µg/mL	+/- 37.1325
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,005.2	µg/mL	+/- 18.5718
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,004.8	µg/mL	+/- 18.5644
52	Fluorene	86-73-7	10217947	99%	1,005.3	µg/mL	+/- 18.5743

53	n-Hexadecane (C16)	544-76-3	SHBQ0897	99%	1,004.9	µg/mL	+/- 18.5669
54	Diethylphthalate	84-66-2	BCCD3396	99%	1,005.2	µg/mL	+/- 18.5718
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCQ0984	99%	1,005.1	µg/mL	+/- 18.5693
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.0	µg/mL	+/- 18.5681
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	221221JIM	99%	2,010.3	µg/mL	+/- 37.1411
58	Diphenylamine	122-39-4	MKCH1042	99%	854.3	µg/mL	+/- 15.7844
59	Azobenzene	103-33-3	BCCC9136	99%	1,004.9	µg/mL	+/- 18.5656
60	4-Bromophenyl phenyl ether	101-55-3	STBB9729V	99%	1,004.8	µg/mL	+/- 18.5644
61	Hexachlorobenzene	118-74-1	13994200	99%	1,004.9	µg/mL	+/- 18.5669
62	Pentachlorophenol	87-86-5	RP221012	99%	2,010.1	µg/mL	+/- 37.1374
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,005.0	µg/mL	+/- 18.5685
64	Phenanthrene	85-01-8	MKCQ2033	99%	1,004.9	µg/mL	+/- 18.5669
65	Anthracene	120-12-7	MKCP3968	99%	1,005.4	µg/mL	+/- 18.5755
66	Carbazole	86-74-8	13058900	99%	1,005.1	µg/mL	+/- 18.5693
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.3	µg/mL	+/- 18.5730
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,005.1	µg/mL	+/- 18.5693
69	Pyrene	129-00-0	BCCG7845	99%	1,005.1	µg/mL	+/- 18.5706
70	Benzyl butyl phthalate	85-68-7	MKCN9008	99%	1,005.1	µg/mL	+/- 18.5693
71	Benz(a)anthracene	56-55-3	0012022BAA	99%	1,005.1	µg/mL	+/- 18.5706
72	Chrysene	218-01-9	468677R25M	99%	1,004.9	µg/mL	+/- 18.5669
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,005.0	µg/mL	+/- 18.5681
74	Di-n-octyl phthalate	117-84-0	13651900	99%	1,005.3	µg/mL	+/- 18.5743
75	Benzo(b)fluoranthene	205-99-2	012022B	99%	1,004.9	µg/mL	+/- 18.5669
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.1	µg/mL	+/- 18.5693
77	Benzo(a)pyrene	50-32-8	J6IUE	99%	1,005.1	µg/mL	+/- 18.5706
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	99%	1,005.3	µg/mL	+/- 18.5730
79	Dibenz(a,h)anthracene	53-70-3	ER032211-01	99%	1,005.1	µg/mL	+/- 18.5706
80	Benzo(g,h,i)perylene	191-24-2	PMEVE	98%	1,005.2	µg/mL	+/- 18.5721

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

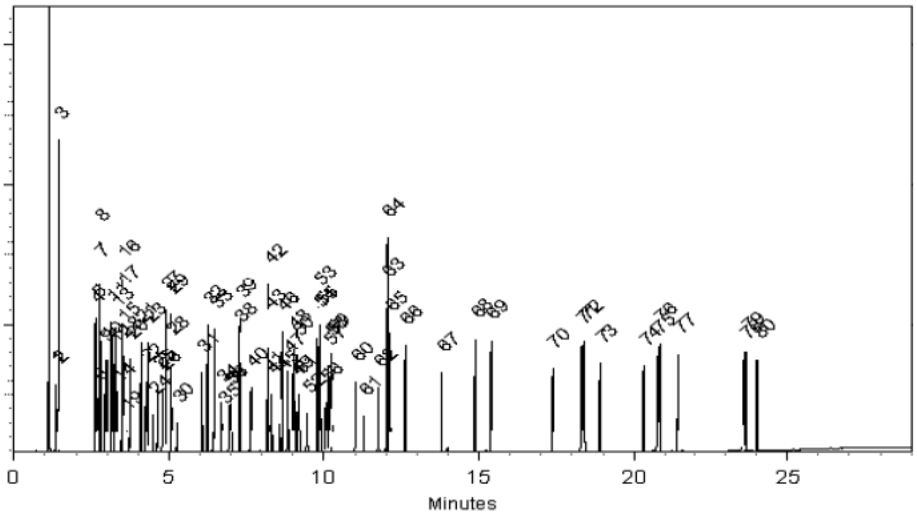
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min

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.

[redacted]
Nick Yaw - Operations Tech I

Date Mixed: 10-Mar-2023 **Balance Serial #** B442140311

[redacted]
Christie Mills - Operations Tech II - 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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

571995_00179

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 571995 **Lot No.:** A0195772

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	1,005.4 µg/mL	+/- 18.5755
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.2 µg/mL	+/- 18.5718
3	Pyridine	110-86-1	SHBN7324	99%	2,010.1 µg/mL	+/- 37.1374
4	Phenol	108-95-2	MKCK1120	99%	1,005.1 µg/mL	+/- 18.5706
5	Aniline	62-53-3	X22F726	99%	1,005.2 µg/mL	+/- 18.5718
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,005.0 µg/mL	+/- 18.5681
7	n-Decane (C10)	124-18-5	SHBN8619	99%	1,004.9 µg/mL	+/- 18.5669
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.1 µg/mL	+/- 18.5706
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.9 µg/mL	+/- 18.5669
10	1,4-Dichlorobenzene	106-46-7	MKBS4401V	99%	1,005.1 µg/mL	+/- 18.5706
11	Benzyl alcohol	100-51-6	SHBK5943	99%	1,004.9 µg/mL	+/- 18.5669
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,005.1 µg/mL	+/- 18.5706
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.3 µg/mL	+/- 18.5743
14	2,2'-oxybis(1-chloropropane)	108-60-1	2-KMW-57-8	99%	1,005.3 µg/mL	+/- 18.5730
15	Acetophenone	98-86-2	STBH8205	99%	1,005.4 µg/mL	+/- 18.5755
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.3 µg/mL	+/- 9.2831

17	4-Methylphenol (p-cresol)	106-44-5	SHBN1151	99%	502.7	µg/mL	+/- 9.2893
18	N-Nitroso-di-n-propylamine	621-64-7	2D5VJ	99%	1,005.1	µg/mL	+/- 18.5706
19	Hexachloroethane	67-72-1	QTORH	99%	1,004.9	µg/mL	+/- 18.5656
20	Nitrobenzene	98-95-3	10224044	99%	1,004.9	µg/mL	+/- 18.5656
21	Isophorone	78-59-1	MKCC9506	99%	1,005.1	µg/mL	+/- 18.5706
22	2-Nitrophenol	88-75-5	BCCB2407	99%	1,004.9	µg/mL	+/- 18.5669
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,005.2	µg/mL	+/- 18.5718
24	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,004.9	µg/mL	+/- 18.5669
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,005.4	µg/mL	+/- 18.5755
26	1,2,4-Trichlorobenzene	120-82-1	SHBM0526	99%	1,005.2	µg/mL	+/- 18.5718
27	Naphthalene	91-20-3	MKCH0219	99%	1,004.7	µg/mL	+/- 18.5619
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,005.0	µg/mL	+/- 18.5681
29	4-Chloroaniline	106-47-8	H24K	99%	1,004.9	µg/mL	+/- 18.5669
30	Hexachlorobutadiene	87-68-3	664800	99%	1,004.9	µg/mL	+/- 18.5669
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.9	µg/mL	+/- 18.5656
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,005.0	µg/mL	+/- 18.5680
33	1-Methylnaphthalene	90-12-0	5234.00-3	99%	1,005.1	µg/mL	+/- 18.5706
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCS1444	99%	1,005.2	µg/mL	+/- 18.5718
35	Hexachlorocyclopentadiene	77-47-4	0012019	99%	1,005.2	µg/mL	+/- 18.5718
36	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.9	µg/mL	+/- 18.5656
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,005.1	µg/mL	+/- 18.5697
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.9	µg/mL	+/- 18.5669
39	Biphenyl	92-52-4	MKCJ6240	99%	1,005.3	µg/mL	+/- 18.5743
40	2-Nitroaniline	88-74-4	MKCK7278	99%	1,005.0	µg/mL	+/- 18.5681
41	Acenaphthylene	208-96-8	U25W	96%	1,005.0	µg/mL	+/- 18.5680
42	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,005.3	µg/mL	+/- 18.5743
43	Dimethylphthalate	131-11-3	10117699	99%	1,005.1	µg/mL	+/- 18.5706
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.0	µg/mL	+/- 18.5681
45	3-Nitroaniline	99-09-2	MKCH5457	99%	1,005.1	µg/mL	+/- 18.5706
46	Acenaphthene	83-32-9	MKCR7169	99%	1,004.7	µg/mL	+/- 18.5619
47	2,4-Dinitrophenol	51-28-5	DR221221RSR	99%	2,010.0	µg/mL	+/- 37.1362
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.3	µg/mL	+/- 18.5743
49	4-Nitrophenol	100-02-7	MKCN1089	99%	2,009.8	µg/mL	+/- 37.1325
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,005.2	µg/mL	+/- 18.5718
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,004.8	µg/mL	+/- 18.5644
52	Fluorene	86-73-7	10217947	99%	1,005.3	µg/mL	+/- 18.5743

53	n-Hexadecane (C16)	544-76-3	SHBQ0897	99%	1,004.9	µg/mL	+/- 18.5669
54	Diethylphthalate	84-66-2	BCCD3396	99%	1,005.2	µg/mL	+/- 18.5718
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCQ0984	99%	1,005.1	µg/mL	+/- 18.5693
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.0	µg/mL	+/- 18.5681
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	221221JIM	99%	2,010.3	µg/mL	+/- 37.1411
58	Diphenylamine	122-39-4	MKCH1042	99%	854.3	µg/mL	+/- 15.7844
59	Azobenzene	103-33-3	BCCC9136	99%	1,004.9	µg/mL	+/- 18.5656
60	4-Bromophenyl phenyl ether	101-55-3	STBB9729V	99%	1,004.8	µg/mL	+/- 18.5644
61	Hexachlorobenzene	118-74-1	13994200	99%	1,004.9	µg/mL	+/- 18.5669
62	Pentachlorophenol	87-86-5	RP221012	99%	2,010.1	µg/mL	+/- 37.1374
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,005.0	µg/mL	+/- 18.5685
64	Phenanthrene	85-01-8	MKCQ2033	99%	1,004.9	µg/mL	+/- 18.5669
65	Anthracene	120-12-7	MKCP3968	99%	1,005.4	µg/mL	+/- 18.5755
66	Carbazole	86-74-8	13058900	99%	1,005.1	µg/mL	+/- 18.5693
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.3	µg/mL	+/- 18.5730
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,005.1	µg/mL	+/- 18.5693
69	Pyrene	129-00-0	BCCG7845	99%	1,005.1	µg/mL	+/- 18.5706
70	Benzyl butyl phthalate	85-68-7	MKCN9008	99%	1,005.1	µg/mL	+/- 18.5693
71	Benz(a)anthracene	56-55-3	0012022BAA	99%	1,005.1	µg/mL	+/- 18.5706
72	Chrysene	218-01-9	468677R25M	99%	1,004.9	µg/mL	+/- 18.5669
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,005.0	µg/mL	+/- 18.5681
74	Di-n-octyl phthalate	117-84-0	13651900	99%	1,005.3	µg/mL	+/- 18.5743
75	Benzo(b)fluoranthene	205-99-2	012022B	99%	1,004.9	µg/mL	+/- 18.5669
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.1	µg/mL	+/- 18.5693
77	Benzo(a)pyrene	50-32-8	J6IUE	99%	1,005.1	µg/mL	+/- 18.5706
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	99%	1,005.3	µg/mL	+/- 18.5730
79	Dibenz(a,h)anthracene	53-70-3	ER032211-01	99%	1,005.1	µg/mL	+/- 18.5706
80	Benzo(g,h,i)perylene	191-24-2	PMEVE	98%	1,005.2	µg/mL	+/- 18.5721

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

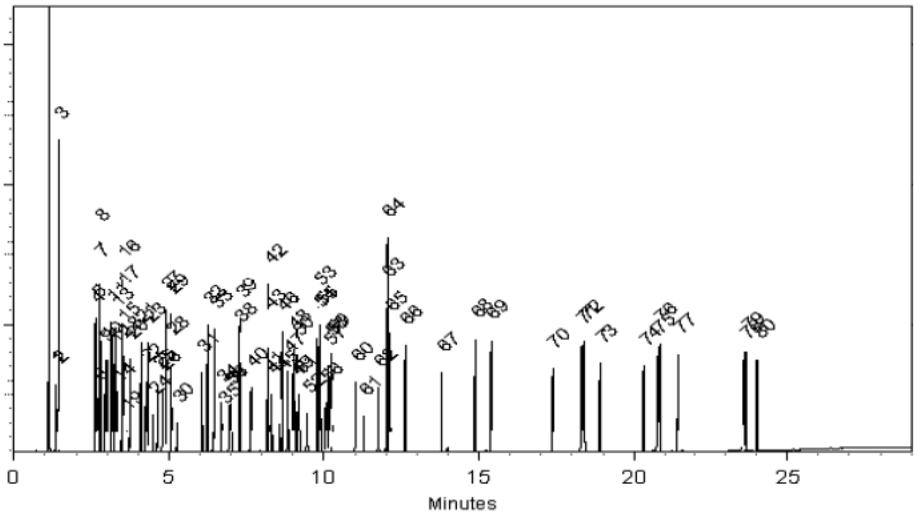
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min

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.

[redacted]
Nick Yaw - Operations Tech I

Date Mixed: 10-Mar-2023 **Balance Serial #** B442140311

[redacted]
Christie Mills - Operations Tech II - 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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

571995_00180

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 571995 **Lot No.:** A0195772

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	1,005.4 µg/mL	+/- 18.5755
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.2 µg/mL	+/- 18.5718
3	Pyridine	110-86-1	SHBN7324	99%	2,010.1 µg/mL	+/- 37.1374
4	Phenol	108-95-2	MKCK1120	99%	1,005.1 µg/mL	+/- 18.5706
5	Aniline	62-53-3	X22F726	99%	1,005.2 µg/mL	+/- 18.5718
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,005.0 µg/mL	+/- 18.5681
7	n-Decane (C10)	124-18-5	SHBN8619	99%	1,004.9 µg/mL	+/- 18.5669
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.1 µg/mL	+/- 18.5706
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.9 µg/mL	+/- 18.5669
10	1,4-Dichlorobenzene	106-46-7	MKBS4401V	99%	1,005.1 µg/mL	+/- 18.5706
11	Benzyl alcohol	100-51-6	SHBK5943	99%	1,004.9 µg/mL	+/- 18.5669
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,005.1 µg/mL	+/- 18.5706
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.3 µg/mL	+/- 18.5743
14	2,2'-oxybis(1-chloropropane)	108-60-1	2-KMW-57-8	99%	1,005.3 µg/mL	+/- 18.5730
15	Acetophenone	98-86-2	STBH8205	99%	1,005.4 µg/mL	+/- 18.5755
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.3 µg/mL	+/- 9.2831

17	4-Methylphenol (p-cresol)	106-44-5	SHBN1151	99%	502.7	µg/mL	+/- 9.2893
18	N-Nitroso-di-n-propylamine	621-64-7	2D5VJ	99%	1,005.1	µg/mL	+/- 18.5706
19	Hexachloroethane	67-72-1	QTORH	99%	1,004.9	µg/mL	+/- 18.5656
20	Nitrobenzene	98-95-3	10224044	99%	1,004.9	µg/mL	+/- 18.5656
21	Isophorone	78-59-1	MKCC9506	99%	1,005.1	µg/mL	+/- 18.5706
22	2-Nitrophenol	88-75-5	BCCB2407	99%	1,004.9	µg/mL	+/- 18.5669
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,005.2	µg/mL	+/- 18.5718
24	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,004.9	µg/mL	+/- 18.5669
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,005.4	µg/mL	+/- 18.5755
26	1,2,4-Trichlorobenzene	120-82-1	SHBM0526	99%	1,005.2	µg/mL	+/- 18.5718
27	Naphthalene	91-20-3	MKCH0219	99%	1,004.7	µg/mL	+/- 18.5619
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,005.0	µg/mL	+/- 18.5681
29	4-Chloroaniline	106-47-8	H24K	99%	1,004.9	µg/mL	+/- 18.5669
30	Hexachlorobutadiene	87-68-3	664800	99%	1,004.9	µg/mL	+/- 18.5669
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.9	µg/mL	+/- 18.5656
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,005.0	µg/mL	+/- 18.5680
33	1-Methylnaphthalene	90-12-0	5234.00-3	99%	1,005.1	µg/mL	+/- 18.5706
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCS1444	99%	1,005.2	µg/mL	+/- 18.5718
35	Hexachlorocyclopentadiene	77-47-4	0012019	99%	1,005.2	µg/mL	+/- 18.5718
36	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.9	µg/mL	+/- 18.5656
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,005.1	µg/mL	+/- 18.5697
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.9	µg/mL	+/- 18.5669
39	Biphenyl	92-52-4	MKCJ6240	99%	1,005.3	µg/mL	+/- 18.5743
40	2-Nitroaniline	88-74-4	MKCK7278	99%	1,005.0	µg/mL	+/- 18.5681
41	Acenaphthylene	208-96-8	U25W	96%	1,005.0	µg/mL	+/- 18.5680
42	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,005.3	µg/mL	+/- 18.5743
43	Dimethylphthalate	131-11-3	10117699	99%	1,005.1	µg/mL	+/- 18.5706
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.0	µg/mL	+/- 18.5681
45	3-Nitroaniline	99-09-2	MKCH5457	99%	1,005.1	µg/mL	+/- 18.5706
46	Acenaphthene	83-32-9	MKCR7169	99%	1,004.7	µg/mL	+/- 18.5619
47	2,4-Dinitrophenol	51-28-5	DR221221RSR	99%	2,010.0	µg/mL	+/- 37.1362
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.3	µg/mL	+/- 18.5743
49	4-Nitrophenol	100-02-7	MKCN1089	99%	2,009.8	µg/mL	+/- 37.1325
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,005.2	µg/mL	+/- 18.5718
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,004.8	µg/mL	+/- 18.5644
52	Fluorene	86-73-7	10217947	99%	1,005.3	µg/mL	+/- 18.5743

53	n-Hexadecane (C16)	544-76-3	SHBQ0897	99%	1,004.9	µg/mL	+/- 18.5669
54	Diethylphthalate	84-66-2	BCCD3396	99%	1,005.2	µg/mL	+/- 18.5718
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCQ0984	99%	1,005.1	µg/mL	+/- 18.5693
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.0	µg/mL	+/- 18.5681
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	221221JIM	99%	2,010.3	µg/mL	+/- 37.1411
58	Diphenylamine	122-39-4	MKCH1042	99%	854.3	µg/mL	+/- 15.7844
59	Azobenzene	103-33-3	BCCC9136	99%	1,004.9	µg/mL	+/- 18.5656
60	4-Bromophenyl phenyl ether	101-55-3	STBB9729V	99%	1,004.8	µg/mL	+/- 18.5644
61	Hexachlorobenzene	118-74-1	13994200	99%	1,004.9	µg/mL	+/- 18.5669
62	Pentachlorophenol	87-86-5	RP221012	99%	2,010.1	µg/mL	+/- 37.1374
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,005.0	µg/mL	+/- 18.5685
64	Phenanthrene	85-01-8	MKCQ2033	99%	1,004.9	µg/mL	+/- 18.5669
65	Anthracene	120-12-7	MKCP3968	99%	1,005.4	µg/mL	+/- 18.5755
66	Carbazole	86-74-8	13058900	99%	1,005.1	µg/mL	+/- 18.5693
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.3	µg/mL	+/- 18.5730
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,005.1	µg/mL	+/- 18.5693
69	Pyrene	129-00-0	BCCG7845	99%	1,005.1	µg/mL	+/- 18.5706
70	Benzyl butyl phthalate	85-68-7	MKCN9008	99%	1,005.1	µg/mL	+/- 18.5693
71	Benz(a)anthracene	56-55-3	0012022BAA	99%	1,005.1	µg/mL	+/- 18.5706
72	Chrysene	218-01-9	468677R25M	99%	1,004.9	µg/mL	+/- 18.5669
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,005.0	µg/mL	+/- 18.5681
74	Di-n-octyl phthalate	117-84-0	13651900	99%	1,005.3	µg/mL	+/- 18.5743
75	Benzo(b)fluoranthene	205-99-2	012022B	99%	1,004.9	µg/mL	+/- 18.5669
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.1	µg/mL	+/- 18.5693
77	Benzo(a)pyrene	50-32-8	J6IUE	99%	1,005.1	µg/mL	+/- 18.5706
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	99%	1,005.3	µg/mL	+/- 18.5730
79	Dibenz(a,h)anthracene	53-70-3	ER032211-01	99%	1,005.1	µg/mL	+/- 18.5706
80	Benzo(g,h,i)perylene	191-24-2	PMEVE	98%	1,005.2	µg/mL	+/- 18.5721

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

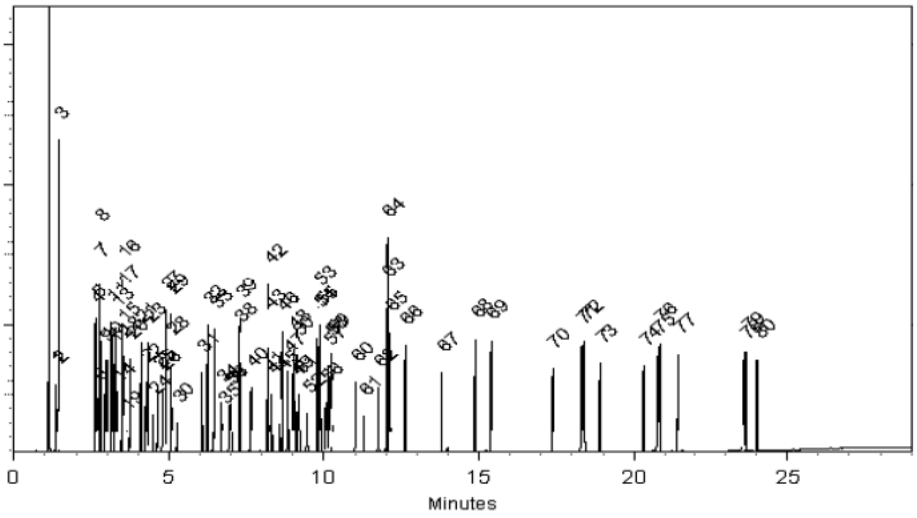
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min

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.

[redacted]

Date Mixed: 10-Mar-2023 **Balance Serial #** B442140311

[redacted]
Christie Mills - Operations Tech II - 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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

571995_00181

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 571995 **Lot No.:** A0195772

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBN3770	99%	1,005.4 µg/mL	+/- 18.5755
2	N-Nitrosodimethylamine	62-75-9	230209JLM	99%	1,005.2 µg/mL	+/- 18.5718
3	Pyridine	110-86-1	SHBN7324	99%	2,010.1 µg/mL	+/- 37.1374
4	Phenol	108-95-2	MKCK1120	99%	1,005.1 µg/mL	+/- 18.5706
5	Aniline	62-53-3	X22F726	99%	1,005.2 µg/mL	+/- 18.5718
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,005.0 µg/mL	+/- 18.5681
7	n-Decane (C10)	124-18-5	SHBN8619	99%	1,004.9 µg/mL	+/- 18.5669
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.1 µg/mL	+/- 18.5706
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,004.9 µg/mL	+/- 18.5669
10	1,4-Dichlorobenzene	106-46-7	MKBS4401V	99%	1,005.1 µg/mL	+/- 18.5706
11	Benzyl alcohol	100-51-6	SHBK5943	99%	1,004.9 µg/mL	+/- 18.5669
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,005.1 µg/mL	+/- 18.5706
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.3 µg/mL	+/- 18.5743
14	2,2'-oxybis(1-chloropropane)	108-60-1	2-KMW-57-8	99%	1,005.3 µg/mL	+/- 18.5730
15	Acetophenone	98-86-2	STBH8205	99%	1,005.4 µg/mL	+/- 18.5755
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	502.3 µg/mL	+/- 9.2831

17	4-Methylphenol (p-cresol)	106-44-5	SHBN1151	99%	502.7	µg/mL	+/- 9.2893
18	N-Nitroso-di-n-propylamine	621-64-7	2D5VJ	99%	1,005.1	µg/mL	+/- 18.5706
19	Hexachloroethane	67-72-1	QTORH	99%	1,004.9	µg/mL	+/- 18.5656
20	Nitrobenzene	98-95-3	10224044	99%	1,004.9	µg/mL	+/- 18.5656
21	Isophorone	78-59-1	MKCC9506	99%	1,005.1	µg/mL	+/- 18.5706
22	2-Nitrophenol	88-75-5	BCCB2407	99%	1,004.9	µg/mL	+/- 18.5669
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,005.2	µg/mL	+/- 18.5718
24	Bis(2-chloroethoxy)methane	111-91-1	13670200	99%	1,004.9	µg/mL	+/- 18.5669
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,005.4	µg/mL	+/- 18.5755
26	1,2,4-Trichlorobenzene	120-82-1	SHBM0526	99%	1,005.2	µg/mL	+/- 18.5718
27	Naphthalene	91-20-3	MKCH0219	99%	1,004.7	µg/mL	+/- 18.5619
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,005.0	µg/mL	+/- 18.5681
29	4-Chloroaniline	106-47-8	H24K	99%	1,004.9	µg/mL	+/- 18.5669
30	Hexachlorobutadiene	87-68-3	664800	99%	1,004.9	µg/mL	+/- 18.5669
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,004.9	µg/mL	+/- 18.5656
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,005.0	µg/mL	+/- 18.5680
33	1-Methylnaphthalene	90-12-0	5234.00-3	99%	1,005.1	µg/mL	+/- 18.5706
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCS1444	99%	1,005.2	µg/mL	+/- 18.5718
35	Hexachlorocyclopentadiene	77-47-4	0012019	99%	1,005.2	µg/mL	+/- 18.5718
36	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,004.9	µg/mL	+/- 18.5656
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,005.1	µg/mL	+/- 18.5697
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,004.9	µg/mL	+/- 18.5669
39	Biphenyl	92-52-4	MKCJ6240	99%	1,005.3	µg/mL	+/- 18.5743
40	2-Nitroaniline	88-74-4	MKCK7278	99%	1,005.0	µg/mL	+/- 18.5681
41	Acenaphthylene	208-96-8	U25W	96%	1,005.0	µg/mL	+/- 18.5680
42	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,005.3	µg/mL	+/- 18.5743
43	Dimethylphthalate	131-11-3	10117699	99%	1,005.1	µg/mL	+/- 18.5706
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,005.0	µg/mL	+/- 18.5681
45	3-Nitroaniline	99-09-2	MKCH5457	99%	1,005.1	µg/mL	+/- 18.5706
46	Acenaphthene	83-32-9	MKCR7169	99%	1,004.7	µg/mL	+/- 18.5619
47	2,4-Dinitrophenol	51-28-5	DR221221RSR	99%	2,010.0	µg/mL	+/- 37.1362
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,005.3	µg/mL	+/- 18.5743
49	4-Nitrophenol	100-02-7	MKCN1089	99%	2,009.8	µg/mL	+/- 37.1325
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,005.2	µg/mL	+/- 18.5718
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,004.8	µg/mL	+/- 18.5644
52	Fluorene	86-73-7	10217947	99%	1,005.3	µg/mL	+/- 18.5743

53	n-Hexadecane (C16)	544-76-3	SHBQ0897	99%	1,004.9	µg/mL	+/- 18.5669
54	Diethylphthalate	84-66-2	BCCD3396	99%	1,005.2	µg/mL	+/- 18.5718
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCQ0984	99%	1,005.1	µg/mL	+/- 18.5693
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.0	µg/mL	+/- 18.5681
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	221221JIM	99%	2,010.3	µg/mL	+/- 37.1411
58	Diphenylamine	122-39-4	MKCH1042	99%	854.3	µg/mL	+/- 15.7844
59	Azobenzene	103-33-3	BCCC9136	99%	1,004.9	µg/mL	+/- 18.5656
60	4-Bromophenyl phenyl ether	101-55-3	STBB9729V	99%	1,004.8	µg/mL	+/- 18.5644
61	Hexachlorobenzene	118-74-1	13994200	99%	1,004.9	µg/mL	+/- 18.5669
62	Pentachlorophenol	87-86-5	RP221012	99%	2,010.1	µg/mL	+/- 37.1374
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,005.0	µg/mL	+/- 18.5685
64	Phenanthrene	85-01-8	MKCQ2033	99%	1,004.9	µg/mL	+/- 18.5669
65	Anthracene	120-12-7	MKCP3968	99%	1,005.4	µg/mL	+/- 18.5755
66	Carbazole	86-74-8	13058900	99%	1,005.1	µg/mL	+/- 18.5693
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,005.3	µg/mL	+/- 18.5730
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,005.1	µg/mL	+/- 18.5693
69	Pyrene	129-00-0	BCCG7845	99%	1,005.1	µg/mL	+/- 18.5706
70	Benzyl butyl phthalate	85-68-7	MKCN9008	99%	1,005.1	µg/mL	+/- 18.5693
71	Benz(a)anthracene	56-55-3	0012022BAA	99%	1,005.1	µg/mL	+/- 18.5706
72	Chrysene	218-01-9	468677R25M	99%	1,004.9	µg/mL	+/- 18.5669
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,005.0	µg/mL	+/- 18.5681
74	Di-n-octyl phthalate	117-84-0	13651900	99%	1,005.3	µg/mL	+/- 18.5743
75	Benzo(b)fluoranthene	205-99-2	012022B	99%	1,004.9	µg/mL	+/- 18.5669
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,005.1	µg/mL	+/- 18.5693
77	Benzo(a)pyrene	50-32-8	J6IUE	99%	1,005.1	µg/mL	+/- 18.5706
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	99%	1,005.3	µg/mL	+/- 18.5730
79	Dibenz(a,h)anthracene	53-70-3	ER032211-01	99%	1,005.1	µg/mL	+/- 18.5706
80	Benzo(g,h,i)perylene	191-24-2	PMEVE	98%	1,005.2	µg/mL	+/- 18.5721

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

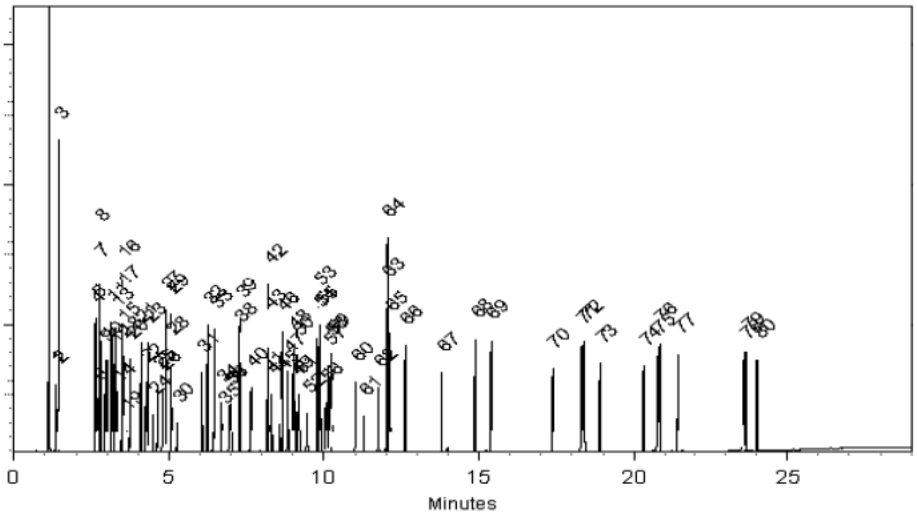
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min

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.

[redacted]
Nic

Date Mixed: 10-Mar-2023 **Balance Serial #** B442140311

[redacted]
Christie Mills - Operations Tech II - 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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

571995_00189

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 571995 **Lot No.:** A0205288

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2025 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1	SHBQ2407	99%	1,009.8 µg/mL	+/- 18.6617
2	N-Nitrosodimethylamine	62-75-9	S231113RSR	99%	1,005.3 µg/mL	+/- 18.5785
3	Pyridine	110-86-1	SHBP6240	99%	2,019.3 µg/mL	+/- 37.3086
4	Phenol	108-95-2	MKCK1120	99%	1,004.7 µg/mL	+/- 18.5662
5	Aniline	62-53-3	X22F726	99%	1,008.0 µg/mL	+/- 18.6278
6	Bis(2-chloroethyl)ether	111-44-4	SHBL6942	99%	1,006.5 µg/mL	+/- 18.6001
7	n-Decane (C10)	124-18-5	SHBQ1342	99%	1,006.5 µg/mL	+/- 18.6001
8	2-Chlorophenol	95-57-8	STBJ3909	99%	1,005.2 µg/mL	+/- 18.5754
9	1,3-Dichlorobenzene	541-73-1	BCCD5315	99%	1,005.0 µg/mL	+/- 18.5724
10	1,4-Dichlorobenzene	106-46-7	MKBS7929V	99%	1,008.3 µg/mL	+/- 18.6340
11	Benzyl alcohol	100-51-6	SHBK5469	99%	1,006.2 µg/mL	+/- 18.5939
12	1,2-Dichlorobenzene	95-50-1	SHBN3835	99%	1,009.0 µg/mL	+/- 18.6463
13	2-Methylphenol (o-cresol)	95-48-7	SHBN7598	99%	1,005.5 µg/mL	+/- 18.5816
14	2,2'-oxybis(1-chloropropane)	108-60-1	230714JLM	99%	1,004.2 µg/mL	+/- 18.5570
15	Acetophenone	98-86-2	STBH8205	99%	1,004.5 µg/mL	+/- 18.5631
16	3-Methylphenol (m-cresol)	108-39-4	STBJ0710	99%	503.3 µg/mL	+/- 9.3016

17	4-Methylphenol (p-cresol)	106-44-5	SHBN3411	99%	504.8	µg/mL	+/- 9.3293
18	N-Nitroso-di-n-propylamine	621-64-7	N63MG	99%	1,005.8	µg/mL	+/- 18.5878
19	Hexachloroethane	67-72-1	QTORH	99%	1,004.8	µg/mL	+/- 18.5693
20	Nitrobenzene	98-95-3	10224044	99%	1,005.3	µg/mL	+/- 18.5785
21	Isophorone	78-59-1	MKCC9506	99%	1,006.8	µg/mL	+/- 18.6062
22	2-Nitrophenol	88-75-5	RP230509C	99%	1,008.2	µg/mL	+/- 18.6309
23	2,4-Dimethylphenol	105-67-9	XW5GK	99%	1,007.7	µg/mL	+/- 18.6216
24	Bis(2-chloroethoxy)methane	111-91-1	14866000	98%	1,008.3	µg/mL	+/- 18.6325
25	2,4-Dichlorophenol	120-83-2	BCBZ6787	99%	1,009.7	µg/mL	+/- 18.6586
26	1,2,4-Trichlorobenzene	120-82-1	SHBP5900	99%	1,009.3	µg/mL	+/- 18.6524
27	Naphthalene	91-20-3	STBL1057	99%	1,008.5	µg/mL	+/- 18.6370
28	2,6-Dichlorophenol	87-65-0	MKCP7682	99%	1,005.8	µg/mL	+/- 18.5878
29	4-Chloroaniline	106-47-8	BCCJ3217	99%	1,003.2	µg/mL	+/- 18.5385
30	Hexachlorobutadiene	87-68-3	RP230823RSR	98%	1,009.4	µg/mL	+/- 18.6537
31	4-Chloro-3-methylphenol	59-50-7	BCCD4461	99%	1,005.3	µg/mL	+/- 18.5785
32	2-Methylnaphthalene	91-57-6	STBK0259	96%	1,000.0	µg/mL	+/- 18.4800
33	1-Methylnaphthalene	90-12-0	5234.00-8	98%	999.6	µg/mL	+/- 18.4726
34	1,2,4,5-Tetrachlorobenzene	95-94-3	MKCT9480	99%	1,007.0	µg/mL	+/- 18.6093
35	Hexachlorocyclopentadiene	77-47-4	099063I14L	98%	1,008.1	µg/mL	+/- 18.6295
36	2,4,6-Trichlorophenol	88-06-2	STBJ5914	99%	1,009.2	µg/mL	+/- 18.6494
37	2,4,5-Trichlorophenol	95-95-4	FHN01	98%	1,006.5	µg/mL	+/- 18.5993
38	2-Chloronaphthalene	91-58-7	RPN7O	99%	1,006.7	µg/mL	+/- 18.6032
39	Biphenyl	92-52-4	MKCL6515	99%	1,005.8	µg/mL	+/- 18.5878
40	2-Nitroaniline	88-74-4	RP230531	99%	1,007.0	µg/mL	+/- 18.6093
41	Acenaphthylene	208-96-8	O03R	98%	1,009.9	µg/mL	+/- 18.6627
42	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,005.7	µg/mL	+/- 18.5847
43	Dimethylphthalate	131-11-3	358221L17K	99%	1,005.7	µg/mL	+/- 18.5847
44	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,006.3	µg/mL	+/- 18.5970
45	3-Nitroaniline	99-09-2	RP231103CTH-1	99%	1,007.7	µg/mL	+/- 18.6216
46	Acenaphthene	83-32-9	MKCR7169	99%	1,000.0	µg/mL	+/- 18.4800
47	2,4-Dinitrophenol	51-28-5	DR230417RSR	99%	2,017.7	µg/mL	+/- 37.2779
48	Dibenzofuran	132-64-9	MKCN1772	99%	1,008.5	µg/mL	+/- 18.6370
49	4-Nitrophenol	100-02-7	RP230627	99%	2,018.3	µg/mL	+/- 37.2902
50	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,006.3	µg/mL	+/- 18.5970
51	2,3,4,6-Tetrachlorophenol	58-90-2	PR-30126	99%	1,005.3	µg/mL	+/- 18.5785
52	Fluorene	86-73-7	10241100	99%	1,005.0	µg/mL	+/- 18.5724

53	n-Hexadecane (C16)	544-76-3	SHBM4146	98%	1,006.3	µg/mL	+/- 18.5963
54	Diethylphthalate	84-66-2	BCCD3396	99%	1,008.5	µg/mL	+/- 18.6370
55	4-Chlorophenyl phenyl ether	7005-72-3	MKCQ0984	99%	1,007.5	µg/mL	+/- 18.6186
56	4-Nitroaniline	100-01-6	RP230111	99%	1,005.5	µg/mL	+/- 18.5816
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1	230718JLM	99%	2,019.0	µg/mL	+/- 37.3025
58	Diphenylamine	122-39-4	MKCH1042	99%	857.8	µg/mL	+/- 15.8527
59	Azobenzene	103-33-3	BCCK0887	99%	1,004.7	µg/mL	+/- 18.5662
60	4-Bromophenyl phenyl ether	101-55-3	STBH6361	99%	1,009.3	µg/mL	+/- 18.6524
61	Hexachlorobenzene	118-74-1	14876600	99%	1,009.3	µg/mL	+/- 18.6524
62	Pentachlorophenol	87-86-5	RP231108CTH	99%	2,018.7	µg/mL	+/- 37.2963
63	n-Octadecane (C18)	593-45-3	UE5NG	98%	1,008.4	µg/mL	+/- 18.6356
64	Phenanthrene	85-01-8	MKCQ8876	99%	1,006.8	µg/mL	+/- 18.6062
65	Anthracene	120-12-7	MKCR0570	99%	1,007.5	µg/mL	+/- 18.6186
66	Carbazole	86-74-8	14872900	99%	1,007.2	µg/mL	+/- 18.6124
67	Di-n-butylphthalate	84-74-2	MKCN4337	99%	1,009.3	µg/mL	+/- 18.6524
68	Fluoranthene	206-44-0	MKCQ4728	99%	1,006.8	µg/mL	+/- 18.6062
69	Pyrene	129-00-0	BCCK2592	99%	1,004.3	µg/mL	+/- 18.5600
70	Benzyl butyl phthalate	85-68-7	X12I018	99%	1,006.7	µg/mL	+/- 18.6032
71	Benz(a)anthracene	56-55-3	I30012022BAA	99%	1,009.0	µg/mL	+/- 18.6463
72	Chrysene	218-01-9	RP231102CTH	99%	1,004.8	µg/mL	+/- 18.5693
73	Bis(2-ethylhexyl)phthalate	117-81-7	MKCQ3468	99%	1,007.3	µg/mL	+/- 18.6155
74	Di-n-octyl phthalate	117-84-0	14783100	99%	1,008.5	µg/mL	+/- 18.6370
75	Benzo(b)fluoranthene	205-99-2	022013B	99%	1,006.7	µg/mL	+/- 18.6032
76	Benzo(k)fluoranthene	207-08-9	012022K	99%	1,007.2	µg/mL	+/- 18.6124
77	Benzo(a)pyrene	50-32-8	O45GL	98%	1,006.6	µg/mL	+/- 18.6024
78	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	1,008.3	µg/mL	+/- 18.6336
79	Dibenz(a,h)anthracene	53-70-3	1-SLH-51-1	99%	1,007.2	µg/mL	+/- 18.6124
80	Benzo(g,h,i)perylene	191-24-2	RP231003RSR	99%	1,007.8	µg/mL	+/- 18.6247

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.
This lot was approved even though the %D for 4,6-DN-2-MP was greater than 10%.

Tech Tips:

N-Nitrosodiphenylamine (86-30-6) is prone to breakdown in the injection port and will be converted to Diphenylamine (122-39-4). When comparing the response of Diphenylamine to mixtures manufactured using N-Nitrosodiphenylamine, a difference in response will be observed. The ratio of the MW can be used to calculate the theoretical concentration of the N-Nitrosodiphenylamine.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

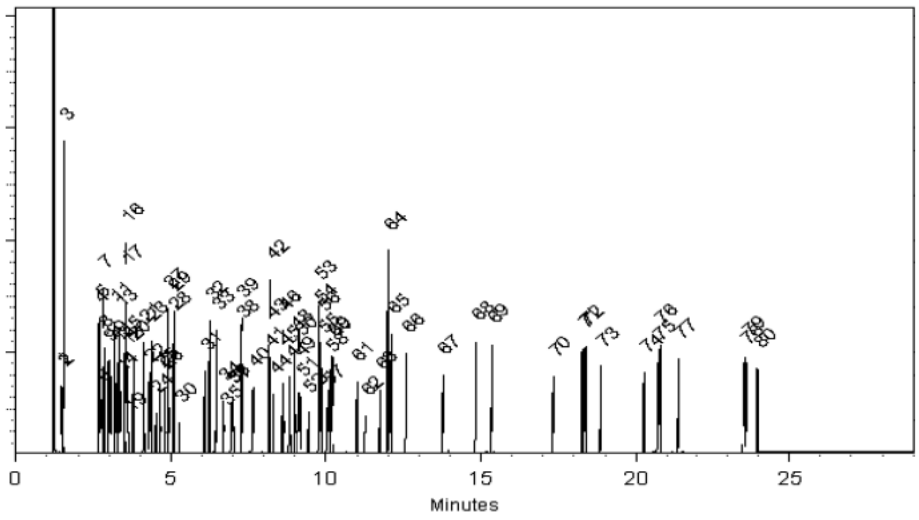
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

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.

[redacted] Operations Tech I

Date Mixed: 11-Dec-2023 **Balance Serial #** B442140311

Dillan Murphy - Operations Technician I

Date Passed: 14-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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8270_LCS_Main_00090

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\SMS_G6\20231113-127593.b\G6_111323040.D

Lims ID: LCS check Inj. Date: 14-Nov-2023 04:28:30

Worklist ID: 280-0127593-036 Instrument: SMS_G6

Method: SMSG6_8270C

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3510C
16 1,4-Dioxane	80.0	61.5	76.9	0-0
17 N-Nitrosodimethylamine	80.0	64.8	81.0	21-120
18 Pyridine	160.0	131.4	82.1	10-120
29 Phenol	80.0	67.5	84.4	28-120
28 Aniline	80.0	64.5	80.7	13-120
32 Bis(2-chloroethyl)ether	80.0	64.9	81.1	43-118
33 2-Chlorophenol	80.0	64.3	80.3	38-117
34 n-Decane	80.0	62.2	77.7	
35 1,3-Dichlorobenzene	80.0	65.4	81.7	28-110
37 1,4-Dichlorobenzene	80.0	65.3	81.7	29-112
39 Benzyl alcohol	80.0	69.6	87.1	31-112
40 1,2-Dichlorobenzene	80.0	66.4	83.0	32-111
41 Indene	80.0	65.8	82.2	
42 2-Methylphenol	80.0	69.4	86.7	30-117
43 2,2'-oxybis[1-chloropro	80.0	65.4	81.7	32-120
45 Acetophenone	80.0	66.6	83.2	46-118
46 N-Nitrosodi-n-propylami	80.0	69.1	86.3	49-119
49 3 & 4 Methylphenol	80.0	69.4	86.7	29-110
47 4-Methylphenol	80.0	69.4	86.7	
48 3-Methylphenol	80.0	69.4	86.7	
52 Hexachloroethane	80.0	62.4	78.0	21-115
53 Nitrobenzene	80.0	67.1	83.9	45-121
55 Isophorone	80.0	73.0	91.3	42-124
56 2-Nitrophenol	80.0	66.3	82.9	47-123
58 2,4-Dimethylphenol	80.0	69.5	86.9	31-124
60 Bis(2-chloroethoxy)meth	80.0	73.0	91.3	48-120
63 Benzoic acid	80.0	61.5	76.9	10-120
62 2,4-Dichlorophenol	80.0	75.1	93.9	47-121
66 1,2,4-Trichlorobenzene	80.0	69.4	86.7	29-116
67 Naphthalene	80.0	68.5	85.6	40-121
69 4-Chloroaniline	80.0	74.8	93.5	33-117
68 2,6-Dichlorophenol	80.0	75.1	93.8	50-118
71 Hexachlorobutadiene	80.0	70.5	88.2	22-124
77 4-Chloro-3-methylphenol	80.0	74.0	92.6	52-119
80 2-Methylnaphthalene	80.0	71.6	89.5	40-121
81 1-Methylnaphthalene	80.0	71.9	89.9	41-119
83 Hexachlorocyclopentadie	160.4	147.6	92.0	10-120
84 1,2,4,5-Tetrachlorobenz	80.0	77.5	96.9	35-121
87 2,4,6-Trichlorophenol	80.0	83.8	104.8	50-125
88 2,4,5-Trichlorophenol	80.0	81.5	101.9	53-123
90 1,1'-Biphenyl	80.0	71.4	89.2	49-115

Preliminary Report

Sample Path: \\chromfs\Denver\ChromData\SMS_G6\20231113-127593.b\G6_111323040.D

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3510C
91 2-Chloronaphthalene	80.0	74.1	92.6	40-116
93 2-Nitroaniline	80.0	75.6	94.5	55-127
96 Dimethyl phthalate	80.0	76.9	96.1	45-127
97 1,3-Dinitrobenzene	80.0	79.5	99.4	49-128
98 2,6-Dinitrotoluene	80.0	79.0	98.8	57-124
99 Acenaphthylene	80.0	75.3	94.1	41-130
100 3-Nitroaniline	80.0	75.4	94.2	41-128
101 Acenaphthene	80.0	72.3	90.4	47-122
102 2,4-Dinitrophenol	160.0	83.5	52.2	23-143
107 4-Nitrophenol	160.0	148.4	92.7	31-120
108 Dibenzofuran	80.0	75.6	94.5	53-118
109 2,4-Dinitrotoluene	80.0	77.3	96.7	57-128
114 2,3,4,6-Tetrachlorophen	80.0	81.5	101.9	50-128
116 Diethyl phthalate	80.0	77.2	96.4	56-125
117 Hexadecane	80.0	73.7	92.1	
118 Fluorene	80.0	77.0	96.2	52-124
120 4-Chlorophenyl phenyl e	80.0	76.0	95.0	53-121
122 4-Nitroaniline	80.0	75.3	94.1	49-122
123 4,6-Dinitro-2-methylphe	160.0	120.4	75.3	44-137
126 N-Nitrosodiphenylamine	80.0	79.0	98.7	51-123
125 Diphenylamine	68.0	65.1	95.7	55-111
128 1,2-Diphenylhydrazine	80.9	75.8	93.7	49-122
129 Azobenzene	80.0	74.9	93.7	61-116
138 4-Bromophenyl phenyl et	80.0	81.4	101.8	55-124
140 Hexachlorobenzene	80.0	72.7	90.9	53-125
143 Pentachlorophenol	160.0	139.7	87.3	35-138
288 n-Octadecane	80.0	77.3	96.7	
148 Phenanthrene	80.0	79.6	99.5	59-120
151 Anthracene	80.0	79.3	99.2	57-123
152 Carbazole	80.0	80.2	100.3	60-122
155 Di-n-butyl phthalate	80.0	78.9	98.6	59-127
160 Fluoranthene	80.0	79.4	99.2	57-128
162 Pyrene	80.0	76.3	95.4	57-126
169 Butyl benzyl phthalate	80.0	75.9	94.8	53-134
173 Benzo[a]anthracene	80.0	76.2	95.3	58-125
175 Chrysene	80.0	82.7	103.4	59-123
176 Bis(2-ethylhexyl) phtha	80.0	73.3	91.6	55-135
178 Di-n-octyl phthalate	80.0	70.8	88.5	51-140
179 Benzo[b]fluoranthene	80.0	76.7	95.9	53-131
181 Benzo[k]fluoranthene	80.0	86.9	108.7	57-129
183 Benzo[a]pyrene	80.0	82.2	102.7	54-128
187 Indeno[1,2,3-cd]pyrene	80.0	64.1	80.1	52-134
188 Dibenz(a,h)anthracene	80.0	83.7	104.7	51-134
189 Benzo[g,h,i]perylene	80.0	80.9	101.1	50-134

Preliminary Report

Sample Path: \\chromfs\Denver\ChromData\SMS_G6\20231113-127593.b\G6_111323040.D

Samples for Limit Group: 1, Lims Prep Method: 3510C

280-183855-A-3-A 280-183855-A-4-A

Reagent

8270Surrogate_00174

Preliminary Report

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240308-130972.b\G6_B030724038B.D
Lims ID: surr check
Client ID:
Sample Type: Client
Inject. Date: 08-Mar-2024 10:03:30 ALS Bottle#: 41 Worklist Smp#: 25
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: SURR
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240308-130972.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 08-Mar-2024 12:29:44 Calib Date: 05-Mar-2024 10:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130833.b\G6_b030524009D.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1670

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	152	4.320	4.315	0.005	97	109216	40.0	
*	2 Naphthalene-d8	136	5.481	5.481	0.000	100	421345	40.0	p
*	3 Acenaphthene-d10	164	7.171	7.166	0.005	91	233813	40.0	a
*	4 Phenanthrene-d10	188	8.615	8.610	0.005	97	404046	40.0	
*	5 Chrysene-d12	240	11.461	11.461	0.001	99	324648	40.0	
*	6 Perylene-d12	264	13.819	13.809	0.010	98	370870	40.0	
$	7 2-Fluorophenol	112	3.245	3.234	0.011	93	423007	106.3	
$	8 Phenol-d5	99	4.026	4.010	0.016	95	406108	83.0	
$	9 Nitrobenzene-d5	82	4.812	4.807	0.005	90	352346	85.4	
$	10 2,4,6-Trichlorophenol-d2	198		5.917				ND	
$	11 2-Fluorobiphenyl	172	6.529	6.524	0.005	100	585862	80.5	
$	12 2,4,6-Tribromophenol	330	7.946	7.941	0.005	95	120820	79.4	
$	13 Terphenyl-d14	244	10.204	10.198	0.006	98	852350	94.8	
	14 Triethyl amine	86		1.226				ND	
	15 2-Ethoxyethanol	59		1.370				ND	
	19 Dimethylformamide	73		1.900				ND	
	16 1,4-Dioxane	88		1.988				ND	
	20 2-Picoline	93		2.146				ND	
	17 N-Nitrosodimethylamine	74		2.186				ND	
	18 Pyridine	79		2.218				ND	
	21 N-Nitrosomethylethylamine	88		2.253				ND	
	22 Methyl methanesulfonate	80		2.510				ND	
	23 Acrylamide	71		2.558				ND	
	25 N-Nitrosodiethylamine	102		2.831				ND	
	26 Ethyl methanesulfonate	79		3.103				ND	7
	24 Pentachlorophenol_T	266		3.318				ND	ig
	30 Pentachloroethane	117		3.499				ND	
	27 Benzaldehyde	106		3.935				ND	
	29 Phenol	94		4.026				ND	
	28 Aniline	93		4.026				ND	
	31 Alpha Methyl Styrene	118		4.074				ND	

Preliminary Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240308-130972.b\G6_B030724038B.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 Bis(2-chloroethyl)ether	93		4.079				ND	
44 N-Nitrosopyrrolidine	100		4.114				ND	
33 2-Chlorophenol	128		4.138				ND	
50 N-Nitrosomorpholine	116	4.315	4.157	0.158	41	4609	6.39	
51 2-Toluidine	106		4.157				ND	
34 n-Decane	43		4.197				ND	
35 1,3-Dichlorobenzene	146		4.267				ND	
37 1,4-Dichlorobenzene	146		4.331				ND	
38 Benzidine_T	184		4.377				ND	ig
36 2-Bromopyridine	78		4.384				ND	
54 N-Nitrosopiperidine	114		4.419				ND	7
39 Benzyl alcohol	108		4.443				ND	
40 1,2-Dichlorobenzene	146		4.464				ND	
41 Indene	116		4.545				ND	
42 2-Methylphenol	108		4.555				ND	
43 2,2'-oxybis[1-chloropropane]	45		4.561				ND	
57 Benzyl dichloride	125		4.649				ND	
61 3,5-Dimethylphenol	107		4.670				ND	
45 Acetophenone	105		4.673				ND	
46 N-Nitrosodi-n-propylamine	70		4.684				ND	
47 4-Methylphenol	108		4.694				ND	
49 3 & 4 Methylphenol	108		4.694				ND	
48 3-Methylphenol	108		4.694				ND	
59 o,o',o''-Triethylphosphorothioat	198		4.708				ND	
52 Hexachloroethane	117		4.769				ND	
53 Nitrobenzene	77		4.828				ND	7
286 Alpha-Terpineol	59		5.007				ND	
70 Hexachloropropene	213		5.024				ND	
55 Isophorone	82		5.053				ND	
65 alpha,alpha-Dimethyl phenethylam	58		5.114				ND	
56 2-Nitrophenol	139		5.122				ND	
58 2,4-Dimethylphenol	107		5.181				ND	
198 4-Chloro-3-nitro-alpha,alpha,alp	79		5.235				ND	
192 3-Amino-4-Chlorobenzotrifluoride	195		5.256				ND	
60 Bis(2-chloroethoxy)methane	93		5.256				ND	
72 Quinoline	129		5.259				ND	
63 Benzoic acid	105		5.342				ND	
75 p-Phenylene diamine	108	5.481	5.350	0.131	48	42033	16.7	p
76 N-Nitrosodi-n-butylamine	84	5.481	5.355	0.126	42	10158	4.82	p
62 2,4-Dichlorophenol	162		5.358				ND	
66 1,2,4-Trichlorobenzene	180		5.433				ND	
67 Naphthalene	128		5.497				ND	
78 Safrole, Total	162		5.542				ND	
69 4-Chloroaniline	127		5.556				ND	
74 Phthalic anhydride	76	5.481	5.564	-0.083	35	14256	NC	ig
68 2,6-Dichlorophenol	162		5.566				ND	
79 Carbofuran phenol	164		5.596				ND	
71 Hexachlorobutadiene	225		5.636				ND	
85 Isosafrole Peak 1	162		5.821				ND	
73 Caprolactam	55		5.860				ND	
77 4-Chloro-3-methylphenol	107		6.037				ND	

Preliminary Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240308-130972.b\G6_B030724038B.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
89 Isosafrole Peak 2	162		6.040				ND	
92 1-Chloronaphthalene	162		6.083				ND	
287 Toluene diamine (2,4- + 2,6- isd	122		6.099				ND	
80 2-Methylnaphthalene	142		6.165				ND	
94 1,4-Naphthoquinone	158		6.254				ND	
81 1-Methylnaphthalene	142		6.256				ND	
82 3'-Bromoacetophenone	183		6.262				ND	
83 Hexachlorocyclopentadiene	237		6.331				ND	
84 1,2,4,5-Tetrachlorobenzene	216		6.331				ND	
95 1,4-Dinitrobenzene	168	6.529	6.339	0.190	31	7620	6.97	
86 2,3-Dichlorobenzenamine	161		6.433				ND	
87 2,4,6-Trichlorophenol	196		6.443				ND	
88 2,4,5-Trichlorophenol	196		6.481				ND	
90 1,1'-Biphenyl	154		6.615				ND	7
91 2-Chloronaphthalene	162		6.631				ND	
93 2-Nitroaniline	65		6.732				ND	
103 Pentachlorobenzene	250		6.757				ND	
113 1-Naphthylamine	143		6.885				ND	
96 Dimethyl phthalate	163		6.925				ND	
97 1,3-Dinitrobenzene	168		6.941				ND	
115 2-Naphthylamine	143		6.965				ND	
98 2,6-Dinitrotoluene	165		6.973				ND	
99 Acenaphthylene	152		7.026				ND	
100 3-Nitroaniline	138		7.133				ND	
119 Thionazin	97		7.147				ND	
121 N-Nitro-o-toluidine	152		7.168				ND	
101 Acenaphthene	153		7.198				ND	
102 2,4-Dinitrophenol	184		7.235				ND	
105 1,3-Dimethyl-2,4-Dinitrobenzene	77		7.265				ND	
107 4-Nitrophenol	109		7.331				ND	
127 Tributyl phosphate	99		7.345				ND	
109 2,4-Dinitrotoluene	165		7.363				ND	
108 Dibenzofuran	168		7.369				ND	
111 1,3-Dimethyl-2,5-Dinitrobenzene	179		7.383				ND	
132 Sulfotepp	97		7.468				ND	
114 2,3,4,6-Tetrachlorophenol	232		7.503				ND	
104 1,4-Dimethyl-2,3-Dinitrobenzene	77		7.517				ND	
106 1,4-Dimethyl-2,5-Dinitrobenzene	179		7.554				ND	
110 1,4-Dimethyl-2,6-Dinitrobenzene	179		7.554				ND	
134 Diallate Peak 1	86		7.570				ND	
136 Phorate	121		7.575				ND	
133 1,3,5-Trinitrobenzene	213		7.586				ND	
137 Phenacetin	108		7.612				ND	
116 Diethyl phthalate	149		7.615				ND	
139 Diallate Peak 2	86		7.650				ND	
117 Hexadecane	57		7.652				ND	
112 1,2-Dimethyl-3,6-Dinitrobenzene	179		7.661				ND	
118 Fluorene	166		7.700				ND	
120 4-Chlorophenyl phenyl ether	204		7.711				ND	
122 4-Nitroaniline	138		7.733				ND	
141 Dimethoate	87		7.735				ND	

Preliminary Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240308-130972.b\G6_B030724038B.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
123 4,6-Dinitro-2-methylphenol	198		7.770				ND	
124 1,5-Dimethyl-2,4-Dinitrobenzene	179		7.811				ND	
126 N-Nitrosodiphenylamine	169		7.829				ND	
125 Diphenylamine	169		7.829				ND	7
129 Azobenzene	77		7.861				ND	7
128 1,2-Diphenylhydrazine	77		7.861				ND	7
144 Pentachloronitrobenzene	237		7.869				ND	
145 4-Aminobiphenyl	169		7.885				ND	7
147 Pronamide	173		7.971				ND	7
131 1,2-Dimethyl-3,5-Dinitrobenzene	179		7.993				ND	
130 1,5-Dimethyl-2,3-Dinitrobenzene	179		8.030				ND	
149 Dinoseb	211		8.072				ND	
150 Disulfoton	88		8.088				ND	
135 1,2-Dimethyl-3,4-Dinitrobenzene	179		8.153				ND	
138 4-Bromophenyl phenyl ether	248		8.182				ND	
140 Hexachlorobenzene	284		8.251				ND	
142 Atrazine	200		8.358				ND	
146 1,2-Dimethyl-4,5-Dinitrobenzene	91		8.389				ND	
153 Methyl parathion	109		8.447				ND	
143 Pentachlorophenol	266		8.449				ND	
288 n-Octadecane	57	8.556	8.556	0.000	3	177	0.0314	
148 Phenanthrene	178		8.636				ND	
151 Anthracene	178		8.685				ND	
156 4-Nitroquinoline-1-oxide	190		8.832				ND	
157 Ethyl Parathion	109		8.837				ND	
152 Carbazole	167		8.850				ND	
158 Methapyrilene	97		8.933				ND	
154 Alachlor	188		9.011				ND	
159 Isodrin	193		9.056				ND	
155 Di-n-butyl phthalate	149		9.214				ND	
163 Aramite Peak 1	185		9.645				ND	
164 Aramite Peak 2	185		9.720				ND	
165 p-Dimethylamino azobenzene	120		9.768				ND	
160 Fluoranthene	202		9.802				ND	
166 Chlorobenzilate	251		9.827				ND	
161 Benzidine	184		9.936				ND	
162 Pyrene	202		10.022				ND	7
168 3,3'-Dimethylbenzidine	212		10.105				ND	
171 2-Acetylaminofluorene	181		10.372				ND	7
167 Famphur	218		10.679				ND	
174 4,4'-Methylene bis(2-chloroaniline)	231		10.715				ND	
169 Butyl benzyl phthalate	149		10.760				ND	
177 6-Methylchrysene	242		11.324				ND	7
172 3,3'-Dichlorobenzidine	252		11.423				ND	
173 Benzo[a]anthracene	228		11.444				ND	7
175 Chrysene	228		11.498				ND	7
176 Bis(2-ethylhexyl) phthalate	149		11.573				ND	
180 7,12-Dimethylbenz(a)anthracene	256		12.180				ND	
178 Di-n-octyl phthalate	149		12.616				ND	c
182 Hexachlorophene	196		12.661				ND	
179 Benzo[b]fluoranthene	252		13.145				ND	

Preliminary Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240308-130972.b\G6_B030724038B.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
181 Benzo[k]fluoranthene	252		13.193				ND	
184 3-Methylcholanthrene	268		13.293				ND	
183 Benzo[a]pyrene	252	13.825	13.707	0.118	42	1535	2.11	
64 Tris(2,3-dibromopropyl)phosphate	119		13.817				ND	7
185 Dibenz[a,h]acridine	279		14.229				ND	
186 Dibenz[a,j]acridine	279		14.325				ND	
187 Indeno[1,2,3-cd]pyrene	276		15.772				ND	
188 Dibenz(a,h)anthracene	278		15.830				ND	
189 Benzo[g,h,i]perylene	276		16.189				ND	
289 Dibenzo[a,e]pyrene	302		17.368				ND	
190 Sulfolane	1		0.000				ND	6ig
193 Prometon	1		0.000				ND	6ig
290 Alpha Methyl Styrene TIC	1		0.000				ND	
194 DFTPP								1
196 4,4'-DDE	246		4.185				ND	6ig
195 4,4'-DDD	235		4.810				ND	6ig
197 4,4'-DDT	235		4.987				ND	6ig
S 200 Methyl Phenols,Total	108		15.496				ND	7
S 199 Total Cresols	108		15.496				ND	7
S 201 Isosafrole	162		15.496				ND	7
S 202 Diallate	86		15.496				ND	7
S 203 Aramite, Total	185		15.496				ND	7
S 204 TPAH	1		0.000				ND	
T 207 Dimethylformamide TIC	73	3.245	1.360	1.885	20	10147	3.72	9
T 205 Triethyl amine TIC	86	1.833	1.766	0.067	25	609	0.2230	9
T 206 2-Ethoxyethanol TIC	59	1.961	1.953	0.008	1	56	0.0205	9
T 208 Benzyl dichloride TIC	125	6.529	4.922	1.607	25	13904	1.32	9
T 209 alpha,alpha-Dimethyl phenethylam	58	5.037	5.066	-0.029	1	109	0.0103	9
T 210 Alpha-Terpineol TIC	59	5.481	5.146	0.335	35	207	0.0758	9
T 211 p-phenylenediamine TIC	108	5.481	5.585	-0.104	48	42091	4.00	9
T 213 Phthalic anhydride TIC	76	5.518	5.949	-0.431	1	34	0.005817	9
T 212 Carbofuran phenol TIC	164	7.171	6.195	0.976	57	231911	22.0	p
T 214 Toluene diamine (2,4- + 2,6- isa	122	6.529	6.746	-0.217	0	1990	0.3404	
T 215 Tributyl phosphate TIC	99	6.529	6.837	-0.308	33	10183	1.74	9
T 220 2,4-Xylidine TIC	121	7.176	7.810	-0.634	36	228	0.0390	9p
T 218 o-Anisidine TIC	108	8.615	7.966	0.649	28	3038	0.5197	9
T 216 2,6-Dimethylphenol TIC	122	8.615	8.281	0.334	31	1835	0.3139	9p
T 217 Phenylmercaptan TIC	110	8.615	8.281	0.334	39	406	0.0695	9
T 219 5-Methyl-o-Anisidine TIC	122	8.615	8.281	0.334	29	1835	0.3139	9p
T 221 Phthalic acid TIC	104	8.615	8.281	0.334	23	1548	0.2648	9
T 222 1,3-phenylenediamine TIC	108	8.615	8.281	0.334	26	3038	0.5197	9
T 223 Octadecane (TIC)	85	8.615	8.281	0.334	0	459	0.0454	
T 224 Kepone TIC	272	12.274	11.667	0.607	1	64	0.0109	9
T 225 Hexachlorophene TIC	196	12.648	12.651	-0.003	1	102	0.0126	9
T 226 Tris(2,3-dibromopropyl)phosphate	119	14.285	14.287	-0.002	47	290	0.0313	9
T 228 Dibenzo[a,e]pyrene TIC	302	14.664	14.662	0.002	27	193	0.0208	9
T 227 Dibenz[a,h]acridine TIC	279	14.803	14.795	0.008	27	146	0.0157	9
T 229 Hexachlorodibenzofurans TIC	1		0.000				ND	1
T 230 Pentachlorodibenzo-p-dioxin TIC	1		0.000				ND	1
T 231 Pentachlorodibenzofurans TIC	1		0.000				ND	1
T 232 Hexachlorodibenzo-p-dioxin TIC	1		0.000				ND	1

Preliminary Report

QC Flag Legend

Processing Flags

NC - Not Calibrated
1 - Missing Peaks
6 - Missing Quant Standard
7 - Failed Limit of Detection
9 - Failed A Reference Spectral Test
i - Failed Initial Calibration Limits
c - Failed Continuing Calibration Limits
p - Peak ID'ed as Multiple Compounds
g - Not in Limit Group or Failed to Calibrate

Review Flags

a - User Assigned ID

Reagents:

8270Surrogate_00174	Amount Added: 250.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

Reagent

8270SurStkHL_00437

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567685 **Lot No.:** A0184539

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : April 30, 2027 **Storage:** 10°C or colder

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Fluorophenol **CAS #** 367-12-4 (Lot STBJ3299) **Purity** 99%	5,023.5 µg/mL	+/- 29.2073 µg/mL +/- 146.6035 µg/mL +/- 177.8977 µg/mL	Gravimetric Unstressed Stressed
2	Phenol-d5 **CAS #** 4165-62-2 (Lot GH-100) **Purity** 99%	5,000.1 µg/mL	+/- 29.0708 µg/mL +/- 145.9187 µg/mL +/- 177.0667 µg/mL	Gravimetric Unstressed Stressed
3	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-29940A) **Purity** 99%	5,012.6 µg/mL	+/- 29.1437 µg/mL +/- 146.2845 µg/mL +/- 177.5106 µg/mL	Gravimetric Unstressed Stressed
4	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot 00021384) **Purity** 99%	5,004.9 µg/mL	+/- 29.0991 µg/mL +/- 146.0607 µg/mL +/- 177.2391 µg/mL	Gravimetric Unstressed Stressed
5	2,4,6-Tribromophenol **CAS #** 118-79-6 (Lot MKCJ7664) **Purity** 99%	5,009.7 µg/mL	+/- 29.1270 µg/mL +/- 146.2008 µg/mL +/- 177.4091 µg/mL	Gravimetric Unstressed Stressed
6	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-30504) **Purity** 99%	5,005.8 µg/mL	+/- 29.1042 µg/mL +/- 146.0860 µg/mL +/- 177.2698 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

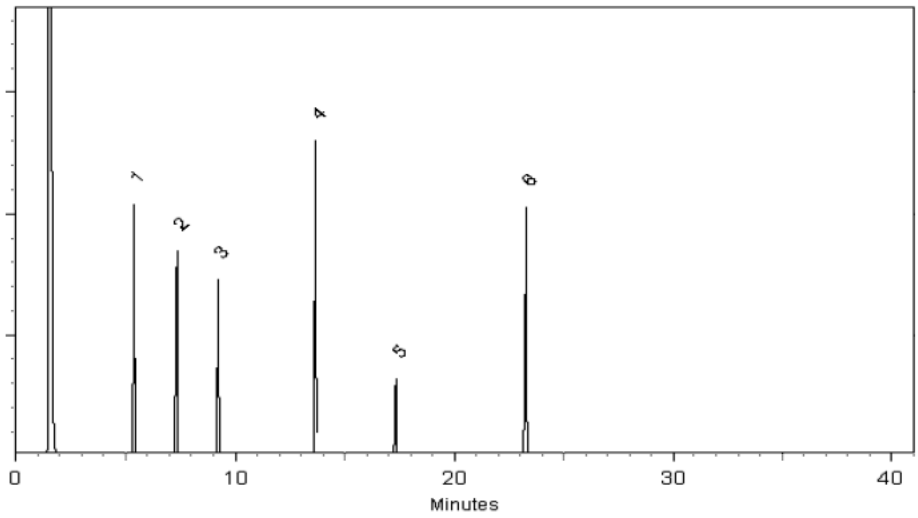
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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.

[redacted]
Nick Yaw - Operations Tech I

Date Mixed: 26-Apr-2022 **Balance:** 1128360905

[redacted]

Date Passed: 29-Apr-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8270SurStkHL_00451

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567685 **Lot No.:** A0198748

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 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	2-Fluorophenol	367-12-4	STBJ3299	99%	5,021.6 µg/mL	+/- 151.8433
2	Phenol-d5	4165-62-2	GH-100	99%	5,000.6 µg/mL	+/- 151.2083
3	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,018.2 µg/mL	+/- 151.7404
4	2-Fluorobiphenyl	321-60-8	00021384	99%	5,002.2 µg/mL	+/- 151.2566
5	2,4,6-Tribromophenol	118-79-6	RP220811	99%	5,001.0 µg/mL	+/- 151.2204
6	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,014.2 µg/mL	+/- 151.6195

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

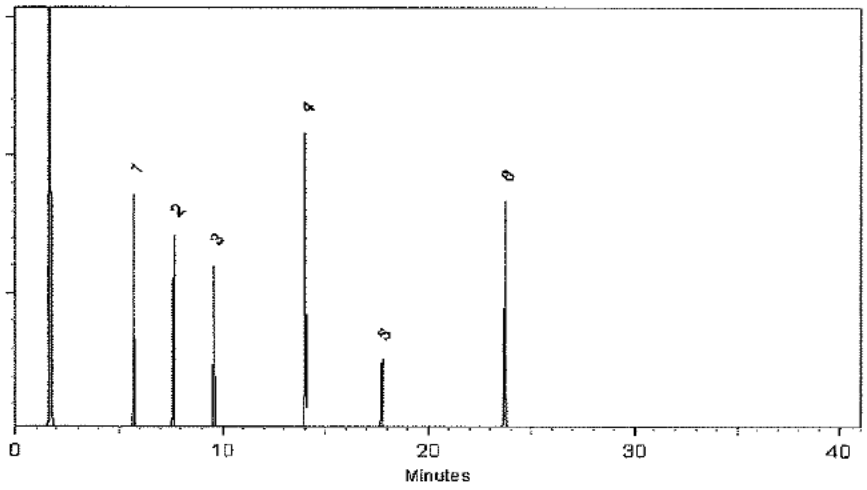
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted] - Mix Technician

Date Mixed: 06-Jun-2023 **Balance Serial #** 1128360905

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

Date Passed: 16-Jun-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8270SurStkHL_00452

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567685 **Lot No.:** A0198748

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 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	2-Fluorophenol	367-12-4	STBJ3299	99%	5,021.6 µg/mL	+/- 151.8433
2	Phenol-d5	4165-62-2	GH-100	99%	5,000.6 µg/mL	+/- 151.2083
3	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,018.2 µg/mL	+/- 151.7404
4	2-Fluorobiphenyl	321-60-8	00021384	99%	5,002.2 µg/mL	+/- 151.2566
5	2,4,6-Tribromophenol	118-79-6	RP220811	99%	5,001.0 µg/mL	+/- 151.2204
6	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,014.2 µg/mL	+/- 151.6195

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

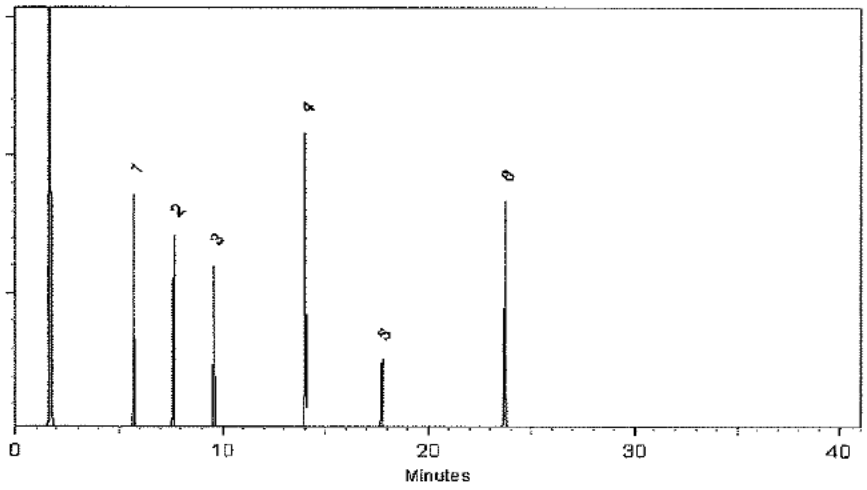
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]

Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 06-Jun-2023 **Balance Serial #** 1128360905

Date Passed: 16-Jun-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8270SurStkHL_00454

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567685 **Lot No.:** A0198748

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 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	2-Fluorophenol	367-12-4	STBJ3299	99%	5,021.6 µg/mL	+/- 151.8433
2	Phenol-d5	4165-62-2	GH-100	99%	5,000.6 µg/mL	+/- 151.2083
3	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,018.2 µg/mL	+/- 151.7404
4	2-Fluorobiphenyl	321-60-8	00021384	99%	5,002.2 µg/mL	+/- 151.2566
5	2,4,6-Tribromophenol	118-79-6	RP220811	99%	5,001.0 µg/mL	+/- 151.2204
6	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,014.2 µg/mL	+/- 151.6195

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

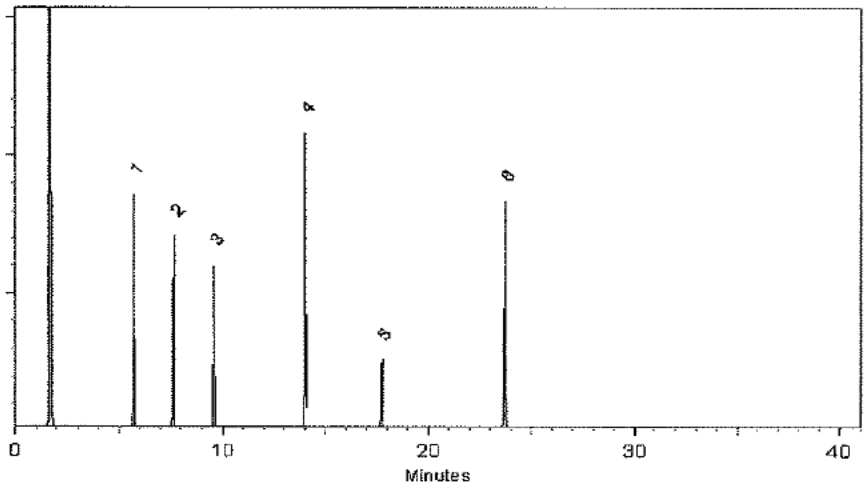
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]
Morgan Craighead - Mix Technician

Date Mixed: 06-Jun-2023 **Balance Serial #** 1128360905

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

Date Passed: 16-Jun-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8270SurStkHL_00455

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567685 **Lot No.:** A0198748

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 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	2-Fluorophenol	367-12-4	STBJ3299	99%	5,021.6 µg/mL	+/- 151.8433
2	Phenol-d5	4165-62-2	GH-100	99%	5,000.6 µg/mL	+/- 151.2083
3	Nitrobenzene-d5	4165-60-0	I-25158	99%	5,018.2 µg/mL	+/- 151.7404
4	2-Fluorobiphenyl	321-60-8	00021384	99%	5,002.2 µg/mL	+/- 151.2566
5	2,4,6-Tribromophenol	118-79-6	RP220811	99%	5,001.0 µg/mL	+/- 151.2204
6	p-Terphenyl-d14	1718-51-0	PR-32599	99%	5,014.2 µg/mL	+/- 151.6195

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

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

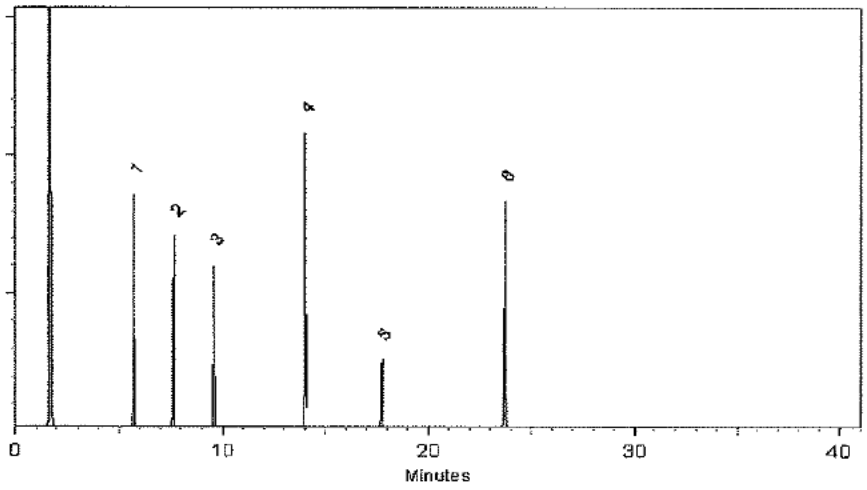
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted] - Mix Technician

Date Mixed: 06-Jun-2023 **Balance Serial #** 1128360905

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

Date Passed: 16-Jun-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330 LCS_00130

Preliminary Report

Eurofins Denver
LCS, Lab Control Sample Report

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

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

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

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

Reagent

8330 LCS_00133

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20231219-128731.b\12190006.D

Lims ID: 8330 LCS_00133 Inj. Date: 19-Dec-2023 13:45:12

Worklist ID: 280-0128731-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
4 HMX	0.5000	0.4349	87.0	65-135	66-115	
8 RDX	0.5000	0.4498	90.0	68-130	69-122	
9 2,4,6-Trinitrophenol	0.5000	0.5155	103.1	80-120	63-135	
11 1,3,5-Trinitrobenzene	0.5000	0.5132	102.6	73-125	62-127	
12 1,3-Dinitrobenzene	0.5000	0.5027	100.5	78-120	59-131	
13 Nitrobenzene	0.5000	0.5001	100.0	65-134	46-144	
14 3,5-Dinitroaniline	0.5000	0.4798	96.0	71-117	55-119	
15 Tetryl	0.5000	0.5608	112.2	64-128	56-131	
16 Nitroglycerin	5.00	5.07	101.5	74-127	70-125	
17 2,4,6-Trinitrotoluene	0.5000	0.4692	93.8	71-123	46-139	
18 4-Amino-2,6-dinitrotolu	0.5000	0.5152	103.0	76-125	43-120	
19 2-Amino-4,6-dinitrotolu	0.5000	0.4816	96.3	79-120	46-124	
20 2,6-Dinitrotoluene	0.5000	0.4920	98.4	77-127	51-130	
21 2,4-Dinitrotoluene	0.5000	0.4997	99.9	78-120	53-127	
22 o-Nitrotoluene	0.5000	0.4880	97.6	70-127	37-138	
23 p-Nitrotoluene	0.5000	0.4815	96.3	71-127	41-137	
24 m-Nitrotoluene	0.5000	0.4984	99.7	73-125	31-140	
25 PETN	5.00	5.10	102.1	73-127	67-127	

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

280-185633-B-2-A

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

380-74796-BS-4-A 410-154416-C-2-A 550-211793-AB-1-A

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

280-185787-B-1-A 280-185787-B-2-A 380-74811-O-1-A

380-74811-P-3-A 380-74811-O-5-A 380-74811-O-7-A

380-75107-O-1-A 380-75107-P-3-A 380-75107-P-5-A

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 LCSMix2_00113

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

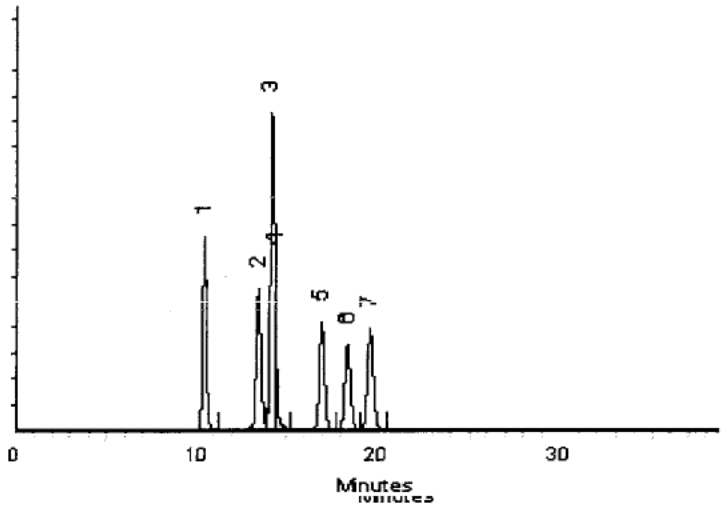
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted]
Alicia Leathers - Operation Technician I

Date Mixed: 07-Jul-2023 **Balance Serial #** B251644995

[redacted]
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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330 LCSMix2_00115

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

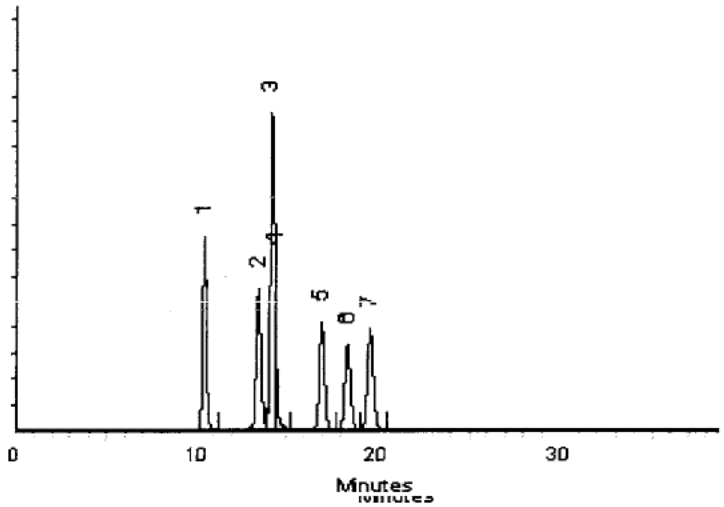
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted] nician I **Date Mixed:** 07-Jul-2023 **Balance Serial #** B251644995

[redacted] 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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330 Stock_TS_00023

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Stock Standard

Product Number: NAIM-833E-1

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

Lot Number: 0006684308

Lot Issue Date: 01-Jun-2022

Expiration Date: 30-Jun-2025

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

Matrix: acetonitrile

Description:

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

Traceability:

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

Homogeneity:

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

Instructions for Use:

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

Reagent

8330 Stock_TS_00024

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Stock Standard

Product Number: NAIM-833E-1

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

Lot Number: 0006684308

Lot Issue Date: 01-Jun-2022

Expiration Date: 30-Jun-2025

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

Matrix: acetonitrile

Description:

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

Traceability:

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

Homogeneity:

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

Instructions for Use:

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

Reagent

8330_NG_AUX_00007

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Nitroglycerin Standard

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

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

Expiration Date : November 30, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	1,005.0 µg/mL	+/- 46.8850

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

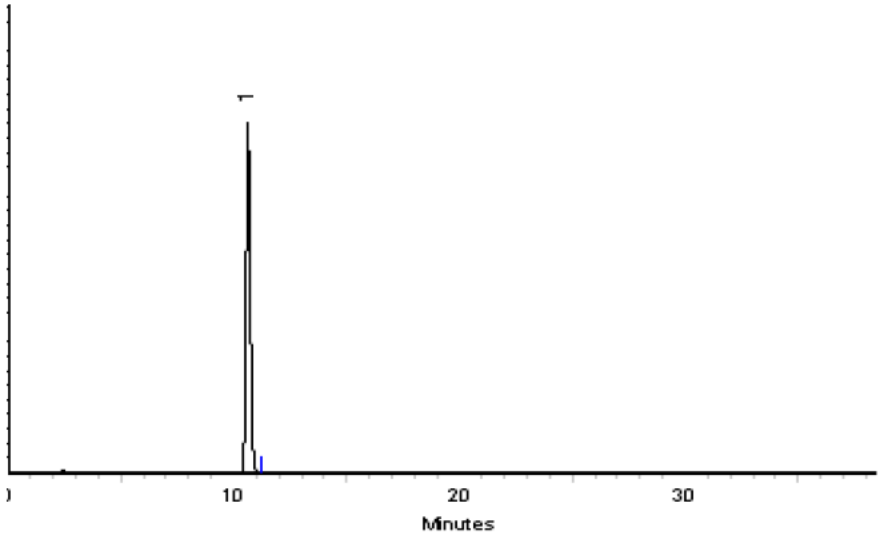
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



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

[redacted]
Brittany F[redacted]ons Tech I

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

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

Date Passed: 05-Dec-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00137

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

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

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

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00138

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

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

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

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00144

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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 298 of 1563

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

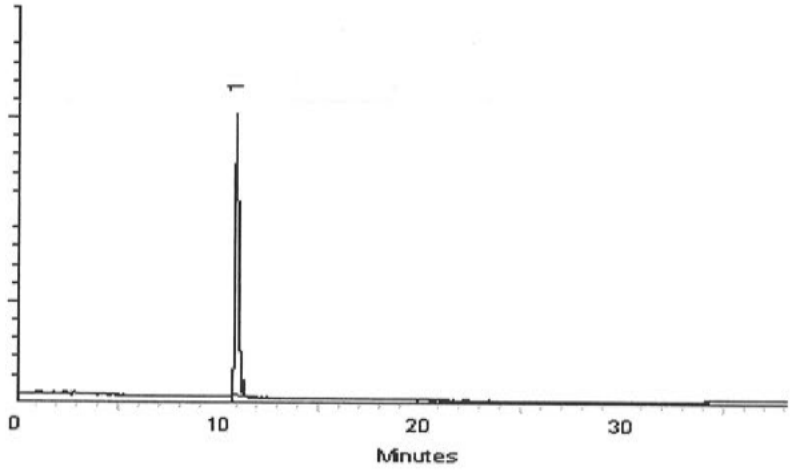
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted]

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

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00145

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

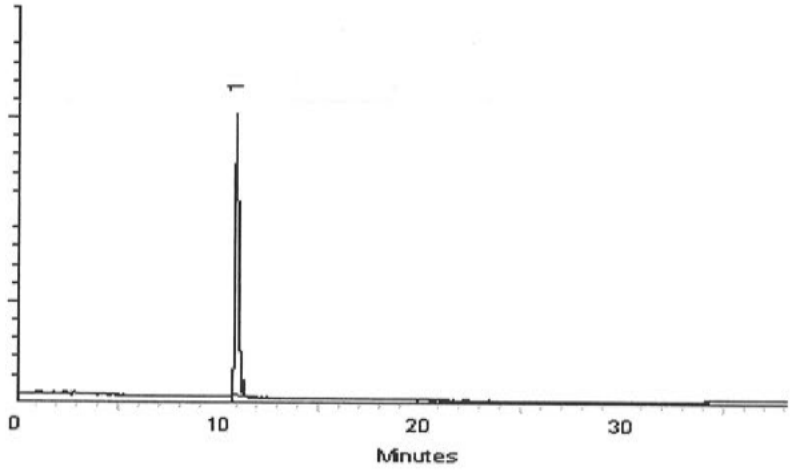
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted]

[redacted]

Jennifer Pollino - Operations Tech III - ARM QC

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

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00146

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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 308 of 1563

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

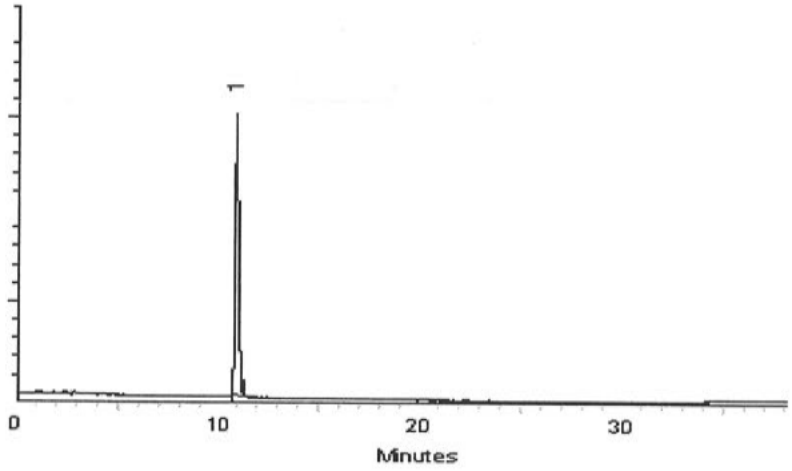
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted]

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

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

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00147

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

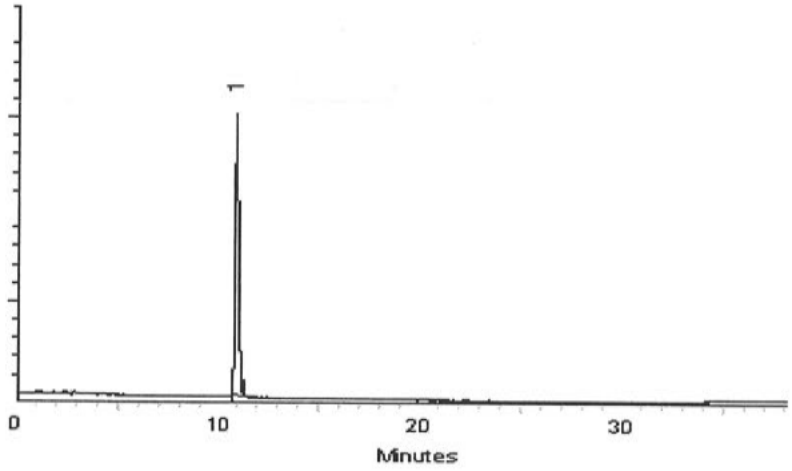
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted]

Jennifer Polino - Operations Tech III - ARM QC

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

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG1000_00011

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00141

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom PETN Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,020.0 µg/mL	+/- 236.9306

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

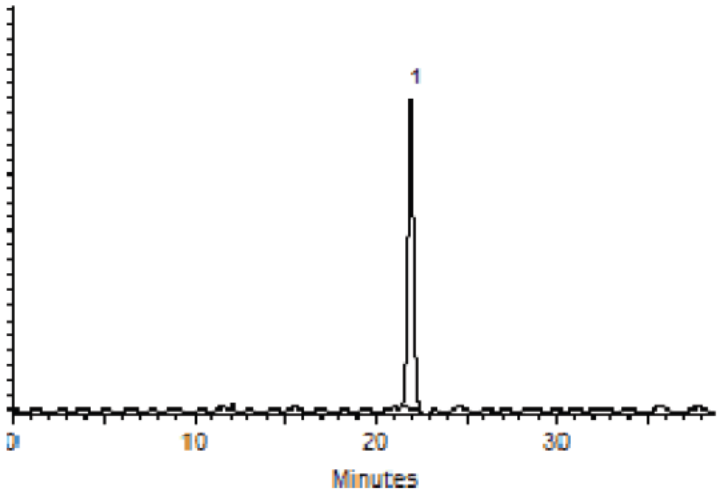
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



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

[redacted]
John Friedline - Operations Technician I

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

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

Date Passed: 10-May-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00144

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom PETN Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,020.0 µg/mL	+/- 236.9306

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

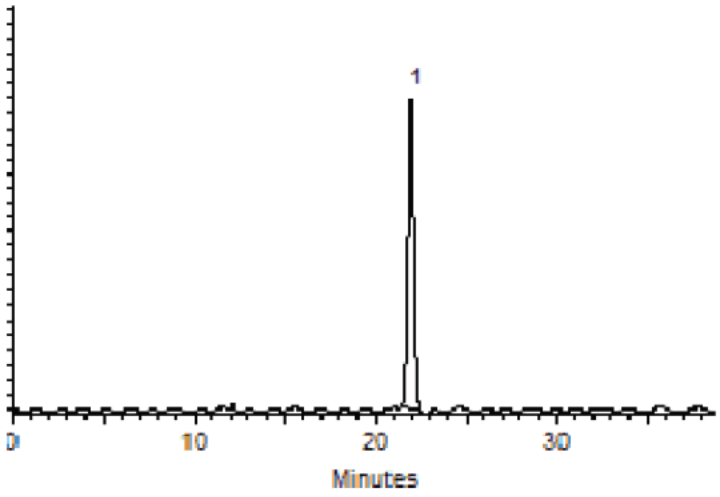
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



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

[redacted]
John Friedline - Operations Technician I

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

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

Date Passed: 10-May-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00145

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom PETN Standard

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

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

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

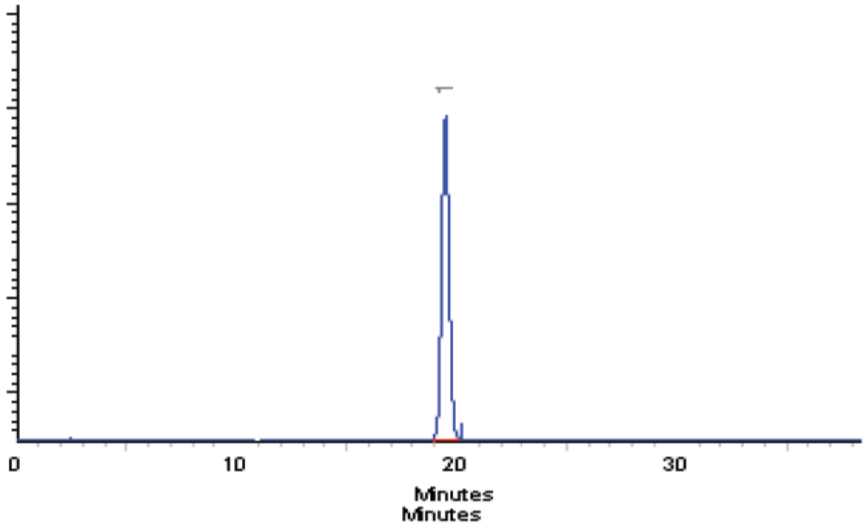
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



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

[redacted]
Bryan Snyder - Operations Tech I

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

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

Date Passed: 16-Jun-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00150

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom PETN Standard

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

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

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

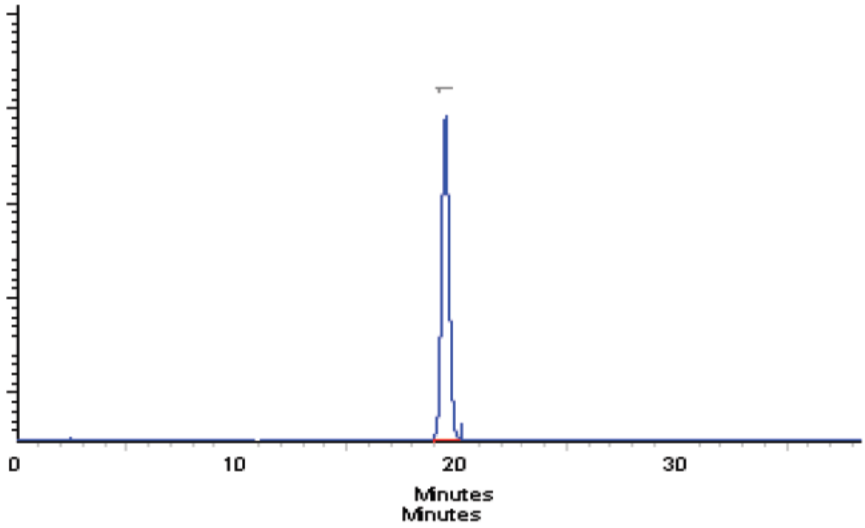
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



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

Bryan [redacted] Tech I

Jennifer Pollino - Operations Tech III - ARM QC

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

Date Passed: 16-Jun-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00151

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom PETN Standard

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

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

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

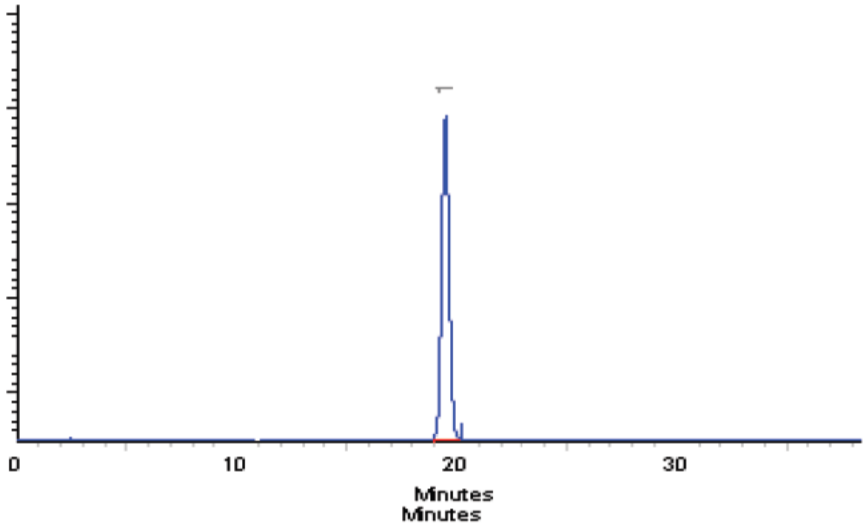
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



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

Bryan [redacted] s Tech I

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

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

Date Passed: 16-Jun-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00152

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom PETN Standard

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

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

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

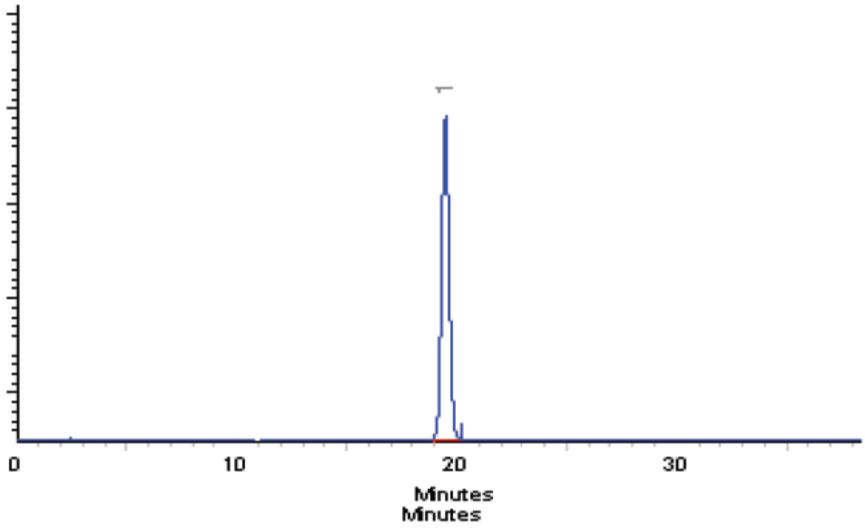
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



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

[redacted]
Bryan Snyder - Operations Tech I

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

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

Date Passed: 16-Jun-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00153

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom PETN Standard

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

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

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

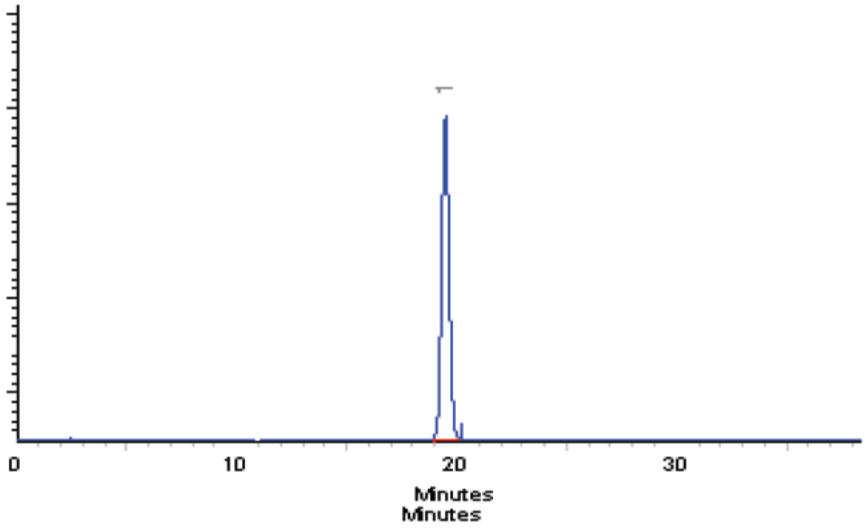
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



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

[redacted]
Bryan Snyder - Operations Tech I

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

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

Date Passed: 16-Jun-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN1000_00013

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : PETN Standard

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	PETN	78-11-5	051108JLM	99%	1,009.0 µg/mL	+/- 47.0716

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

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN1000_00015

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31600 **Lot No.:** 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%

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

833035DNAStk_00056

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

ANAB ACCREDITED AR-1463

ilac-MRA

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

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

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

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

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

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

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

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

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

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

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

Certified By: [redacted]

For use in routine laboratory analysis.

Reagent

833035DNAStk_00057

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

ANAB ACCREDITED AR-1463

ilac-MRA

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

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

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

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

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

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

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

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

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

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

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

Certified By: [redacted]

For use in routine laboratory analysis.

Reagent

8330DiaminLCS_00060

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

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

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

Worklist ID: 280-0123981-011 Instrument: CHHPLC_X3

Method: 8330_X3

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

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

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

Reagent

8330DiaminLCS_00064

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20231213-128543.b\12130038.D

Lims ID: DiaminoLCS64 Inj. Date: 13-Dec-2023 21:00:06

Worklist ID: 280-0128543-038 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535
2 2,6-diamino-4-nitrotolu	0.5000	0.4655	93.1	72-122	80-150
5 2,4-diamino-6-nitrotolu	0.5000	0.4596	91.9	68-122	70-150

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

280-185563-A-1-A 280-185563-A-2-A

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

280-185440-A-1-A 280-185441-A-1-A

Reagent

8330LCSMix1_00145

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

RESTEK CERTIFIED REFERENCE MATERIAL

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

www.restek.com

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31450 **Lot No.:** A0163590

Description : 8330 Calibration Mix #1

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

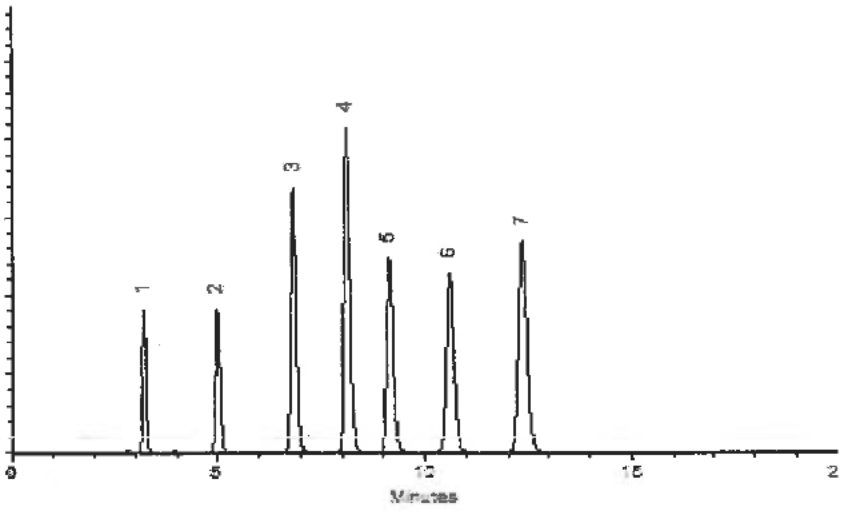
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

[redacted] **Date Mixed:** 17-Aug-2020 **Balance:** 1128353505

[redacted] **Date Passed:** 19-Aug-2020

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

Reagent

8330LCSMix1_00149

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 8330 Calibration Mix #1

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

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

Expiration Date : April 30, 2027 **Storage:** 10°C or colder

Ship: Ambient

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

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

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

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

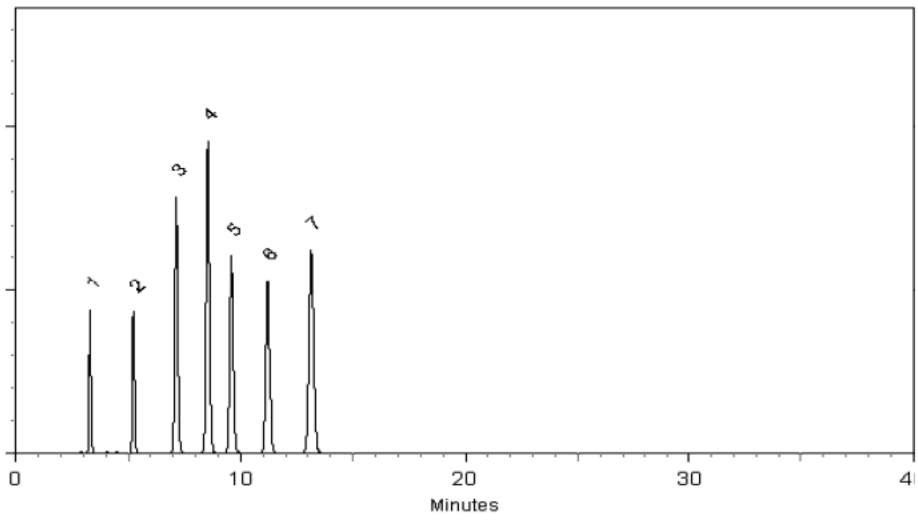
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Tom[redacted]cian

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

[redacted]

Date Passed: 13-Apr-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330LCSMix1_00151

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

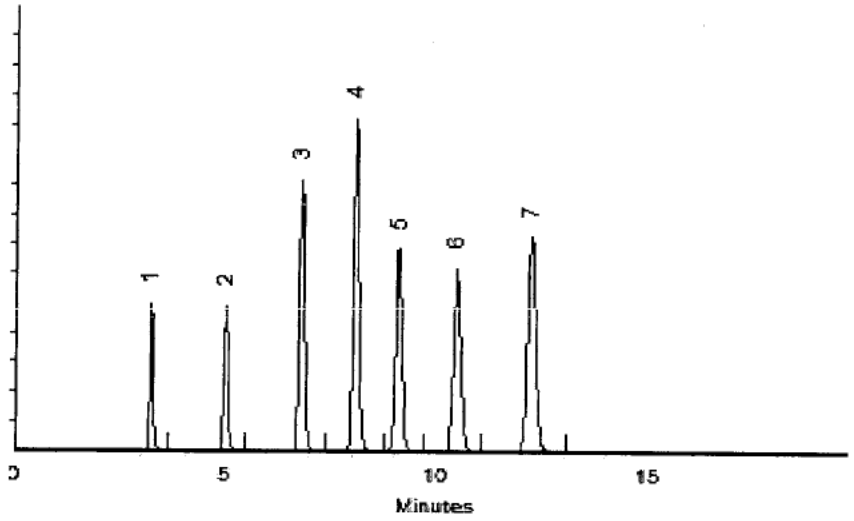
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted]

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

[redacted]
Jennifer Polino - 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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330LCSmix2_00043

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 8330 Calibration Mix #2

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Tetryl	479-45-8	211028JLM	99%	1,006.0 µg/mL	+/- 46.9317
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,004.0 µg/mL	+/- 46.8384
3	2-Amino-4,6-dinitrotoluene	35572-78-2	A210503-001	99%	1,006.0 µg/mL	+/- 46.9317
4	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,004.0 µg/mL	+/- 46.8384
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,008.0 µg/mL	+/- 47.0250
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,002.0 µg/mL	+/- 46.7451
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,008.0 µg/mL	+/- 47.0250

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

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

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

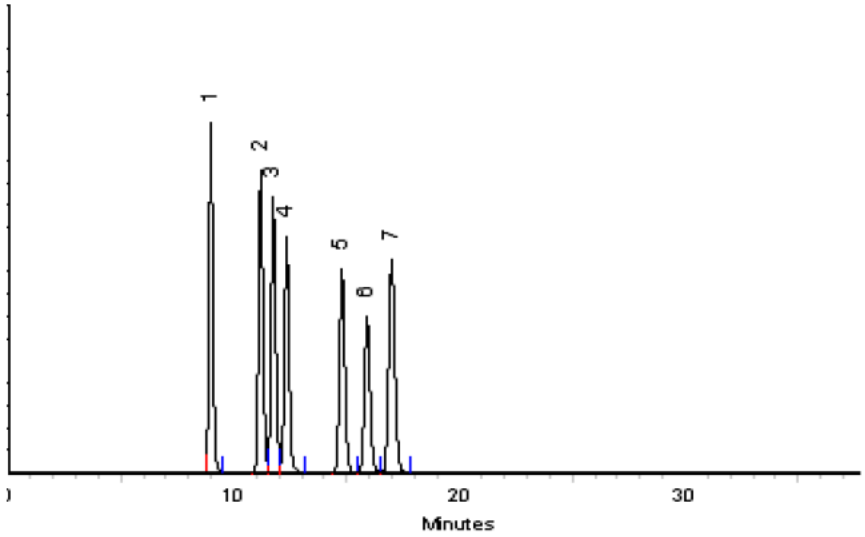
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
5µl



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

John Fr[redacted]cian I

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

[redacted]
Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Dec-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330PAStkPS_00073

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

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

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

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

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

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

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

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

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

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

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

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

Certified By: [redacted]

For use in routine laboratory analysis.

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

Reagent

8330PAStkPS_00074

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

Date Certified: Mar 23, 2023
Expiration: Apr 23, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Picric acid	88-89-1	99.1	100.4	99.5

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

[2] All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

[3] Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: [redacted]

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

Reagent

8330Surrogate_00150

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230822-124734.b\08220011.D

Lims ID: Surr150 Inj. Date: 22-Aug-2023 20:04:51

Worklist ID: 280-0124734-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 0B_Sonc_
$ 10 1,2-Dinitrobenzene	0.2500	0.2372	94.9	78-119	83-122

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

680-238231-F-10-B

Samples for Limit Group: 2, Lims Prep Method: 8330B_Sonc_10g

280-179677-A-20-B 280-179677-A-23-B

Reagent

8330Surrogate_00152

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20231110-127518.b\11100006.D

Lims ID: C18column:B16162 Inj. Date: 10-Nov-2023 12:01:45

Worklist ID: 280-0127518-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
$ 10 1,2-Dinitrobenzene	0.2500	0.2428	97.1	75-118	83-119	63-127

Samples for Limit Group: 1, Lims Prep Method: 3535

380-69272-BX-1-A

Samples for Limit Group: 2, Lims Prep Method: 3535

280-183988-A-1-A	280-183988-A-2-A	280-183988-A-3-A
280-183988-A-4-A	280-183988-A-5-A	280-183906-B-11-A
280-183906-B-12-A	280-183906-A-13-A	280-183906-B-14-A
280-184049-A-1-A	280-184049-A-2-A	280-184151-A-1-A
280-184151-A-2-A	280-184151-A-8-A	280-184151-A-9-A

Samples for Limit Group: 3, Lims Prep Method: 3535

500-242117-O-1-A	500-242117-O-2-A	500-242117-O-3-A
500-242117-P-4-A		

Reagent

8330SurrStkSS_00285

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0197062

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	STBK9056	99%	1,001.6 µg/mL	+/- 56.2801

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

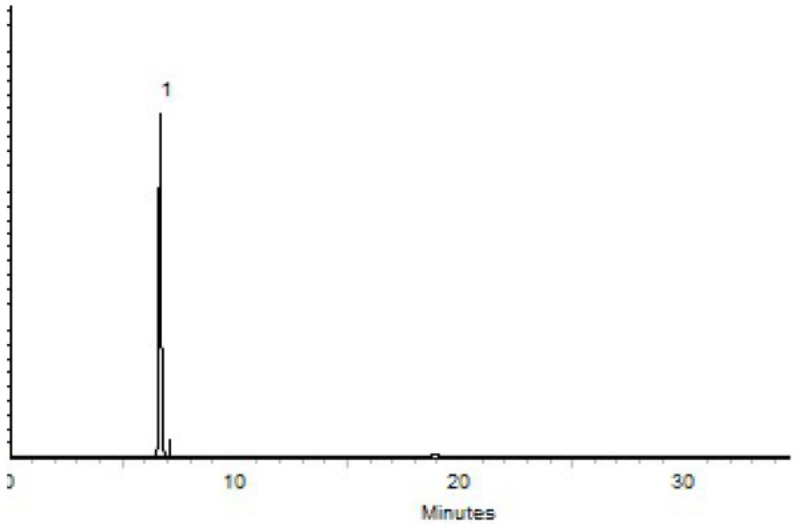
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 17-Apr-2023 **Balance Serial #** 1128360905

Date Passed: 19-Apr-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00293

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

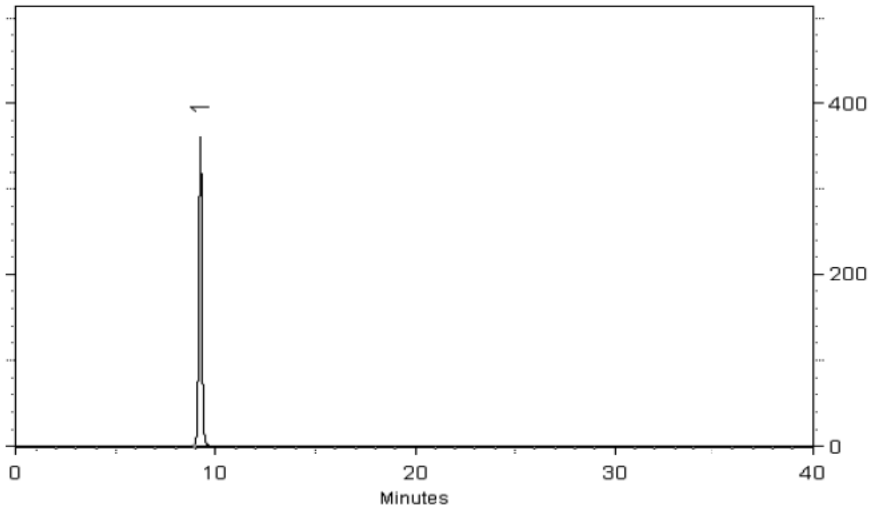
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith C[redacted]cian I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00294

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

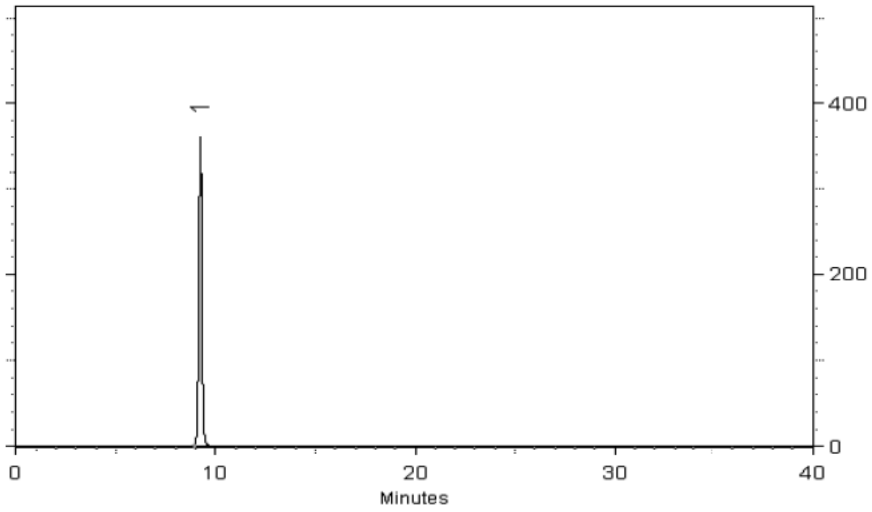
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

[redacted] Laith Cle[redacted]ician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

[redacted] Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00295

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

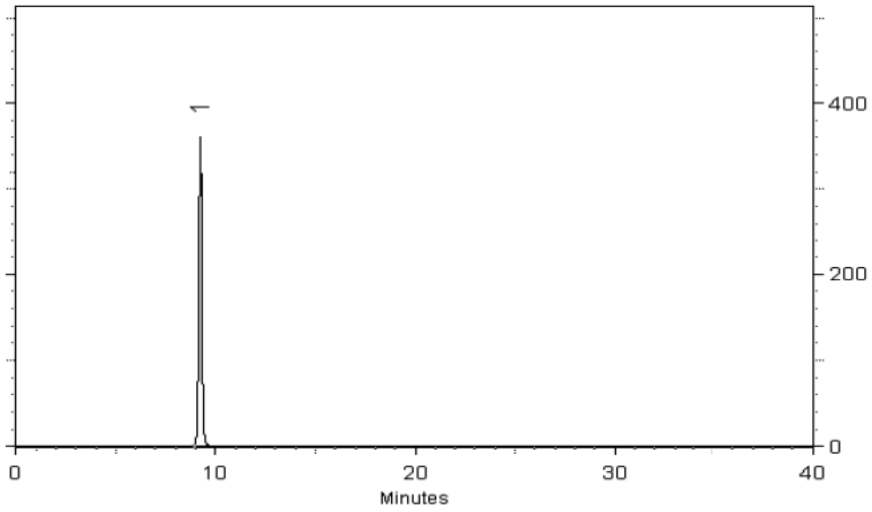
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Cl[redacted]cian I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer P[redacted] - ARM QC

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00296

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

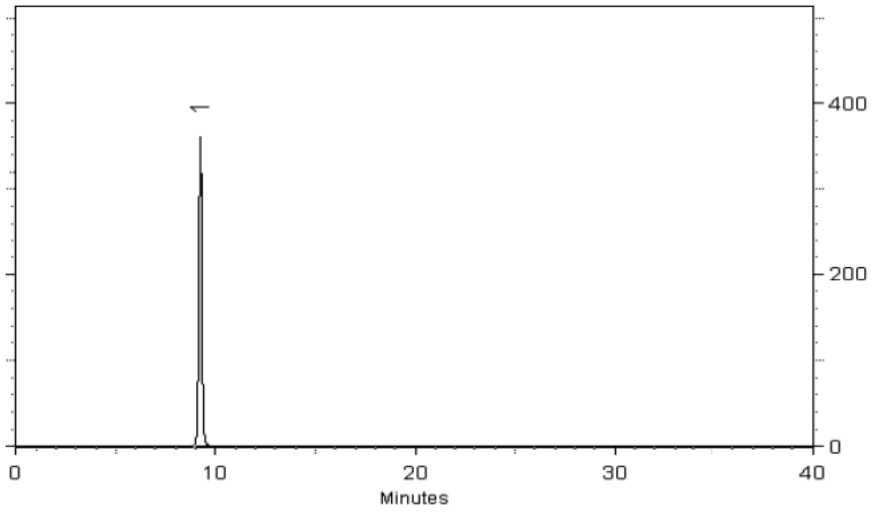
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Cle[redacted]ian I

Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00301

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

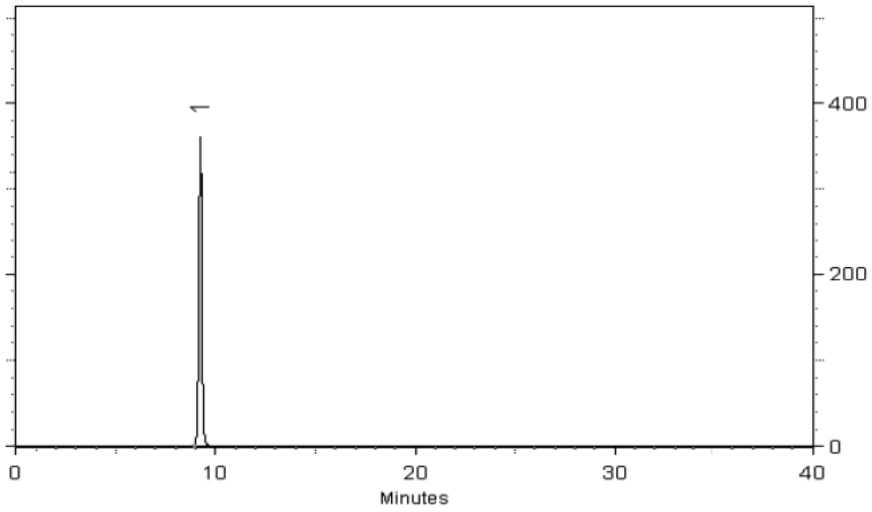
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

[redacted] **Date Mixed:** 08-Jun-2023 **Balance Serial #** B707717271

Jennifer P[redacted] III - ARM QC **Date Passed:** 14-Jun-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00302

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** 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 411 of 1563

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

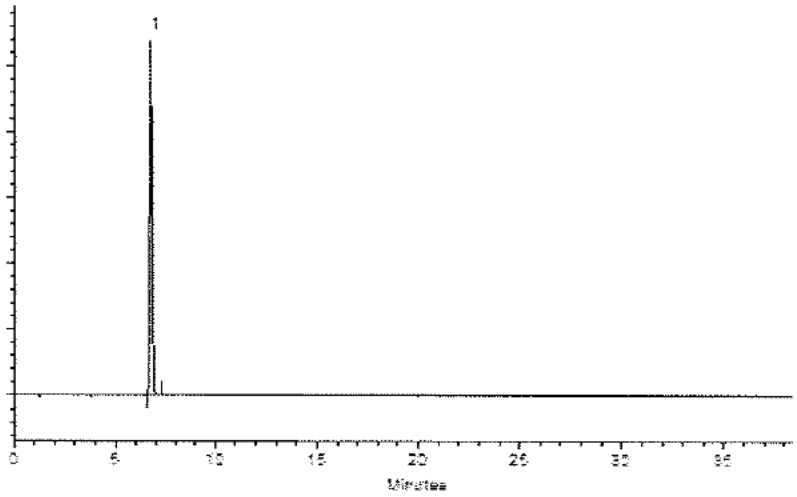
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted] **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

[redacted] **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/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00303

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 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 415 of 1563

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

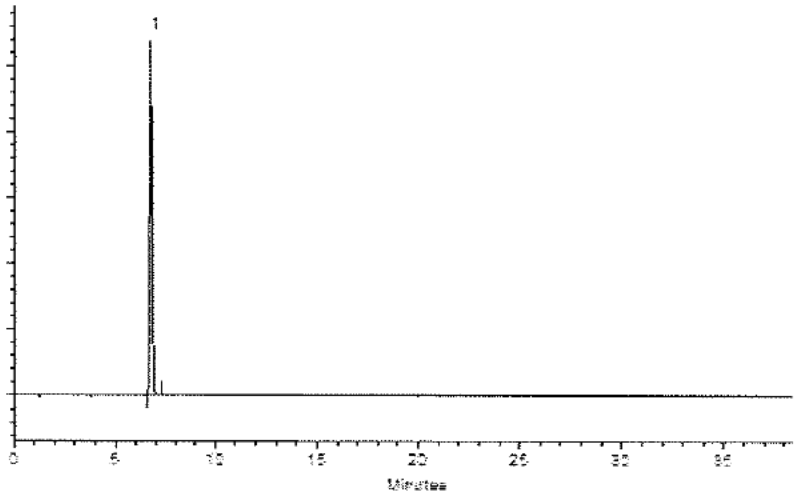
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted] Laith Cl[redacted]ician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

[redacted] Jennifer Polino - 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/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00304

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** 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 419 of 1563

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

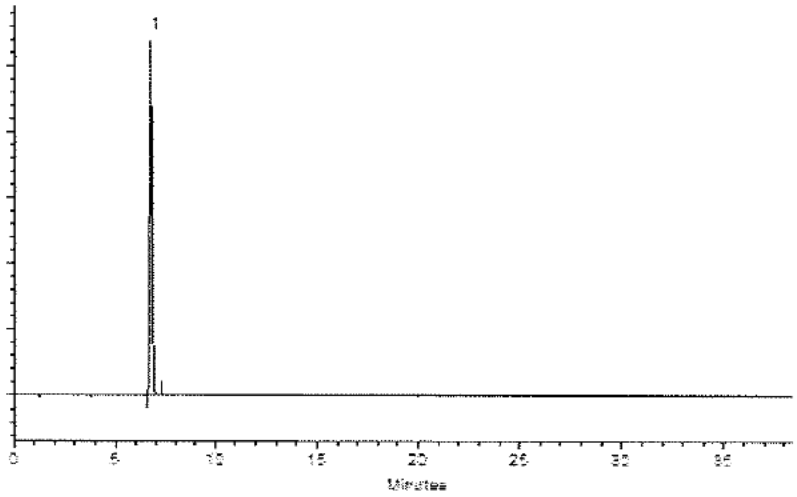
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted] Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

[redacted] Jennifer Polino - 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/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00305

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 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 423 of 1563

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

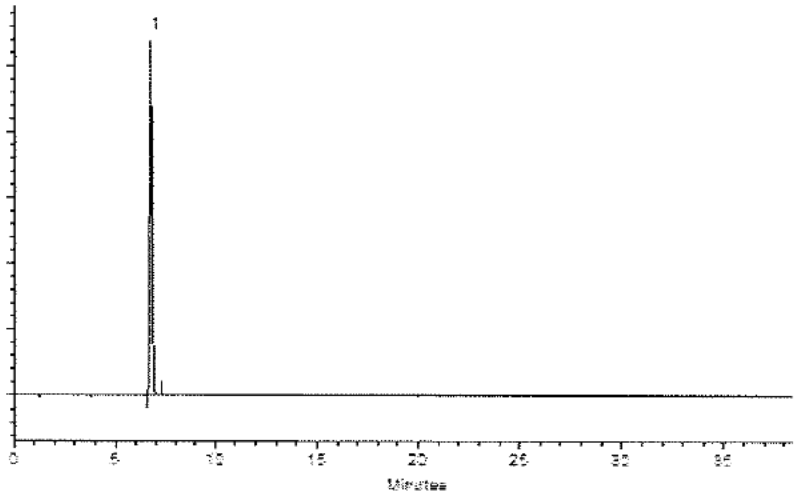
Mobile Phase A:
water:methanol (44:56 V/V)

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 C[redacted]ician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - 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/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00310

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** 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 427 of 1563

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

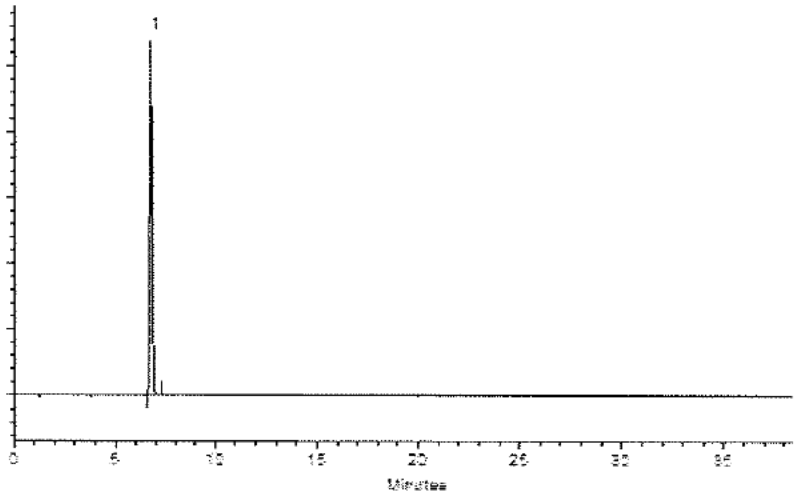
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted] Laith Cle[redacted]ian I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

[redacted] Jennifer Polfino - 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/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00311

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** 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 431 of 1563

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

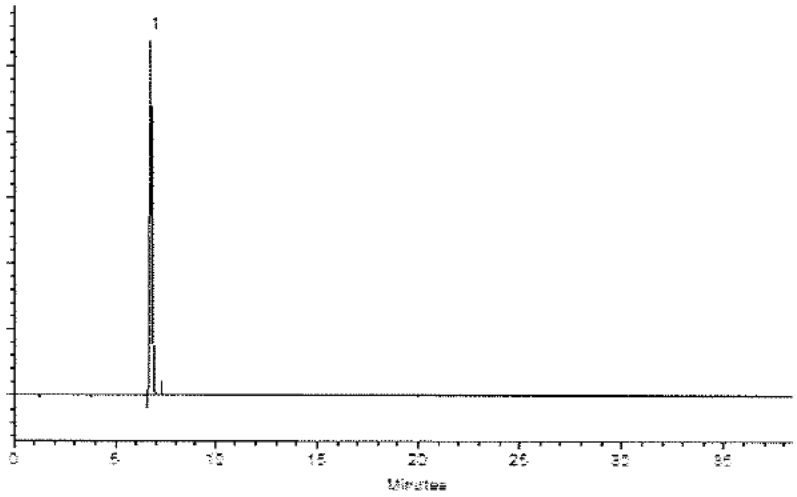
Mobile Phase A:
water:methanol (44:56 V/V)

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 Cl[redacted]ian I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - 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/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00312

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** 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%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

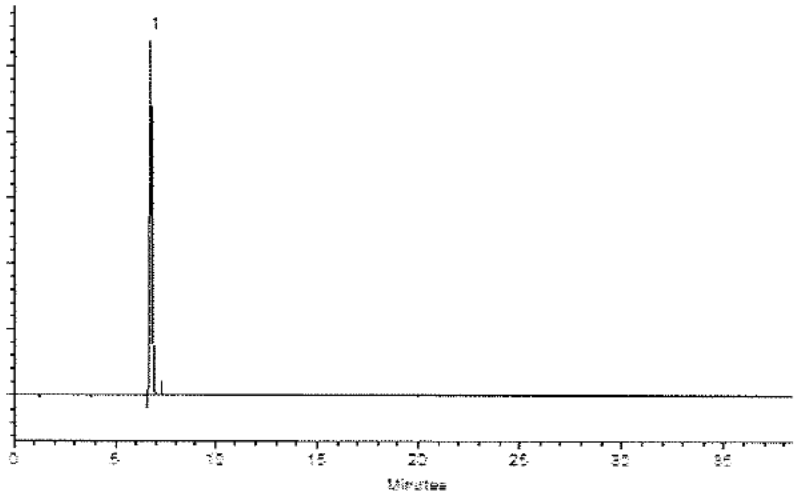
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted] Laith Cl[redacted]an I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

[redacted] Jennifer Polino - 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/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00314

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** 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%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

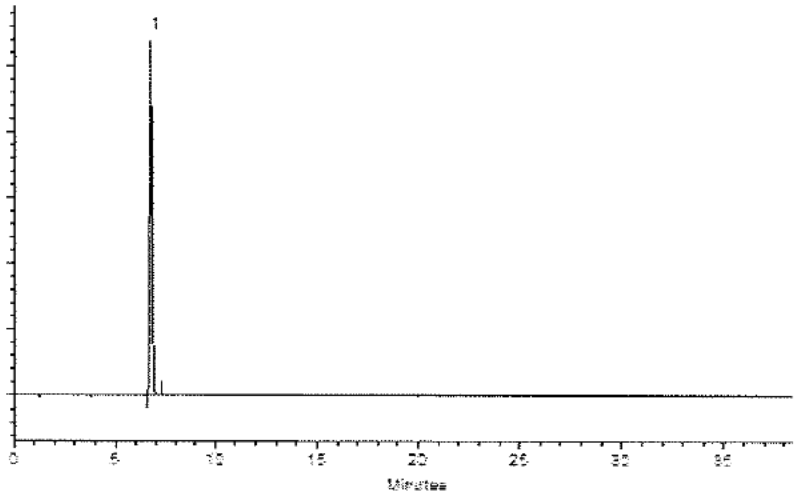
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted] ian I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

[redacted] - 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/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00315

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** 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 443 of 1563

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

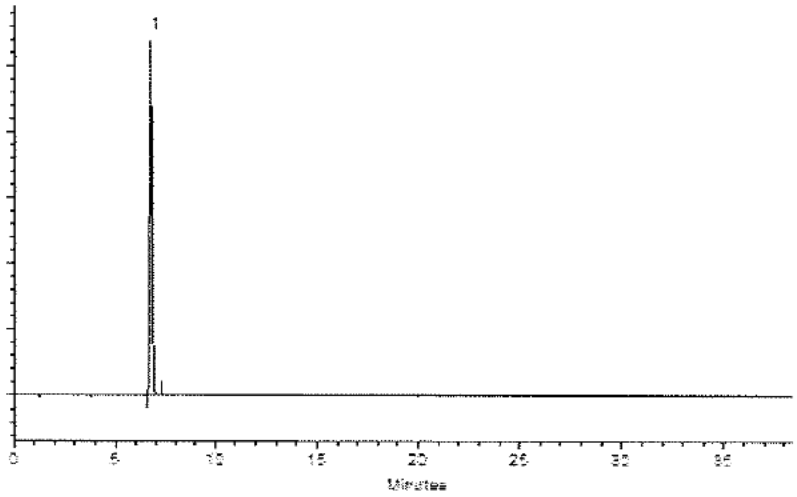
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted] ician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

[redacted] Jennifer Polino - 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/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStock_00172

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS
Description: 1,2-Dinitrobenzene
Lot: 219051500
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 22, 2019
Expiration: May 22, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	1002	1002

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: [redacted]

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

8330SurrStock_00173

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS
Description: 1,2-Dinitrobenzene
Lot: 219051500
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 22, 2019
Expiration: May 22, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	1002	1002

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: [redacted]

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

MNX,TNX,DNX_00080

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-23984

Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006725091

Lot Issue Date: 31-Jan-2023

Expiration Date: 29-Feb-2024

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.3	±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.1	±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	116.7	±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above. Purity values are taken from approved vendor raw material certificates.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference (RM) standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference (RM) standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

Reagent

MNX,TNX,DNX_00092

Agilent
Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard
Product Number: CUS-23984
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006744504
Lot Issue Date: 17-May-2023
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 20ºC to 25ºC 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.

Agilent
Trusted Answers

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:

[redacted]
Monica Bourgeois
QMS Representative

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

ISO 17034
Cert No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO 9001:2015 Quality Management System. Cert# 951215321

www.agilent.com/quality/
CSD-QA-015.2

ISO 17025
Cert No. AT-1937

Reagent

MS-31615_00010

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0187536

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol **CAS #** 87-86-5 (Lot 211229RSR) **Purity** 99%	1,001.6 µg/mL	+/- 5.8779 µg/mL +/- 45.6221 µg/mL +/- 65.8721 µg/mL	Gravimetric Unstressed Stressed
2	DFTPP (Decafluorotriphenylphosphine) **CAS #** 5074-71-5 (Lot Q117-147) **Purity** 95%	1,001.3 µg/mL	+/- 5.8762 µg/mL +/- 45.6084 µg/mL +/- 65.8524 µg/mL	Gravimetric Unstressed Stressed
3	Benzidine **CAS #** 92-87-5 (Lot 220511RSR) **Purity** 99%	1,002.0 µg/mL	+/- 5.8803 µg/mL +/- 45.6403 µg/mL +/- 65.8984 µg/mL	Gravimetric Unstressed Stressed
4	4,4'-DDT **CAS #** 50-29-3 (Lot 220428JLM) **Purity** 98%	1,002.3 µg/mL	+/- 5.8823 µg/mL +/- 45.6560 µg/mL +/- 65.9211 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

3+2=5

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

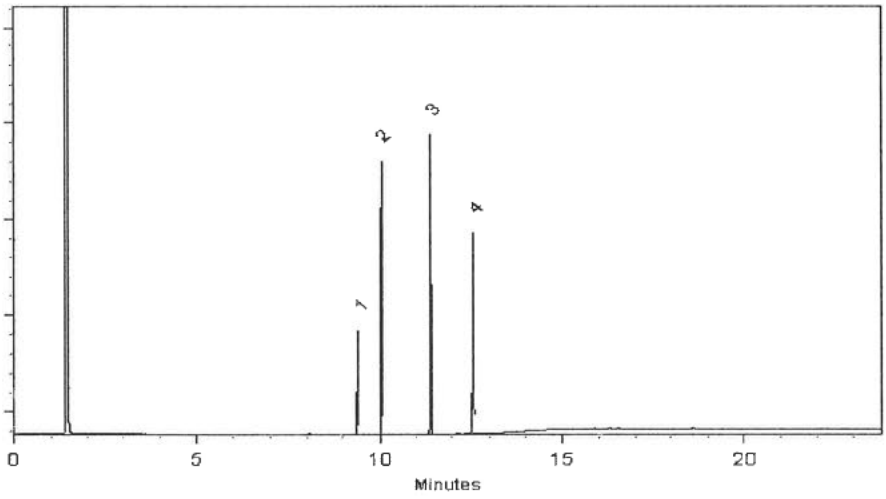
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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.

[redacted]

Date Mixed: 20-Jul-2022 **Balance:** 1128353505

[redacted] - ARM QC **Date Passed:** 25-Jul-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

MS-31615_00014

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0189454

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol **CAS #** 87-86-5 (Lot 211229RSR) **Purity** 99%	1,001.6 µg/mL	+/- 5.8779 µg/mL +/- 45.6221 µg/mL +/- 65.8721 µg/mL	Gravimetric Unstressed Stressed
2	DFTPP (Decafluorotriphenylphosphine) **CAS #** 5074-71-5 (Lot Q117-147) **Purity** 95%	1,000.9 µg/mL	+/- 5.8740 µg/mL +/- 45.5911 µg/mL +/- 65.8274 µg/mL	Gravimetric Unstressed Stressed
3	Benzidine **CAS #** 92-87-5 (Lot 220511RSR) **Purity** 99%	1,001.6 µg/mL	+/- 5.8779 µg/mL +/- 45.6221 µg/mL +/- 65.8721 µg/mL	Gravimetric Unstressed Stressed
4	4,4'-DDT **CAS #** 50-29-3 (Lot 220805JLM) **Purity** 98%	1,002.0 µg/mL	+/- 5.8800 µg/mL +/- 45.6381 µg/mL +/- 65.8953 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

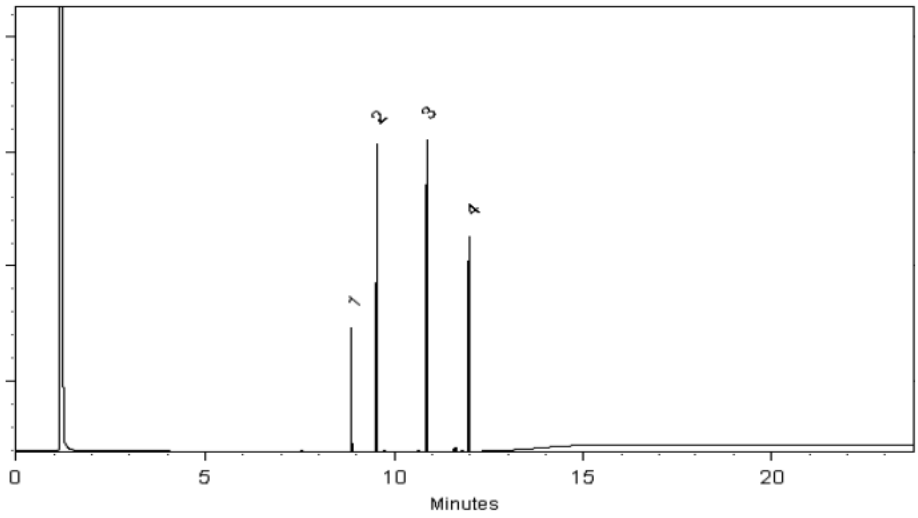
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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.

C[redacted]

Date Mixed: 11-Sep-2022 **Balance:** 1128353505

[redacted]
Fang-Yun Weaver – Operations Lead Tech – ARM QC

Date Passed: 15-Sep-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

MS-31615_00016

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0189454

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol **CAS #** 87-86-5 (Lot 211229RSR) **Purity** 99%	1,001.6 µg/mL	+/- 5.8779 µg/mL +/- 45.6221 µg/mL +/- 65.8721 µg/mL	Gravimetric Unstressed Stressed
2	DFTPP (Decafluorotriphenylphosphine) **CAS #** 5074-71-5 (Lot Q117-147) **Purity** 95%	1,000.9 µg/mL	+/- 5.8740 µg/mL +/- 45.5911 µg/mL +/- 65.8274 µg/mL	Gravimetric Unstressed Stressed
3	Benzidine **CAS #** 92-87-5 (Lot 220511RSR) **Purity** 99%	1,001.6 µg/mL	+/- 5.8779 µg/mL +/- 45.6221 µg/mL +/- 65.8721 µg/mL	Gravimetric Unstressed Stressed
4	4,4'-DDT **CAS #** 50-29-3 (Lot 220805JLM) **Purity** 98%	1,002.0 µg/mL	+/- 5.8800 µg/mL +/- 45.6381 µg/mL +/- 65.8953 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

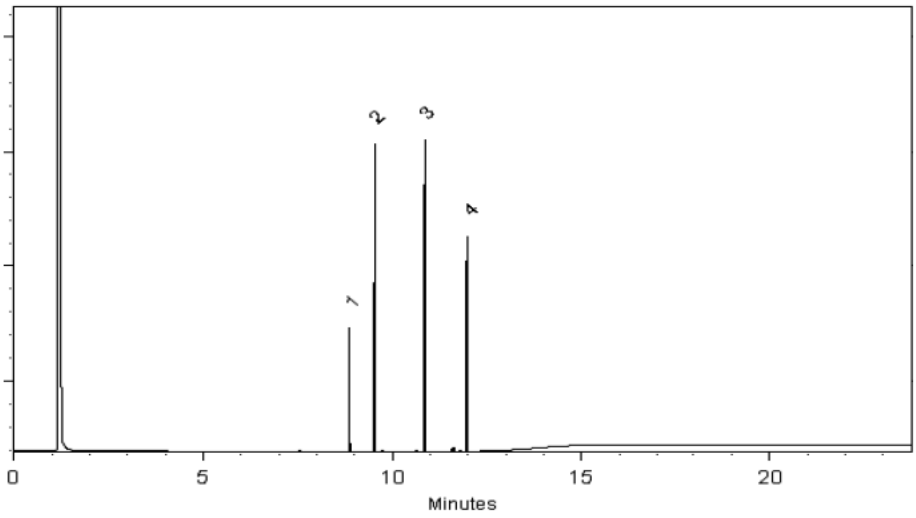
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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.

[redacted]

[redacted]
Fang-Yun Weaver – Operations Lead Tech – ARM QC

Date Mixed: 11-Sep-2022 **Balance:** 1128353505

Date Passed: 15-Sep-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

MS-31615_00017

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0189454

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol **CAS #** 87-86-5 (Lot 211229RSR) **Purity** 99%	1,001.6 µg/mL	+/- 5.8779 µg/mL +/- 45.6221 µg/mL +/- 65.8721 µg/mL	Gravimetric Unstressed Stressed
2	DFTPP (Decafluorotriphenylphosphine) **CAS #** 5074-71-5 (Lot Q117-147) **Purity** 95%	1,000.9 µg/mL	+/- 5.8740 µg/mL +/- 45.5911 µg/mL +/- 65.8274 µg/mL	Gravimetric Unstressed Stressed
3	Benzidine **CAS #** 92-87-5 (Lot 220511RSR) **Purity** 99%	1,001.6 µg/mL	+/- 5.8779 µg/mL +/- 45.6221 µg/mL +/- 65.8721 µg/mL	Gravimetric Unstressed Stressed
4	4,4'-DDT **CAS #** 50-29-3 (Lot 220805JLM) **Purity** 98%	1,002.0 µg/mL	+/- 5.8800 µg/mL +/- 45.6381 µg/mL +/- 65.8953 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

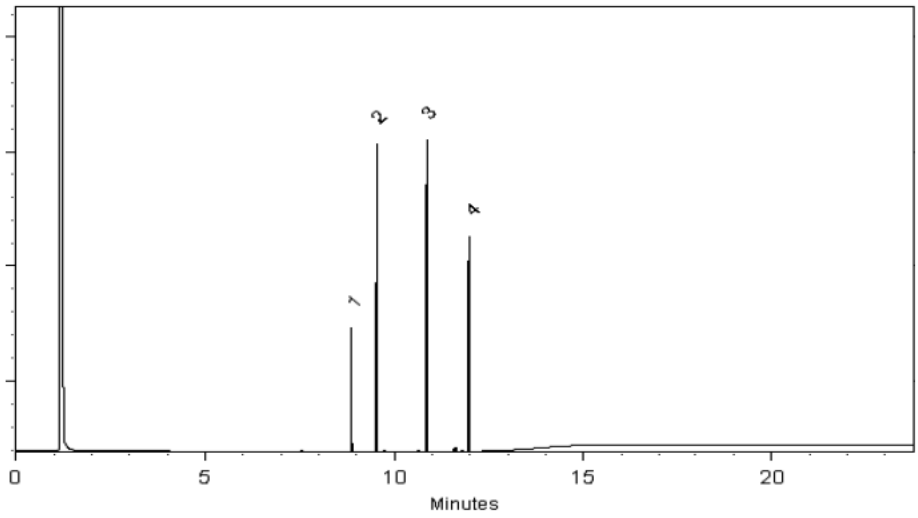
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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.

[redacted]
Cathleen Soltis - Mix Technician

Date Mixed: 11-Sep-2022 **Balance:** 1128353505

[redacted]
Fang-Yun Weaver - Operations Lead Tech - ARM QC

Date Passed: 15-Sep-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

MS-31615_00018

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31615 **Lot No.:** A0189454

Description : GC/MS Tuning Mixture

GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Pentachlorophenol **CAS #** 87-86-5 (Lot 211229RSR) **Purity** 99%	1,001.6 µg/mL	+/- 5.8779 µg/mL +/- 45.6221 µg/mL +/- 65.8721 µg/mL	Gravimetric Unstressed Stressed
2	DFTPP (Decafluorotriphenylphosphine) **CAS #** 5074-71-5 (Lot Q117-147) **Purity** 95%	1,000.9 µg/mL	+/- 5.8740 µg/mL +/- 45.5911 µg/mL +/- 65.8274 µg/mL	Gravimetric Unstressed Stressed
3	Benzidine **CAS #** 92-87-5 (Lot 220511RSR) **Purity** 99%	1,001.6 µg/mL	+/- 5.8779 µg/mL +/- 45.6221 µg/mL +/- 65.8721 µg/mL	Gravimetric Unstressed Stressed
4	4,4'-DDT **CAS #** 50-29-3 (Lot 220805JLM) **Purity** 98%	1,002.0 µg/mL	+/- 5.8800 µg/mL +/- 45.6381 µg/mL +/- 65.8953 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

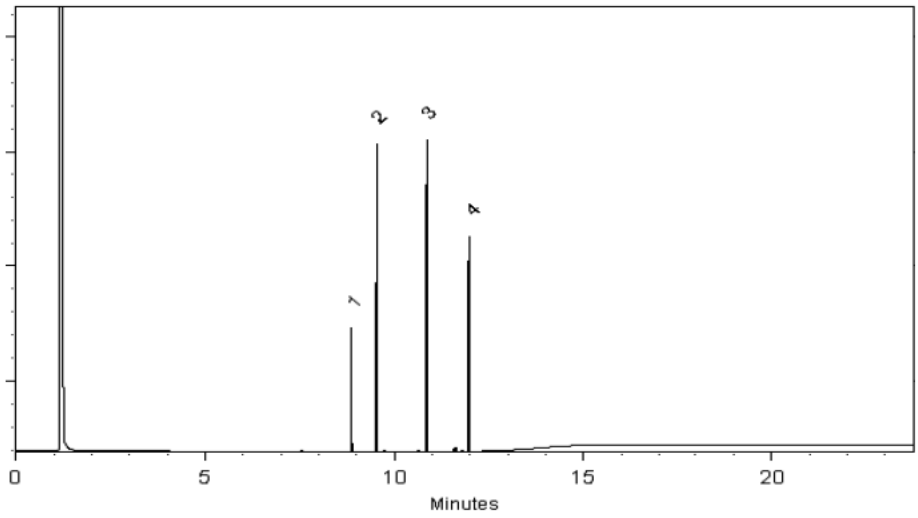
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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.

[redacted]
Cathleen Soltis - Mix Technician

Date Mixed: 11-Sep-2022 **Balance:** 1128353505

[redacted]
Fang-Yun Weaver - Operations Lead Tech - ARM QC

Date Passed: 15-Sep-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

MS-567680_00134

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567680 **Lot No.:** A0202688

Description : 8270 List 2 / Std #3

8270 List 2 / Std #3 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2024 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	6-Methylchrysene	1705-85-7	P46527-0125	99%	2,001.9 µg/mL	+/- 90.1809
2	3-Methylcholanthrene	56-49-5	MKCM7171	98%	2,013.5 µg/mL	+/- 90.7038

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Page 477 of 1563

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

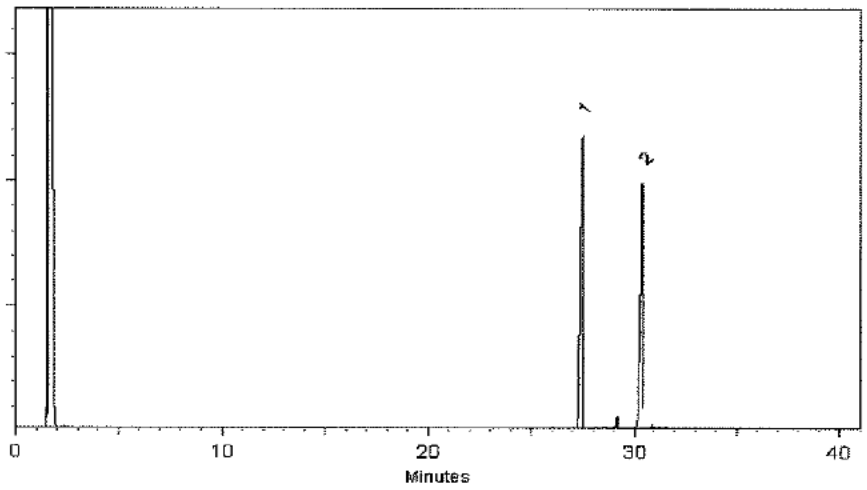
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted] Date Mixed: 01-Oct-2023 Balance Serial # 1128360905

Jennifer Polino - Operations Tech III - ARM QC Date Passed: 10-Oct-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MS-567680_00135

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567680 **Lot No.:** A0202688

Description : 8270 List 2 / Std #3

8270 List 2 / Std #3 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2024 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L., K=2)
1	6-Methylchrysene	1705-85-7	P46527-0125	99%	2,001.9 µg/mL	+/- 90.1809
2	3-Methylcholanthrene	56-49-5	MKCM7171	98%	2,013.5 µg/mL	+/- 90.7038

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Page 481 of 1563

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

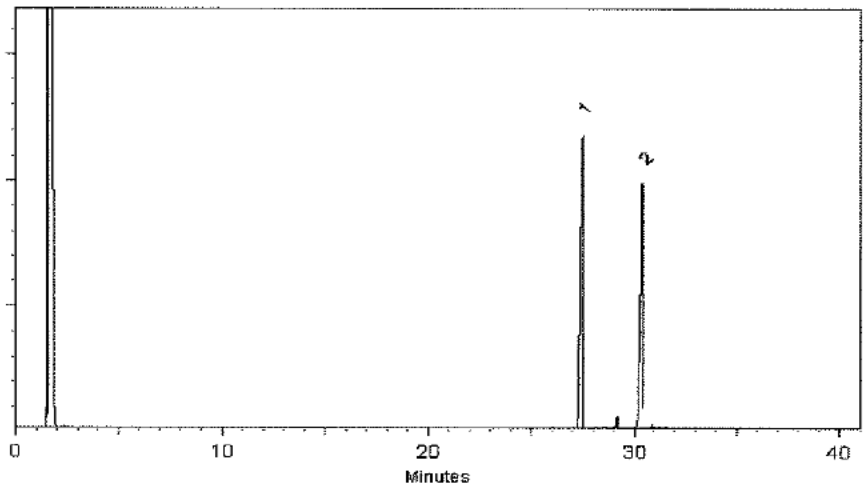
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted] Laith Clemente - Operations Technician I — **Date Mixed:** 01-Oct-2023 — **Balance Serial #** 1128360905

[redacted] Jennifer Polfino - Operations Tech III - ARM QC — **Date Passed:** 10-Oct-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MS-567684_00045

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567684 **Lot No.:** A0193798

Description : 8270 Internal Standard

8270 Internal Standard 2,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2028 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	2,018.2 µg/mL	+/- 90.9009
2	Naphthalene-d8	1146-65-2	M-2180	99%	2,011.9 µg/mL	+/- 90.6172
3	Acenaphthene-d10	15067-26-2	PR-31822	99%	2,017.4 µg/mL	+/- 90.8649
4	Phenanthrene-d10	1517-22-2	PR-32303	99%	2,005.1 µg/mL	+/- 90.3087
5	Chrysene-d12	1719-03-5	PR-32210	99%	2,007.3 µg/mL	+/- 90.4077
6	Perylene-d12	1520-96-3	PR-33205	99%	2,016.6 µg/mL	+/- 90.8289

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

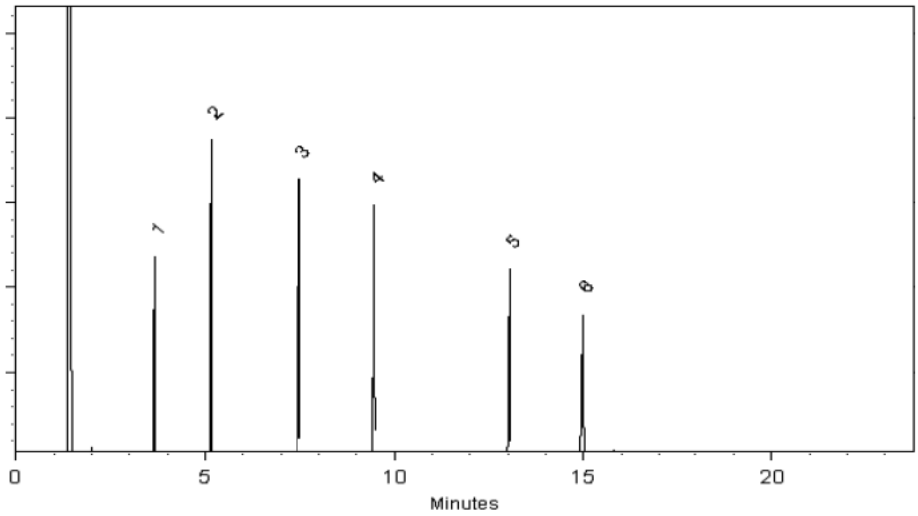
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

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.

[redacted]
Morg[redacted]ician

Date Mixed: 20-Jan-2023 **Balance Serial #** 1128353505

[redacted]
Christie Mills - Operations Tech II - ARM QC

Date Passed: 24-Jan-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MS-571995.SEC_00023

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571995.SEC **Lot No.:** A0194078

Description : 8270 List 1 / Std #1 MegaMix (2017)

8270 List 1 / Std #1 MegaMix (2017) 500-2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2024 **Storage:** 0°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dioxane	123-91-1.SEC	QHRWO	99%	1,007.3 µg/mL	+/- 18.6139
2	N-Nitrosodimethylamine	62-75-9.SEC	61H72	99%	1,005.5 µg/mL	+/- 18.5816
3	Pyridine	110-86-1.SEC	QN8DK	99%	2,014.3 µg/mL	+/- 37.2233
4	Phenol	108-95-2.SEC	EDPYN	99%	1,004.3 µg/mL	+/- 18.5585
5	Aniline	62-53-3.SEC	ZCD3N	99%	1,007.5 µg/mL	+/- 18.6186
6	Bis(2-chloroethyl)ether	111-44-4.SEC	FA010143	99%	1,007.5 µg/mL	+/- 18.6186
7	n-Decane (C10)	124-18-5.SEC	UCVNN	99%	1,002.5 µg/mL	+/- 18.5262
8	2-Chlorophenol	95-57-8.SEC	GJ01	99%	1,006.5 µg/mL	+/- 18.6001
9	1,3-Dichlorobenzene	541-73-1.SEC	ZA2ZI	99%	1,006.5 µg/mL	+/- 18.6001
10	1,4-Dichlorobenzene	106-46-7.SEC	J5GVD	99%	1,006.8 µg/mL	+/- 18.6047
11	Benzyl alcohol	100-51-6.SEC	QZBUO	99%	1,009.5 µg/mL	+/- 18.6555
12	1,2-Dichlorobenzene	95-50-1.SEC	R6QDM	99%	1,002.8 µg/mL	+/- 18.5308
13	2-Methylphenol (o-cresol)	95-48-7.SEC	NC7HL	99%	1,007.0 µg/mL	+/- 18.6093
14	2,2'-oxybis(1-chloropropane)	108-60-1.SEC	29-MAR-45-5	99%	1,004.0 µg/mL	+/- 18.5539
15	Acetophenone	98-86-2.SEC	NSGTI	99%	1,004.0 µg/mL	+/- 18.5539
16	3-Methylphenol (m-cresol)	108-39-4.SEC	6LHTM	99%	501.3 µg/mL	+/- 9.2631

17	4-Methylphenol (p-cresol)	106-44-5.SEC 65S2E	99%	504.3	µg/mL	+/- 9.3185
18	N-Nitroso-di-n-propylamine	621-64-7.SEC 13924400	99%	1,005.0	µg/mL	+/- 18.5724
19	Hexachloroethane	67-72-1.SEC 10173016	99%	1,005.8	µg/mL	+/- 18.5862
20	Nitrobenzene	98-95-3.SEC FLYIG	99%	1,007.3	µg/mL	+/- 18.6139
21	Isophorone	78-59-1.SEC XHGJI	98%	1,004.5	µg/mL	+/- 18.5631
22	2-Nitrophenol	88-75-5.SEC GXJ7J	99%	1,005.8	µg/mL	+/- 18.5862
23	2,4-Dimethylphenol	105-67-9.SEC MKBL3650V	99%	1,009.3	µg/mL	+/- 18.6509
24	Bis(2-chloroethoxy)methane	111-91-1 * 13670200	99%	1,007.3	µg/mL	+/- 18.6139
25	2,4-Dichlorophenol	120-83-2.SEC FHM01	99%	1,007.0	µg/mL	+/- 18.6093
26	1,2,4-Trichlorobenzene	120-82-1.SEC IGLFA	99%	1,003.5	µg/mL	+/- 18.5446
27	Naphthalene	91-20-3.SEC AM5NG	99%	1,008.3	µg/mL	+/- 18.6324
28	2,6-Dichlorophenol	87-65-0.SEC SIDBB	99%	1,006.3	µg/mL	+/- 18.5955
29	4-Chloroaniline	106-47-8.SEC 10171860	99%	1,006.0	µg/mL	+/- 18.5908
30	Hexachlorobutadiene	87-68-3.SEC 13889400	97%	1,003.7	µg/mL	+/- 18.5485
31	4-Chloro-3-methylphenol	59-50-7.SEC FDO02	99%	1,009.0	µg/mL	+/- 18.6463
32	2-Methylnaphthalene	91-57-6.SEC 76023-1	99%	1,009.0	µg/mL	+/- 18.6463
33	1-Methylnaphthalene	90-12-0.SEC OEE3F	98%	1,005.2	µg/mL	+/- 18.5767
34	1,2,4,5-Tetrachlorobenzene	95-94-3.SEC AF02	99%	1,007.3	µg/mL	+/- 18.6139
35	Hexachlorocyclopentadiene	77-47-4.SEC 12833000	99%	1,005.3	µg/mL	+/- 18.5770
36	2,4,6-Trichlorophenol	88-06-2.SEC UUMYM	99%	1,004.8	µg/mL	+/- 18.5677
37	2,4,5-Trichlorophenol	95-95-4.SEC MKBQ9937V	97%	1,002.3	µg/mL	+/- 18.5216
38	2-Chloronaphthalene	91-58-7.SEC 13924200	99%	1,008.5	µg/mL	+/- 18.6370
39	Biphenyl	92-52-4.SEC 33OQE	99%	1,008.3	µg/mL	+/- 18.6324
40	2-Nitroaniline	88-74-4.SEC T6E7B	99%	1,008.3	µg/mL	+/- 18.6324
41	Acenaphthylene	208-96-8.SEC 0012014	96%	1,006.1	µg/mL	+/- 18.5923
42	1,3-Dinitrobenzene	99-65-0.SEC 3XXLB	99%	1,006.8	µg/mL	+/- 18.6047
43	Dimethylphthalate	131-11-3.SEC 483WC	99%	1,005.8	µg/mL	+/- 18.5862
44	2,6-Dinitrotoluene	606-20-2.SEC GE01	99%	1,006.0	µg/mL	+/- 18.5908
45	3-Nitroaniline	99-09-2.SEC FGN03	99%	1,006.5	µg/mL	+/- 18.6001
46	Acenaphthene	83-32-9.SEC BWZJE	99%	1,008.3	µg/mL	+/- 18.6324
47	2,4-Dinitrophenol	51-28-5.SEC YTR6B	98%	2,011.2	µg/mL	+/- 37.1670
48	Dibenzofuran	132-64-9.SEC 27ZGC	99%	1,003.3	µg/mL	+/- 18.5400
49	4-Nitrophenol	100-02-7.SEC H75QG	99%	2,019.8	µg/mL	+/- 37.3249
50	2,4-Dinitrotoluene	121-14-2.SEC SHRSA	99%	1,006.5	µg/mL	+/- 18.6001
51	2,3,4,6-Tetrachlorophenol	58-90-2.SEC B18W03261	99%	1,004.0	µg/mL	+/- 18.5539
52	Fluorene	86-73-7.SEC 13590100	98%	1,003.3	µg/mL	+/- 18.5405

53	n-Hexadecane (C16)	544-76-3.SEC A0328141	99%	1,005.3	µg/mL	+/- 18.5770
54	Diethylphthalate	84-66-2.SEC UMBJC	99%	1,007.5	µg/mL	+/- 18.6186
55	4-Chlorophenyl phenyl ether	7005-72-3.SECP31G	98%	1,006.7	µg/mL	+/- 18.6039
56	4-Nitroaniline	100-01-6.SEC 5ITRC	99%	1,004.8	µg/mL	+/- 18.5677
57	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)	534-52-1.SEC DR13924100	99%	2,018.0	µg/mL	+/- 37.2926
58	Diphenylamine	122-39-4.SEC 10164691	99%	857.5	µg/mL	+/- 15.8466
59	Azobenzene	103-33-3.SEC JUWAG	99%	1,007.5	µg/mL	+/- 18.6186
60	4-Bromophenyl phenyl ether	101-55-3.SEC 84C6D	99%	1,005.0	µg/mL	+/- 18.5724
61	Hexachlorobenzene	118-74-1.SEC G137934	99%	1,009.8	µg/mL	+/- 18.6601
62	Pentachlorophenol	87-86-5.SEC 13924300	99%	2,017.8	µg/mL	+/- 37.2879
63	n-Octadecane (C18)	593-45-3.SEC A0406344	99%	1,009.8	µg/mL	+/- 18.6601
64	Phenanthrene	85-01-8.SEC 8637000	98%	1,009.4	µg/mL	+/- 18.6537
65	Anthracene	120-12-7.SEC WDFNJ	99%	1,006.3	µg/mL	+/- 18.5955
66	Carbazole	86-74-8.SEC LMIZB	99%	1,003.8	µg/mL	+/- 18.5493
67	Di-n-butylphthalate	84-74-2.SEC 42FSG	99%	1,006.0	µg/mL	+/- 18.5908
68	Fluoranthene	206-44-0.SEC FREGF	99%	1,006.5	µg/mL	+/- 18.6001
69	Pyrene	129-00-0.SEC ROVJC	99%	1,008.0	µg/mL	+/- 18.6278
70	Benzyl butyl phthalate	85-68-7.SEC GX3GL	98%	1,008.2	µg/mL	+/- 18.6310
71	Benz(a)anthracene	56-55-3.SEC MTENF	98%	1,001.3	µg/mL	+/- 18.5043
72	chrysene	218-01-9.SEC NICZC	99%	1,007.8	µg/mL	+/- 18.6232
73	Bis(2-ethylhexyl)phthalate	117-81-7.SEC MT8AG	99%	1,007.3	µg/mL	+/- 18.6139
74	Di-n-octyl phthalate	117-84-0.SEC O8DLD	99%	1,005.8	µg/mL	+/- 18.5862
75	Benzo(b)fluoranthene	205-99-2.SEC I4OWH	99%	1,006.8	µg/mL	+/- 18.6047
76	Benzo(k)fluoranthene	207-08-9.SEC 9711000	99%	1,003.3	µg/mL	+/- 18.5400
77	Benzo(a)pyrene	50-32-8.SEC SLCL0394	99%	1,007.0	µg/mL	+/- 18.6093
78	Indeno(1,2,3-cd)pyrene	193-39-5.SEC 0012014	99%	1,006.3	µg/mL	+/- 18.5955
79	Dibenz(a,h)anthracene	53-70-3.SEC 0012022	99%	1,009.5	µg/mL	+/- 18.6555
80	Benzo(g,h,i)perylene	191-24-2.SEC 0022012	96%	1,008.0	µg/mL	+/- 18.6278

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Specific Reference Material Notes:

N-nitrosodiphenylamine 1000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 855 ug/mL. N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine. N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

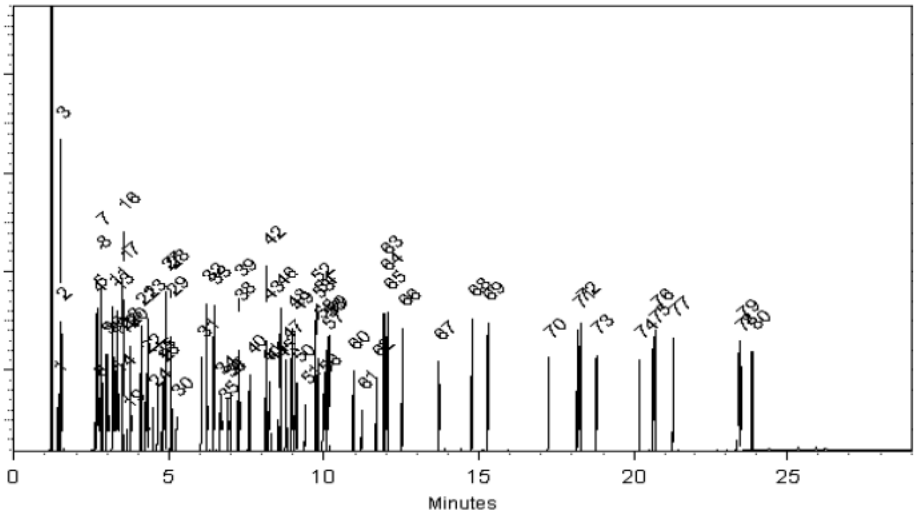
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

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.

[redacted]
John Friedline - Operations Technician I

Date Mixed: 30-Jan-2023 **Balance Serial #** 1128353505

[redacted]
Christie Mills - Operations Tech II - ARM QC

Date Passed: 06-Feb-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MS-581076_00002

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 581076 **Lot No.:** A0205766

Description : Denver 8270 Standard

Denver 8270 Standard 4,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2025 **Storage:** 10°C or colder

Handling: Sonicate prior to use. This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2,3-Dichloroaniline	608-27-5	11518TI	99%	4,024.0 µg/mL	+/- 96.7619
2	Alachlor	15972-60-8	14920500	99%	4,000.0 µg/mL	+/- 96.1848
3	alpha-Methylstyrene	98-83-9	MKCM3639	99%	4,016.0 µg/mL	+/- 96.5696

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

[redacted]
Russ Bookhamer - Operations Technician I

Date Mixed: 20-Dec-2023 **Balance:** 1128360905

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

NGu ICV_00003

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31602 **Lot No.:** A0164275

Description : Nitroguanidine Standard

Nitroguanidine Standard 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroguanidine **CAS #** 556-88-7 (Lot 03708HN) **Purity** 99%	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

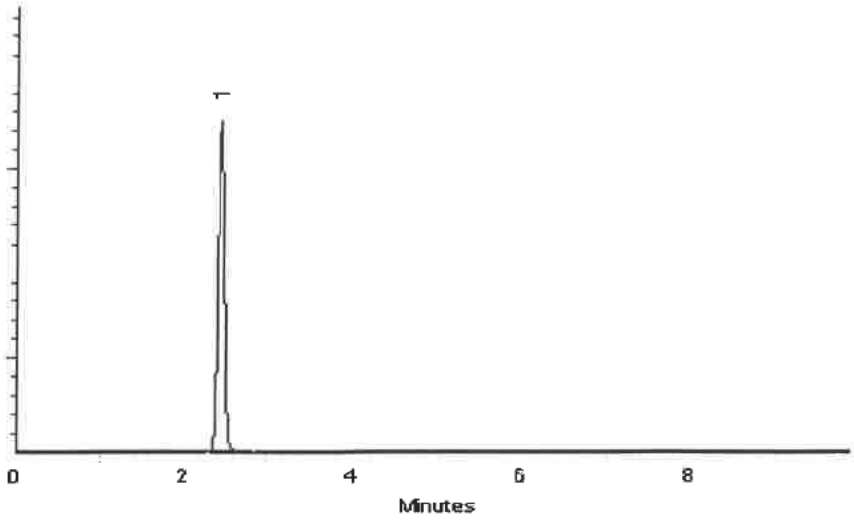
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

[redacted]

Date Mixed: 09-Sep-2020 **Balance:** B345965662

[redacted]
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 14-Sep-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

NGu_00006

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-6
Description: Nitroguanidine
Lot: 223041226
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Apr 21, 2023
Expiration: May 21, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Freeze (<-10 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Nitroguanidine	556-88-7	100.0	101.4	101.4

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: [redacted]

For use in routine laboratory analysis.

Reagent

OP-567681_00267

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567681 **Lot No.:** A0203600

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,005.5 µg/mL	+/- 45.9024
2	Safrole	94-59-7	322225/11292	99%	1,009.0 µg/mL	+/- 46.0631
3	Zinophos (thionazine)	297-97-2	14454100	98%	1,005.5 µg/mL	+/- 45.9024
4	Sulfotepp	3689-24-5	SL230731	99%	1,006.0 µg/mL	+/- 45.9262
5	Diallate (cis and trans) 74% cis-Diallate; 26% trans-Diallate	2303-16-4	14730400	99%	1,006.0 µg/mL	+/- 45.9262
6	Phorate	298-02-2	13939400	99%	1,008.0 µg/mL	+/- 46.0175
7	Dimethoate	60-51-5	14574600	99%	1,008.0 µg/mL	+/- 46.0175
8	Disulfoton	298-04-4	13839400	98%	1,004.5 µg/mL	+/- 45.8577
9	Methyl parathion	298-00-0	14116700	99%	1,007.0 µg/mL	+/- 45.9718
10	Parathion (Ethyl parathion)	56-38-2	14438600	99%	1,007.0 µg/mL	+/- 45.9718
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	14438500	99%	1,006.0 µg/mL	+/- 45.9262
12	Famphur	52-85-7	14021600	99%	1,006.0 µg/mL	+/- 45.9262

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

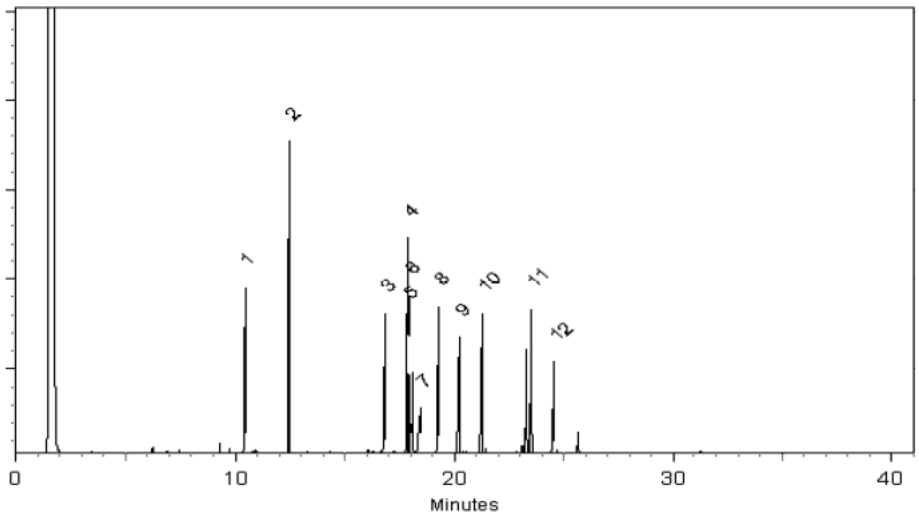
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

Penelop[redacted]ech I

Date Mixed: 25-Oct-2023 **Balance Serial #** B442140311

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 02-Nov-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567681_00268

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567681 **Lot No.:** A0203600

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,005.5 µg/mL	+/- 45.9024
2	Safrole	94-59-7	322225/11292	99%	1,009.0 µg/mL	+/- 46.0631
3	Zinophos (thionazine)	297-97-2	14454100	98%	1,005.5 µg/mL	+/- 45.9024
4	Sulfotepp	3689-24-5	SL230731	99%	1,006.0 µg/mL	+/- 45.9262
5	Diallate (cis and trans) 74% cis-Diallate; 26% trans-Diallate	2303-16-4	14730400	99%	1,006.0 µg/mL	+/- 45.9262
6	Phorate	298-02-2	13939400	99%	1,008.0 µg/mL	+/- 46.0175
7	Dimethoate	60-51-5	14574600	99%	1,008.0 µg/mL	+/- 46.0175
8	Disulfoton	298-04-4	13839400	98%	1,004.5 µg/mL	+/- 45.8577
9	Methyl parathion	298-00-0	14116700	99%	1,007.0 µg/mL	+/- 45.9718
10	Parathion (Ethyl parathion)	56-38-2	14438600	99%	1,007.0 µg/mL	+/- 45.9718
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	14438500	99%	1,006.0 µg/mL	+/- 45.9262
12	Famphur	52-85-7	14021600	99%	1,006.0 µg/mL	+/- 45.9262

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

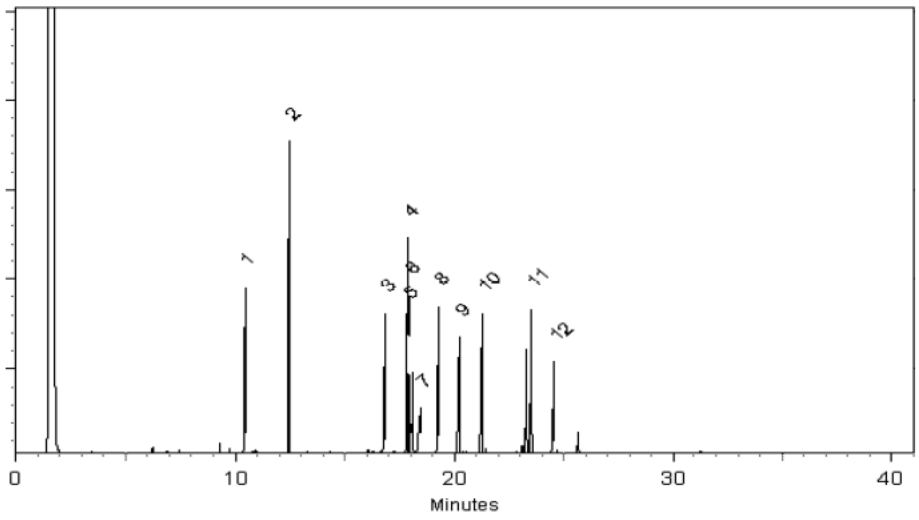
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]
Penelope Rigiin - Operations Tech I

Date Mixed: 25-Oct-2023 **Balance Serial #** B442140311

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 02-Nov-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567681_00269

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567681 **Lot No.:** A0203600

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,005.5 µg/mL	+/- 45.9024
2	Safrole	94-59-7	322225/11292	99%	1,009.0 µg/mL	+/- 46.0631
3	Zinophos (thionazine)	297-97-2	14454100	98%	1,005.5 µg/mL	+/- 45.9024
4	Sulfotepp	3689-24-5	SL230731	99%	1,006.0 µg/mL	+/- 45.9262
5	Diallate (cis and trans) 74% cis-Diallate; 26% trans-Diallate	2303-16-4	14730400	99%	1,006.0 µg/mL	+/- 45.9262
6	Phorate	298-02-2	13939400	99%	1,008.0 µg/mL	+/- 46.0175
7	Dimethoate	60-51-5	14574600	99%	1,008.0 µg/mL	+/- 46.0175
8	Disulfoton	298-04-4	13839400	98%	1,004.5 µg/mL	+/- 45.8577
9	Methyl parathion	298-00-0	14116700	99%	1,007.0 µg/mL	+/- 45.9718
10	Parathion (Ethyl parathion)	56-38-2	14438600	99%	1,007.0 µg/mL	+/- 45.9718
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	14438500	99%	1,006.0 µg/mL	+/- 45.9262
12	Famphur	52-85-7	14021600	99%	1,006.0 µg/mL	+/- 45.9262

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

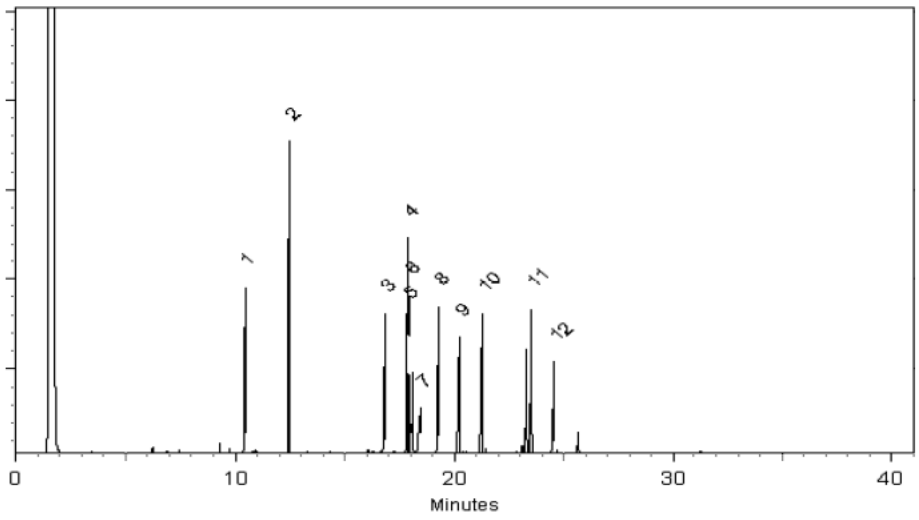
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]
Penelope Riglin - Operations Tech I

Date Mixed: 25-Oct-2023 **Balance Serial #** B442140311

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 02-Nov-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567681_00271

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567681 **Lot No.:** A0203600

Description : 8270 List 2 / Std #4

8270 List 2 / Std #4 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o,o,o-Triethyl phosphorothioate	126-68-1	2-KRR-57-1	98%	1,005.5 µg/mL	+/- 45.9024
2	Safrole	94-59-7	322225/11292	99%	1,009.0 µg/mL	+/- 46.0631
3	Zinophos (thionazine)	297-97-2	14454100	98%	1,005.5 µg/mL	+/- 45.9024
4	Sulfotepp	3689-24-5	SL230731	99%	1,006.0 µg/mL	+/- 45.9262
5	Diallate (cis and trans) 74% cis-Diallate; 26% trans-Diallate	2303-16-4	14730400	99%	1,006.0 µg/mL	+/- 45.9262
6	Phorate	298-02-2	13939400	99%	1,008.0 µg/mL	+/- 46.0175
7	Dimethoate	60-51-5	14574600	99%	1,008.0 µg/mL	+/- 46.0175
8	Disulfoton	298-04-4	13839400	98%	1,004.5 µg/mL	+/- 45.8577
9	Methyl parathion	298-00-0	14116700	99%	1,007.0 µg/mL	+/- 45.9718
10	Parathion (Ethyl parathion)	56-38-2	14438600	99%	1,007.0 µg/mL	+/- 45.9718
11	Aramite 2% Isomer 1; 2% Isomer 2; 36% Isomer 3; 60% Isomer 4	140-57-8	14438500	99%	1,006.0 µg/mL	+/- 45.9262
12	Famphur	52-85-7	14021600	99%	1,006.0 µg/mL	+/- 45.9262

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

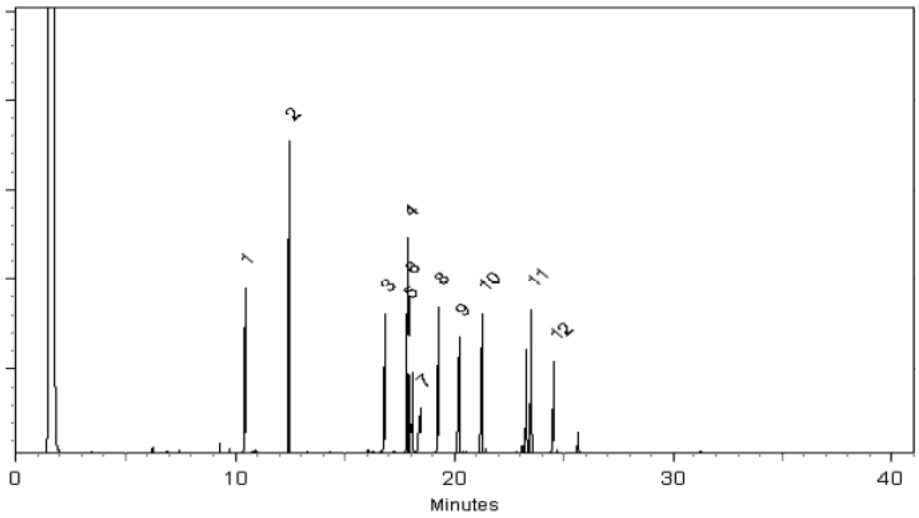
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted] Tech I

Date Mixed: 25-Oct-2023 **Balance Serial #** B442140311

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 02-Nov-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567682_00122

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567682 **Lot No.:** A0199703

Description : 8270 List 2 / Std #5 Methapyrilene

8270 List 2 / Std #5 Methapyrilene 2,000µg/mL, Methylene chloride, 1mL/ampul
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene.

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methapyrilene hydrochloride	135-23-9	3-JLW-10-1	87%	2,001.0 µg/mL	+/- 37.0044

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene, CAS # 91-80-5

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

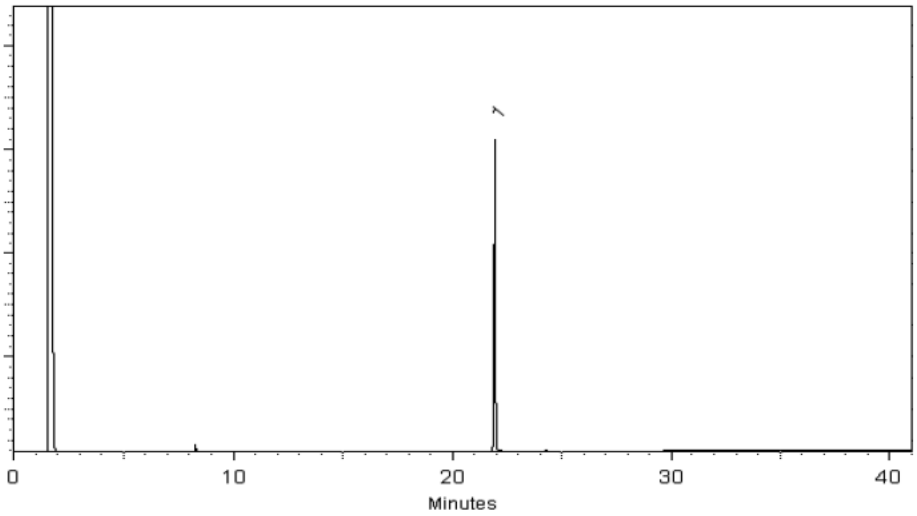
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]ician

Amanda Miller[redacted] III - ARM QC

Date Mixed: 07-Jul-2023 **Balance Serial #** B442140311

Date Passed: 18-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-567682_00123

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567682 **Lot No.:** A0199703

Description : 8270 List 2 / Std #5 Methapyrilene

8270 List 2 / Std #5 Methapyrilene 2,000µg/mL, Methylene chloride, 1mL/ampul
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene.

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methapyrilene hydrochloride	135-23-9	3-JLW-10-1	87%	2,001.0 µg/mL	+/- 37.0044

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:
*The reported compound masses are for Methapyrilene HCl. Purity is adjusted to correct for the HCl salt. The reported concentration is of Methapyrilene, CAS # 91-80-5

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

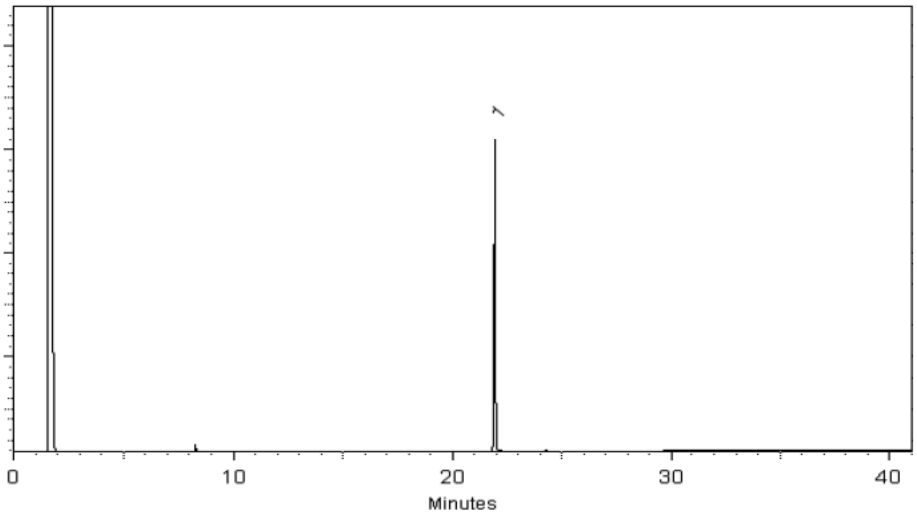
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]

Date Mixed: 07-Jul-2023 **Balance Serial #** B442140311

[redacted] ARM QC

Date Passed: 18-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-568727_00152

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568727 **Lot No.:** A0195365

Description : 8270 List 2/ Std #8 Dibenz(a,j)acridine

8270 List 2/ Std #8 Dibenz(a,j)acridine 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2026 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dibenz(a,j)acridine	224-42-0	0012011	97%	2,018.6 µg/mL	+/- 90.9319

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

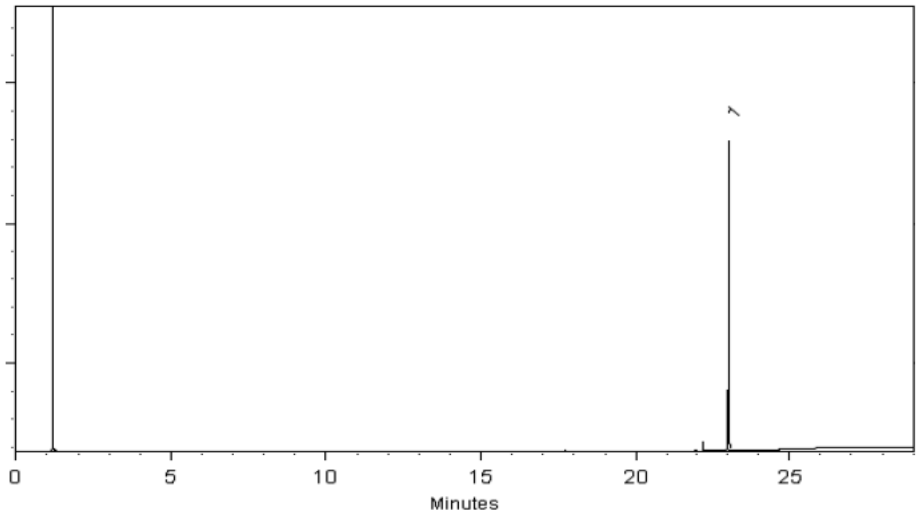
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

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.

Stacey W[redacted]hnician I

Date Mixed: 02-Mar-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-568727_00153

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568727 **Lot No.:** A0195365

Description : 8270 List 2/ Std #8 Dibenz(a,j)acridine

8270 List 2/ Std #8 Dibenz(a,j)acridine 2,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2026 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dibenz(a,j)acridine	224-42-0	0012011	97%	2,018.6 µg/mL	+/- 90.9319

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

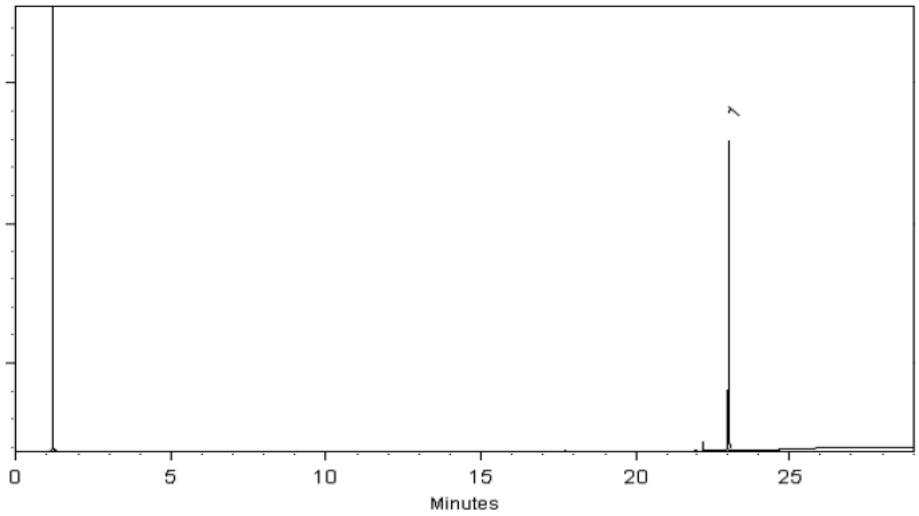
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

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.

[redacted]
Stacey Wanner - Operations Technician I

Date Mixed: 02-Mar-2023 **Balance Serial #** 1128360905

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569730_00226

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569730 **Lot No.:** A0194453

Description : 8270 List 1 / Std #9

8270 List 1 / Std #9 2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Benzidine	92-87-5	S221205RSR	99%	2,018.3 µg/mL	+/- 37.2902
2	3,3'-Dichlorobenzidine	91-94-1	S221201RSR	99%	2,018.6 µg/mL	+/- 37.2948

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

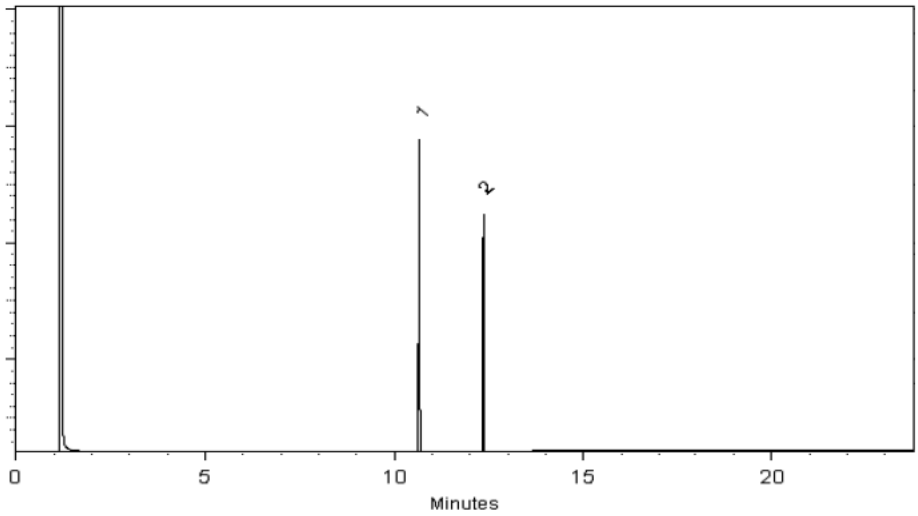
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

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.

Brittany F[redacted]ons Tech I

Christie Mills - Operations Tech II - ARM QC

Date Mixed: 08-Feb-2023 **Balance Serial #** 1122030677

Date Passed: 23-Feb-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569731_00088

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0199925

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Indene	95-13-6	RD221018	98%	2,005.1 µg/mL	+/- 112.6381
2	Benzoic acid	65-85-0	MKCL7479	99%	2,002.0 µg/mL	+/- 112.4616

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

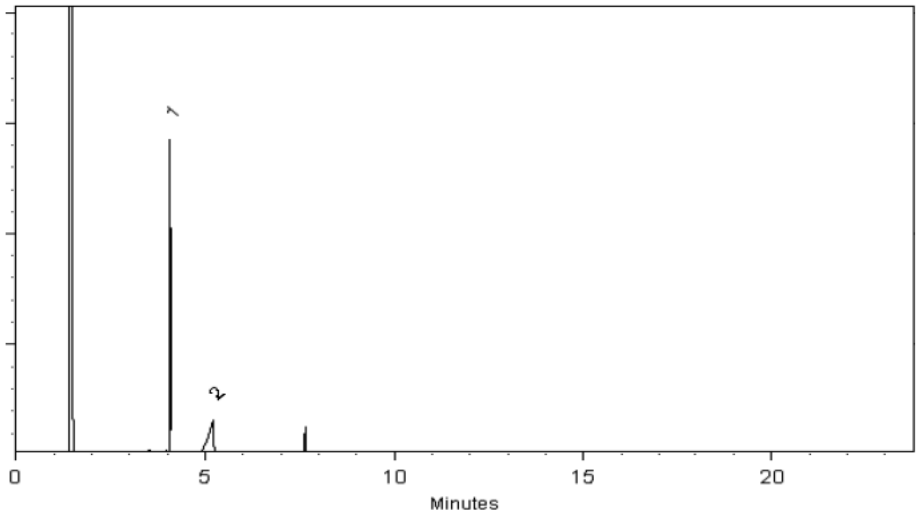
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

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.

Penel [redacted] Tech I

Date Mixed: 16-Jul-2023 **Balance Serial #** 1128360905

[redacted]
Amanda Miller - Operations Tech III - ARM QC

Date Passed: 18-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569731_00099

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0199925

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Indene	95-13-6	RD221018	98%	2,005.1 µg/mL	+/- 112.6381
2	Benzoic acid	65-85-0	MKCL7479	99%	2,002.0 µg/mL	+/- 112.4616

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

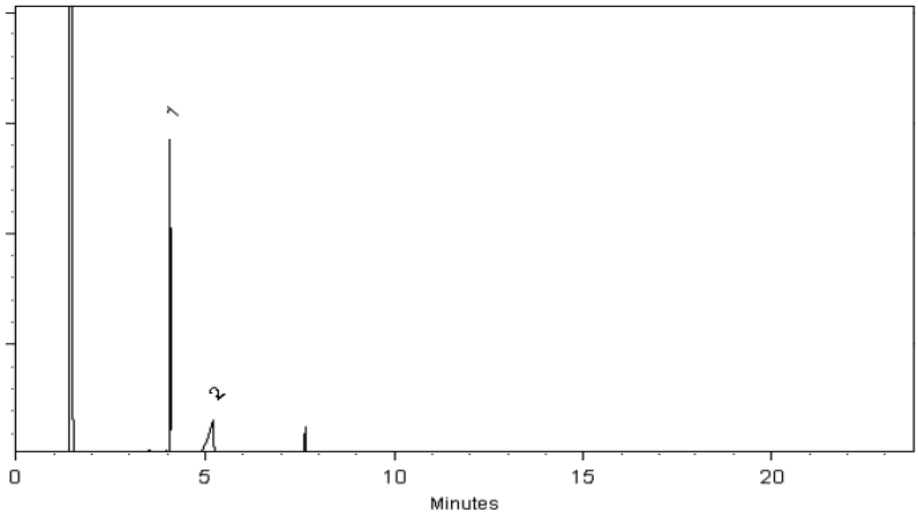
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

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.

[redacted]
Penelop[redacted]ech I

Date Mixed: 16-Jul-2023 **Balance Serial #** 1128360905

[redacted]
Amanda Miller - Operations Tech III - ARM QC

Date Passed: 18-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569731_00100

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0199925

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Indene	95-13-6	RD221018	98%	2,005.1 µg/mL	+/- 112.6381
2	Benzoic acid	65-85-0	MKCL7479	99%	2,002.0 µg/mL	+/- 112.4616

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

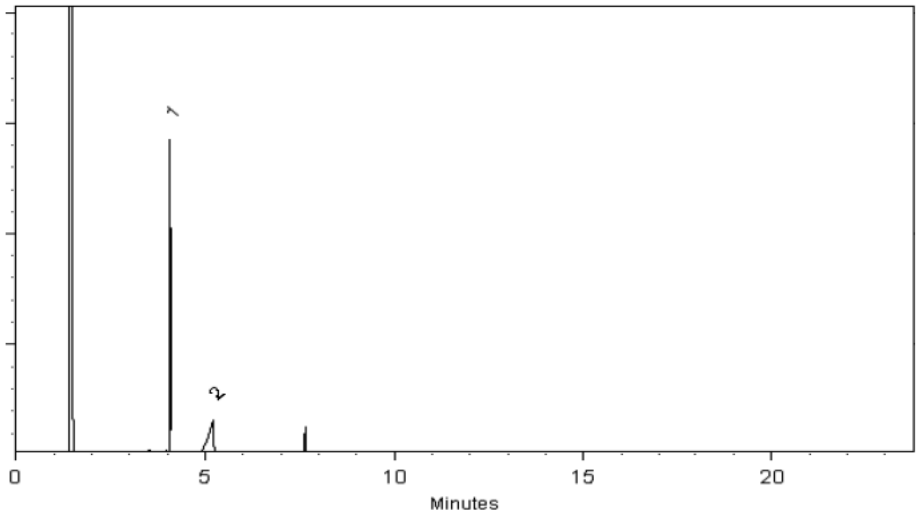
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

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.

[redacted]
Penelope Right - Operations Tech I

Date Mixed: 16-Jul-2023 **Balance Serial #** 1128360905

[redacted]
Amanda Miller - Operations Tech III - ARM QC

Date Passed: 18-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569731_00101

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0199925

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Indene	95-13-6	RD221018	98%	2,005.1 µg/mL	+/- 112.6381
2	Benzoic acid	65-85-0	MKCL7479	99%	2,002.0 µg/mL	+/- 112.4616

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

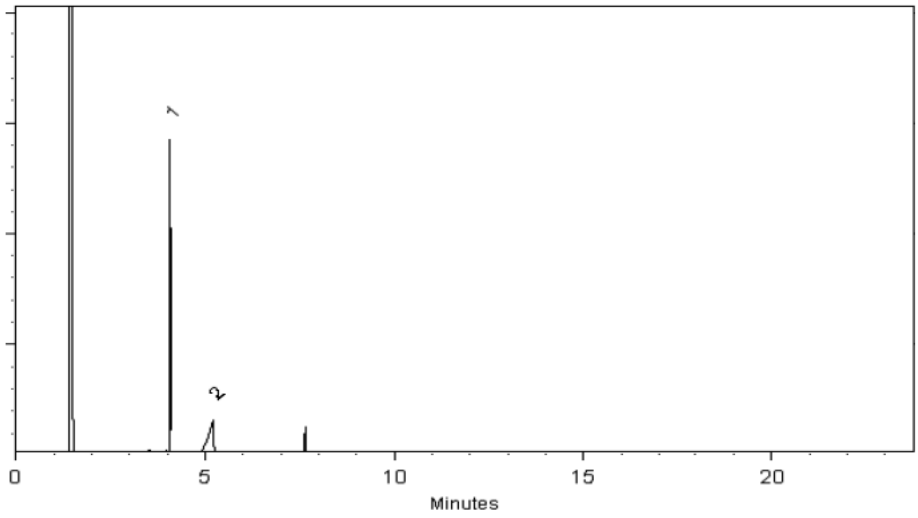
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

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.

[redacted]ech I

Date Mixed: 16-Jul-2023 **Balance Serial #** 1128360905

[redacted]

Amanda Miller - Operations Tech III - ARM QC

Date Passed: 18-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569731_00102

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0199925

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Indene	95-13-6	RD221018	98%	2,005.1 µg/mL	+/- 112.6381
2	Benzoic acid	65-85-0	MKCL7479	99%	2,002.0 µg/mL	+/- 112.4616

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

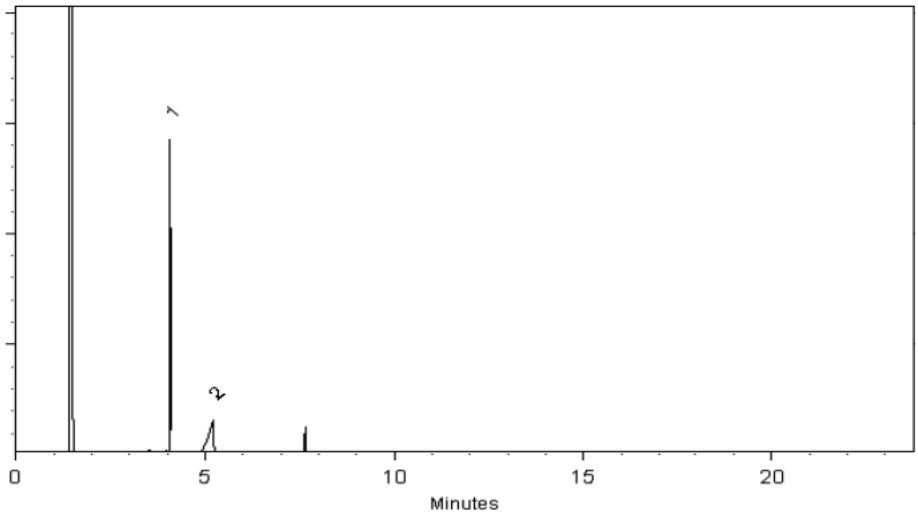
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

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.

Penelop[redacted]ech I

Date Mixed: 16-Jul-2023 **Balance Serial #** 1128360905

[redacted]

Amanda Miller - Operations Tech III - ARM QC

Date Passed: 18-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569732_00146

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569732 **Lot No.:** A0200906

Description : 8270 List 1 / Std #11

8270 List 1 / Std #11 2,000µg/mL, Methylene chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : February 28, 2025 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Benzaldehyde	100-52-7	RD230209RSRA	99%	2,007.8 µg/mL	+/- 58.9672
2	epsilon-Caprolactam	105-60-2	I16X016	99%	2,008.0 µg/mL	+/- 58.9746
3	Atrazine	1912-24-9	5FYWL	99%	2,003.5 µg/mL	+/- 58.8424

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant flow 1.8 mL/min.

Temp. Program:
80°C (hold 0.1 min.) to 330°C
@ 9.6°C/min. (hold 2.86 min.)

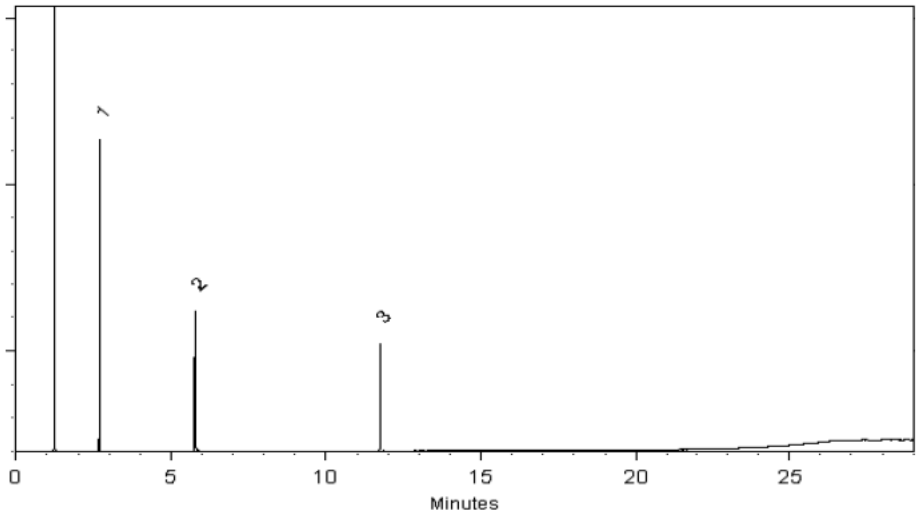
Inj. Temp:
250°C

Det. Temp:
340°C

Det. Type:
FID

Split Vent:
100 ml/min.

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.

Laith Cl[redacted]ician I

Date Mixed: 11-Aug-2023 **Balance Serial #** 1128360905

Dillan Mu[redacted]ician I

Date Passed: 17-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/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00266

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0199741

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,002.7 µg/mL	+/- 23.0181
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,002.0 µg/mL	+/- 23.0028
3	Pentachloroethane	76-01-7	13550700	97%	1,008.2 µg/mL	+/- 23.1441
4	Hexachloropropene	1888-71-7	44391/3	99%	1,006.0 µg/mL	+/- 23.0947
5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,009.7 µg/mL	+/- 23.1797
6	1-Chloronaphthalene	90-13-1	K2OBC	99%	1,006.0 µg/mL	+/- 23.0947
7	1,4-Naphthoquinone	130-15-4	13230700	99%	1,001.3 µg/mL	+/- 22.9875
8	Pentachlorobenzene	608-93-5	MKCD4132	99%	1,000.7 µg/mL	+/- 22.9722
9	2,3,5,6-Tetrachlorophenol	935-95-5	P53666-0605	99%	1,008.0 µg/mL	+/- 23.1406
10	Dinoseb	88-85-7	50001	99%	1,007.3 µg/mL	+/- 23.1253
11	Isodrin	465-73-6	14507900	98%	1,005.5 µg/mL	+/- 23.0827
12	Chlorobenzilate	510-15-6	14228300	99%	1,002.7 µg/mL	+/- 23.0181
13	7,12-Dimethylbenz(a)anthracene	57-97-6	QXLNC	99%	1,006.0 µg/mL	+/- 23.0947

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

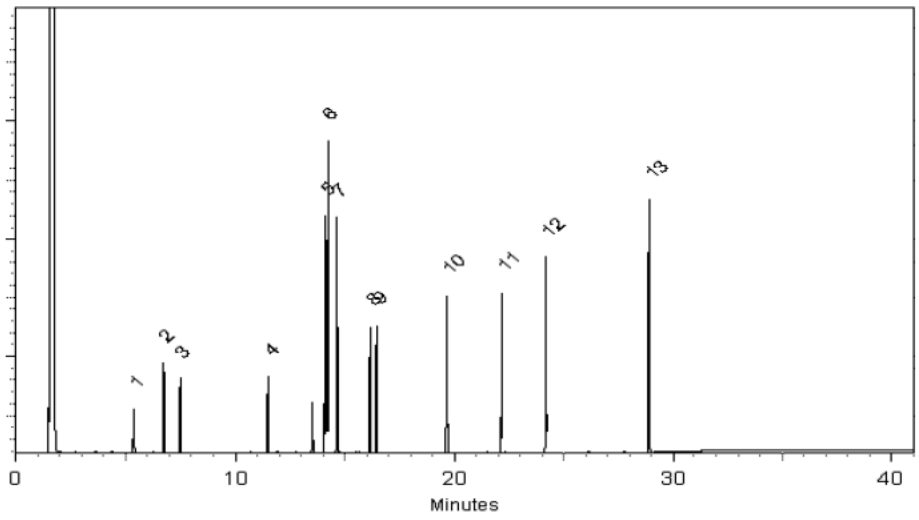
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]
Morg[redacted]nician

Date Mixed: 10-Jul-2023 **Balance Serial #** B442140311

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00267

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0199741

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,002.7 µg/mL	+/- 23.0181
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,002.0 µg/mL	+/- 23.0028
3	Pentachloroethane	76-01-7	13550700	97%	1,008.2 µg/mL	+/- 23.1441
4	Hexachloropropene	1888-71-7	44391/3	99%	1,006.0 µg/mL	+/- 23.0947
5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,009.7 µg/mL	+/- 23.1797
6	1-Chloronaphthalene	90-13-1	K2OBC	99%	1,006.0 µg/mL	+/- 23.0947
7	1,4-Naphthoquinone	130-15-4	13230700	99%	1,001.3 µg/mL	+/- 22.9875
8	Pentachlorobenzene	608-93-5	MKCD4132	99%	1,000.7 µg/mL	+/- 22.9722
9	2,3,5,6-Tetrachlorophenol	935-95-5	P53666-0605	99%	1,008.0 µg/mL	+/- 23.1406
10	Dinoseb	88-85-7	50001	99%	1,007.3 µg/mL	+/- 23.1253
11	Isodrin	465-73-6	14507900	98%	1,005.5 µg/mL	+/- 23.0827
12	Chlorobenzilate	510-15-6	14228300	99%	1,002.7 µg/mL	+/- 23.0181
13	7,12-Dimethylbenz(a)anthracene	57-97-6	QXLNC	99%	1,006.0 µg/mL	+/- 23.0947

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

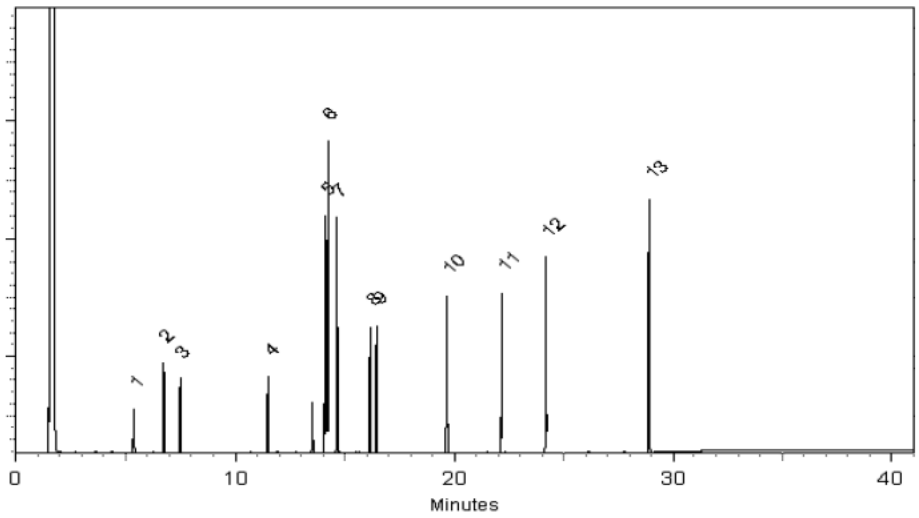
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 10-Jul-2023 **Balance Serial #** B442140311

Date Passed: 21-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00268

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0199741

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,002.7 µg/mL	+/- 23.0181
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,002.0 µg/mL	+/- 23.0028
3	Pentachloroethane	76-01-7	13550700	97%	1,008.2 µg/mL	+/- 23.1441
4	Hexachloropropene	1888-71-7	44391/3	99%	1,006.0 µg/mL	+/- 23.0947
5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,009.7 µg/mL	+/- 23.1797
6	1-Chloronaphthalene	90-13-1	K2OBC	99%	1,006.0 µg/mL	+/- 23.0947
7	1,4-Naphthoquinone	130-15-4	13230700	99%	1,001.3 µg/mL	+/- 22.9875
8	Pentachlorobenzene	608-93-5	MKCD4132	99%	1,000.7 µg/mL	+/- 22.9722
9	2,3,5,6-Tetrachlorophenol	935-95-5	P53666-0605	99%	1,008.0 µg/mL	+/- 23.1406
10	Dinoseb	88-85-7	50001	99%	1,007.3 µg/mL	+/- 23.1253
11	Isodrin	465-73-6	14507900	98%	1,005.5 µg/mL	+/- 23.0827
12	Chlorobenzilate	510-15-6	14228300	99%	1,002.7 µg/mL	+/- 23.0181
13	7,12-Dimethylbenz(a)anthracene	57-97-6	QXLNC	99%	1,006.0 µg/mL	+/- 23.0947

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

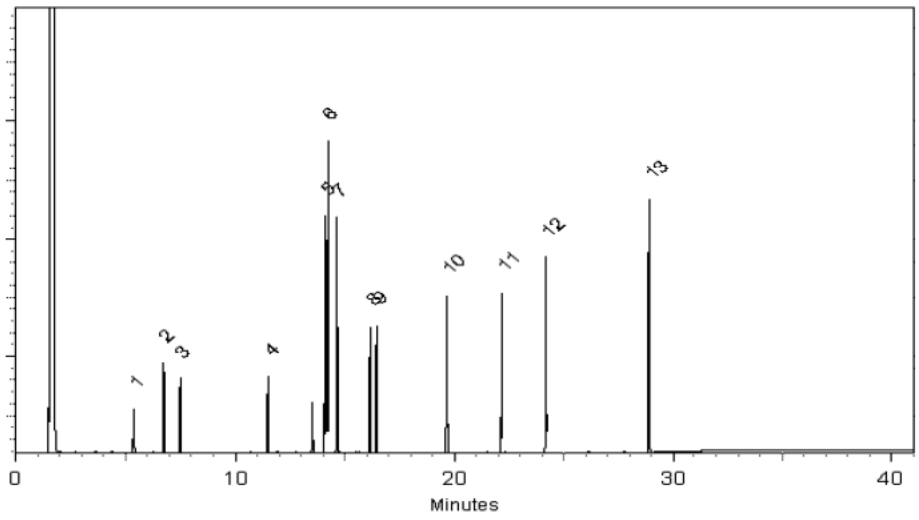
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]

Date Mixed: 10-Jul-2023 **Balance Serial #** B442140311

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-569733_00269

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569733 **Lot No.:** A0199741

Description : 8270 List 2 / Std #2 (2015)

8270 List 2 / Std #2 (2015) 1,000µg/mL, Methylene chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2024 **Storage:** -20°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl methanesulfonate	66-27-3	MKCM5645	99%	1,002.7 µg/mL	+/- 23.0181
2	Ethyl methanesulfonate	62-50-0	H6VUB	99%	1,002.0 µg/mL	+/- 23.0028
3	Pentachloroethane	76-01-7	13550700	97%	1,008.2 µg/mL	+/- 23.1441
4	Hexachloropropene	1888-71-7	44391/3	99%	1,006.0 µg/mL	+/- 23.0947
5	Isosafrole (cis & trans) 16% cis; 84% trans	120-58-1	MKBZ0058V	97%	1,009.7 µg/mL	+/- 23.1797
6	1-Chloronaphthalene	90-13-1	K2OBC	99%	1,006.0 µg/mL	+/- 23.0947
7	1,4-Naphthoquinone	130-15-4	13230700	99%	1,001.3 µg/mL	+/- 22.9875
8	Pentachlorobenzene	608-93-5	MKCD4132	99%	1,000.7 µg/mL	+/- 22.9722
9	2,3,5,6-Tetrachlorophenol	935-95-5	P53666-0605	99%	1,008.0 µg/mL	+/- 23.1406
10	Dinoseb	88-85-7	50001	99%	1,007.3 µg/mL	+/- 23.1253
11	Isodrin	465-73-6	14507900	98%	1,005.5 µg/mL	+/- 23.0827
12	Chlorobenzilate	510-15-6	14228300	99%	1,002.7 µg/mL	+/- 23.0181
13	7,12-Dimethylbenz(a)anthracene	57-97-6	QXLNC	99%	1,006.0 µg/mL	+/- 23.0947

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

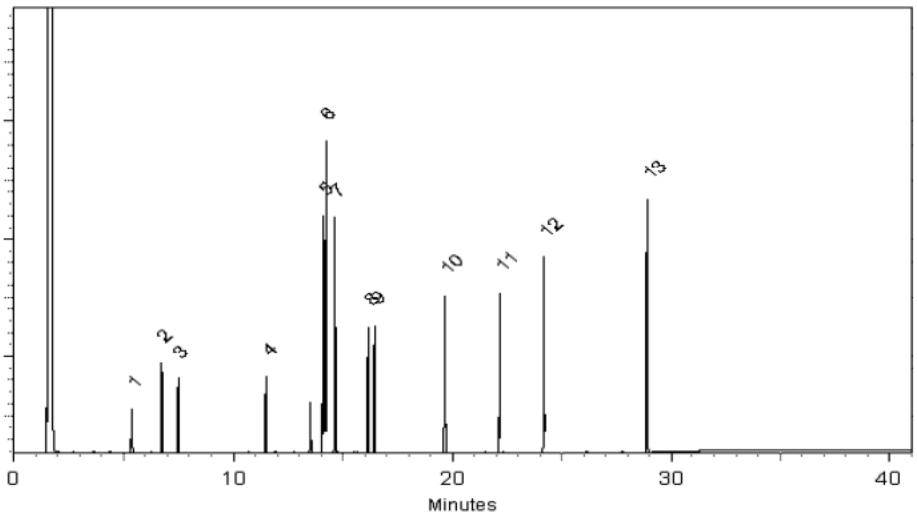
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]
Morg [redacted] ician

Date Mixed: 10-Jul-2023 **Balance Serial #** B442140311

[redacted]
Jennifer Polino - Operations Tech III - ARM QC

Date Passed: 21-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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-570667_00230

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570667 **Lot No.:** A0198786

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Picoline	109-06-8	STBJ3945	99%	1,003.3 µg/mL	+/- 18.5774
2	N-Nitrosomethylethylamine	10595-95-6	14026600	99%	1,005.3 µg/mL	+/- 18.6144
3	Acrylamide	79-06-1	01402JA	99%	1,004.7 µg/mL	+/- 18.6020
4	N-Nitrosodiethylamine	55-18-5	UT2EJ	99%	1,004.0 µg/mL	+/- 18.5897
5	N-Nitrosopyrrolidine	930-55-2	MKCB3427	99%	1,010.0 µg/mL	+/- 18.7008
6	o-Toluidine	95-53-4	03417PZ	99%	1,007.3 µg/mL	+/- 18.6514
7	N-Nitrosomorpholine	59-89-2	GOJNI	99%	1,004.7 µg/mL	+/- 18.6020
8	N-Nitrosopiperidine	100-75-4	14406900	98%	1,002.9 µg/mL	+/- 18.5687
9	Phentermine (a,a-Dimethylphenethylamine)	122-09-8	S221011RSR	99%	1,002.7 µg/mL	+/- 18.5650
10	Quinoline	91-22-5	UU6EC	99%	1,007.3 µg/mL	+/- 18.6514
11	N-Nitrosodi-n-butylamine	924-16-3	7BSAG	99%	1,002.0 µg/mL	+/- 18.5527
12	1,4-Phenylenediamine	106-50-3	14345400	99%	1,004.7 µg/mL	+/- 18.6020
13	1,4-Dinitrobenzene	100-25-4	STBF8844V	99%	1,004.0 µg/mL	+/- 18.5897
14	1-Naphthylamine (1-aminonaphthalene)	134-32-7	WRJNI	99%	1,003.3 µg/mL	+/- 18.5774
15	2-Naphthylamine (2-aminonaphthalene)	91-59-8	811345	99%	1,009.3 µg/mL	+/- 18.6884

16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,005.3	µg/mL	+/-	18.6144
17	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,006.7	µg/mL	+/-	18.6391
18	Phenacetin	62-44-2	317935/11192	99%	1,003.3	µg/mL	+/-	18.5774
19	4-Aminobiphenyl	92-67-1	SLCD6545	99%	1,000.7	µg/mL	+/-	18.5280
20	Propyzamide	23950-58-5	14228500	99%	1,002.0	µg/mL	+/-	18.5527
21	Pentachloronitrobenzene (quintozene)	82-68-8	14011000	98%	999.6	µg/mL	+/-	18.5082
22	4-Nitroquinoline-N-oxide	56-57-5	WXBD7133V	99%	1,003.3	µg/mL	+/-	18.5774
23	p-Dimethylaminoazobenzene	60-11-7	BCBP8840V	98%	1,001.6	µg/mL	+/-	18.5445
24	3,3'-Dimethylbenzidine (o-tolidine)	119-93-7	ELVJM	99%	1,010.0	µg/mL	+/-	18.7008
25	2-Acetylaminofluorene	53-96-3	WZDQE	99%	1,004.7	µg/mL	+/-	18.6020
26	4,4'-Methylene-bis(2-chloroaniline)	101-14-4	RP230106	97%	1,004.3	µg/mL	+/-	18.5948
27	Dibenz(a,h)acridine	226-36-8	012016	99%	1,006.0	µg/mL	+/-	18.6267

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

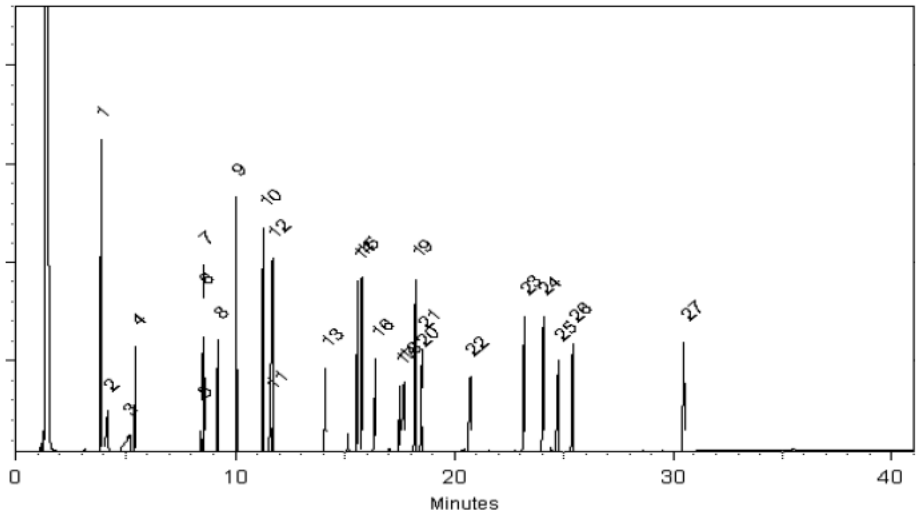
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 07-Jun-2023 **Balance Serial #** B442140311

Date Passed: 24-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/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-570667_00257

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570667 **Lot No.:** A0199198

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Picoline	109-06-8	STBD4888V	99%	1,006.7 µg/mL	+/- 18.6391
2	N-Nitrosomethylethylamine	10595-95-6	12741100	99%	1,005.3 µg/mL	+/- 18.6144
3	Acrylamide	79-06-1	01402JA	99%	1,004.0 µg/mL	+/- 18.5897
4	N-Nitrosodiethylamine	55-18-5	UT2EJ	99%	1,005.3 µg/mL	+/- 18.6144
5	N-Nitrosopyrrolidine	930-55-2	21-JPO-19-1	99%	1,004.7 µg/mL	+/- 18.6020
6	o-Toluidine	95-53-4	03417PZ	99%	1,004.0 µg/mL	+/- 18.5897
7	N-Nitrosomorpholine	59-89-2	GOJNI	99%	1,004.0 µg/mL	+/- 18.5897
8	N-Nitrosopiperidine	100-75-4	13324500	99%	1,006.0 µg/mL	+/- 18.6267
9	Phentermine (a,a-Dimethylphenethylamine)	122-09-8	S230330RSR	99%	1,005.3 µg/mL	+/- 18.6144
10	Quinoline	91-22-5	UU6EC	99%	1,004.7 µg/mL	+/- 18.6020
11	N-Nitrosodi-n-butylamine	924-16-3	7BSAG	99%	1,006.7 µg/mL	+/- 18.6391
12	1,4-Phenylenediamine	106-50-3	13110400	99%	1,005.3 µg/mL	+/- 18.6144
13	1,4-Dinitrobenzene	100-25-4	STBF8844V	99%	1,005.3 µg/mL	+/- 18.6144
14	1-Naphthylamine (1-aminonaphthalene)	134-32-7	WRJNI	99%	1,006.7 µg/mL	+/- 18.6391
15	2-Naphthylamine (2-aminonaphthalene)	91-59-8	811345	99%	1,006.7 µg/mL	+/- 18.6391

16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,004.7	µg/mL	+/-	18.6020
17	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,004.7	µg/mL	+/-	18.6020
18	Phenacetin	62-44-2	00629MB	99%	1,004.0	µg/mL	+/-	18.5897
19	4-Aminobiphenyl	92-67-1	SLCD6545	99%	1,006.7	µg/mL	+/-	18.6391
20	Propyzamide	23950-58-5	12513000	99%	1,004.7	µg/mL	+/-	18.6020
21	Pentachloronitrobenzene (quintozene)	82-68-8	11660600	98%	1,005.5	µg/mL	+/-	18.6171
22	4-Nitroquinoline-N-oxide	56-57-5	WXBD7133V	99%	1,006.7	µg/mL	+/-	18.6391
23	p-Dimethylaminoazobenzene	60-11-7	BCBP8840V	98%	1,004.8	µg/mL	+/-	18.6050
24	3,3'-Dimethylbenzidine (o-tolidine)	119-93-7	ELVJM	99%	1,006.7	µg/mL	+/-	18.6391
25	2-Acetylaminofluorene	53-96-3	WZDQE	99%	1,006.7	µg/mL	+/-	18.6391
26	4,4'-Methylene-bis(2-chloroaniline)	101-14-4	RP230106	97%	1,006.2	µg/mL	+/-	18.6307
27	Dibenz(a,h)acridine	226-36-8	012016	99%	1,004.7	µg/mL	+/-	18.6020

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

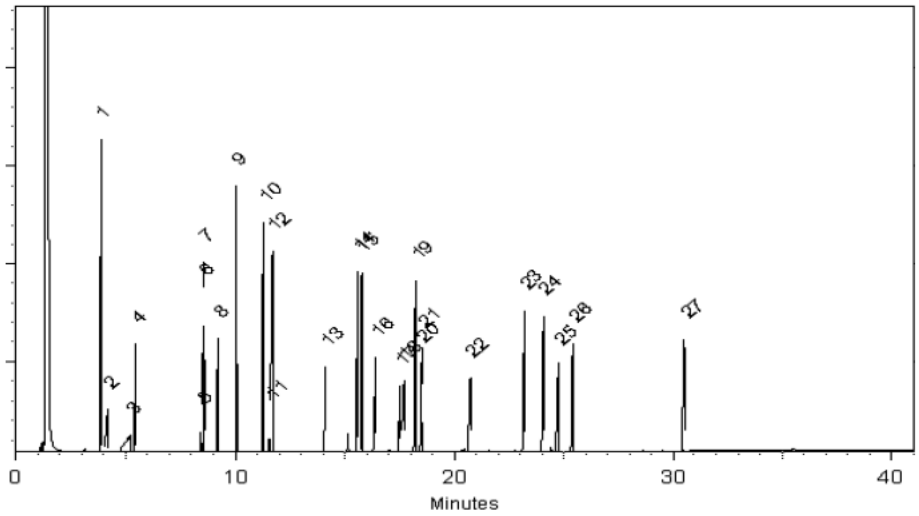
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]
Nic

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 21-Jun-2023 **Balance Serial #** B442140311

Date Passed: 24-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/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-570667_00258

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570667 **Lot No.:** A0199198

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Picoline	109-06-8	STBD4888V	99%	1,006.7 µg/mL	+/- 18.6391
2	N-Nitrosomethylethylamine	10595-95-6	12741100	99%	1,005.3 µg/mL	+/- 18.6144
3	Acrylamide	79-06-1	01402JA	99%	1,004.0 µg/mL	+/- 18.5897
4	N-Nitrosodiethylamine	55-18-5	UT2EJ	99%	1,005.3 µg/mL	+/- 18.6144
5	N-Nitrosopyrrolidine	930-55-2	21-JPO-19-1	99%	1,004.7 µg/mL	+/- 18.6020
6	o-Toluidine	95-53-4	03417PZ	99%	1,004.0 µg/mL	+/- 18.5897
7	N-Nitrosomorpholine	59-89-2	GOJNI	99%	1,004.0 µg/mL	+/- 18.5897
8	N-Nitrosopiperidine	100-75-4	13324500	99%	1,006.0 µg/mL	+/- 18.6267
9	Phentermine (a,a-Dimethylphenethylamine)	122-09-8	S230330RSR	99%	1,005.3 µg/mL	+/- 18.6144
10	Quinoline	91-22-5	UU6EC	99%	1,004.7 µg/mL	+/- 18.6020
11	N-Nitrosodi-n-butylamine	924-16-3	7BSAG	99%	1,006.7 µg/mL	+/- 18.6391
12	1,4-Phenylenediamine	106-50-3	13110400	99%	1,005.3 µg/mL	+/- 18.6144
13	1,4-Dinitrobenzene	100-25-4	STBF8844V	99%	1,005.3 µg/mL	+/- 18.6144
14	1-Naphthylamine (1-aminonaphthalene)	134-32-7	WRJNI	99%	1,006.7 µg/mL	+/- 18.6391
15	2-Naphthylamine (2-aminonaphthalene)	91-59-8	811345	99%	1,006.7 µg/mL	+/- 18.6391

16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,004.7	µg/mL	+/-	18.6020
17	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,004.7	µg/mL	+/-	18.6020
18	Phenacetin	62-44-2	00629MB	99%	1,004.0	µg/mL	+/-	18.5897
19	4-Aminobiphenyl	92-67-1	SLCD6545	99%	1,006.7	µg/mL	+/-	18.6391
20	Propyzamide	23950-58-5	12513000	99%	1,004.7	µg/mL	+/-	18.6020
21	Pentachloronitrobenzene (quintozene)	82-68-8	11660600	98%	1,005.5	µg/mL	+/-	18.6171
22	4-Nitroquinoline-N-oxide	56-57-5	WXBD7133V	99%	1,006.7	µg/mL	+/-	18.6391
23	p-Dimethylaminoazobenzene	60-11-7	BCBP8840V	98%	1,004.8	µg/mL	+/-	18.6050
24	3,3'-Dimethylbenzidine (o-tolidine)	119-93-7	ELVJM	99%	1,006.7	µg/mL	+/-	18.6391
25	2-Acetylaminofluorene	53-96-3	WZDQE	99%	1,006.7	µg/mL	+/-	18.6391
26	4,4'-Methylene-bis(2-chloroaniline)	101-14-4	RP230106	97%	1,006.2	µg/mL	+/-	18.6307
27	Dibenz(a,h)acridine	226-36-8	012016	99%	1,004.7	µg/mL	+/-	18.6020

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

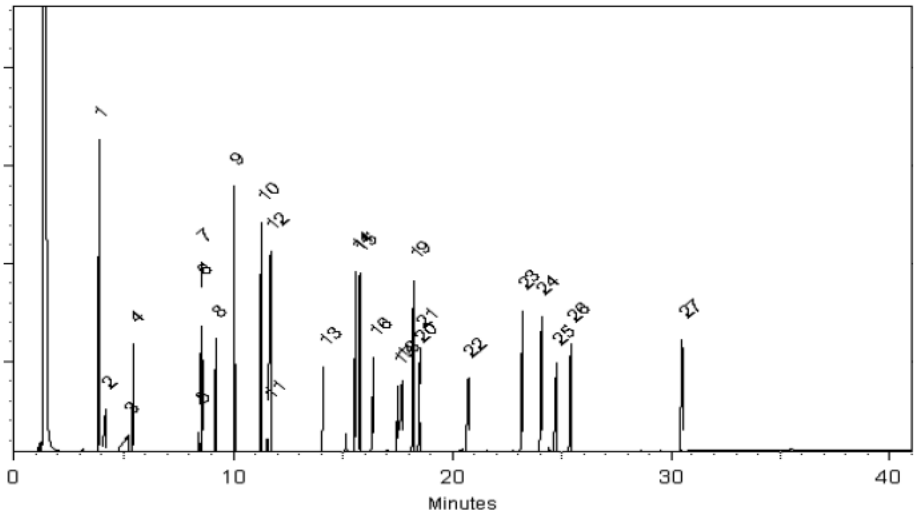
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

Nic [redacted]

Jennifer Polino - Operations Tech III - ARM QC [redacted]

Date Mixed: 21-Jun-2023 **Balance Serial #** B442140311

Date Passed: 24-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/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-570667_00259

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3122.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 570667 **Lot No.:** A0199198

Description : 8270 Supplemental Standard #1

8270 Supplemental Standard #1 1,000µg/mL, Methylene chloride, 1mL/ampul
Also described as 8270 List 2 / Std #1

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2024 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Picoline	109-06-8	STBD4888V	99%	1,006.7 µg/mL	+/- 18.6391
2	N-Nitrosomethylethylamine	10595-95-6	12741100	99%	1,005.3 µg/mL	+/- 18.6144
3	Acrylamide	79-06-1	01402JA	99%	1,004.0 µg/mL	+/- 18.5897
4	N-Nitrosodiethylamine	55-18-5	UT2EJ	99%	1,005.3 µg/mL	+/- 18.6144
5	N-Nitrosopyrrolidine	930-55-2	21-JPO-19-1	99%	1,004.7 µg/mL	+/- 18.6020
6	o-Toluidine	95-53-4	03417PZ	99%	1,004.0 µg/mL	+/- 18.5897
7	N-Nitrosomorpholine	59-89-2	GOJNI	99%	1,004.0 µg/mL	+/- 18.5897
8	N-Nitrosopiperidine	100-75-4	13324500	99%	1,006.0 µg/mL	+/- 18.6267
9	Phentermine (a,a-Dimethylphenethylamine)	122-09-8	S230330RSR	99%	1,005.3 µg/mL	+/- 18.6144
10	Quinoline	91-22-5	UU6EC	99%	1,004.7 µg/mL	+/- 18.6020
11	N-Nitrosodi-n-butylamine	924-16-3	7BSAG	99%	1,006.7 µg/mL	+/- 18.6391
12	1,4-Phenylenediamine	106-50-3	13110400	99%	1,005.3 µg/mL	+/- 18.6144
13	1,4-Dinitrobenzene	100-25-4	STBF8844V	99%	1,005.3 µg/mL	+/- 18.6144
14	1-Naphthylamine (1-aminonaphthalene)	134-32-7	WRJNI	99%	1,006.7 µg/mL	+/- 18.6391
15	2-Naphthylamine (2-aminonaphthalene)	91-59-8	811345	99%	1,006.7 µg/mL	+/- 18.6391

16	5-Nitro-o-toluidine	99-55-8	H67GL	99%	1,004.7	µg/mL	+/-	18.6020
17	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,004.7	µg/mL	+/-	18.6020
18	Phenacetin	62-44-2	00629MB	99%	1,004.0	µg/mL	+/-	18.5897
19	4-Aminobiphenyl	92-67-1	SLCD6545	99%	1,006.7	µg/mL	+/-	18.6391
20	Propyzamide	23950-58-5	12513000	99%	1,004.7	µg/mL	+/-	18.6020
21	Pentachloronitrobenzene (quintozene)	82-68-8	11660600	98%	1,005.5	µg/mL	+/-	18.6171
22	4-Nitroquinoline-N-oxide	56-57-5	WXBD7133V	99%	1,006.7	µg/mL	+/-	18.6391
23	p-Dimethylaminoazobenzene	60-11-7	BCBP8840V	98%	1,004.8	µg/mL	+/-	18.6050
24	3,3'-Dimethylbenzidine (o-tolidine)	119-93-7	ELVJM	99%	1,006.7	µg/mL	+/-	18.6391
25	2-Acetylaminofluorene	53-96-3	WZDQE	99%	1,006.7	µg/mL	+/-	18.6391
26	4,4'-Methylene-bis(2-chloroaniline)	101-14-4	RP230106	97%	1,006.2	µg/mL	+/-	18.6307
27	Dibenz(a,h)acridine	226-36-8	012016	99%	1,004.7	µg/mL	+/-	18.6020

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

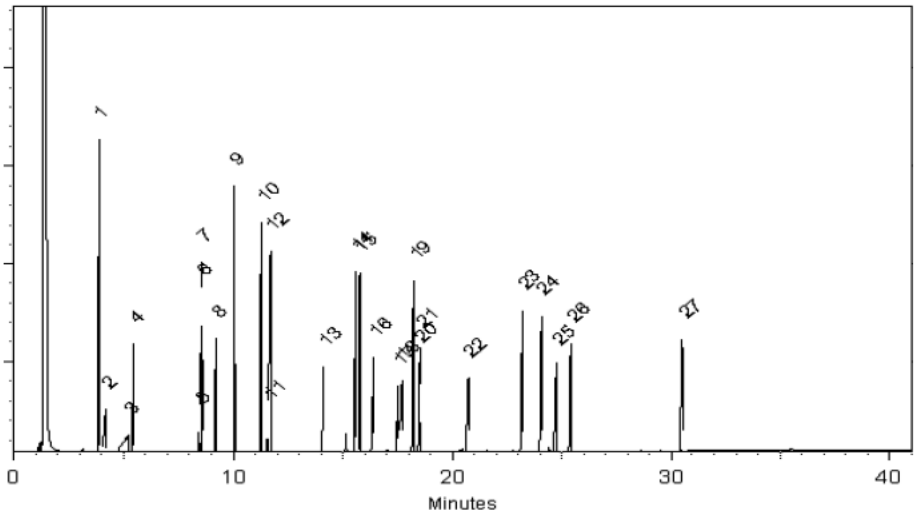
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

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.

[redacted]

Date Mixed: 21-Jun-2023 **Balance Serial #** B442140311

[redacted]
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-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/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

OP-572556_00055

CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Gravimetric Certificate

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. : 572556 **Lot No.:** A0186275

Description : Custom Hexachlorocyclopentadiene Standard

Custom Hexachlorocyclopentadiene Standard 4,000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Compound #:	Compound:	Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)	
1	Hexachlorocyclopentadiene	4,029.0 µg/mL	+/-	23.644429	µg/mL
	CAS # 77-47-4	(Lot 0012013)	+/-	225.924895	µg/mL
	Purity 99%		+/-	231.210195	µg/mL

Gravimetric
Unstressed
Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

[redacted]

Brandon Reish - Mix Technician **Date Mixed:** 14-Jun-2022 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

OP-572556_00062

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 572556 **Lot No.:** A0186275

Description : Custom Hexachlorocyclopentadiene Standard

Custom Hexachlorocyclopentadiene Standard 4,000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Hexachlorocyclopentadiene	4,029.0 µg/mL	+/- 23.644429 µg/mL	Gravimetric
	CAS # 77-47-4 (Lot 0012013)		+/- 225.924895 µg/mL	Unstressed
	Purity 99%		+/- 231.210195 µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

[redacted]
Brandon Reish - Mix Technician

Date Mixed: 14-Jun-2022 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

PicricARestek_00118

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31499 **Lot No.:** A0183202

Description : Picric Acid Standard

Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL *PGI BOX REQUIRED* SHIP FED EX GROUND ONLY

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 88-89-1 (Lot 06130CU)		+/- 55.0021	µg/mL	Unstressed
	Purity 99%		+/- 64.1379	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

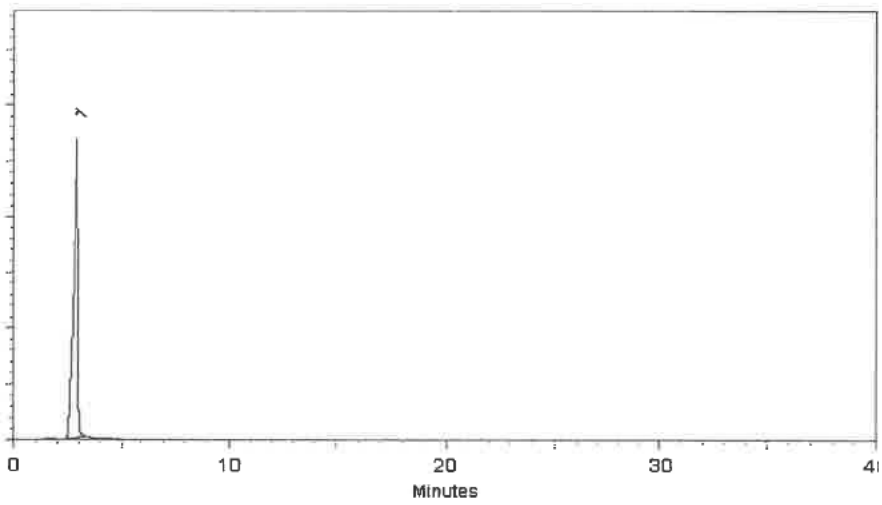
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

[redacted]
Brandon Reish - Mix Technician

Date Mixed: 23-Mar-2022 **Balance:** 1128360905

[redacted]
QC

Date Passed: 28-Mar-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

PicricARestek_00121

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 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.

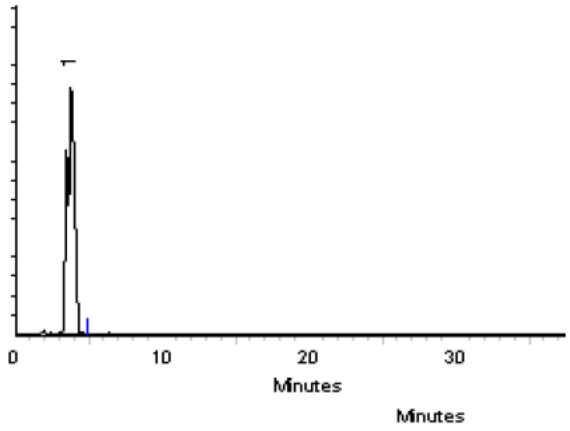
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted]
Alicia Leathers - Operation Technician I

Date Mixed: 12-Mar-2023 **Balance Serial #** 1127510105

[redacted]
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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

PicricARestek_00122

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3122.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 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.

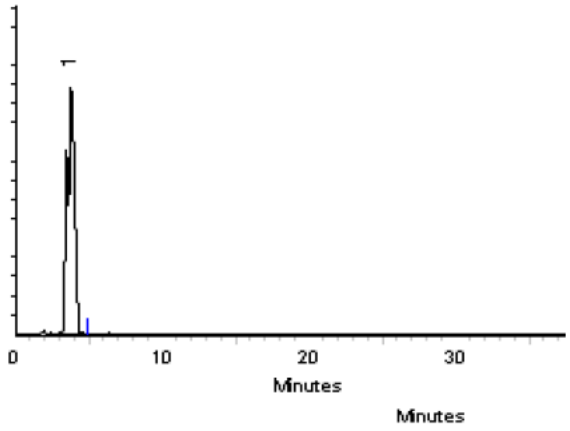
Mobile Phase A:
water:methanol (44:56 V/V)

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.

[redacted]
Alicia Leathers - Operation Technician I

Date Mixed: 12-Mar-2023 **Balance Serial #** 1127510105

[redacted]
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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

8270E_DOD5

Semivolatile Organic Compounds (GC/MS)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): Rxi-5Sil MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
X7-TP-C01-3642	280-188555-1	67	68	64	73	92	87
X7-TP-C02-2430	280-188555-2	58	58	56	64	87	80
FD-03062401	280-188555-3	62	62	58	67	90	81
X7-TP-C03-2436	280-188555-4	64	65	61	69	93	74
	MB 280-645670/1-A	63	64	62	70	81	80
	LCS 280-645670/2-A	52	53	52	62	82	73
X7-TP-C03-2436 MS	280-188555-4 MS	46	48	45	57	91	78
X7-TP-C03-2436 MSD	280-188555-4 MSD	57	60	56	69	97	83

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	35-115
PHL = Phenol-d5 (Surr)	33-122
NBZ = Nitrobenzene-d5 (Surr)	37-122
FBP = 2-Fluorobiphenyl	44-115
TBP = 2,4,6-Tribromophenol (Surr)	39-132
TPHL = Terphenyl-d14 (Surr)	54-127

Column to be used to flag recovery values

FORM II 8270E

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: G6_031524013.D

Lab ID: LCS 280-645670/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
2,4-Dinitrophenol	5330	4220	79	46-120	
Diphenylamine	2270	1770	78	48-111	
N-Nitrosodiphenylamine	2670	2040	77	38-127	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: G6_031524019.D

Lab ID: 280-188555-4 MS Client ID: X7-TP-C03-2436 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
2,4-Dinitrophenol	6270	1200 U	5640	90	46-120	
Diphenylamine	2660	200 U	2210	83	48-111	
N-Nitrosodiphenylamine	3130	80 U	2510	80	38-127	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: G6_031524020.D

Lab ID: 280-188555-4 MSD Client ID: X7-TP-C03-2436 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4-Dinitrophenol	5940	5740	97	2	20	46-120	
Diphenylamine	2520	2240	89	1	20	48-111	
N-Nitrosodiphenylamine	2970	2510	85	0	20	38-127	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: G6_031524012.D Lab Sample ID: MB 280-645670/1-A

Matrix: Solid Date Extracted: 03/12/2024 10:29

Instrument ID: SMS_G6 Date Analyzed: 03/15/2024 17:36

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-645670/2-A	G6_031524013.D	03/15/2024 17:57
X7-TP-C01-3642	280-188555-1	G6_031524015.D	03/15/2024 18:40
X7-TP-C02-2430	280-188555-2	G6_031524016.D	03/15/2024 19:01
FD-03062401	280-188555-3	G6_031524017.D	03/15/2024 19:23
X7-TP-C03-2436	280-188555-4	G6_031524018.D	03/15/2024 19:44
X7-TP-C03-2436 MS	280-188555-4 MS	G6_031524019.D	03/15/2024 20:06
X7-TP-C03-2436 MSD	280-188555-4 MSD	G6_031524020.D	03/15/2024 20:27

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: G6_b030424002C.D DFTPP Injection Date: 03/04/2024

Instrument ID: SMS_G6 DFTPP Injection Time: 09:59

Analysis Batch No.: 644801

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	55.8	
68	Less than 2.0 % of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	55.6	
70	Less than 2.0 % of mass 69	0.2	(0.4) 1
127	40.0 - 60.0 % of mass 198	54.1	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.8	
275	10.0 - 30.0 % of mass 198	22.5	
365	Greater than 1.0 % of mass 198	2.4	
441	Present but less than mass 443	11.6	(79.0) 3
442	Greater than 40.0 % of mass 198	75.8	
443	17.0 - 23.0 % of mass 442	14.7	(19.4) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 280-644801/3	G6_b030424003	03/04/2024	10:17
	STD004 280-644801/4	G6_b030424004	03/04/2024	10:38
	STD010 280-644801/5	G6_b030424005	03/04/2024	11:00
	STD020 280-644801/6	G6_b030424006	03/04/2024	11:21
	STD050 280-644801/7	G6_b030424007	03/04/2024	11:43
	STD120 280-644801/8	G6_b030424008	03/04/2024	12:04
	STD160 280-644801/9	G6_b030424009	03/04/2024	12:26
	STD200 280-644801/10	G6_b030424010	03/04/2024	12:47
	ICV 280-644801/11	G6_b030424011	03/04/2024	13:09
	ICV 280-644801/12	G6_b030424012	03/04/2024	13:30

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: G6_b030424002D.D DFTPP Injection Date: 03/04/2024

Instrument ID: SMS_G6 DFTPP Injection Time: 09:59

Analysis Batch No.: 644899

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	55.8	
68	Less than 2.0 % of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	55.6	
70	Less than 2.0 % of mass 69	0.2	(0.4) 1
127	40.0 - 60.0 % of mass 198	54.1	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.8	
275	10.0 - 30.0 % of mass 198	22.5	
365	Greater than 1.0 % of mass 198	2.4	
441	Present but less than mass 443	11.6	(79.0) 3
442	Greater than 40.0 % of mass 198	75.8	
443	17.0 - 23.0 % of mass 442	14.7	(19.4) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICV 280-644899/20	G6_b030424020	03/04/2024	16:21

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: G6_b030424002E.D DFTPP Injection Date: 03/04/2024

Instrument ID: SMS_G6 DFTPP Injection Time: 09:59

Analysis Batch No.: 644942

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	55.8	
68	Less than 2.0 % of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	55.6	
70	Less than 2.0 % of mass 69	0.2	(0.4) 1
127	40.0 - 60.0 % of mass 198	54.1	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.8	
275	10.0 - 30.0 % of mass 198	22.5	
365	Greater than 1.0 % of mass 198	2.4	
441	Present but less than mass 443	11.6	(79.0) 3
442	Greater than 40.0 % of mass 198	75.8	
443	17.0 - 23.0 % of mass 442	14.7	(19.4) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICV 280-644942/10	G6_b030424028	03/04/2024	19:43

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: G6_b030524002C.D DFTPP Injection Date: 03/05/2024

Instrument ID: SMS_G6 DFTPP Injection Time: 08:20

Analysis Batch No.: 644947

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	58.8	
68	Less than 2.0 % of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	57.9	
70	Less than 2.0 % of mass 69	0.3	(0.5) 1
127	40.0 - 60.0 % of mass 198	55.3	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.8	
275	10.0 - 30.0 % of mass 198	21.8	
365	Greater than 1.0 % of mass 198	2.2	
441	Present but less than mass 443	10.7	(80.9) 3
442	Greater than 40.0 % of mass 198	68.2	
443	17.0 - 23.0 % of mass 442	13.2	(19.4) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICV 280-644947/10	G6_b030524001	03/05/2024	11:07

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: 031524002.D DFTPP Injection Date: 03/15/2024

Instrument ID: SMS_G6 DFTPP Injection Time: 08:58

Analysis Batch No.: 646020

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	53.8	
68	Less than 2.0 % of mass 69	0.4	(1.1) 1
69	Mass 69 relative abundance	39.6	
70	Less than 2.0 % of mass 69	0.1	(0.3) 1
127	40.0 - 60.0 % of mass 198	51.2	
197	Less than 1.0 % of mass 198	0.1	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.6	
275	10.0 - 30.0 % of mass 198	24.0	
365	Greater than 1.0 % of mass 198	2.9	
441	Present but less than mass 443	12.3	(72.5) 3
442	Greater than 40.0 % of mass 198	87.1	
443	17.0 - 23.0 % of mass 442	16.9	(19.4) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD080 280-646020/3	031524003.D	03/15/2024	9:14
	STD010 280-646020/4	031524004.D	03/15/2024	9:38
	STD020 280-646020/5	031524005.D	03/15/2024	10:03
	STD050 280-646020/6	031524006.D	03/15/2024	10:27
	STD120 280-646020/7	031524007.D	03/15/2024	10:51
	STD 280-646020/9	031524009.D	03/15/2024	11:39
	STD160 280-646020/12	031524011.D	03/15/2024	12:35
	ICV 280-646020/10	031524012.D	03/15/2024	12:59

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: G6_031524002.D DFTPP Injection Date: 03/15/2024

Instrument ID: SMS_G6 DFTPP Injection Time: 13:56

Analysis Batch No.: 646066

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	45.0	
68	Less than 2.0 % of mass 69	0.6	(1.7) 1
69	Mass 69 relative abundance	33.7	
70	Less than 2.0 % of mass 69	0.2	(0.5) 1
127	40.0 - 60.0 % of mass 198	47.0	
197	Less than 1.0 % of mass 198	0.3	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.6	
275	10.0 - 30.0 % of mass 198	27.1	
365	Greater than 1.0 % of mass 198	3.6	
441	Present but less than mass 443	17.0	(73.7) 3
442	Greater than 40.0 % of mass 198	117.5	
443	17.0 - 23.0 % of mass 442	23.0	(19.6) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 280-646066/3	G6_031524003.	03/15/2024	14:12
	MB 280-645670/1-A	G6_031524012.	03/15/2024	17:36
	LCS 280-645670/2-A	G6_031524013.	03/15/2024	17:57
X7-TP-C01-3642	280-188555-1	G6_031524015.	03/15/2024	18:40
X7-TP-C02-2430	280-188555-2	G6_031524016.	03/15/2024	19:01
FD-03062401	280-188555-3	G6_031524017.	03/15/2024	19:23
X7-TP-C03-2436	280-188555-4	G6_031524018.	03/15/2024	19:44
X7-TP-C03-2436 MS	280-188555-4 MS	G6_031524019.	03/15/2024	20:06
X7-TP-C03-2436 MSD	280-188555-4 MSD	G6_031524020.	03/15/2024	20:27
	CCVC 280-646066/29	G6_031524030.	03/16/2024	0:01

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Sample No.: ICIS 280-644801/3 Date Analyzed: 03/04/2024 10:17

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): G6_b030424003.D Heated Purge: (Y/N) N

Calibration ID: 90934

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		173327	4.32	664524	5.48	376194	7.17
UPPER LIMIT		346654	4.49	1329048	5.65	752388	7.33
LOWER LIMIT		86664	4.16	332262	5.32	188097	7.00
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-644801/11		183989	4.32	679058	5.48	374454	7.17
ICV 280-644801/12		189822	4.32	713950	5.48	389646	7.17
CCVIS 280-646066/3		216399	4.32	794954	5.49	434100	7.18

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Sample No.: ICIS 280-644801/3 Date Analyzed: 03/04/2024 10:17

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): G6_b030424003.D Heated Purge: (Y/N) N

Calibration ID: 90934

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		638181	8.62	534352	11.46	618785	13.81
UPPER LIMIT		1276362	8.78	1068704	11.63	1237570	13.97
LOWER LIMIT		319091	8.45	267176	11.30	309393	13.64
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-644801/11		626868	8.61	512453	11.46	575434	13.80
ICV 280-644801/12		655723	8.61	494280	11.45	569535	13.80
CCVIS 280-646066/3		751464	8.62	688050	11.47	801374	13.81

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Sample No.: CCVIS 280-646066/3 Date Analyzed: 03/15/2024 14:12

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): G6_031524003.D Heated Purge: (Y/N) N

Calibration ID: 91238

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		216399	4.32	794954	5.49	434100	7.18
UPPER LIMIT		432798	4.48	1589908	5.65	868200	7.34
LOWER LIMIT		108200	4.15	397477	5.32	217050	7.01
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-645670/1-A		189037	4.32	696410	5.49	383054	7.17
LCS 280-645670/2-A		199718	4.32	727022	5.49	399482	7.17
280-188555-1	X7-TP-C01-3642	163530	4.32	617270	5.48	339939	7.17
280-188555-2	X7-TP-C02-2430	227416	4.32	847256	5.48	469134	7.17
280-188555-3	FD-03062401	237151	4.32	888009	5.49	493519	7.17
280-188555-4	X7-TP-C03-2436	212565	4.32	783498	5.49	433242	7.17
280-188555-4 MS	X7-TP-C03-2436 MS	231448	4.32	852767	5.49	469029	7.17
280-188555-4 MSD	X7-TP-C03-2436 MSD	183036	4.32	677725	5.49	378319	7.17
CCVC 280-646066/29		221858	4.32	836418	5.49	459366	7.18

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Sample No.: CCVIS 280-646066/3 Date Analyzed: 03/15/2024 14:12

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): G6_031524003.D Heated Purge: (Y/N) N

Calibration ID: 91238

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		751464	8.62	688050	11.47	801374	13.81
UPPER LIMIT		1502928	8.79	1376100	11.63	1602748	13.98
LOWER LIMIT		375732	8.45	344025	11.30	400687	13.65
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-645670/1-A		692456	8.62	615574	11.46	675707	13.81
LCS 280-645670/2-A		685788	8.62	578823	11.46	666670	13.81
280-188555-1	X7-TP-C01-3642	593362	8.62	498353	11.46	533724	13.81
280-188555-2	X7-TP-C02-2430	810066	8.62	681570	11.46	708528	13.81
280-188555-3	FD-03062401	846698	8.62	718948	11.46	750176	13.81
280-188555-4	X7-TP-C03-2436	768156	8.62	724848	11.46	822376	13.81
280-188555-4 MS	X7-TP-C03-2436 MS	818871	8.62	687928	11.46	800837	13.81
280-188555-4 MSD	X7-TP-C03-2436 MSD	669415	8.62	566123	11.46	661949	13.81
CCVC 280-646066/29		783602	8.62	604009	11.47	668926	13.82

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C01-3642 | Lab Sample ID: 280-188555-1

Matrix: Solid | Lab File ID: G6_031524015.D

Analysis Method: 8270E | Date Collected: 03/06/2024 09:00

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 30.6(g) | Date Analyzed: 03/15/2024 18:40

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: 14.7 % Solids: 85.3 | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1100	U Q	1800	1100	380
122-39-4	Diphenylamine	190	U	380	190	51
86-30-6	N-Nitrosodiphenylamine	77	U	380	77	24

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	73		44-115
367-12-4	2-Fluorophenol (Surr)	67		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	92		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	64		37-122
4165-62-2	Phenol-d5 (Surr)	68		33-122
1718-51-0	Terphenyl-d14 (Surr)	87		54-127

Report Date: 18-Mar-2024 14:42:56 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524015.D
Lims ID: 280-188555-A-1-A
Client ID: X7-TP-C01-3642
Sample Type: Client
Inject. Date: 15-Mar-2024 18:40:30 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-1-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:11:07

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	163530	40.0	
*	2 Naphthalene-d8	136	5.481	5.486	-0.005	99	617270	40.0	
*	3 Acenaphthene-d10	164	7.171	7.171	0.000	91	339939	40.0	
*	4 Phenanthrene-d10	188	8.615	8.615	0.000	96	593362	40.0	
*	5 Chrysene-d12	240	11.455	11.455	0.000	99	498353	40.0	
*	6 Perylene-d12	264	13.808	13.814	-0.006	99	533724	40.0	
$	7 2-Fluorophenol	112	3.229	3.224	0.005	93	400262	67.2	
$	8 Phenol-d5	99	4.015	4.010	0.005	95	500783	68.3	
$	9 Nitrobenzene-d5	82	4.812	4.812	0.000	93	387803	64.2	
$	11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	771874	73.0	
$	12 2,4,6-Tribromophenol	330	7.941	7.946	-0.005	92	204172	91.9	
$	13 Terphenyl-d14	244	10.198	10.203	-0.005	97	1196344	86.7	
	102 2,4-Dinitrophenol	184		7.240				ND	
	126 N-Nitrosodiphenylamine	169		7.834				ND	
	125 Diphenylamine	169		7.834				ND	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

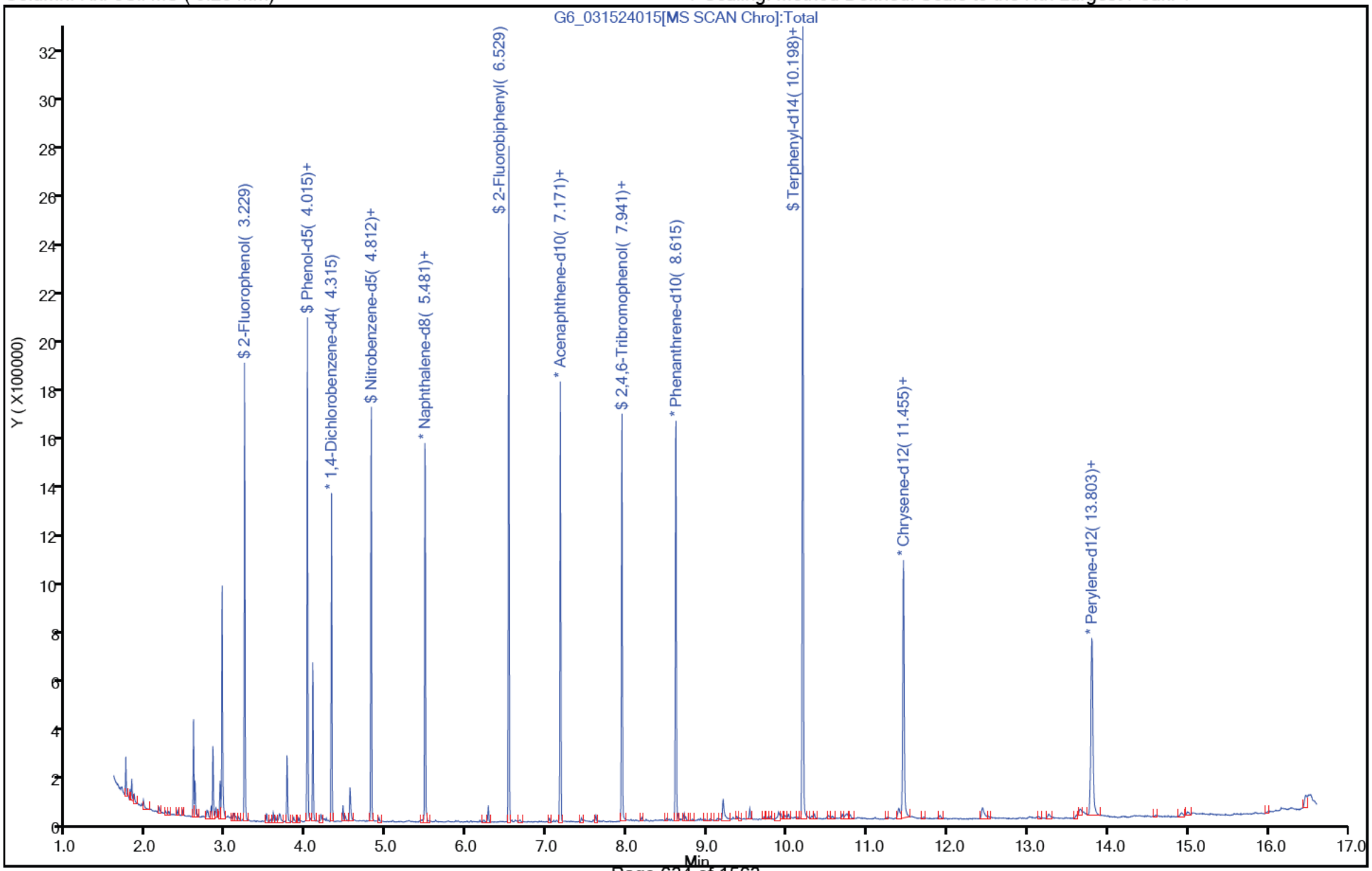
MS-IS_00037 Amount Added: 100.00 Units: uL Run Reagent

Report Date: 18-Mar-2024 14:42:56 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524015.D				
Injection Date:	15-Mar-2024 18:40:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	280-188555-A-1-A	Lab Sample ID:	280-188555-1	Worklist Smp#:	14
Client ID:	X7-TP-C01-3642				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 18-Mar-2024 14:42:56 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524015.D
Lims ID: 280-188555-A-1-A
Client ID: X7-TP-C01-3642
Sample Type: Client
Inject. Date: 15-Mar-2024 18:40:30 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-1-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:11:07

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	100.0	67.2	67.19
$ 8 Phenol-d5	100.0	68.3	68.32
$ 9 Nitrobenzene-d5	100.0	64.2	64.16
$ 11 2-Fluorobiphenyl	100.0	73.0	72.98
$ 12 2,4,6-Tribromophenol	100.0	91.9	91.89
$ 13 Terphenyl-d14	100.0	86.7	86.68

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C02-2430 | Lab Sample ID: 280-188555-2

Matrix: Solid | Lab File ID: G6_031524016.D

Analysis Method: 8270E | Date Collected: 03/06/2024 09:25

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 30.2(g) | Date Analyzed: 03/15/2024 19:01

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: 14.1 % Solids: 85.9 | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1200	U Q	1800	1200	380
122-39-4	Diphenylamine	190	U	380	190	51
86-30-6	N-Nitrosodiphenylamine	77	U	380	77	24

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	64		44-115
367-12-4	2-Fluorophenol (Surr)	58		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	87		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	56		37-122
4165-62-2	Phenol-d5 (Surr)	58		33-122
1718-51-0	Terphenyl-d14 (Surr)	80		54-127

Report Date: 18-Mar-2024 14:42:58 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524016.D
Lims ID: 280-188555-A-2-A
Client ID: X7-TP-C02-2430
Sample Type: Client
Inject. Date: 15-Mar-2024 19:01:30 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-2-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:11:17

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	227416	40.0	
*	2 Naphthalene-d8	136	5.481	5.486	-0.005	99	847256	40.0	
*	3 Acenaphthene-d10	164	7.171	7.171	0.000	92	469134	40.0	
*	4 Phenanthrene-d10	188	8.615	8.615	0.000	96	810066	40.0	
*	5 Chrysene-d12	240	11.455	11.455	0.000	99	681570	40.0	
*	6 Perylene-d12	264	13.809	13.814	-0.005	99	708528	40.0	
$	7 2-Fluorophenol	112	3.234	3.224	0.010	92	478241	57.7	
$	8 Phenol-d5	99	4.015	4.010	0.005	95	591884	58.1	
$	9 Nitrobenzene-d5	82	4.812	4.812	0.000	93	467064	56.3	
$	11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	929036	63.7	
$	12 2,4,6-Tribromophenol	330	7.941	7.946	-0.005	91	265296	86.7	
$	13 Terphenyl-d14	244	10.198	10.203	-0.005	97	1512286	80.1	
	102 2,4-Dinitrophenol	184		7.240				ND	
	126 N-Nitrosodiphenylamine	169		7.834				ND	
	125 Diphenylamine	169		7.834				ND	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

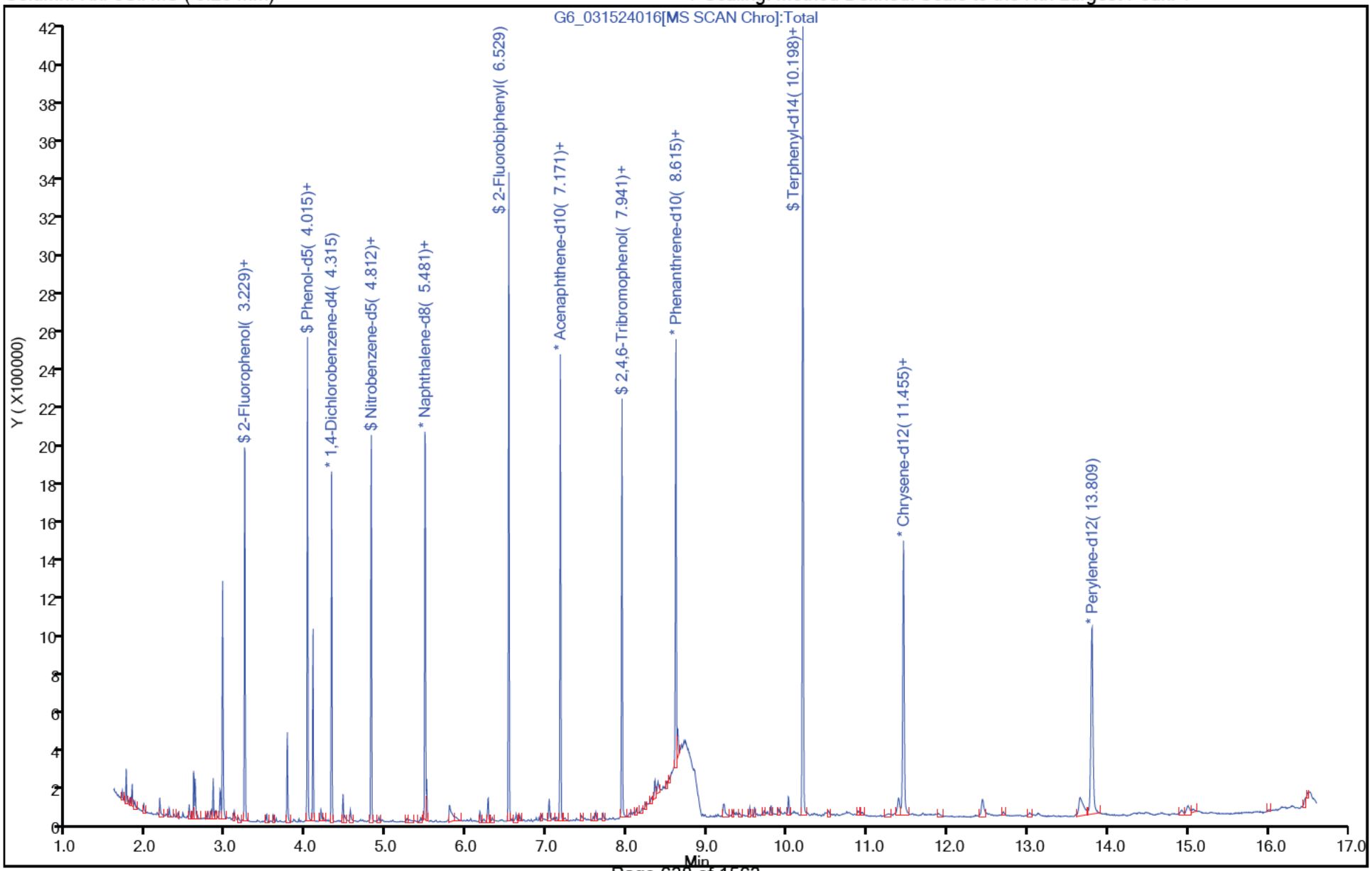
MS-IS_00037 Amount Added: 100.00 Units: uL Run Reagent

Report Date: 18-Mar-2024 14:42:58 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524016.D				
Injection Date:	15-Mar-2024 19:01:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	280-188555-A-2-A	Lab Sample ID:	280-188555-2	Worklist Smp#:	15
Client ID:	X7-TP-C02-2430				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 18-Mar-2024 14:42:58 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524016.D
Lims ID: 280-188555-A-2-A
Client ID: X7-TP-C02-2430
Sample Type: Client
Inject. Date: 15-Mar-2024 19:01:30 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-2-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:11:17

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	100.0	57.7	57.73
$ 8 Phenol-d5	100.0	58.1	58.06
$ 9 Nitrobenzene-d5	100.0	56.3	56.30
$ 11 2-Fluorobiphenyl	100.0	63.7	63.65
$ 12 2,4,6-Tribromophenol	100.0	86.7	86.67
$ 13 Terphenyl-d14	100.0	80.1	80.12

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: FD-03062401 | Lab Sample ID: 280-188555-3

Matrix: Solid | Lab File ID: G6_031524017.D

Analysis Method: 8270E | Date Collected: 03/06/2024 09:35

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 31.5(g) | Date Analyzed: 03/15/2024 19:23

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: 14.2 % Solids: 85.8 | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1100	U Q	1800	1100	370
122-39-4	Diphenylamine	190	U M	370	190	49
86-30-6	N-Nitrosodiphenylamine	74	U	370	74	23

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	67		44-115
367-12-4	2-Fluorophenol (Surr)	62		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	90		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	58		37-122
4165-62-2	Phenol-d5 (Surr)	62		33-122
1718-51-0	Terphenyl-d14 (Surr)	81		54-127

Report Date: 18-Mar-2024 14:43:00 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524017.D
Lims ID: 280-188555-A-3-A
Client ID: FD-03062401
Sample Type: Client
Inject. Date: 15-Mar-2024 19:23:30 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-3-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:11:37

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	237151	40.0	
*	2 Naphthalene-d8	136	5.486	5.486	0.000	99	888009	40.0	
*	3 Acenaphthene-d10	164	7.171	7.171	0.000	91	493519	40.0	
*	4 Phenanthrene-d10	188	8.615	8.615	0.000	96	846698	40.0	
*	5 Chrysene-d12	240	11.455	11.455	0.000	99	718948	40.0	
*	6 Perylene-d12	264	13.808	13.814	-0.006	99	750176	40.0	
$	7 2-Fluorophenol	112	3.234	3.224	0.010	92	531913	61.6	
$	8 Phenol-d5	99	4.015	4.010	0.005	95	661295	62.2	
$	9 Nitrobenzene-d5	82	4.812	4.812	0.000	92	507156	58.3	
$	11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	1031955	67.2	
$	12 2,4,6-Tribromophenol	330	7.941	7.946	-0.005	92	291301	90.4	
$	13 Terphenyl-d14	244	10.198	10.203	-0.005	97	1613454	81.0	
	102 2,4-Dinitrophenol	184		7.240				ND	
	126 N-Nitrosodiphenylamine	169		7.834				ND	
	125 Diphenylamine	169		7.834				ND	U

QC Flag Legend

Processing Flags
Review Flags
U - Marked Undetected

Reagents:

MS-IS_00037 Amount Added: 100.00 Units: uL Run Reagent

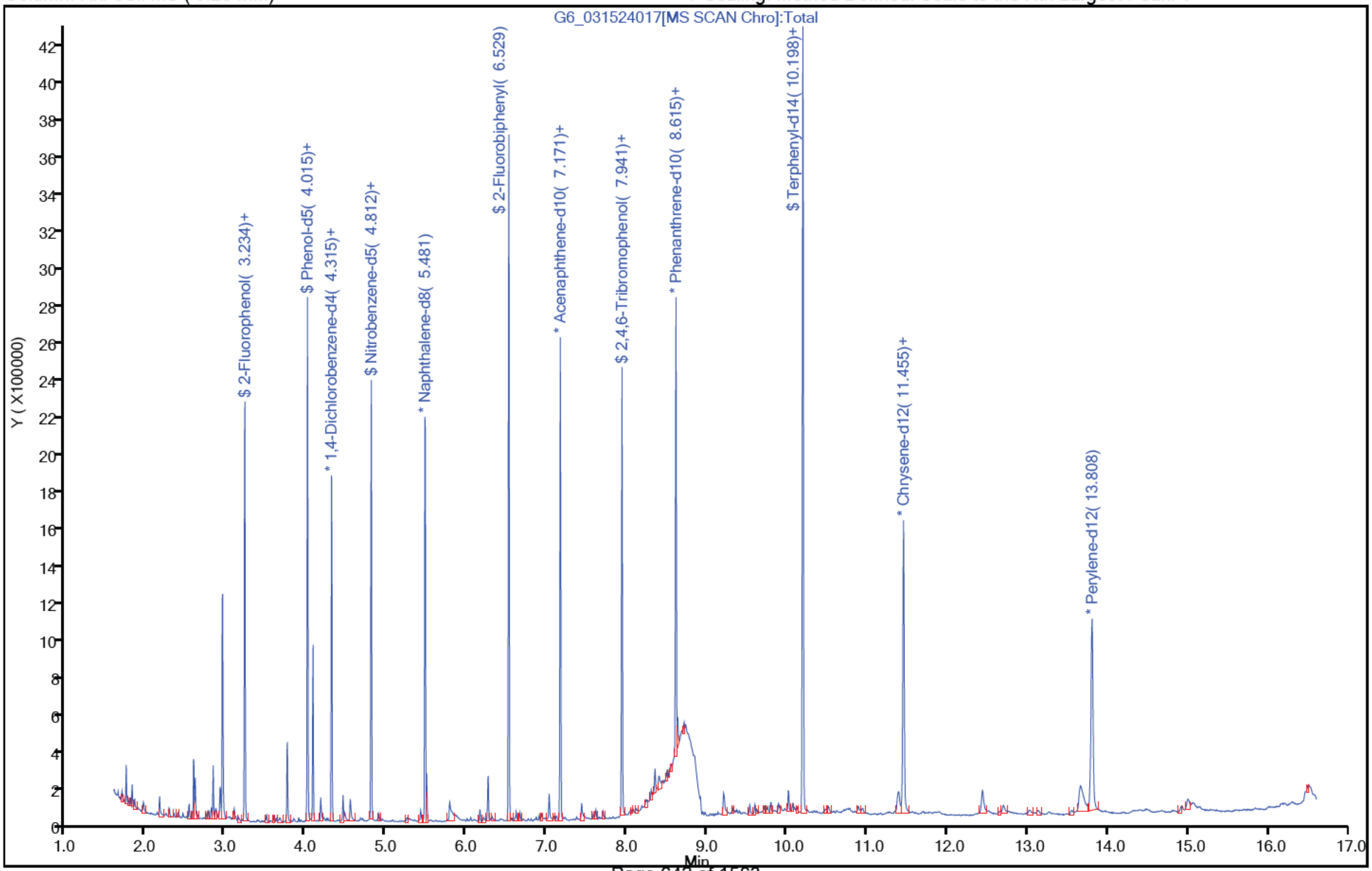
Report Date: 18-Mar-2024 14:43:00 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524017.D

Injection Date:	15-Mar-2024 19:23:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	280-188555-A-3-A	Lab Sample ID:	280-188555-3	Worklist Smp#:	16
Client ID:	FD-03062401				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 18-Mar-2024 14:43:00 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524017.D
Lims ID: 280-188555-A-3-A
Client ID: FD-03062401
Sample Type: Client
Inject. Date: 15-Mar-2024 19:23:30 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-3-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:11:37

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	100.0	61.6	61.57
$ 8 Phenol-d5	100.0	62.2	62.21
$ 9 Nitrobenzene-d5	100.0	58.3	58.33
$ 11 2-Fluorobiphenyl	100.0	67.2	67.21
$ 12 2,4,6-Tribromophenol	100.0	90.4	90.35
$ 13 Terphenyl-d14	100.0	81.0	81.03

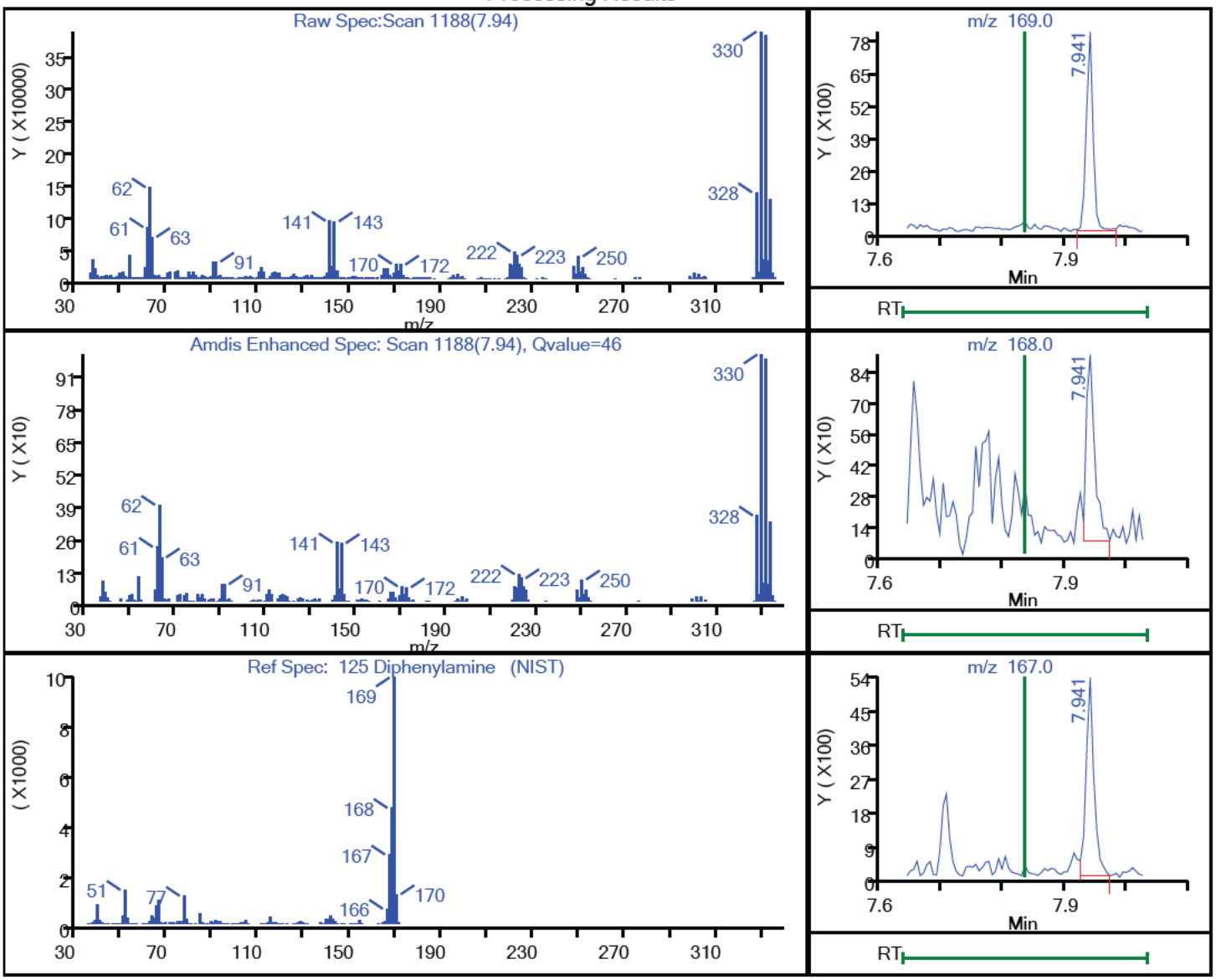
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524017.D				
Injection Date:	15-Mar-2024 19:23:30	Instrument ID:	SMS_G6		
Lims ID:	280-188555-A-3-A	Lab Sample ID:	280-188555-3		
Client ID:	FD-03062401				
Operator ID:	RC	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

125 Diphenylamine, CAS: 122-39-4

Processing Results



RT	Mass	Response	Amount
7.94	169.00	6132	0.451982
7.94	168.00	829	
7.94	167.00	4749	

Reviewer: HPV7, 18-Mar-2024 14:11:36 -06:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 | Lab Sample ID: 280-188555-4

Matrix: Solid | Lab File ID: G6_031524018.D

Analysis Method: 8270E | Date Collected: 03/06/2024 09:55

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 30.3(g) | Date Analyzed: 03/15/2024 19:44

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: 17.4 % Solids: 82.6 | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1200	U Q	1900	1200	400
122-39-4	Diphenylamine	200	U	400	200	53
86-30-6	N-Nitrosodiphenylamine	80	U	400	80	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	69		44-115
367-12-4	2-Fluorophenol (Surr)	64		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	93		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	61		37-122
4165-62-2	Phenol-d5 (Surr)	65		33-122
1718-51-0	Terphenyl-d14 (Surr)	74		54-127

Report Date: 18-Mar-2024 14:43:02 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524018.D
Lims ID: 280-188555-A-4-A
Client ID: X7-TP-C03-2436
Sample Type: Client
Inject. Date: 15-Mar-2024 19:44:30 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-4-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:13:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	212565	40.0	
* 2 Naphthalene-d8	136	5.486	5.486	0.000	99	783498	40.0	
* 3 Acenaphthene-d10	164	7.171	7.171	0.000	91	433242	40.0	
* 4 Phenanthrene-d10	188	8.615	8.615	0.000	96	768156	40.0	
* 5 Chrysene-d12	240	11.455	11.455	0.000	99	724848	40.0	
* 6 Perylene-d12	264	13.809	13.814	-0.005	99	822376	40.0	
$ 7 2-Fluorophenol	112	3.234	3.224	0.010	93	496174	64.1	
$ 8 Phenol-d5	99	4.015	4.010	0.005	95	621726	65.3	
$ 9 Nitrobenzene-d5	82	4.812	4.812	0.000	93	470995	61.4	
$ 10 2,4,6-Trichlorophenol-d2	198		6.443				ND	
$ 11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	935944	69.4	
$ 12 2,4,6-Tribromophenol	330	7.941	7.946	-0.005	91	263096	92.9	
$ 13 Terphenyl-d14	244	10.198	10.203	-0.005	97	1488494	74.1	
14 Triethyl amine	86		1.817				ND	
16 1,4-Dioxane	88		1.956				ND	7
15 2-Ethoxyethanol	59		1.967				ND	
17 N-Nitrosodimethylamine	74		2.164				ND	
18 Pyridine	79		2.197				ND	
19 Dimethylformamide	73		2.443				ND	
20 2-Picoline	93		2.747				ND	
21 N-Nitrosomethylethylamine	88		2.828				ND	
22 Methyl methanesulfonate	80		3.068				ND	
23 Acrylamide	71		3.079				ND	7
24 Pentachlorophenol_T	266		3.318				ND	
25 N-Nitrosodiethylamine	102		3.395				ND	7
26 Ethyl methanesulfonate	79		3.646				ND	
27 Benzaldehyde	106		3.930				ND	7
29 Phenol	94		4.026				ND	7
28 Aniline	93		4.026				ND	
30 Pentachloroethane	117		4.068				ND	7
31 Alpha Methyl Styrene	118		4.074				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 Bis(2-chloroethyl)ether	93		4.079				ND	
33 2-Chlorophenol	128		4.138				ND	7
34 n-Decane	43		4.197				ND	7
35 1,3-Dichlorobenzene	146		4.267				ND	
37 1,4-Dichlorobenzene	146		4.331				ND	
36 2-Bromopyridine	78		4.384				ND	
38 Benzidine_T	184		4.399				ND	
39 Benzyl alcohol	108		4.443				ND	7
40 1,2-Dichlorobenzene	146		4.470				ND	
41 Indene	116	4.550	4.550	0.000	83	4800	0.3898	
42 2-Methylphenol	108		4.555				ND	7
43 2,2'-oxybis[1-chloropropane]	45		4.561				ND	U
44 N-Nitrosopyrrolidine	100		4.646				ND	7
61 3,5-Dimethylphenol	107		4.670				ND	
45 Acetophenone	105		4.678				ND	7
50 N-Nitrosomorpholine	116		4.684				ND	U
46 N-Nitrosodi-n-propylamine	70		4.684				ND	
47 4-Methylphenol	108		4.700				ND	
48 3-Methylphenol	108		4.700				ND	
49 3 & 4 Methylphenol	108		4.700				ND	
51 2-Toluidine	106		4.710				ND	
52 Hexachloroethane	117		4.775				ND	
53 Nitrobenzene	77		4.828				ND	7
54 N-Nitrosopiperidine	114		4.962				ND	
55 Isophorone	82		5.058				ND	7
56 2-Nitrophenol	139		5.128				ND	
57 Benzyl dichloride	125		5.170				ND	
58 2,4-Dimethylphenol	107		5.186				ND	
198 4-Chloro-3-nitro-alpha,alpha,alp	179		5.240				ND	
59 o,o',o''-Triethylphosphorothioat	198		5.245				ND	
60 Bis(2-chloroethoxy)methane	93		5.261				ND	
192 3-Amino-4-Chlorobenzotrifluoride	195		5.267				ND	
63 Benzoic acid	105		5.336				ND	U
62 2,4-Dichlorophenol	162		5.363				ND	
65 alpha,alpha-Dimethyl phenethylam	58		5.395				ND	7
66 1,2,4-Trichlorobenzene	180		5.438				ND	
67 Naphthalene	128	5.502	5.502	0.000	97	68703	3.35	
286 Alpha-Terpineol	59		5.523				ND	U
69 4-Chloroaniline	127		5.561				ND	7
74 Phthalic anhydride	76	5.502	5.564	-0.062	34	2234	NC	
68 2,6-Dichlorophenol	162		5.572				ND	
70 Hexachloropropene	213		5.598				ND	
71 Hexachlorobutadiene	225		5.641				ND	
72 Quinoline	129		5.818				ND	7
73 Caprolactam	55		5.871				ND	7
75 p-Phenylene diamine	108		5.892				ND	
76 N-Nitrosodi-n-butylamine	84		5.892				ND	7
77 4-Chloro-3-methylphenol	107		6.042				ND	
78 Safrole, Total	162		6.090				ND	
79 Carbofuran phenol	164		6.117				ND	
80 2-Methylnaphthalene	142	6.171	6.171	0.000	92	19276	1.37	
81 1-Methylnaphthalene	142	6.262	6.262	0.000	95	15747	1.23	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
82 3'-Bromoacetophenone	183		6.272				ND	
84 1,2,4,5-Tetrachlorobenzene	216		6.336				ND	
83 Hexachlorocyclopentadiene	237		6.336				ND	
85 Isosafrole Peak 1	162		6.374				ND	
86 2,3-Dichlorobenzenamine	161		6.443				ND	
87 2,4,6-Trichlorophenol	196		6.454				ND	
88 2,4,5-Trichlorophenol	196		6.486				ND	
89 Isosafrole Peak 2	162		6.593				ND	7
287 Toluene diamine (2,4- + 2,6- isb	122		6.615				ND	U
90 1,1'-Biphenyl	154		6.620				ND	7
91 2-Chloronaphthalene	162		6.636				ND	
92 1-Chloronaphthalene	162		6.657				ND	
93 2-Nitroaniline	65		6.738				ND	
94 1,4-Naphthoquinone	158		6.796				ND	
95 1,4-Dinitrobenzene	168		6.860				ND	U
96 Dimethyl phthalate	163		6.930				ND	
97 1,3-Dinitrobenzene	168		6.946				ND	7
98 2,6-Dinitrotoluene	165		6.978				ND	
99 Acenaphthylene	152	7.032	7.037	-0.005	99	14782	0.8093	
100 3-Nitroaniline	138		7.139				ND	
101 Acenaphthene	153		7.208				ND	7
102 2,4-Dinitrophenol	184		7.240				ND	
105 1,3-Dimethyl-2,4-Dinitrobenzene	77		7.265				ND	
107 4-Nitrophenol	109		7.337				ND	7
103 Pentachlorobenzene	250		7.347				ND	
109 2,4-Dinitrotoluene	165		7.369				ND	
108 Dibenzofuran	168		7.374				ND	7
111 1,3-Dimethyl-2,5-Dinitrobenzene	179		7.383				ND	
113 1-Naphthylamine	143		7.443				ND	7
114 2,3,4,6-Tetrachlorophenol	232		7.508				ND	
104 1,4-Dimethyl-2,3-Dinitrobenzene	77		7.517				ND	7
115 2-Naphthylamine	143		7.524				ND	7
106 1,4-Dimethyl-2,5-Dinitrobenzene	179		7.554				ND	
110 1,4-Dimethyl-2,6-Dinitrobenzene	179		7.554				ND	7
116 Diethyl phthalate	149		7.620				ND	7
117 Hexadecane	57		7.658				ND	7
112 1,2-Dimethyl-3,6-Dinitrobenzene	179		7.661				ND	7
119 Thionazin	97		7.690				ND	7
118 Fluorene	166	7.706	7.711	-0.005	97	6849	0.5032	
120 4-Chlorophenyl phenyl ether	204		7.716				ND	
121 N-Nitro-o-toluidine	152		7.722				ND	7
122 4-Nitroaniline	138		7.738				ND	
123 4,6-Dinitro-2-methylphenol	198		7.775				ND	
124 1,5-Dimethyl-2,4-Dinitrobenzene	179	7.781	7.811	-0.030	50	276	0.6508	
127 Tributyl phosphate	99		7.834				ND	
126 N-Nitrosodiphenylamine	169		7.834				ND	7
125 Diphenylamine	169		7.834				ND	7
128 1,2-Diphenylhydrazine	77		7.871				ND	7
129 Azobenzene	77		7.871				ND	7
131 1,2-Dimethyl-3,5-Dinitrobenzene	179	7.946	7.993	-0.047	53	193	4.25	
132 Sulfotepp	97		8.000				ND	7
130 1,5-Dimethyl-2,3-Dinitrobenzene	179	7.946	8.030	-0.084	49	193	6.48	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
133 1,3,5-Trinitrobenzene	213		8.096				ND	
134 Diallate Peak 1	86		8.123				ND	7
136 Phorate	121		8.123				ND	7
137 Phenacetin	108		8.150				ND	
135 1,2-Dimethyl-3,4-Dinitrobenzene	179		8.153				ND	7
138 4-Bromophenyl phenyl ether	248		8.192				ND	
139 Diallate Peak 2	86		8.203				ND	7
140 Hexachlorobenzene	284		8.262				ND	
141 Dimethoate	87		8.283				ND	
142 Atrazine	200		8.364				ND	
146 1,2-Dimethyl-4,5-Dinitrobenzene	91	8.401	8.389	0.012	38	107	4.56	
145 4-Aminobiphenyl	169		8.444				ND	7
143 Pentachlorophenol	266		8.454				ND	
144 Pentachloronitrobenzene	237		8.465				ND	
147 Pronamide	173		8.524				ND	
288 n-Octadecane	57	8.556	8.561	-0.005	89	3384	0.3159	
150 Disulfoton	88		8.636				ND	7
149 Dinoseb	211		8.642				ND	
148 Phenanthrene	178	8.636	8.642	-0.006	96	37549	1.79	
151 Anthracene	178		8.695				ND	7
152 Carbazole	167		8.856				ND	
153 Methyl parathion	109		8.995				ND	7
154 Alachlor	188		9.016				ND	U
155 Di-n-butyl phthalate	149		9.225				ND	7
157 Ethyl Parathion	109		9.385				ND	7
156 4-Nitroquinoline-1-oxide	190		9.396				ND	7
158 Methapyrilene	97		9.492				ND	7
159 Isodrin	193		9.658				ND	
160 Fluoranthene	202	9.802	9.808	-0.006	97	13266	0.6246	
161 Benzidine	184		9.941				ND	
162 Pyrene	202	10.016	10.032	-0.016	97	35042	1.34	
163 Aramite Peak 1	185		10.193				ND	7
164 Aramite Peak 2	185		10.273				ND	7
165 p-Dimethylamino azobenzene	120		10.353				ND	
166 Chlorobenzilate	251		10.412				ND	
167 Famphur	218		10.679				ND	
168 3,3'-Dimethylbenzidine	212		10.733				ND	
169 Butyl benzyl phthalate	149		10.770				ND	U
171 2-Acetylaminofluorene	181		11.048				ND	
172 3,3'-Dichlorobenzidine	252		11.434				ND	
174 4,4'-Methylene bis(2-chloroaniline)	231		11.439				ND	7
173 Benzo[a]anthracene	228		11.455				ND	7
175 Chrysene	228		11.503				ND	7
176 Bis(2-ethylhexyl) phthalate	149	11.567	11.578	-0.011	88	1966	4.87	
177 6-Methylchrysene	242		12.188				ND	7
178 Di-n-octyl phthalate	149		12.626				ND	U
182 Hexachlorophene	196		12.661				ND	
180 7,12-Dimethylbenz(a)anthracene	256		13.150				ND	
179 Benzo[b]fluoranthene	252		13.156				ND	7
181 Benzo[k]fluoranthene	252		13.204				ND	7
183 Benzo[a]pyrene	252	13.696	13.718	-0.022	76	7290	2.26	a
184 3-Methylcholanthrene	268		14.386				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
64 Tris(2,3-dibromopropyl)phosphate	419		14.766				ND	7
185 Dibenz[a,h]acridine	279		15.381				ND	
186 Dibenz[a,j]acridine	279		15.482				ND	
187 Indeno[1,2,3-cd]pyrene	276	15.761	15.777	-0.016	83	1281	4.96	
188 Dibenz(a,h)anthracene	278		15.836				ND	7
189 Benzo[g,h,i]perylene	276		16.194				ND	7
289 Dibenzo[a,e]pyrene	302		18.590				ND	
190 Sulfolane	1		0.000				ND	
193 Prometon	1		0.000				ND	
290 Alpha Methyl Styrene TIC	1		0.000				ND	
196 4,4'-DDE	246		4.548				ND	
195 4,4'-DDD	235		4.832				ND	
197 4,4'-DDT	235		5.046				ND	
S 200 Methyl Phenols,Total	108		15.496				ND	7
S 199 Total Cresols	108		15.496				ND	7
S 201 Isosafrole	162		15.496				ND	7
S 202 Diallate	86		15.496				ND	7
S 203 Aramite, Total	185		15.496				ND	7
S 204 TPAH	1		0.000				ND	
T 207 Dimethylformamide TIC	73		1.360				ND	U
T 205 Triethyl amine TIC	86		1.766				ND	U
T 206 2-Ethoxyethanol TIC	59		1.953				ND	U
T 208 Benzyl dichloride TIC	125		4.922				ND	U
T 209 alpha,alpha-Dimethyl phenethylam	58		5.066				ND	U
T 210 Alpha-Terpineol TIC	59		5.146				ND	U
T 211 p-phenylenediamine TIC	108		5.585				ND	U
T 213 Phthalic anhydride TIC	76		5.949				ND	U
T 212 Carbofuran phenol TIC	164		6.195				ND	U
T 214 Toluene diamine (2,4- + 2,6- isa	122		6.746				ND	U
T 215 Tributyl phosphate TIC	99		6.837				ND	U
T 220 2,4-Xylidine TIC	121		7.810				ND	U
T 218 o-Anisidine TIC	108		7.966				ND	
T 223 Octadecane (TIC)	85		8.281				ND	U
T 219 5-Methyl-o-Anisidine TIC	122		8.281				ND	
T 221 Phthalic acid TIC	104		8.281				ND	U
T 216 2,6-Dimethylphenol TIC	122		8.281				ND	U
T 222 1,3-phenylenediamine TIC	108		8.281				ND	U
T 217 Phenylmercaptan TIC	110		8.281				ND	U
T 224 Kepone TIC	272		11.667				ND	U
T 225 Hexachlorophene TIC	196		12.651				ND	U
T 226 Tris(2,3-dibromopropyl)phosphate	419		14.287				ND	U
T 228 Dibenzo[a,e]pyrene TIC	302		14.662				ND	U
T 227 Dibenz[a,h]acridine TIC	279		14.795				ND	U
T 229 Hexachlorodibenzofurans TIC	1		0.000				ND	
T 230 Pentachlorodibenzo-p-dioxin TIC	1		0.000				ND	
T 231 Pentachlorodibenzofurans TIC	1		0.000				ND	
T 232 Hexachlorodibenzo-p-dioxin TIC	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

a - User Assigned ID

Reagents:

MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

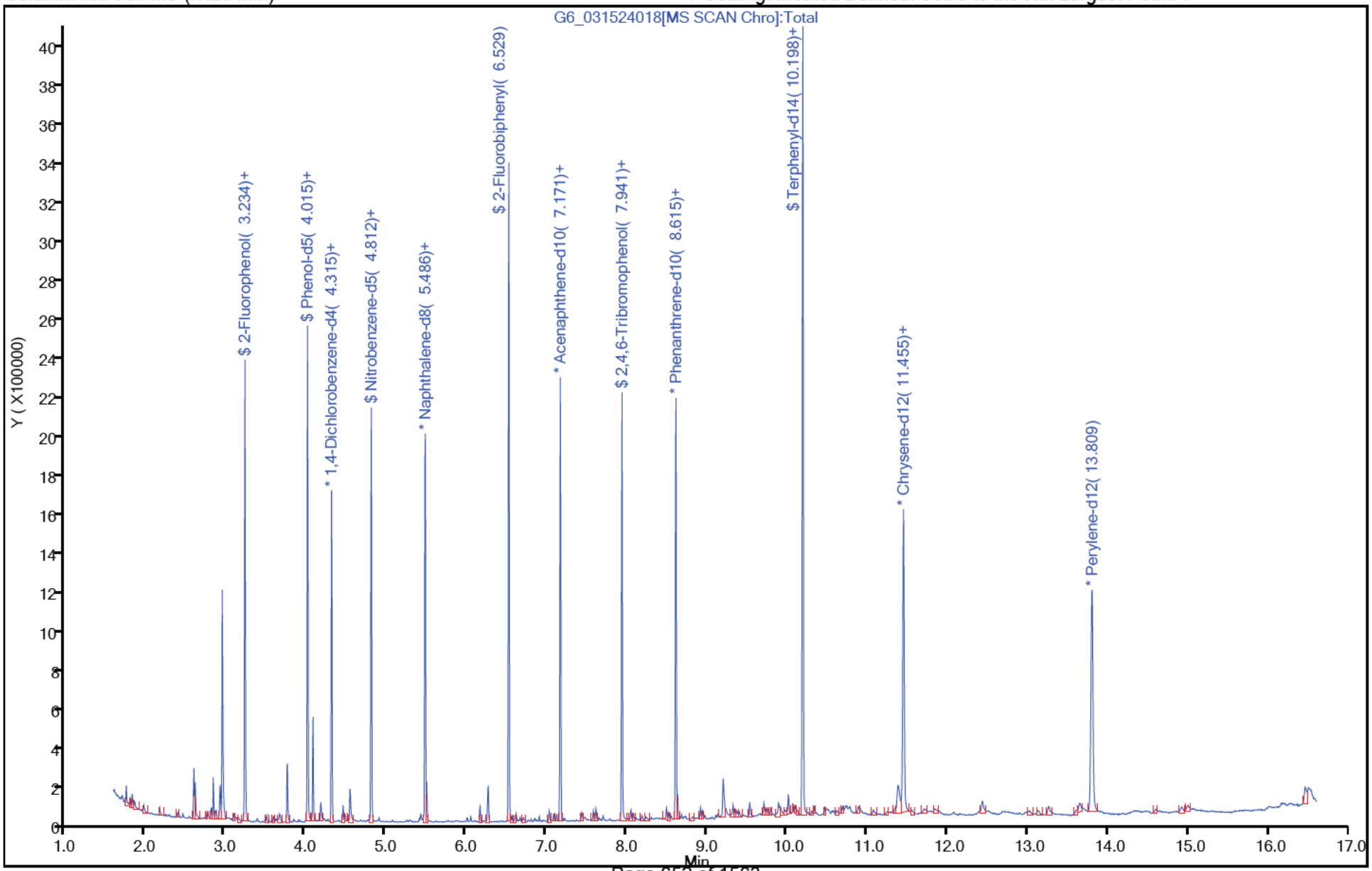
Report Date: 18-Mar-2024 14:43:02 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524018.D

Injection Date:	15-Mar-2024 19:44:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	280-188555-A-4-A	Lab Sample ID:	280-188555-4	Worklist Smp#:	17
Client ID:	X7-TP-C03-2436				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 18-Mar-2024 14:43:02 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524018.D
Lims ID: 280-188555-A-4-A
Client ID: X7-TP-C03-2436
Sample Type: Client
Inject. Date: 15-Mar-2024 19:44:30 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-4-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:13:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	100.0	64.1	64.08
$ 8 Phenol-d5	100.0	65.3	65.25
$ 9 Nitrobenzene-d5	100.0	61.4	61.39
$ 11 2-Fluorobiphenyl	100.0	69.4	69.44
$ 12 2,4,6-Tribromophenol	100.0	92.9	92.88
$ 13 Terphenyl-d14	100.0	74.1	74.15

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-644801/4	G6_b030424004.D
Level 2	STD010 280-644801/5	G6_b030424005.D
Level 3	STD020 280-644801/6	G6_b030424006.D
Level 4	STD050 280-644801/7	G6_b030424007.D
Level 5	ICIS 280-644801/3	G6_b030424003.D
Level 6	STD120 280-644801/8	G6_b030424008.D
Level 7	STD160 280-644801/9	G6_b030424009.D
Level 8	STD200 280-644801/10	G6_b030424010.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
N-Nitrosodimethylamine	1.0268 0.8698	0.8708 0.9789	0.7879 0.9949	0.9029	0.8849	Ave		0.9146				8.7		15.0			
Pyridine	1.2080 1.1593	1.0828 1.3219	1.0132 1.3616	1.1722	1.1483	Ave		1.1834				9.7		15.0			
Phenol	2.4458 1.9327	2.0831 1.9714	1.8751 1.9071	2.0935	2.0398	Ave		2.0436				8.9		15.0			
Aniline	2.3757 1.9468	2.0880 2.0011	1.8625 1.9753	2.0709	2.0218	Ave		2.0428				7.4		15.0			
Bis(2-chloroethyl)ether	1.7829 1.3205	1.5045 1.3162	1.3210 1.2757	1.4494	1.3984	Ave		1.4211				11.6		15.0			
2-Chlorophenol	1.7789 1.4573	1.4908 1.5072	1.3551 1.5078	1.5271	1.5120	Ave		1.5170				7.9		15.0			
1,3-Dichlorobenzene	1.9189 1.5264	1.5822 1.5977	1.4371 1.5816	1.5987	1.6092	Ave		1.6065				8.6		15.0			
1,4-Dichlorobenzene	1.9644 1.5672	1.6319 1.6230	1.4613 1.6021	1.6589	1.6404	Ave		1.6437				8.7		15.0			
Benzyl alcohol	1.0947 0.9617	0.9696 0.9826	0.8752 0.9799	1.0007	0.9865	Ave		0.9814				6.1		15.0			
1,2-Dichlorobenzene	1.8847 1.4832	1.5537 1.5166	1.3973 1.5062	1.5554	1.5577	Ave		1.5568				9.2		15.0			
2-Methylphenol	1.6337 1.1487	1.3390 1.0853	1.2010 +++++	1.3024	1.2359	Ave		1.2780				14.0		15.0			
2,2'-oxybis[1-chloropropane]	3.1677 2.4130	2.7142 2.3304	2.4140 2.2402	2.6635	2.5190	Ave		2.5577				11.5		15.0			
Acetophenone	2.3553 1.8233	2.0128 1.7950	1.8041 1.7492	1.9974	1.8925	Ave		1.9287				10.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
N-Nitrosodi-n-propylamine	1.1730 0.9217	1.0132 0.8889	0.9269 0.8642	1.0243	0.9641	Ave		0.9720			0.0500	10.1		15.0			
3 & 4 Methylphenol	1.7319 1.3163	1.4420 1.2822	1.3091 1.2430	1.4429	1.3837	Ave		1.3939				11.1		15.0			
Hexachloroethane	0.8015 0.6517	0.6681 0.6398	0.6244 0.6284	0.6933	0.6681	Ave		0.6719				8.5		15.0			
Nitrobenzene	0.4385 0.3768	0.3935 0.3839	0.3546 0.3764	0.4050	0.3898	Ave		0.3898				6.3		15.0			
Isophorone	0.8646 0.7295	0.7553 0.7503	0.6766 0.7479	0.7772	0.7461	Ave		0.7559				7.0		15.0			
2-Nitrophenol	0.1675 0.2002	0.1694 0.2040	0.1624 0.2052	0.2025	0.1991	Ave		0.1888				9.9		15.0			
2,4-Dimethylphenol	0.3552 0.2969	0.3080 0.3020	0.2735 0.2996	0.3217	0.3083	Ave		0.3082				7.6		15.0			
Bis(2-chloroethoxy)methane	0.5408 0.4323	0.4711 0.4409	0.4138 0.4326	0.4679	0.4561	Ave		0.4569				8.5		15.0			
Benzoic acid	+++++ 0.2554	0.1289 0.2728	0.1503 0.2754	0.2259	0.2546	Lin2	-3.214	0.2697							0.9910		0.9900
2,4-Dichlorophenol	0.3435 0.2949	0.2978 0.3011	0.2598 0.2974	0.3122	0.3081	Ave		0.3019				7.7		15.0			
1,2,4-Trichlorobenzene	0.3850 0.3161	0.3320 0.3233	0.2922 0.3153	0.3383	0.3318	Ave		0.3292				8.1		15.0			
Naphthalene	1.2558 0.9969	1.0835 1.0006	0.9399 0.9663	1.0793	1.0605	Ave		1.0478				9.5		15.0			
4-Chloroaniline	0.5341 0.4368	0.4610 0.4385	0.4152 0.4281	0.4750	0.4620	Ave		0.4563				8.1		15.0			
2,6-Dichlorophenol	0.3320 0.2874	0.2953 0.2901	0.2648 0.2845	0.3071	0.3010	Ave		0.2953				6.6		15.0			
Hexachlorobutadiene	0.1963 0.1710	0.1793 0.1753	0.1579 0.1720	0.1807	0.1804	Ave		0.1766				6.2		15.0			
4-Chloro-3-methylphenol	0.3463 0.3055	0.3062 0.3069	0.2727 0.3035	0.3202	0.3137	Ave		0.3094				6.6		15.0			
2-Methylnaphthalene	0.8299 0.6975	0.7223 0.7044	0.6389 0.6814	0.7469	0.7379	Ave		0.7199				7.8		15.0			
1-Methylnaphthalene	0.7537 0.6379	0.6662 0.6430	0.5767 0.6248	0.6796	0.6673	Ave		0.6561				7.7		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,2,4,5-Tetrachlorobenzene	0.3726 0.3032	0.3143 0.3010	0.2813 0.2915	0.3227	0.3201	Ave		0.3133				8.9		15.0			
Hexachlorocyclopentadiene	0.2480 0.2983	0.2475 0.2881	0.2410 0.2741	0.3047	0.3006	Ave		0.2753			0.0500	9.6		15.0			
2,4,6-Trichlorophenol	0.3655 0.3632	0.3367 0.3672	0.3200 0.3613	0.3797	0.3760	Ave		0.3587				5.6		15.0			
2,4,5-Trichlorophenol	0.4046 0.3888	0.3641 0.4117	0.3376 0.3989	0.3942	0.4073	Ave		0.3884				6.5		15.0			
1,1'-Biphenyl	1.7344 1.3956	1.4810 1.4032	1.3181 1.3197	1.5024	1.4801	Ave		1.4543				9.2		15.0			
2-Chloronaphthalene	1.3572 1.0688	1.1490 1.0733	1.0354 1.0218	1.1574	1.1420	Ave		1.1256				9.5		15.0			
2-Nitroaniline	0.2823 0.3877	0.3131 0.3949	0.3131 0.3898	0.3955	0.3827	Ave		0.3574				13.0		15.0			
Dimethyl phthalate	1.4108 1.1757	1.2279 1.1930	1.1062 1.1438	1.2582	1.2309	Ave		1.2183				7.6		15.0			
1,3-Dinitrobenzene	+++++ 0.2259	0.1564 0.2330	0.1733 0.2259	0.2264	0.2225	Ave		0.2091				14.7		15.0			
2,6-Dinitrotoluene	0.2276 0.2996	0.2493 0.3191	0.2562 0.3137	0.3074	0.3104	Ave		0.2854				12.4		15.0			
Acenaphthylene	1.8305 1.6594	1.6557 1.6964	1.5083 1.6465	1.7482	1.7467	Ave		1.6865				5.6		15.0			
3-Nitroaniline	0.3159 0.3698	0.3297 0.3804	0.3154 0.3811	0.3760	0.3747	Ave		0.3554				8.3		15.0			
Acenaphthene	1.3322 1.0860	1.1332 1.0845	1.0167 1.0337	1.1627	1.1464	Ave		1.1244				8.8		15.0			
2,4-Dinitrophenol	0.0533 0.1683	0.0747 0.1765	0.0966 0.1840	0.1525	0.1656	Lin1	-1.603	0.1792			0.0500				0.9940		0.9900
4-Nitrophenol	0.1495 0.1926	0.1592 0.1933	0.1553 0.1914	0.1934	0.1929	Ave		0.1785			0.0500	11.1		15.0			
2,4-Dinitrotoluene	0.3060 0.3957	0.3369 0.3934	0.3421 0.3758	0.4151	0.4069	Ave		0.3715				10.5		15.0			
Dibenzofuran	1.9243 1.5037	1.6523 1.4906	1.4830 1.4158	1.6411	1.6056	Ave		1.5896				10.0		15.0			
2,3,4,6-Tetrachlorophenol	0.2635 0.3152	0.2593 0.3355	0.2534 0.3340	0.3104	0.3312	Ave		0.3003				11.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Diethyl phthalate	1.4037 1.2512	1.2477 1.2713	1.1379 1.2393	1.3176	1.2943	Ave		1.2704				5.9		15.0			
Fluorene	1.4703 1.2189	1.2961 1.1868	1.1588 1.1053	1.3236	1.2931	Ave		1.2566				9.1		15.0			
4-Chlorophenyl phenyl ether	0.7165 0.5448	0.5943 0.5414	0.5298 0.5080	0.5945	0.5796	Ave		0.5761				11.2		15.0			
4-Nitroaniline	0.3227 0.3570	0.3359 0.3744	0.3183 0.3817	0.3604	0.3549	Ave		0.3507				6.6		15.0			
4,6-Dinitro-2-methylphenol	0.0481 0.1369	0.0763 0.1466	0.0881 0.1454	0.1288	0.1369	Lin1	-1.130	0.1453							0.9970		0.9900
Diphenylamine	1.2306 1.0810	1.0797 1.0997	0.9795 1.0663	1.1277	1.1323	Ave		1.0996				6.5		15.0			
N-Nitrosodiphenylamine	0.6095 0.5438	0.5467 0.5662	0.4906 0.5459	0.5734	0.5674	Ave		0.5554				6.1		15.0			
1,2-Diphenylhydrazine	1.5813 1.3475	1.4278 1.3160	1.2938 1.2639	1.4723	1.4019	Ave		1.3881				7.6		15.0			
Azobenzene	1.5987 1.3623	1.4435 1.3305	1.3080 1.2778	1.4884	1.4173	Ave		1.4033				7.6		15.0			
4-Bromophenyl phenyl ether	0.2327 0.2140	0.2086 0.2299	0.1871 0.2284	0.2222	0.2255	Ave		0.2186				6.9		15.0			
Hexachlorobenzene	0.3145 0.2771	0.2679 0.3008	0.2425 0.2937	0.2860	0.2938	Ave		0.2845				7.8		15.0			
Pentachlorophenol	+++++ 0.1453	0.1078 0.1636	0.1144 0.1640	0.1481	0.1734	Lin2	-1.269	0.1636							0.9920		0.9900
Phenanthrene	1.2879 1.0477	1.1044 1.0725	0.9887 1.0112	1.1417	1.1022	Ave		1.0946				8.5		15.0			
Anthracene	1.1903 1.0667	1.0790 1.1015	0.9837 1.0599	1.1520	1.1292	Ave		1.0953				5.8		15.0			
Carbazole	1.1679 1.0348	1.0703 1.0747	0.9572 1.0466	1.0991	1.0885	Ave		1.0674				5.6		15.0			
Alachlor	0.0919 0.1297	0.1051 0.1364	0.1041 0.1332	0.1339	0.1322	Ave		0.1208				14.5		15.0			
Di-n-butyl phthalate	1.1173 1.2737	1.1343 1.2893	1.1000 1.2392	1.3401	1.3184	Ave		1.2265				7.8		15.0			
Fluoranthene	1.1264 1.1088	1.0646 1.1477	0.9683 1.0975	1.1648	1.1697	Ave		1.1060				6.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Pyrene	1.5873 1.4100	1.3972 1.4624	1.2687 1.4043	1.5183	1.4688	Ave		1.4396				6.6		15.0			
Butyl benzyl phthalate	0.4171 0.6689	0.4555 +++++	0.4819 +++++	0.6698	0.6966	Lin1	-1.675	0.6880							0.9950		0.9900
Benzo[a]anthracene	1.2920 1.3060	1.1509 1.4048	1.0547 1.3933	1.3198	1.3848	Ave		1.2883				9.7		15.0			
Chrysene	1.4788 1.3524	1.3469 1.4123	1.2072 1.3647	1.4494	1.3805	Ave		1.3740				6.0		15.0			
Bis(2-ethylhexyl) phthalate	+++++ 0.9086	0.5696 0.9852	0.6144 0.9789	0.8748	0.9466	Lin2	-4.631	0.9734							0.9940		0.9900
Di-n-octyl phthalate	+++++ 1.4940	0.6709 1.6858	0.7600 +++++	1.2934	1.6324	Qua	-11.29	1.5109	0.0013985						0.9940		0.9900
Benzo[b]fluoranthene	1.0061 1.1982	0.9345 1.2698	0.8645 1.2980	1.1662	1.1972	Ave		1.1168				14.4		15.0			
Benzo[k]fluoranthene	1.3582 1.3975	1.2282 1.4620	1.1894 1.4113	1.4378	1.3738	Ave		1.3573				7.2		15.0			
Benzo[a]pyrene	0.9811 1.1687	0.8892 1.2768	0.8463 +++++	1.1175	1.1815	Lin1	-2.407	1.2196							0.9940		0.9900
Indeno[1,2,3-cd]pyrene	+++++ 1.3106	0.9184 +++++	0.8320 +++++	1.1409	1.4037	Lin1	-6.775	1.3797							0.9900		0.9900
Dibenz(a,h)anthracene	0.9864 1.1920	0.8995 +++++	0.8532 +++++	1.1168	1.2109	Ave		1.0431				14.6		15.0			
Benzo[g,h,i]perylene	1.1826 1.2545	1.0644 1.3172	0.9663 1.2959	1.2433	1.2501	Ave		1.1968				10.2		15.0			
2-Fluorophenol (Surr)	1.6600 1.3984	1.4105 1.4974	1.2756 1.5072	1.4592	1.4486	Ave		1.4571				7.5		15.0			
Phenol-d5 (Surr)	2.0985 1.7104	1.7714 1.7771	1.6029 1.7696	1.8194	1.7941	Ave		1.7929				7.8		15.0			
Nitrobenzene-d5 (Surr)	0.4207 0.3871	0.3835 0.3943	0.3519 0.3927	0.4106	0.3924	Ave		0.3917				5.2		15.0			
2-Fluorobiphenyl	1.4678 1.1860	1.2528 1.2220	1.1169 1.1724	1.2795	1.2582	Ave		1.2444				8.4		15.0			
2,4,6-Tribromophenol (Surr)	0.1878 0.2475	0.1831 0.2736	0.1830 0.2796	0.2298	0.2570	Lin1	-0.685	0.2689							0.9940		0.9900
Terphenyl-d14 (Surr)	1.1872 1.0978	1.0490 1.1548	0.9537 1.1193	1.1568	1.1439	Ave		1.1078				6.8		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 | GC Column: Rxi-5Sil M ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 | Calibration End Date: 03/04/2024 12:47 | Calibration ID: 90934

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-644801/4	G6_b030424004.D
Level 2	STD010 280-644801/5	G6_b030424005.D
Level 3	STD020 280-644801/6	G6_b030424006.D
Level 4	STD050 280-644801/7	G6_b030424007.D
Level 5	ICIS 280-644801/3	G6_b030424003.D
Level 6	STD120 280-644801/8	G6_b030424008.D
Level 7	STD160 280-644801/9	G6_b030424009.D
Level 8	STD200 280-644801/10	G6_b030424010.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
N-Nitrosodimethylamine	DCBd4	Ave	15241 411405	36322 675011	70970 866885	176753	306766	4.00 120	10.0 160	20.0 200	50.0	80.0
Pyridine	DCBd4	Ave	35862 1096681	90326 1822975	182546 2372688	458952	796132	8.00 240	20.0 320	40.0 400	100	160
Phenol	DCBd4	Ave	36304 914162	86888 1359338	168910 1661657	409845	707118	4.00 120	10.0 160	20.0 200	50.0	80.0
Aniline	DCBd4	Ave	35263 920833	87093 1379843	167771 1721073	405415	700873	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-chloroethyl)ether	DCBd4	Ave	26465 624582	62755 907568	118999 1111525	283756	484768	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Chlorophenol	DCBd4	Ave	26405 689308	62183 1039263	122064 1313734	298968	524129	4.00 120	10.0 160	20.0 200	50.0	80.0
1,3-Dichlorobenzene	DCBd4	Ave	28483 721989	65994 1101662	129451 1378024	312981	557844	4.00 120	10.0 160	20.0 200	50.0	80.0
1,4-Dichlorobenzene	DCBd4	Ave	29158 741257	68069 1119125	131636 1395925	324753	568659	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzyl alcohol	DCBd4	Ave	16249 454888	40441 677529	78840 853756	195908	341959	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2-Dichlorobenzene	DCBd4	Ave	27975 701520	64805 1045777	125865 1312327	304505	539986	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Methylphenol	DCBd4	Ave	24250 543309	55850 748364	108185 +++++	254963	428428	4.00 120	10.0 160	20.0 +++++	50.0	80.0
2,2'-oxybis[1-chloropropane]	DCBd4	Ave	47020 1141321	113210 1606871	217455 1951821	521439	873211	4.00 120	10.0 160	20.0 200	50.0	80.0
Acetophenone	DCBd4	Ave	34961 862409	83954 1237706	162513 1524032	391023	656026	4.00 120	10.0 160	20.0 200	50.0	80.0
N-Nitrosodi-n-propylamine	DCBd4	Ave	17411 435968	42260 612944	83494 752993	200531	334223	4.00 120	10.0 160	20.0 200	50.0	80.0
3 & 4 Methylphenol	DCBd4	Ave	25708 622622	60147 884130	117920 1083007	282479	479658	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 | GC Column: Rxi-5Sil M ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 | Calibration End Date: 03/04/2024 12:47 | Calibration ID: 90934

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Hexachloroethane	DCBd4	Ave	11897 308236	27868 441150	56248 547550	135727	231616	4.00 120	10.0 160	20.0 200	50.0	80.0
Nitrobenzene	NPT	Ave	25774 688023	64340 991594	126448 1232818	304920	518094	4.00 120	10.0 160	20.0 200	50.0	80.0
Isophorone	NPT	Ave	50822 1332054	123509 1937973	241272 2449943	585189	991560	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Nitrophenol	NPT	Ave	9843 365585	27699 526970	57912 672270	152499	264559	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4-Dimethylphenol	NPT	Ave	20876 542198	50365 780110	97523 981293	242236	409787	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-chloroethoxy)methane	NPT	Ave	31786 789405	77025 1138762	147537 1417147	352342	606155	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzoic acid	NPT	Lin2	+++++ 932904	42143 1409299	107162 1804158	340175	676822	+++++ 240	20.0 320	40.0 400	100	160
2,4-Dichlorophenol	NPT	Ave	20191 538440	48702 777573	92652 974167	235076	409532	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2,4-Trichlorobenzene	NPT	Ave	22631 577168	54279 835112	104182 1032775	254702	440916	4.00 120	10.0 160	20.0 200	50.0	80.0
Naphthalene	NPT	Ave	73811 1820328	177173 2584352	335144 3165314	812673	1409405	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chloroaniline	NPT	Ave	31392 797624	75376 1132528	148047 1402162	357631	614002	4.00 120	10.0 160	20.0 200	50.0	80.0
2,6-Dichlorophenol	NPT	Ave	19515 524820	48278 749165	94431 932003	231233	399983	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorobutadiene	NPT	Ave	11538 312178	29318 452707	56322 563329	136096	239734	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chloro-3-methylphenol	NPT	Ave	20357 557900	50072 792730	97236 994186	241101	416939	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Methylnaphthalene	NPT	Ave	48782 1273754	118112 1819318	227820 2231959	562385	980661	4.00 120	10.0 160	20.0 200	50.0	80.0
1-Methylnaphthalene	NPT	Ave	44301 1164760	108929 1660859	205648 2046786	511672	886859	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2,4,5-Tetrachlorobenzene	NPT	Ave	21903 553597	51389 777479	100314 954902	242977	425421	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorocyclopentadiene	ANT	Ave	8254 308565	23126 414083	48295 502843	130946	226191	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,6-Trichlorophenol	ANT	Ave	12164 375655	31460 527826	64111 662685	163190	282881	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,5-Trichlorophenol	ANT	Ave	13465 402175	34020 591707	67653 731721	169417	306434	4.00 120	10.0 160	20.0 200	50.0	80.0
1,1'-Biphenyl	ANT	Ave	57715	138370	264113	645743	1113584	4.00	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 | GC Column: Rxi-5Sil M ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 | Calibration End Date: 03/04/2024 12:47 | Calibration ID: 90934

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			1443536	2016791	2420851			120	160	200		
2-Chloronaphthalene	ANT	Ave	45164 1105573	107346 1542519	207459 1874325	497462	859239	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Nitroaniline	ANT	Ave	9394 400979	29253 567529	62732 715098	169998	287968	4.00 120	10.0 160	20.0 200	50.0	80.0
Dimethyl phthalate	ANT	Ave	46946 1216154	114722 1714627	221655 2098137	540796	926136	4.00 120	10.0 160	20.0 200	50.0	80.0
1,3-Dinitrobenzene	ANT	Ave	+++++ 233687	14614 334942	34726 414430	97304	167373	+++++ 120	10.0 160	20.0 200	50.0	80.0
2,6-Dinitrotoluene	ANT	Ave	7575 309912	23290 458647	51326 575375	132125	233545	4.00 120	10.0 160	20.0 200	50.0	80.0
Acenaphthylene	ANT	Ave	60914 1716431	154688 2438155	302221 3020241	751424	1314220	4.00 120	10.0 160	20.0 200	50.0	80.0
3-Nitroaniline	ANT	Ave	10513 382527	30803 546681	63201 699134	161627	281914	4.00 120	10.0 160	20.0 200	50.0	80.0
Acenaphthene	ANT	Ave	44331 1123322	105872 1558736	203709 1896270	499753	862545	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4-Dinitrophenol	ANT	Lin1	3544 348215	13953 507384	38721 675160	131116	249151	8.00 240	20.0 320	40.0 400	100	160
4-Nitrophenol	ANT	Ave	9948 398513	29749 555772	62217 702358	166231	290246	8.00 240	20.0 320	40.0 400	100	160
2,4-Dinitrotoluene	ANT	Ave	10183 409351	31480 565352	68542 689351	178416	306156	4.00 120	10.0 160	20.0 200	50.0	80.0
Dibenzofuran	ANT	Ave	64034 1555346	154373 2142378	297137 2597130	705390	1208060	4.00 120	10.0 160	20.0 200	50.0	80.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	8767 326008	24230 482209	50781 612672	133402	249206	4.00 120	10.0 160	20.0 200	50.0	80.0
Diethyl phthalate	ANT	Ave	46711 1294212	116567 1827119	227993 2273418	566333	973794	4.00 120	10.0 160	20.0 200	50.0	80.0
Fluorene	ANT	Ave	48928 1260854	121095 1705651	232194 2027531	568892	972893	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chlorophenyl phenyl ether	ANT	Ave	23844 563489	55529 778191	106164 931808	255513	436073	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Nitroaniline	ANT	Ave	10737 369322	31381 538163	63775 700161	154888	267042	4.00 120	10.0 160	20.0 200	50.0	80.0
4,6-Dinitro-2-methylphenol	PHN	Lin1	5491 478480	23935 695642	59908 885479	185062	349525	8.00 240	20.0 320	40.0 400	100	160
Diphenylamine	ANT	Ave	34809 950402	85745 1343494	166824 1662524	411990	724168	3.40 102	8.50 136	17.0 170	42.5	68.0
N-Nitrosodiphenylamine	PHN	Ave	34809 950402	85745 1343494	166824 1662524	411990	724168	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 | GC Column: Rxi-5Sil M ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 | Calibration End Date: 03/04/2024 12:47 | Calibration ID: 90934

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2-Diphenylhydrazine	ANT	Ave	53199 1409159	134866 1912221	262082 2343927	639755	1066374	4.04 121	10.1 162	20.2 202	50.5	80.9
Azobenzene	ANT	Ave	53199 1409159	134866 1912221	262082 2343927	639755	1066376	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Bromophenyl phenyl ether	PHN	Ave	13292 373972	32715 545575	63634 695776	159673	287826	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorobenzene	PHN	Ave	17962 484303	42022 713719	82473 894519	205523	374962	4.00 120	10.0 160	20.0 200	50.0	80.0
Pentachlorophenol	PHN	Lin2	+++++ 507933	33801 776470	77792 998895	212824	442734	+++++ 240	20.0 320	40.0 400	100	160
Phenanthrene	PHN	Ave	73555 1831228	173212 2544917	336219 3079908	820348	1406801	4.00 120	10.0 160	20.0 200	50.0	80.0
Anthracene	PHN	Ave	67979 1864412	169218 2613796	334509 3228206	827742	1441330	4.00 120	10.0 160	20.0 200	50.0	80.0
Carbazole	PHN	Ave	66702 1808673	167855 2550294	325494 3187595	789682	1389287	4.00 120	10.0 160	20.0 200	50.0	80.0
Alachlor	PHN	Ave	5248 226761	16488 323761	35383 405726	96188	168768	4.00 120	10.0 160	20.0 200	50.0	80.0
Di-n-butyl phthalate	PHN	Ave	63810 2226198	177898 3059511	374056 3774322	962856	1682754	4.00 120	10.0 160	20.0 200	50.0	80.0
Fluoranthene	PHN	Ave	64333 1937948	166960 2723493	329286 3342758	836929	1492947	4.00 120	10.0 160	20.0 200	50.0	80.0
Pyrene	CRY	Ave	70610 2026638	174046 2849613	346178 3494078	878709	1569755	4.00 120	10.0 160	20.0 200	50.0	80.0
Butyl benzyl phthalate	CRY	Lin1	18552 961352	56741 +++++	131503 +++++	387665	744467	4.00 120	10.0 +++++	20.0 +++++	50.0	80.0
Benzo[a]anthracene	CRY	Ave	57471 1877105	143361 2737431	287798 3466848	763852	1479893	4.00 120	10.0 160	20.0 200	50.0	80.0
Chrysene	CRY	Ave	65780 1943716	167780 2751992	329385 3395563	838809	1475304	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-ethylhexyl) phthalate	CRY	Lin2	+++++ 1305848	70952 1919761	167638 2435785	506302	1011686	+++++ 120	10.0 160	20.0 200	50.0	80.0
Di-n-octyl phthalate	CRY	Qua	+++++ 2147236	83564 3284896	207369 +++++	748573	1744504	+++++ 120	10.0 160	20.0 +++++	50.0	80.0
Benzo[b]fluoranthene	PRY	Ave	51303 1892420	129773 2783951	259305 3658257	743787	1481664	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[k]fluoranthene	PRY	Ave	69254 2207221	170559 3205122	356785 3977479	917062	1700166	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[a]pyrene	PRY	Lin1	50029 1845796	123479 2799098	253843 +++++	712744	1462223	4.00 120	10.0 160	20.0 +++++	50.0	80.0
Indeno[1,2,3-cd]pyrene	CRY	Lin1	+++++	114395	227031	660297	1500178	+++++	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil M ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			1883732	+++++	+++++			120	+++++	+++++		
Dibenz(a,h)anthracene	PRY	Ave	50297 1882603	124916 +++++	255932 +++++	712270	1498563	4.00 120	10.0 +++++	20.0 +++++	50.0	80.0
Benzo[g,h,i]perylene	PRY	Ave	60301 1981359	147817 2887806	289864 3652302	793008	1547074	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Fluorophenol (Surr)	DCBd4	Ave	24640 661452	58831 1032526	114905 1313232	285671	502166	4.00 120	10.0 160	20.0 200	50.0	80.0
Phenol-d5 (Surr)	DCBd4	Ave	31149 809014	73887 1225346	144391 1541860	356188	621937	4.00 120	10.0 160	20.0 200	50.0	80.0
Nitrobenzene-d5 (Surr)	NPT	Ave	24731 706862	62712 1018332	125497 1286388	309132	521573	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Fluorobiphenyl	ANT	Ave	48844 1226749	117048 1756267	223784 2150598	549955	946640	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,6-Tribromophenol (Surr)	ANT	Lin1	6250 256033	17108 393231	36658 512875	98758	193361	4.00 120	10.0 160	20.0 200	50.0	80.0
Terphenyl-d14 (Surr)	CRY	Ave	52809 1577817	130662 2250101	260229 2784922	669511	1222487	4.00 120	10.0 160	20.0 200	50.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 04-Mar-2024 10:17:30 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: icis
Operator ID: RC Instrument ID: SMS_G6
Sublist: chrom-SMSG6_8270C*sub97

Method: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 04-Mar-2024 15:40:03 Calib Date: 04-Mar-2024 12:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1687

First Level Reviewer: HPV7 Date: 04-Mar-2024 12:57:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.323	4.323	0.000	95	173327	40.0	40.0	
* 2 Naphthalene-d8	136	5.484	5.484	0.000	99	664524	40.0	40.0	
* 3 Acenaphthene-d10	164	7.168	7.168	0.000	90	376194	40.0	40.0	
* 4 Phenanthrene-d10	188	8.618	8.618	0.000	96	638181	40.0	40.0	
* 5 Chrysene-d12	240	11.463	11.463	0.000	99	534352	40.0	40.0	a
* 6 Perylene-d12	264	13.806	13.806	0.000	99	618785	40.0	40.0	
$ 7 2-Fluorophenol	112	3.242	3.242	0.000	93	502166	80.0	79.5	
$ 8 Phenol-d5	99	4.007	4.007	0.000	95	621937	80.0	80.1	a
$ 9 Nitrobenzene-d5	82	4.810	4.810	0.000	90	521573	80.0	80.2	a
$ 11 2-Fluorobiphenyl	172	6.527	6.527	0.000	99	946640	80.0	80.9	a
$ 12 2,4,6-Tribromophenol	330	7.939	7.939	0.000	94	193361	80.0	79.0	a
$ 13 Terphenyl-d14	244	10.206	10.206	0.000	97	1222487	80.0	82.6	a
16 1,4-Dioxane	88	2.039	2.039	0.000	98	266317	80.0	87.6	a
17 N-Nitrosodimethylamine	74	2.232	2.232	0.000	90	306766	80.0	77.4	a
18 Pyridine	79	2.264	2.264	0.000	89	796132	160.0	155.3	a
29 Phenol	94	4.023	4.023	0.000	97	707118	80.0	79.9	a
28 Aniline	93	4.034	4.034	0.000	97	700873	80.0	79.2	a
31 Alpha Methyl Styrene	118	4.088	4.088	0.000	87	467813	80.0	80.2	
32 Bis(2-chloroethyl)ether	93	4.088	4.088	0.000	89	484768	80.0	78.7	a
33 2-Chlorophenol	128	4.141	4.141	0.000	97	524129	80.0	79.7	a
34 n-Decane	43	4.205	4.205	0.000	94	620998	80.0	78.2	a
35 1,3-Dichlorobenzene	146	4.275	4.275	0.000	98	557844	80.0	80.1	a
37 1,4-Dichlorobenzene	146	4.334	4.334	0.000	94	568659	80.0	79.8	a
39 Benzyl alcohol	108	4.441	4.441	0.000	94	341959	80.0	80.4	a
40 1,2-Dichlorobenzene	146	4.473	4.473	0.000	97	539986	80.0	80.0	a
41 Indene	116	4.553	4.553	0.000	92	1545880	160.0	154.0	a
42 2-Methylphenol	108	4.553	4.553	0.000	56	428428	80.0	77.4	a
43 2,2'-oxybis[1-chloropropane]	45	4.564	4.564	0.000	93	873211	80.0	78.8	a
45 Acetophenone	105	4.676	4.676	0.000	96	656026	80.0	78.5	a
46 N-Nitrosodi-n-propylamine	70	4.687	4.687	0.000	95	334223	80.0	79.3	a

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
47 4-Methylphenol	108	4.692	4.692	0.000	94	479658	80.0	79.4	a
48 3-Methylphenol	108	4.692	4.692	0.000	94	479658	80.0	79.4	a
49 3 & 4 Methylphenol	108	4.692	4.692	0.000	81	479658	80.0	79.4	a
52 Hexachloroethane	117	4.778	4.778	0.000	98	231616	80.0	79.6	a
53 Nitrobenzene	77	4.826	4.826	0.000	90	518094	80.0	80.0	a
55 Isophorone	82	5.056	5.056	0.000	99	991560	80.0	79.0	a
56 2-Nitrophenol	139	5.125	5.125	0.000	93	264559	80.0	84.4	a
58 2,4-Dimethylphenol	107	5.179	5.179	0.000	94	409787	80.0	80.0	a
60 Bis(2-chloroethoxy)methane	93	5.259	5.259	0.000	98	606155	80.0	79.9	a
63 Benzoic acid	105	5.318	5.318	0.000	91	676822	160.0	163.0	a
62 2,4-Dichlorophenol	162	5.355	5.355	0.000	94	409532	80.0	81.7	a
66 1,2,4-Trichlorobenzene	180	5.435	5.435	0.000	95	440916	80.0	80.6	a
67 Naphthalene	128	5.500	5.500	0.000	97	1409405	80.0	81.0	a
69 4-Chloroaniline	127	5.558	5.558	0.000	97	614002	80.0	81.0	a
68 2,6-Dichlorophenol	162	5.569	5.569	0.000	98	399983	80.0	81.5	a
71 Hexachlorobutadiene	225	5.644	5.644	0.000	97	239734	80.0	81.7	a
77 4-Chloro-3-methylphenol	107	6.029	6.029	0.000	96	416939	80.0	81.1	a
80 2-Methylnaphthalene	142	6.163	6.163	0.000	95	980661	80.0	82.0	a
81 1-Methylnaphthalene	142	6.259	6.259	0.000	95	886859	80.0	81.4	a
83 Hexachlorocyclopentadiene	237	6.334	6.334	0.000	96	226191	80.0	87.4	a
84 1,2,4,5-Tetrachlorobenzene	216	6.334	6.334	0.000	97	425421	80.0	81.7	a
86 2,3-Dichlorobenzenamine	161	6.436	6.436	0.000	96	469823	80.0	81.5	a
87 2,4,6-Trichlorophenol	196	6.441	6.441	0.000	94	282881	80.0	83.9	a
88 2,4,5-Trichlorophenol	196	6.473	6.473	0.000	94	306434	80.0	83.9	a
90 1,1'-Biphenyl	154	6.617	6.617	0.000	96	1113584	80.0	81.4	a
91 2-Chloronaphthalene	162	6.628	6.628	0.000	97	859239	80.0	81.2	a
93 2-Nitroaniline	65	6.730	6.730	0.000	86	287968	80.0	85.7	a
96 Dimethyl phthalate	163	6.928	6.928	0.000	98	926136	80.0	80.8	a
97 1,3-Dinitrobenzene	168	6.933	6.933	0.000	84	167373	80.0	85.1	a
98 2,6-Dinitrotoluene	165	6.970	6.970	0.000	95	233545	80.0	87.0	a
99 Acenaphthylene	152	7.029	7.029	0.000	98	1314220	80.0	82.9	a
100 3-Nitroaniline	138	7.131	7.131	0.000	95	281914	80.0	84.3	a
101 Acenaphthene	153	7.200	7.200	0.000	93	862545	80.0	81.6	a
102 2,4-Dinitrophenol	184	7.233	7.233	0.000	85	249151	160.0	156.8	a
107 4-Nitrophenol	109	7.318	7.318	0.000	93	290246	160.0	172.9	a
109 2,4-Dinitrotoluene	165	7.361	7.361	0.000	93	306156	80.0	87.6	a
108 Dibenzofuran	168	7.372	7.372	0.000	97	1208060	80.0	80.8	a
114 2,3,4,6-Tetrachlorophenol	232	7.500	7.500	0.000	73	249206	80.0	88.2	a
116 Diethyl phthalate	149	7.618	7.618	0.000	98	973794	80.0	81.5	a
117 Hexadecane	57	7.660	7.660	0.000	92	744156	80.0	83.7	a
118 Fluorene	166	7.703	7.703	0.000	97	972893	80.0	82.3	a
120 4-Chlorophenyl phenyl ether	204	7.714	7.714	0.000	94	436073	80.0	80.5	a
122 4-Nitroaniline	138	7.730	7.730	0.000	86	267042	80.0	81.0	a
123 4,6-Dinitro-2-methylphenol	198	7.767	7.767	0.000	83	349525	160.0	158.5	a
126 N-Nitrosodiphenylamine	169	7.826	7.826	0.000	99	724168	80.0	81.7	a
125 Diphenylamine	169	7.826	7.826	0.000	96	724168	68.0	70.0	a
128 1,2-Diphenylhydrazine	77	7.864	7.864	0.000	99	1066374	80.9	81.7	a
129 Azobenzene	77	7.864	7.864	0.000	99	1066376	80.0	80.8	a
138 4-Bromophenyl phenyl ether	248	8.185	8.185	0.000	67	287826	80.0	82.5	a
140 Hexachlorobenzene	284	8.254	8.254	0.000	97	374962	80.0	82.6	a
143 Pentachlorophenol	266	8.447	8.447	0.000	98	442734	160.0	177.4	a
288 n-Octadecane	57	8.564	8.564	0.000	94	754835	80.0	84.8	a

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
148 Phenanthrene	178	8.639	8.639	0.000	97	1406801	80.0	80.6	a
151 Anthracene	178	8.687	8.687	0.000	97	1441330	80.0	82.5	a
152 Carbazole	167	8.848	8.848	0.000	95	1389287	80.0	81.6	a
154 Alachlor	188	9.014	9.014	0.000	93	168768	80.0	87.6	a
155 Di-n-butyl phthalate	149	9.222	9.222	0.000	99	1682754	80.0	86.0	a
160 Fluoranthene	202	9.805	9.805	0.000	97	1492947	80.0	84.6	a
162 Pyrene	202	10.025	10.025	0.000	98	1569755	80.0	81.6	a
169 Butyl benzyl phthalate	149	10.773	10.773	0.000	97	744467	80.0	83.4	a
173 Benzo[a]anthracene	228	11.453	11.453	0.000	98	1479893	80.0	86.0	a
175 Chrysene	228	11.501	11.501	0.000	97	1475304	80.0	80.4	a
176 Bis(2-ethylhexyl) phthalate	149	11.586	11.586	0.000	98	1011686	80.0	82.6	a
178 Di-n-octyl phthalate	149	12.635	12.635	0.000	99	1744504	80.0	86.9	a
179 Benzo[b]fluoranthene	252	13.148	13.148	0.000	97	1481664	80.0	85.8	a
181 Benzo[k]fluoranthene	252	13.196	13.196	0.000	99	1700166	80.0	81.0	a
183 Benzo[a]pyrene	252	13.710	13.710	0.000	76	1462223	80.0	79.5	a
187 Indeno[1,2,3-cd]pyrene	276	15.769	15.769	0.000	98	1500178	80.0	86.3	a
188 Dibenz(a,h)anthracene	278	15.822	15.822	0.000	92	1498563	80.0	92.9	a
189 Benzo[g,h,i]perylene	276	16.181	16.181	0.000	99	1547074	80.0	83.6	a

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSL-WS_00010	Amount Added: 200.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

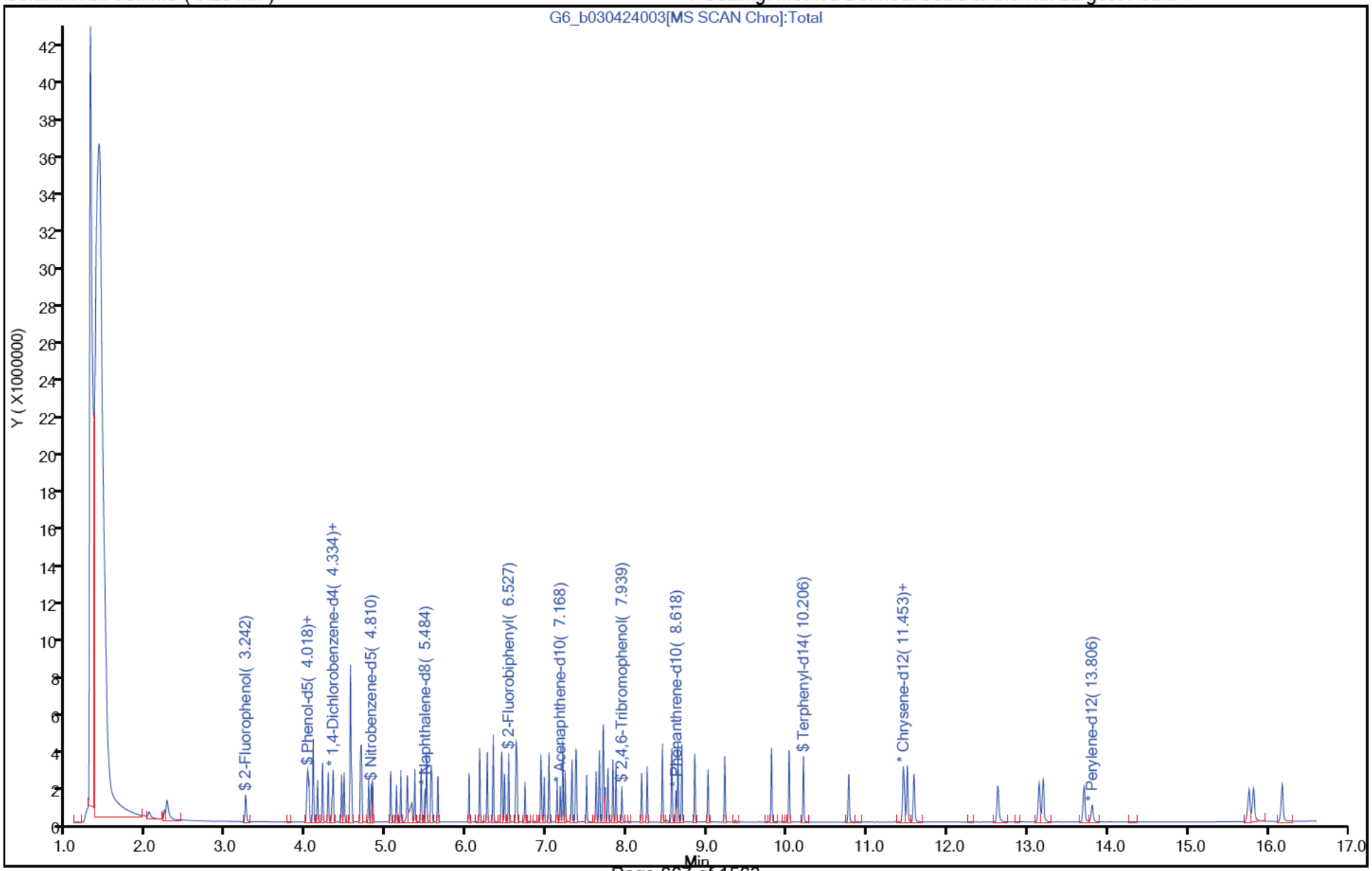
Report Date: 04-Mar-2024 15:40:04 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D

Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	ICIS			Worklist Smp#:	3
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

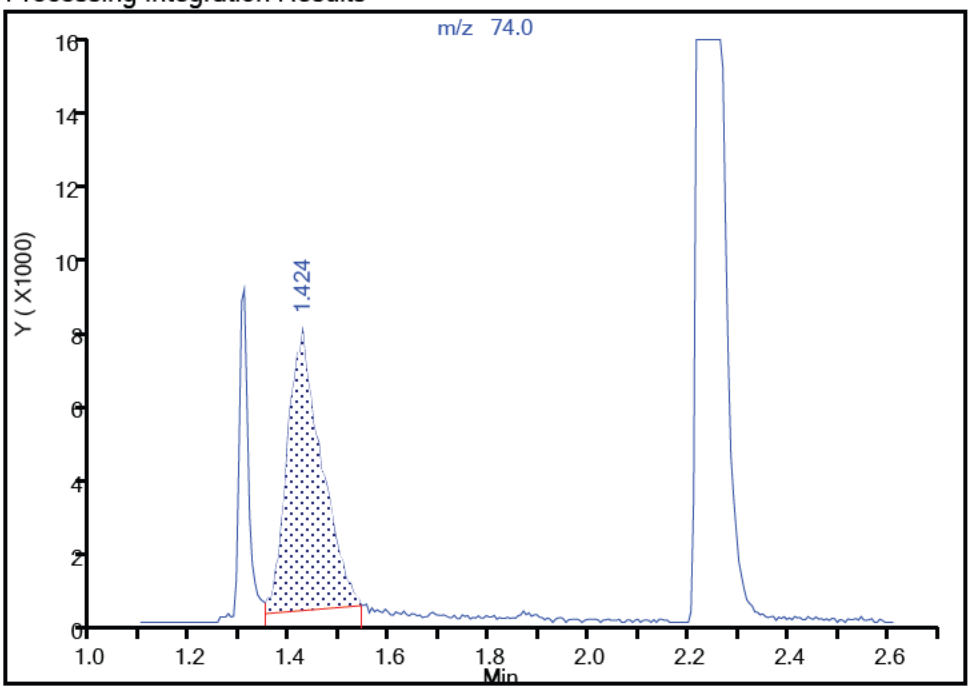
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

17 N-Nitrosodimethylamine, CAS: 62-75-9

Signal: 1

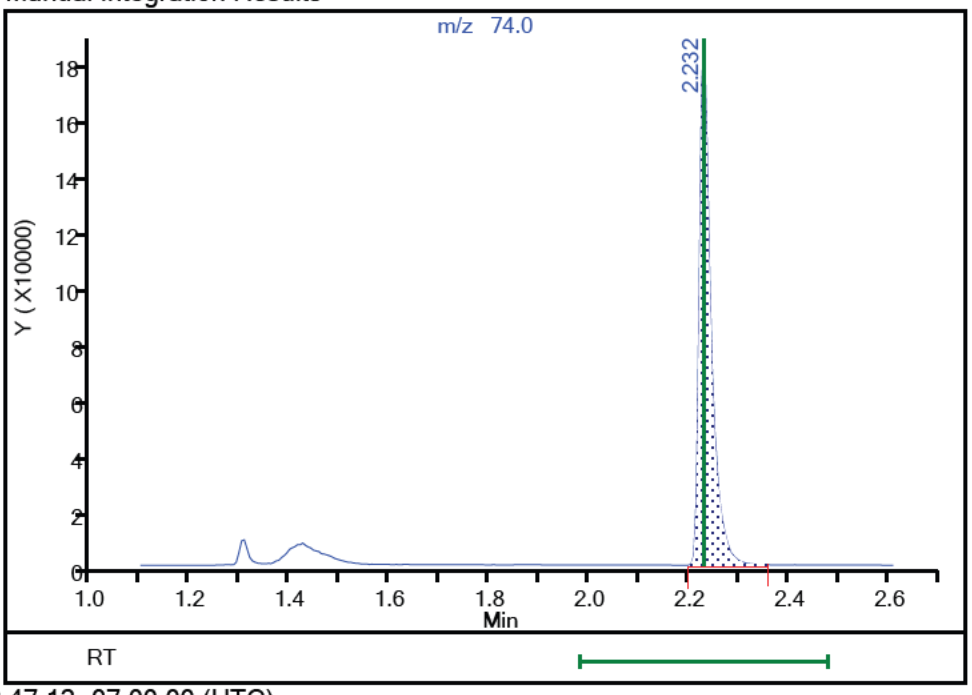
Processing Integration Results

RT: 1.42
Area: 36200
Amount: 11.451975
Amount Units: ug/ml



Manual Integration Results

RT: 2.23
Area: 306766
Amount: 77.403777
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:47:12 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

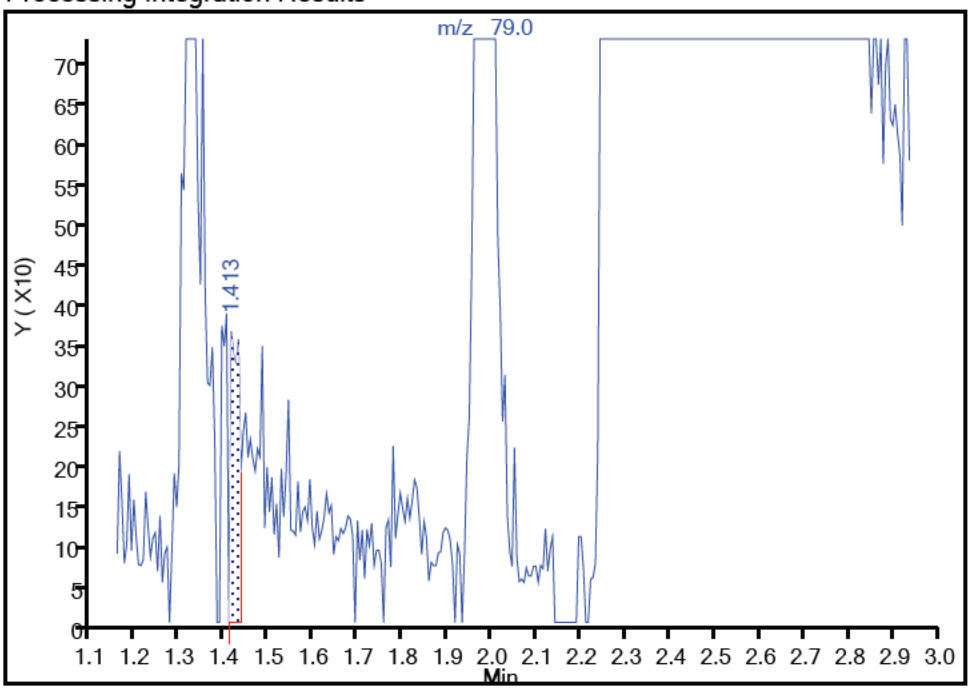
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D
Injection Date: 04-Mar-2024 10:17:30 Instrument ID: SMS_G6
Lims ID: ICIS
Client ID:
Operator ID: RC ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector MS SCAN

18 Pyridine, CAS: 110-86-1

Signal: 1

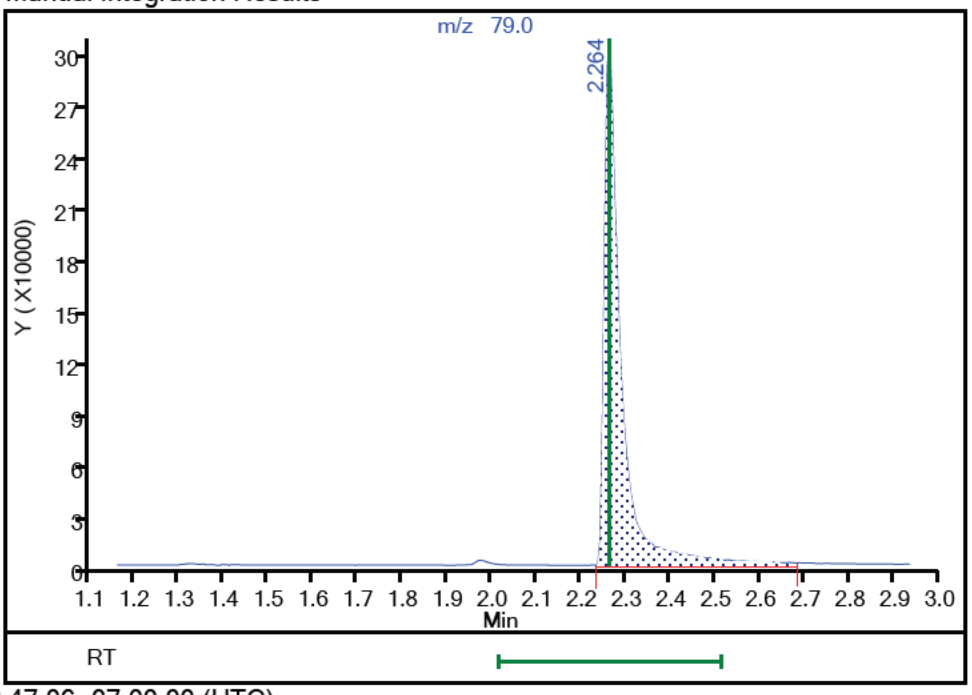
Processing Integration Results

RT: 1.41
Area: 500
Amount: 0.109052
Amount Units: ug/ml



Manual Integration Results

RT: 2.26
Area: 796132
Amount: 155.2539
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:47:06 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

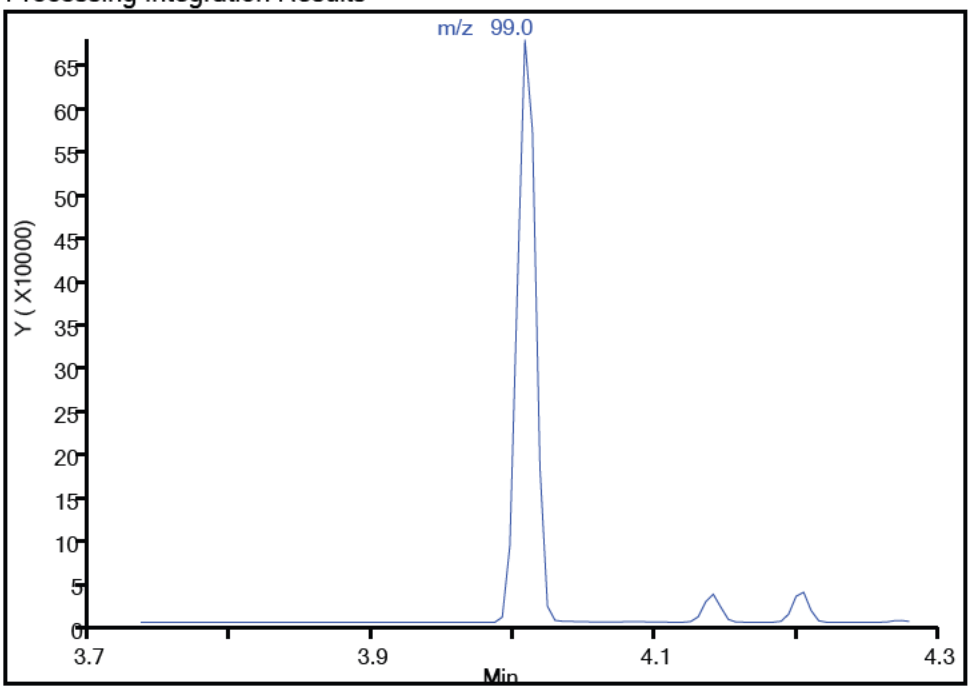
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

$ 8 Phenol-d5, CAS: 4165-62-2

Signal: 1

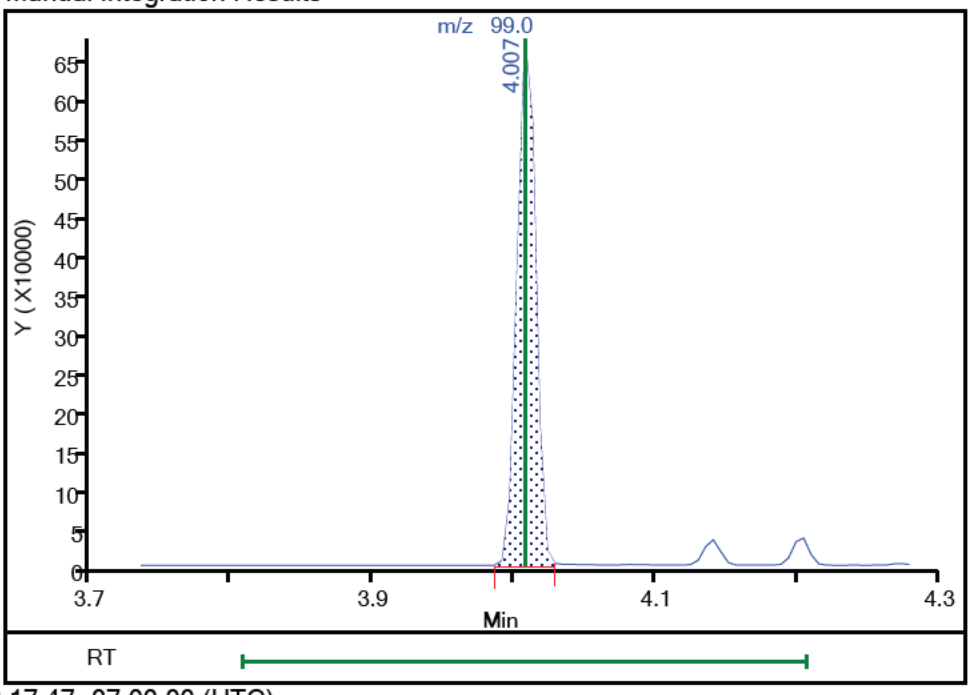
Not Detected
Expected RT: 4.01

Processing Integration Results



Manual Integration Results

RT: 4.01
Area: 621937
Amount: 80.052463
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:17:47 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

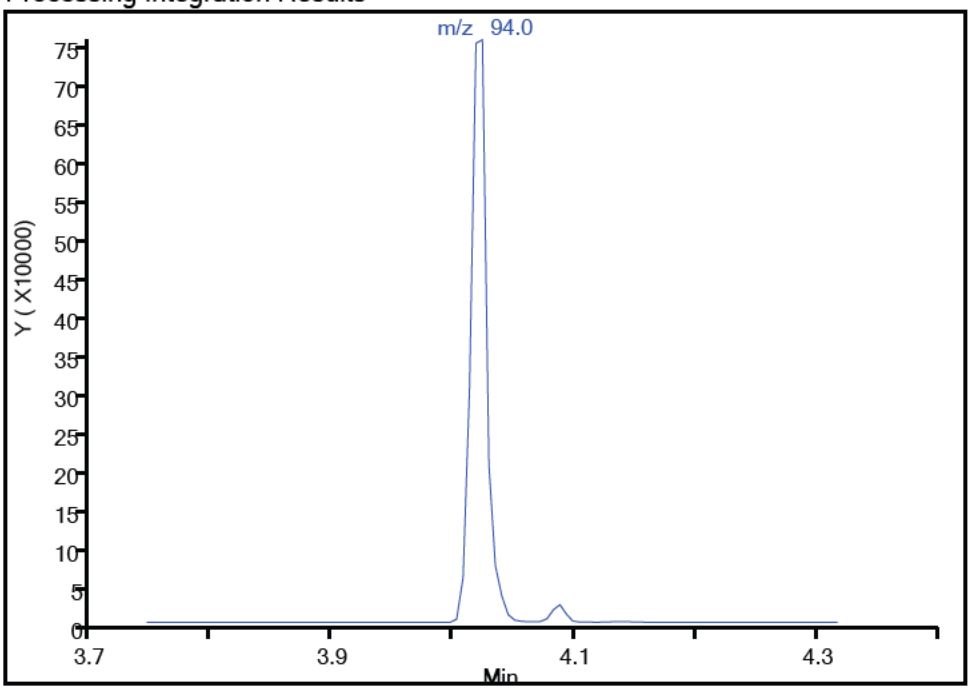
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

29 Phenol, CAS: 108-95-2

Signal: 1

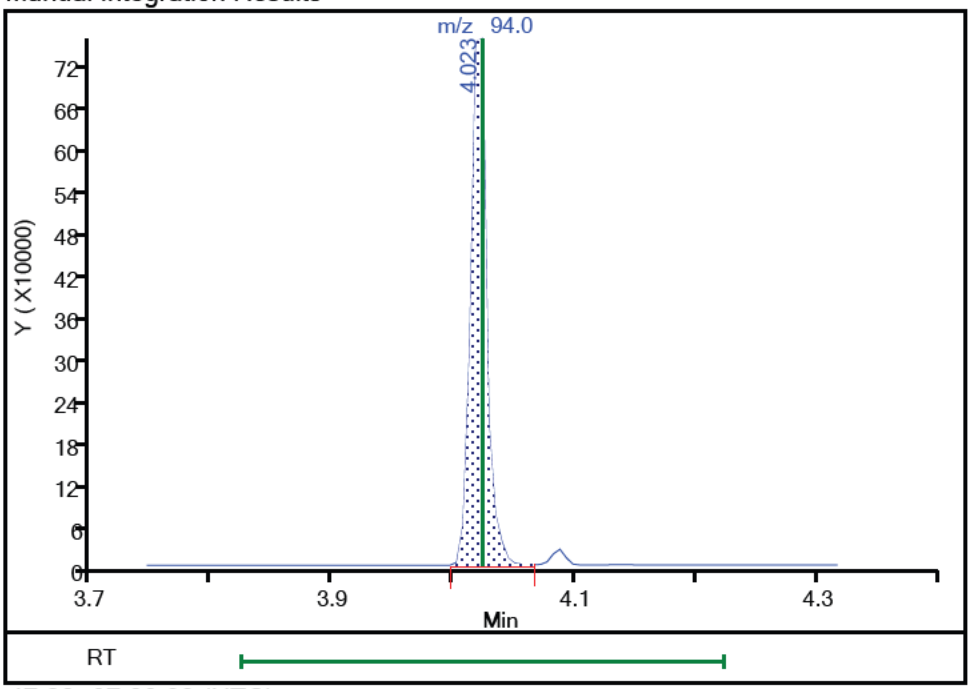
Not Detected
Expected RT: 4.02

Processing Integration Results



Manual Integration Results

RT: 4.02
Area: 707118
Amount: 79.853618
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:47:30 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

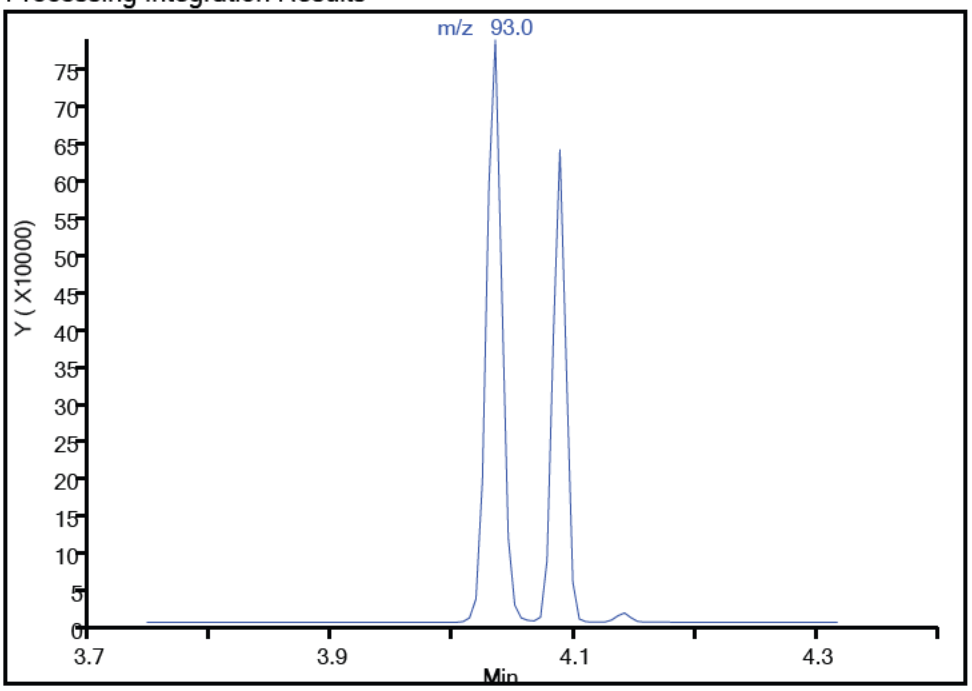
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

28 Aniline, CAS: 62-53-3

Signal: 1

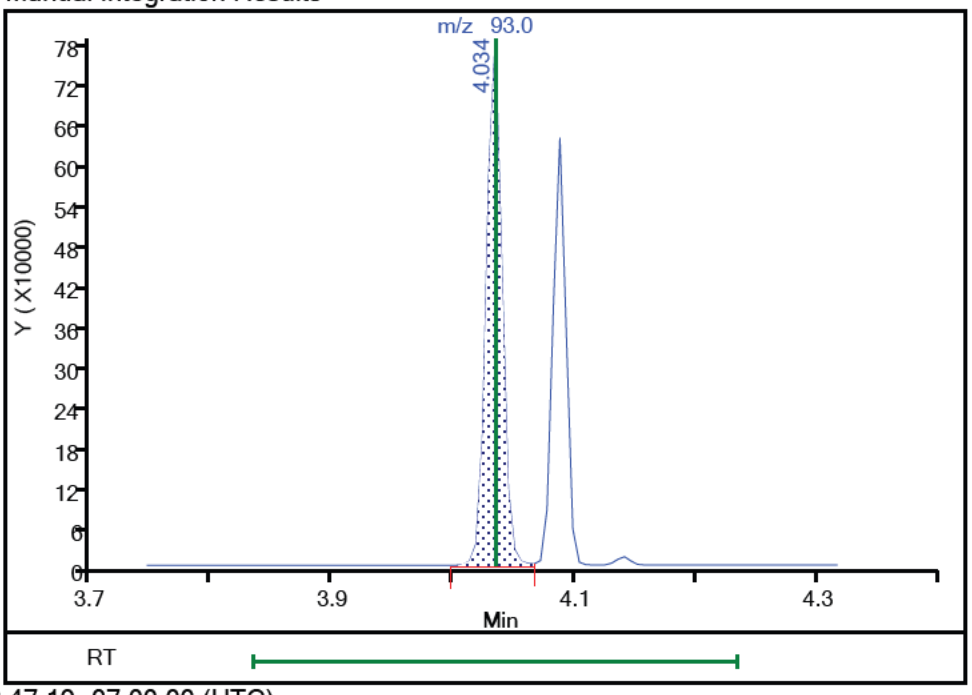
Not Detected
Expected RT: 4.03

Processing Integration Results



RT: 4.03
Area: 700873
Amount: 79.179720
Amount Units: ug/ml

Manual Integration Results



Reviewer: HPV7, 04-Mar-2024 12:47:19 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

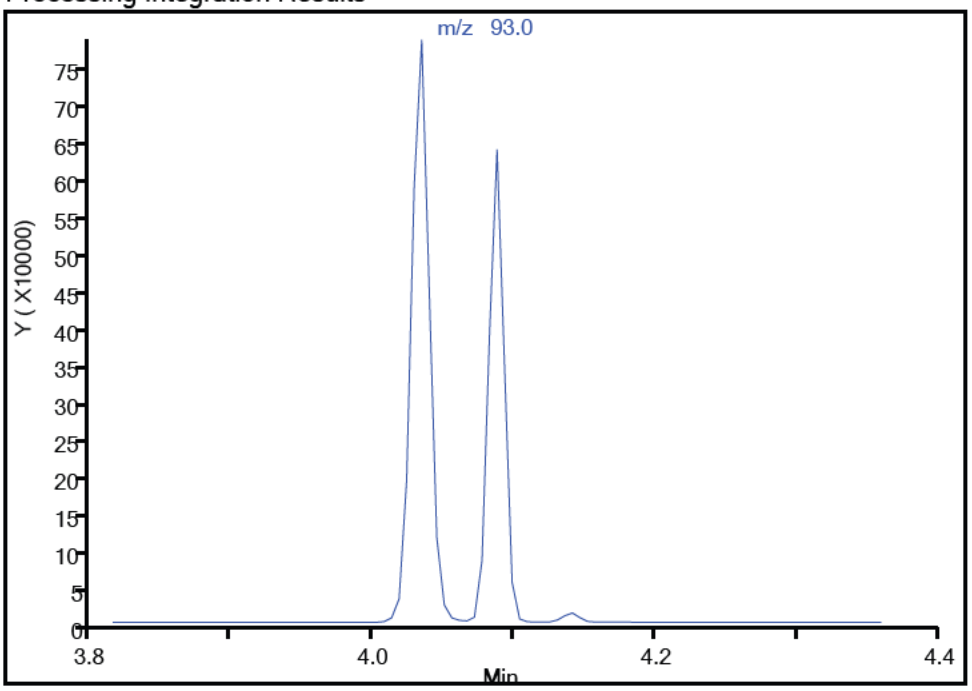
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

32 Bis(2-chloroethyl)ether, CAS: 111-44-4

Signal: 1

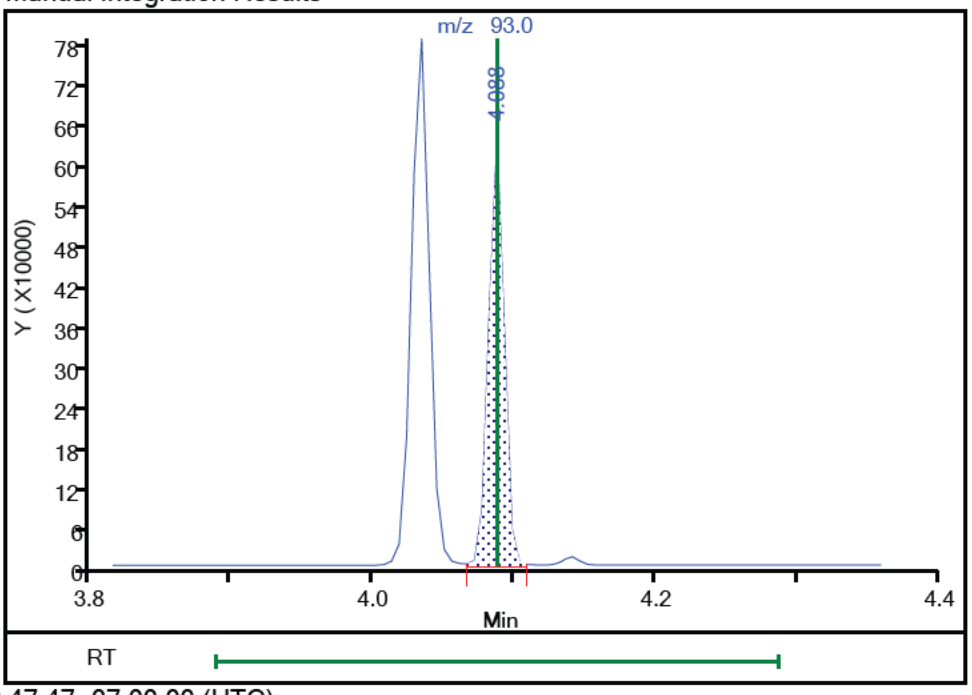
Not Detected
Expected RT: 4.09

Processing Integration Results



RT: 4.09
Area: 484768
Amount: 78.723213
Amount Units: ug/ml

Manual Integration Results



Reviewer: HPV7, 04-Mar-2024 12:47:47 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

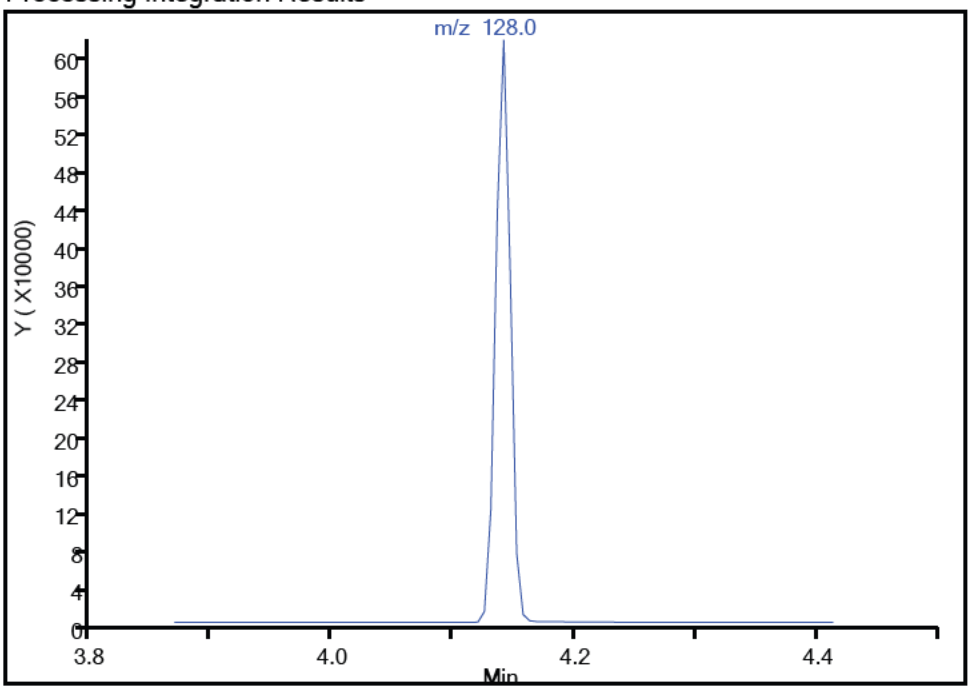
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

33 2-Chlorophenol, CAS: 95-57-8

Signal: 1

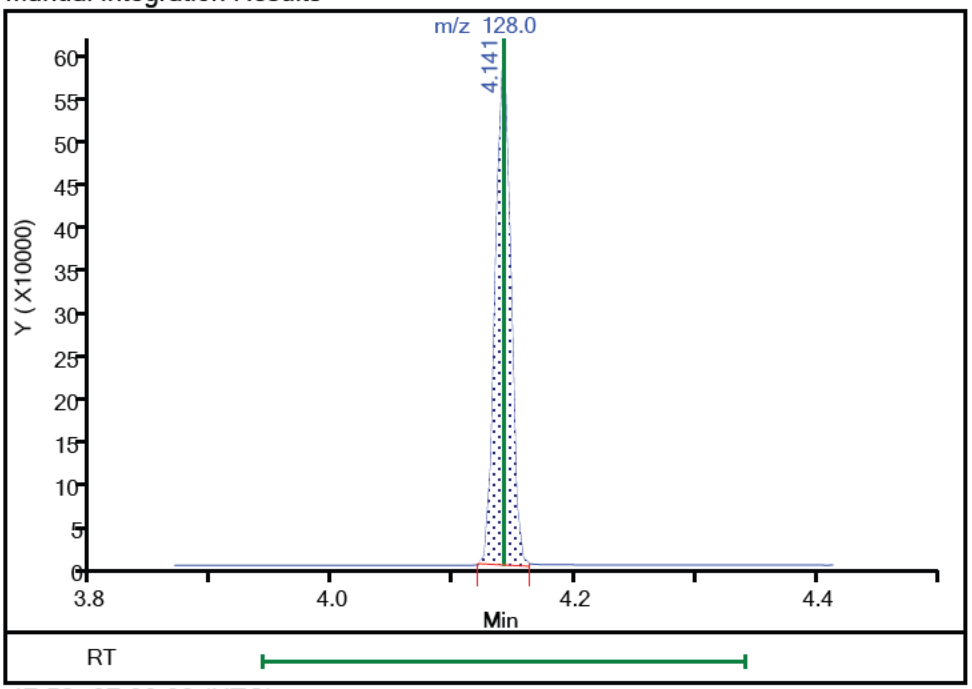
Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results

RT: 4.14
Area: 524129
Amount: 79.732939
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:47:53 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

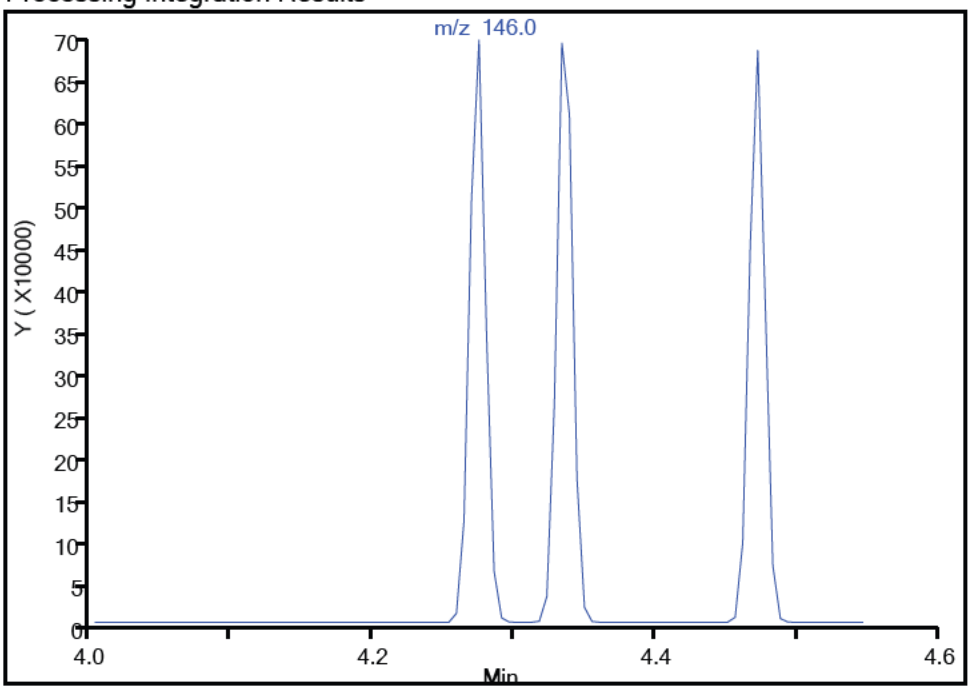
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

35 1,3-Dichlorobenzene, CAS: 541-73-1

Signal: 1

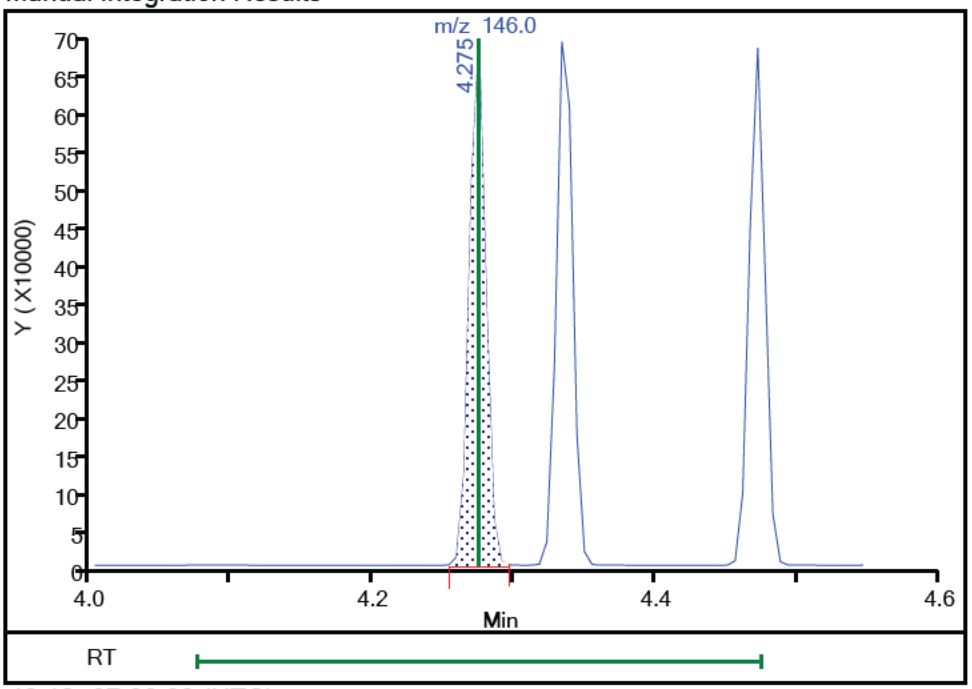
Not Detected
Expected RT: 4.27

Processing Integration Results



Manual Integration Results

RT: 4.27
Area: 557844
Amount: 80.136771
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:48:12 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

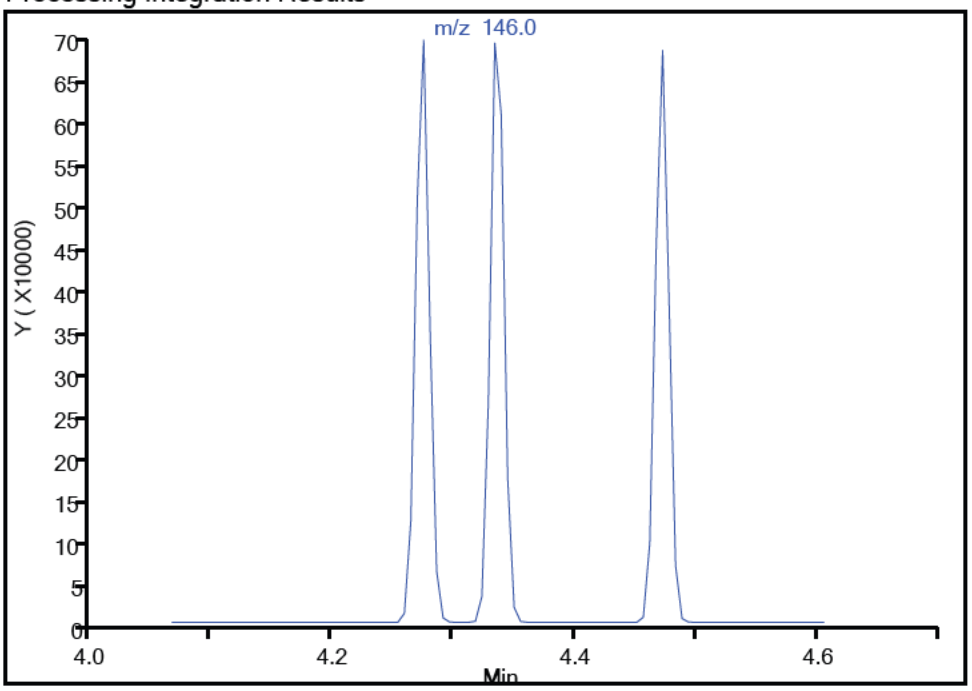
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

37 1,4-Dichlorobenzene, CAS: 106-46-7

Signal: 1

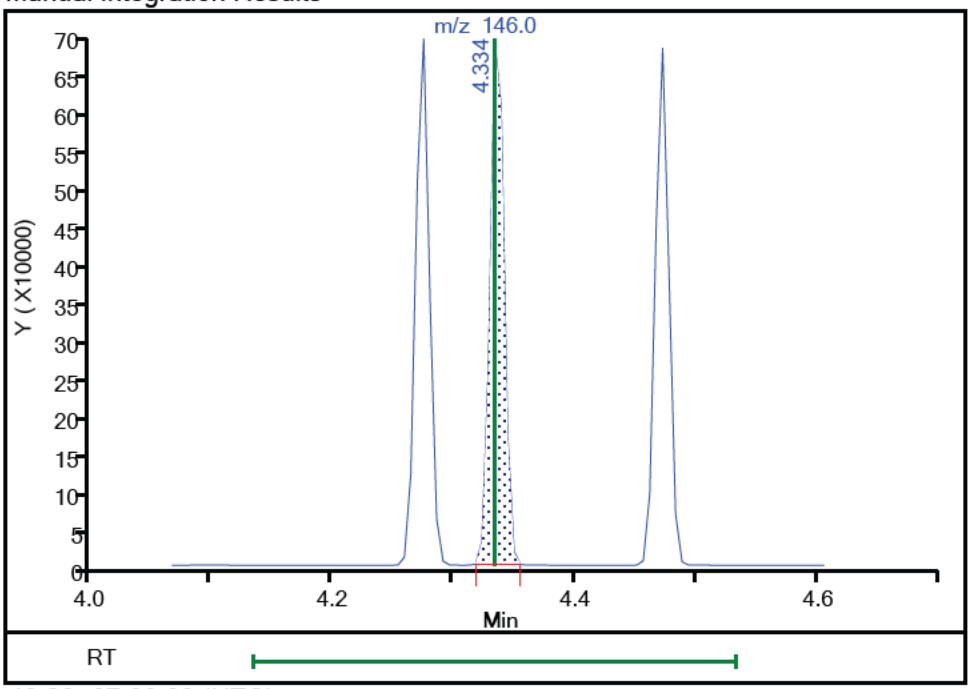
Not Detected
Expected RT: 4.33

Processing Integration Results



RT: 4.33
Area: 568659
Amount: 79.842675
Amount Units: ug/ml

Manual Integration Results



Reviewer: HPV7, 04-Mar-2024 12:48:20 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Eurofins Denver

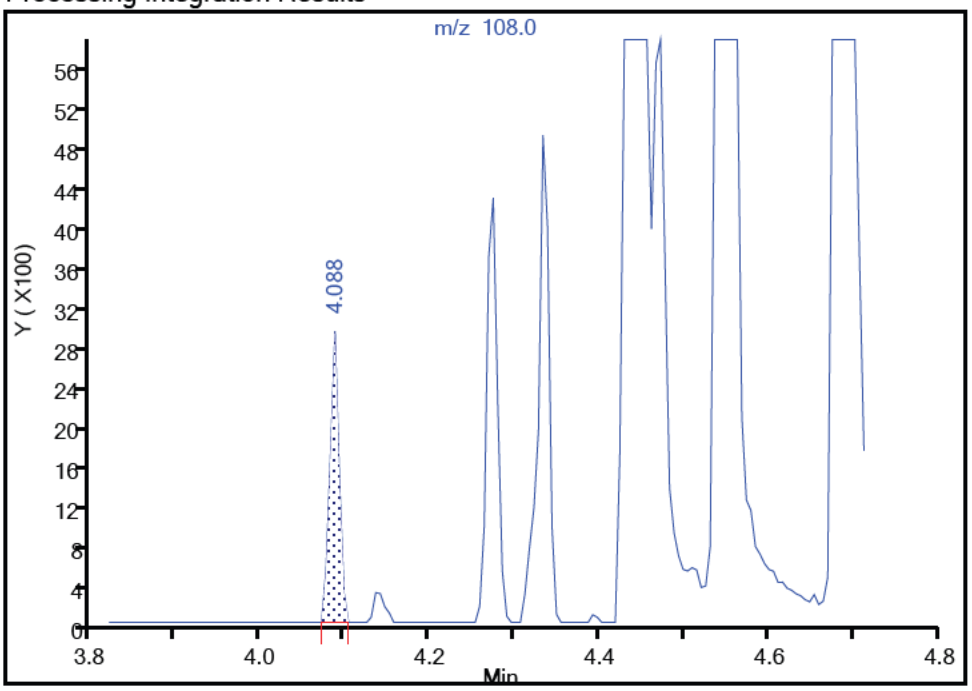
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

39 Benzyl alcohol, CAS: 100-51-6

Signal: 1

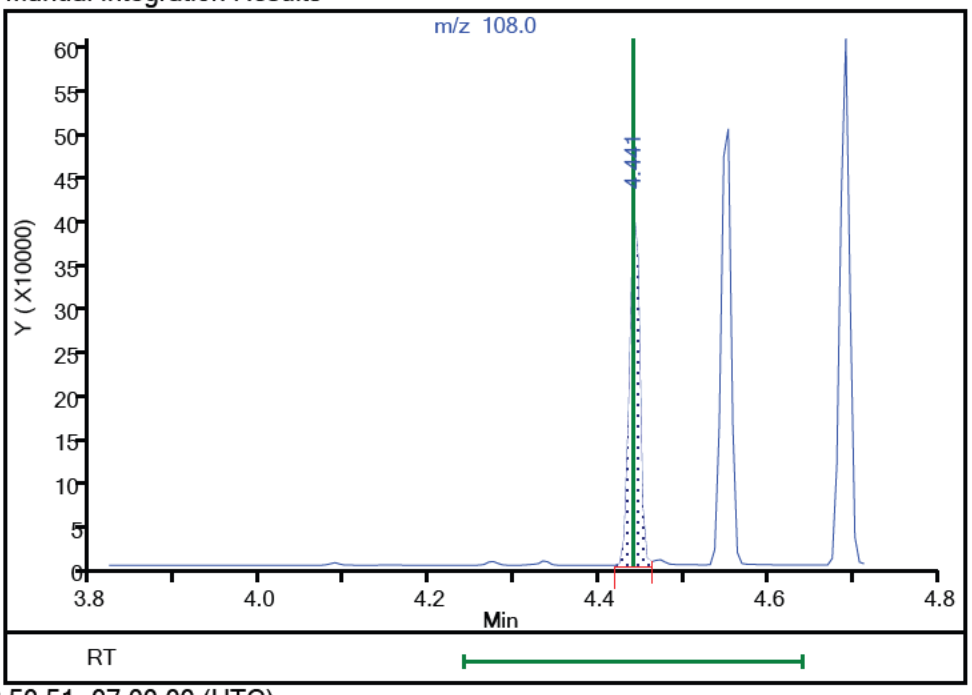
Processing Integration Results

RT: 4.09
Area: 2215
Amount: 0.755884
Amount Units: ug/ml



Manual Integration Results

RT: 4.44
Area: 341959
Amount: 80.415859
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:50:51 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

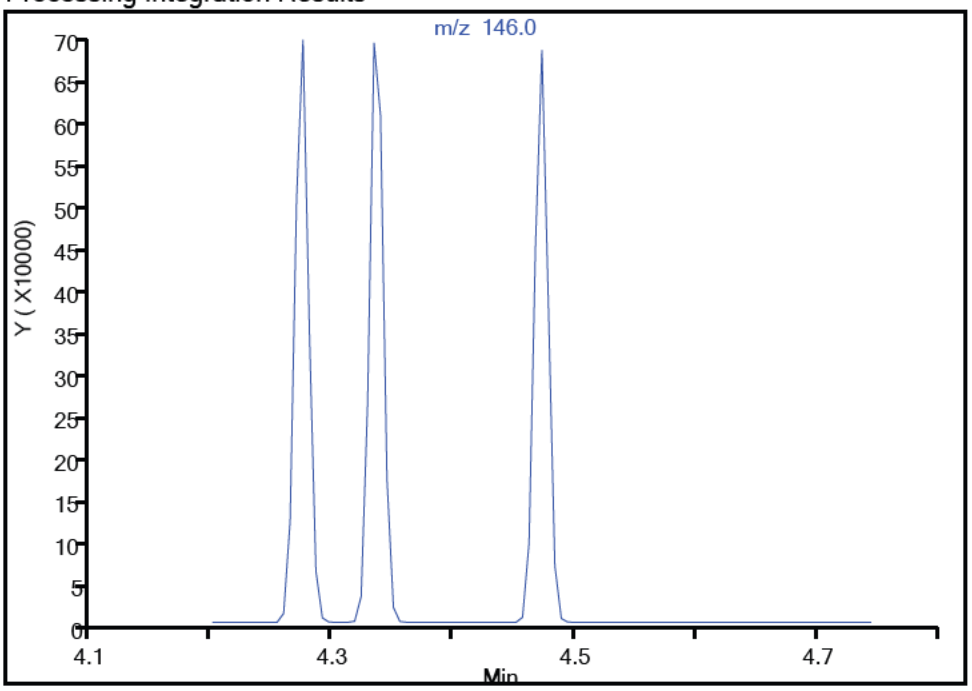
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

40 1,2-Dichlorobenzene, CAS: 95-50-1

Signal: 1

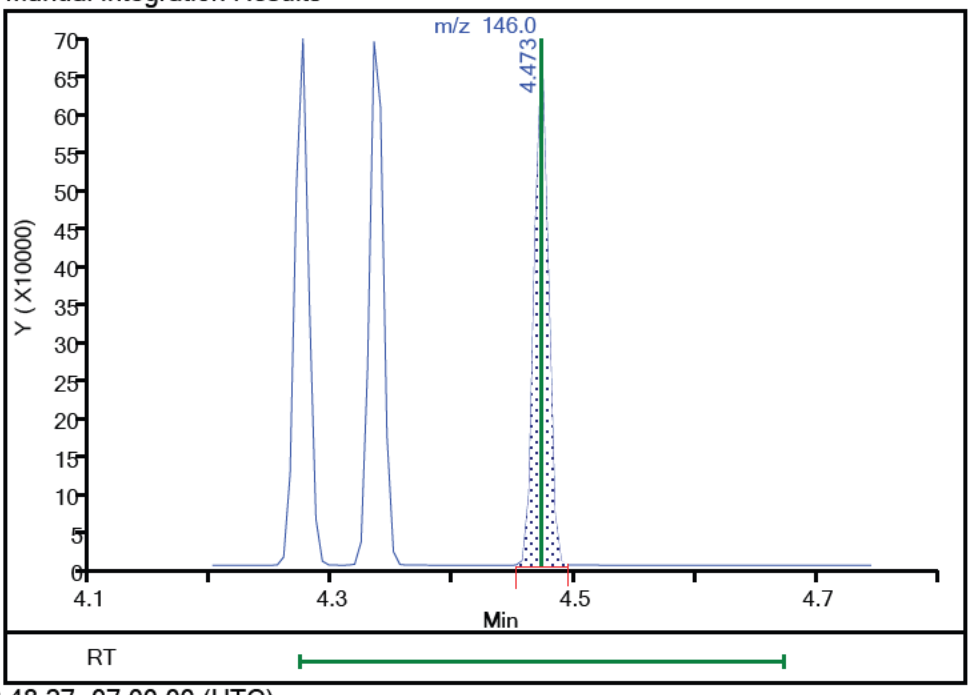
Not Detected
Expected RT: 4.47

Processing Integration Results



Manual Integration Results

RT: 4.47
Area: 539986
Amount: 80.044478
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:48:27 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

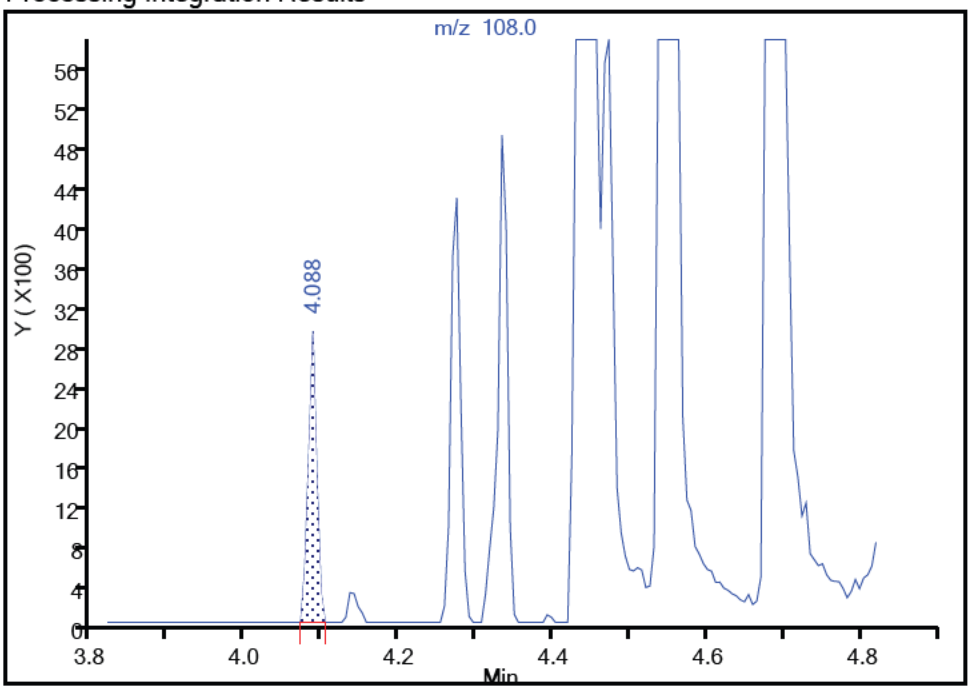
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

42 2-Methylphenol, CAS: 95-48-7

Signal: 1

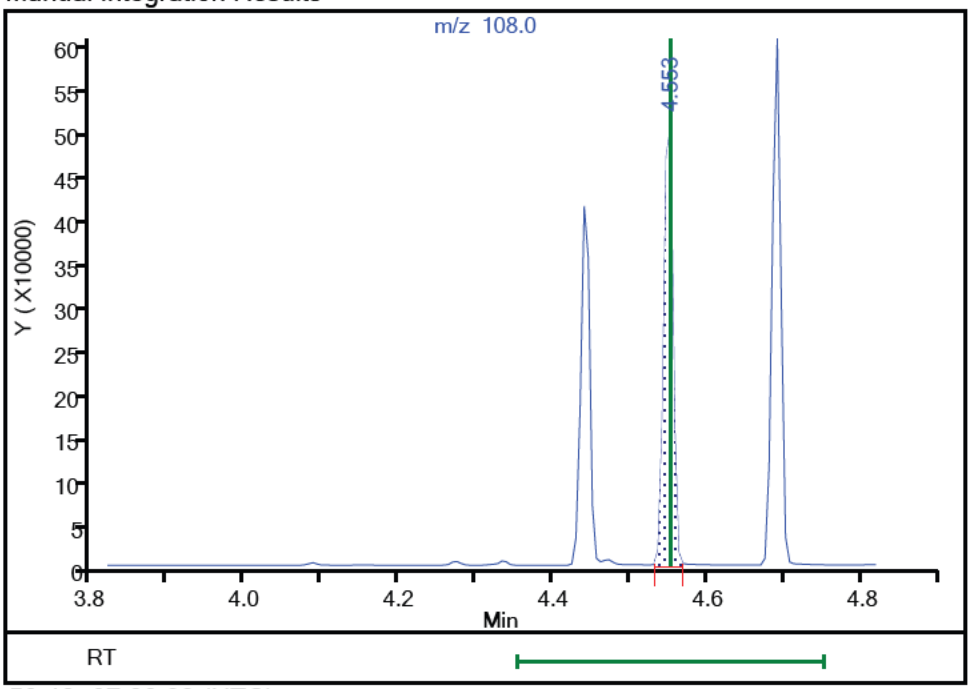
Processing Integration Results

RT: 4.09
Area: 2215
Amount: 0.505406
Amount Units: ug/ml



Manual Integration Results

RT: 4.55
Area: 428428
Amount: 77.364772
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:50:46 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

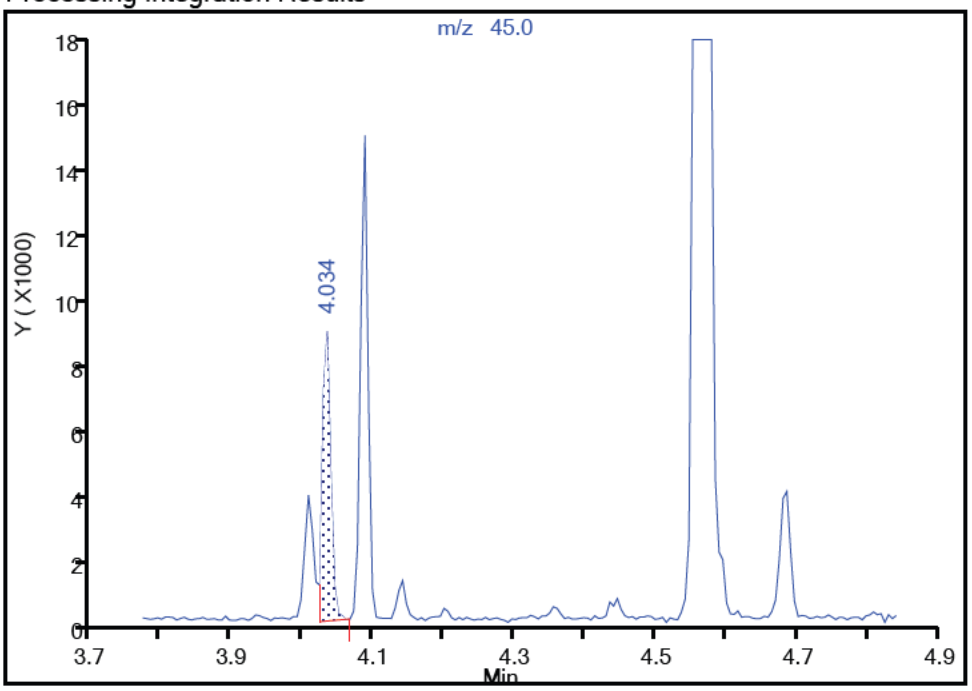
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

43 2,2'-oxybis[1-chloropropane], CAS: 108-60-1

Signal: 1

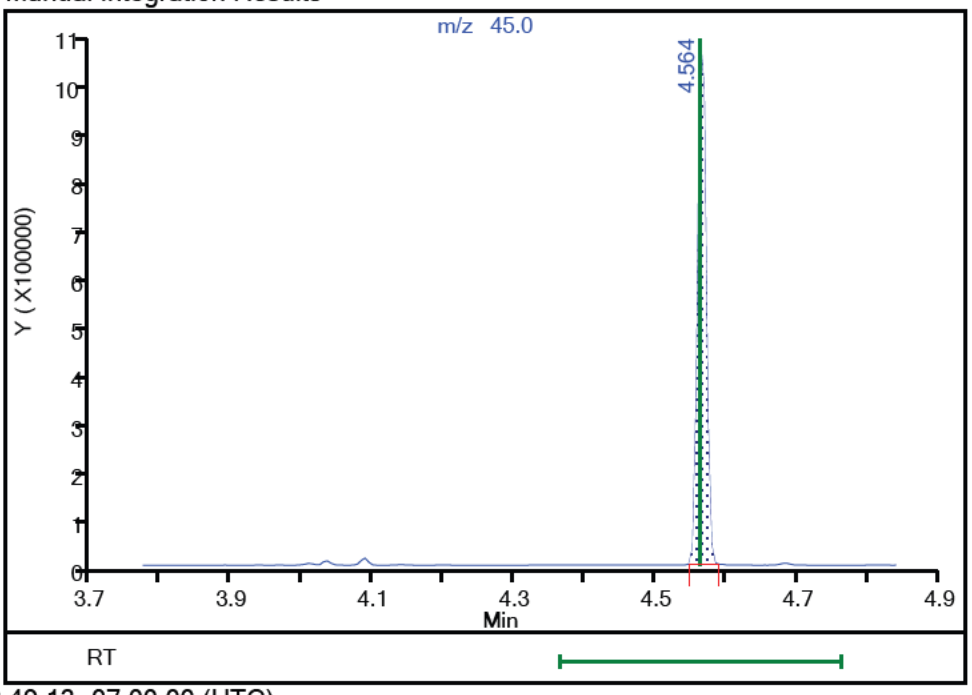
Processing Integration Results

RT: 4.03
Area: 6983
Amount: 1.109616
Amount Units: ug/ml



Manual Integration Results

RT: 4.56
Area: 873211
Amount: 78.787190
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:49:13 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

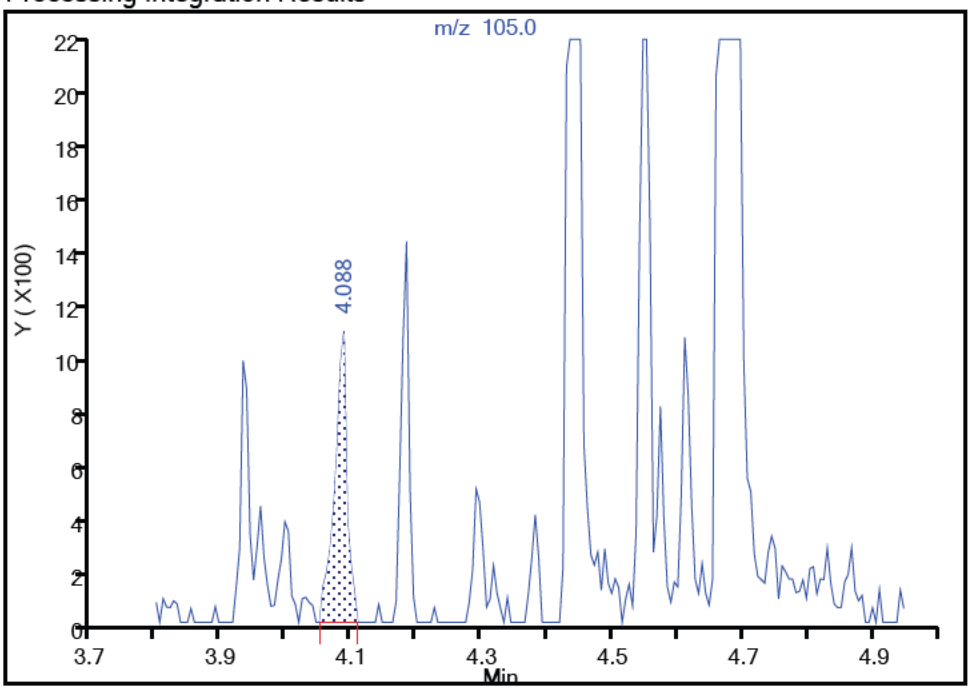
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D
Injection Date: 04-Mar-2024 10:17:30 Instrument ID: SMS_G6
Lims ID: ICIS
Client ID:
Operator ID: RC ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector MS SCAN

45 Acetophenone, CAS: 98-86-2

Signal: 1

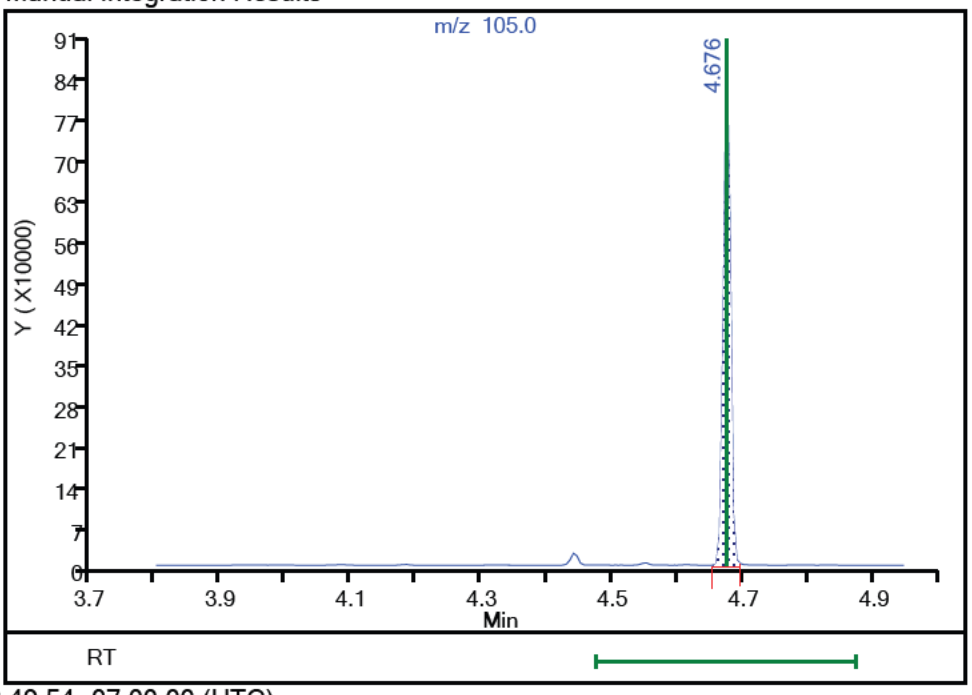
Processing Integration Results

RT: 4.09
Area: 1394
Amount: 0.204352
Amount Units: ug/ml



Manual Integration Results

RT: 4.68
Area: 656026
Amount: 78.497060
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:49:54 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

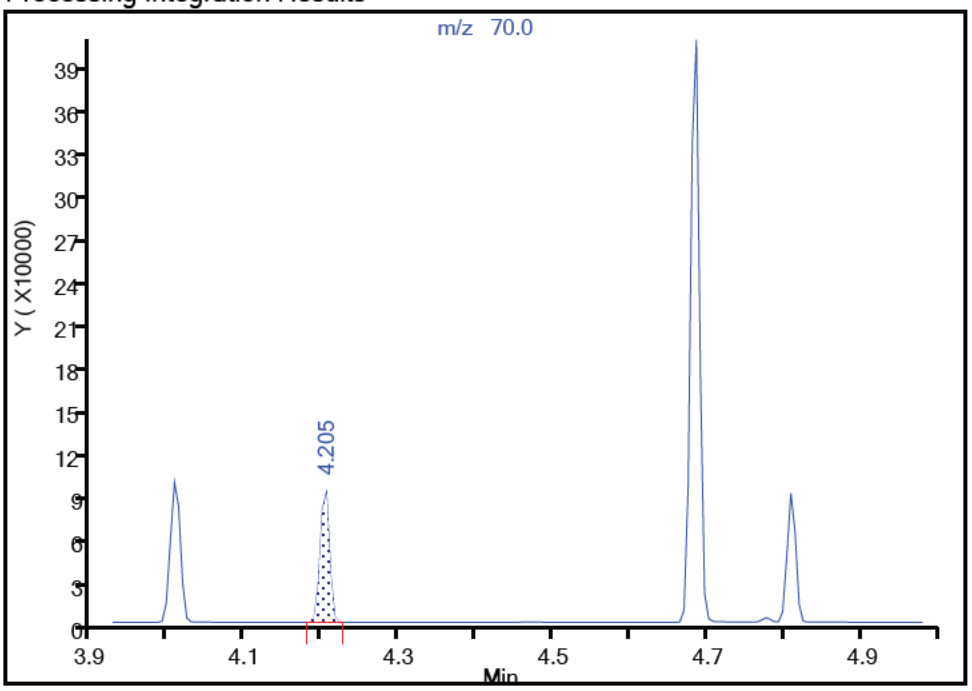
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

46 N-Nitrosodi-n-propylamine, CAS: 621-64-7

Signal: 1

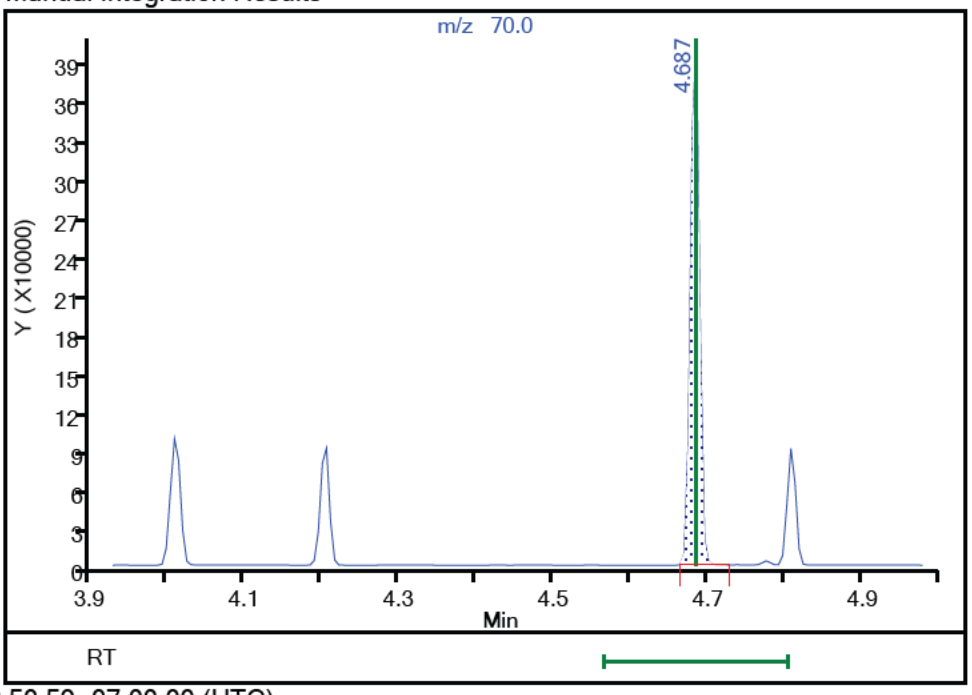
Processing Integration Results

RT: 4.21
Area: 76442
Amount: 21.514849
Amount Units: ug/ml



Manual Integration Results

RT: 4.69
Area: 334223
Amount: 79.349173
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:50:59 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

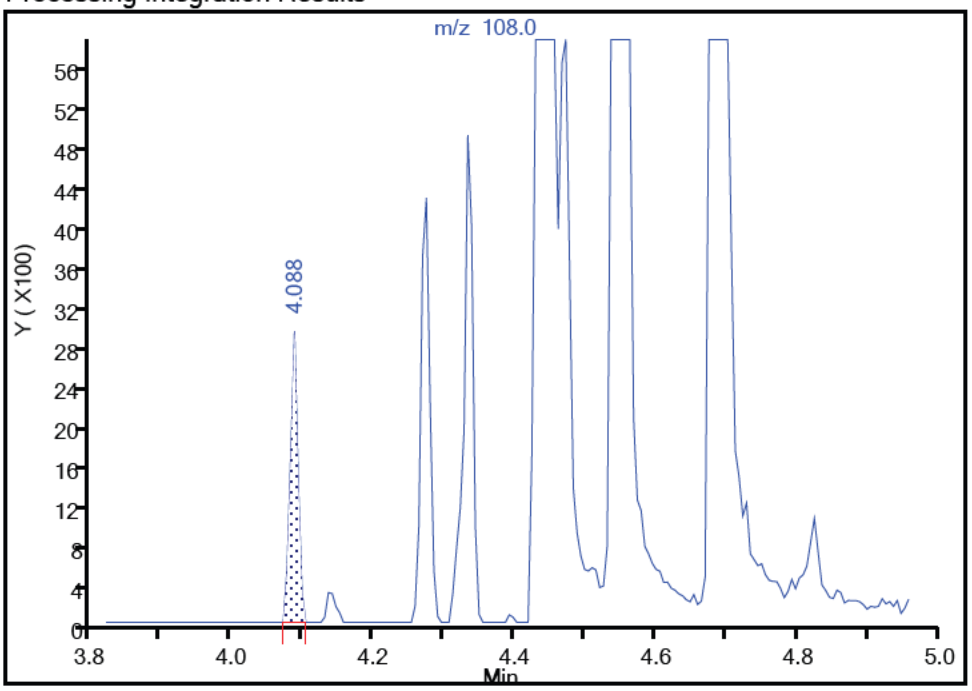
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

49 3 & 4 Methylphenol, CAS: 15831-10-4

Signal: 1

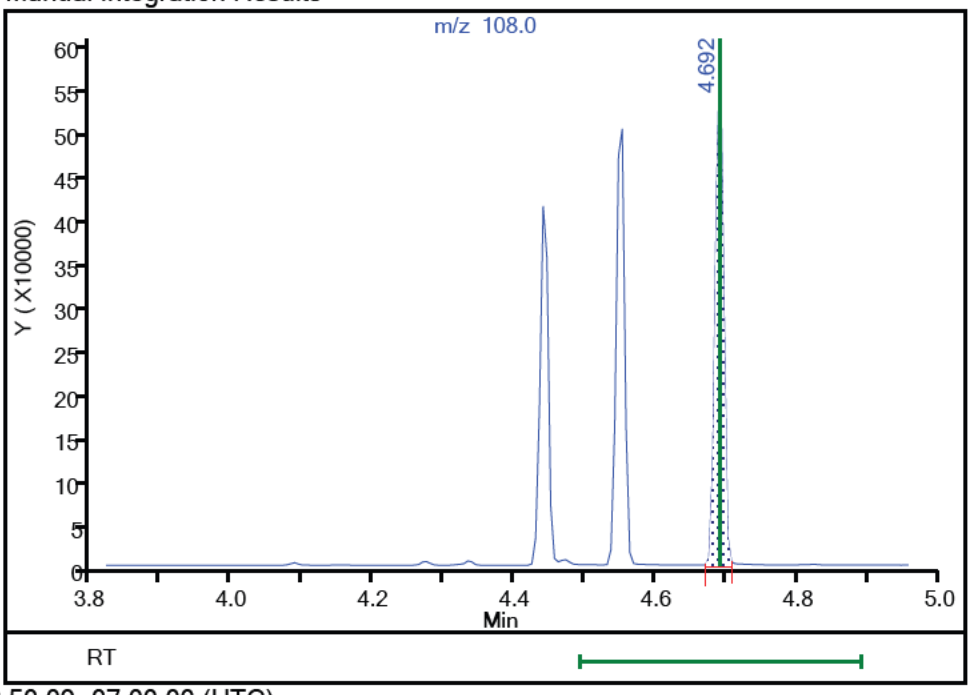
Processing Integration Results

RT: 4.09
Area: 2215
Amount: 0.471568
Amount Units: ug/ml



Manual Integration Results

RT: 4.69
Area: 479658
Amount: 79.413597
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:50:09 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

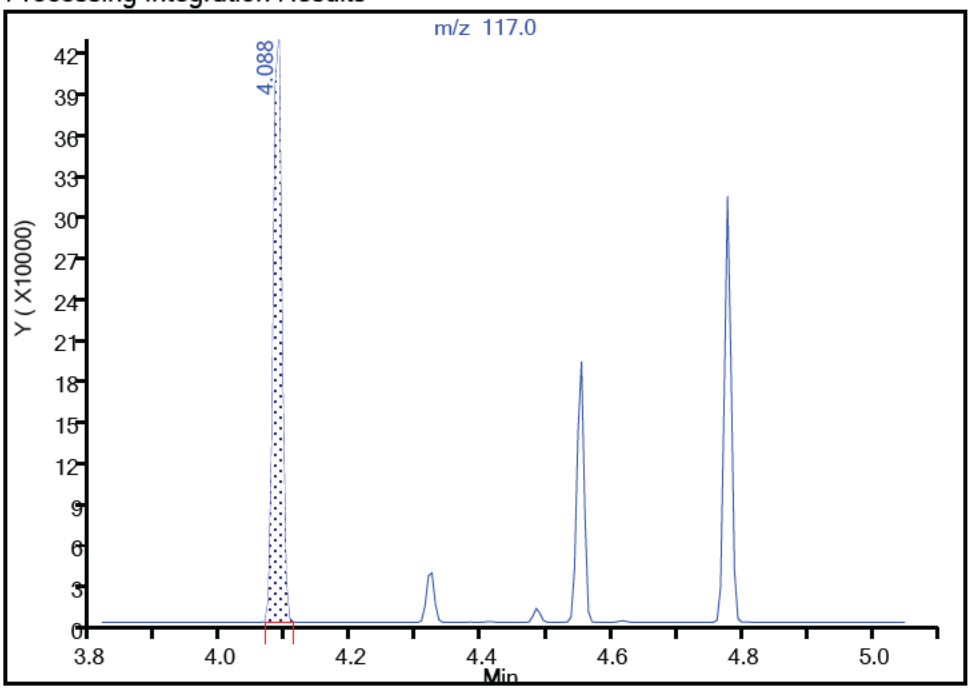
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

52 Hexachloroethane, CAS: 67-72-1

Signal: 1

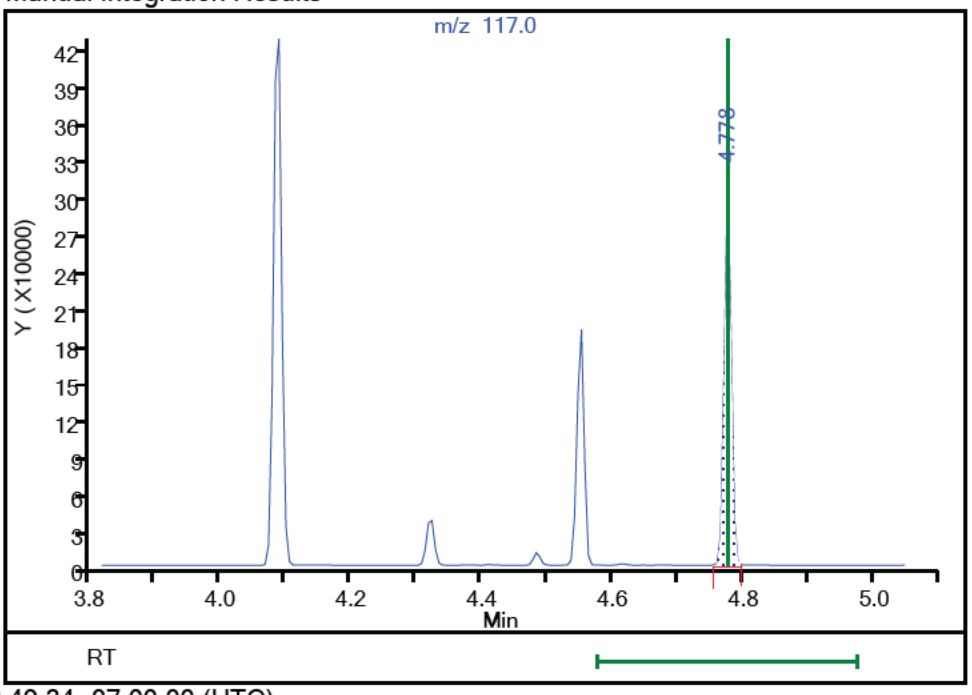
Processing Integration Results

RT: 4.09
Area: 378466
Amount: 136.7653
Amount Units: ug/ml



Manual Integration Results

RT: 4.78
Area: 231616
Amount: 79.550366
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:49:34 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

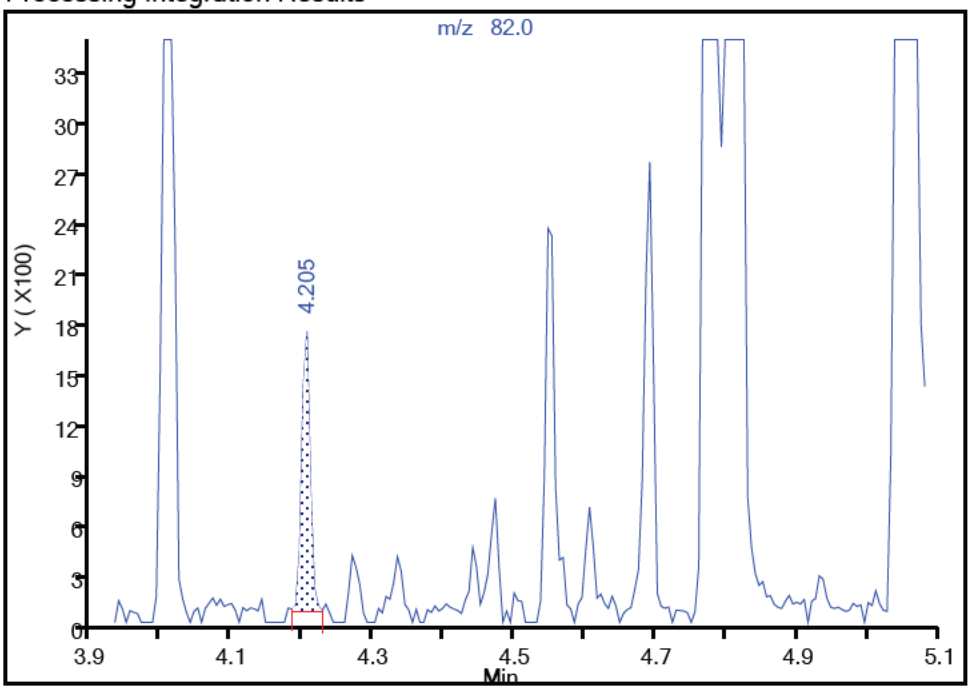
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

$ 9 Nitrobenzene-d5, CAS: 4165-60-0

Signal: 1

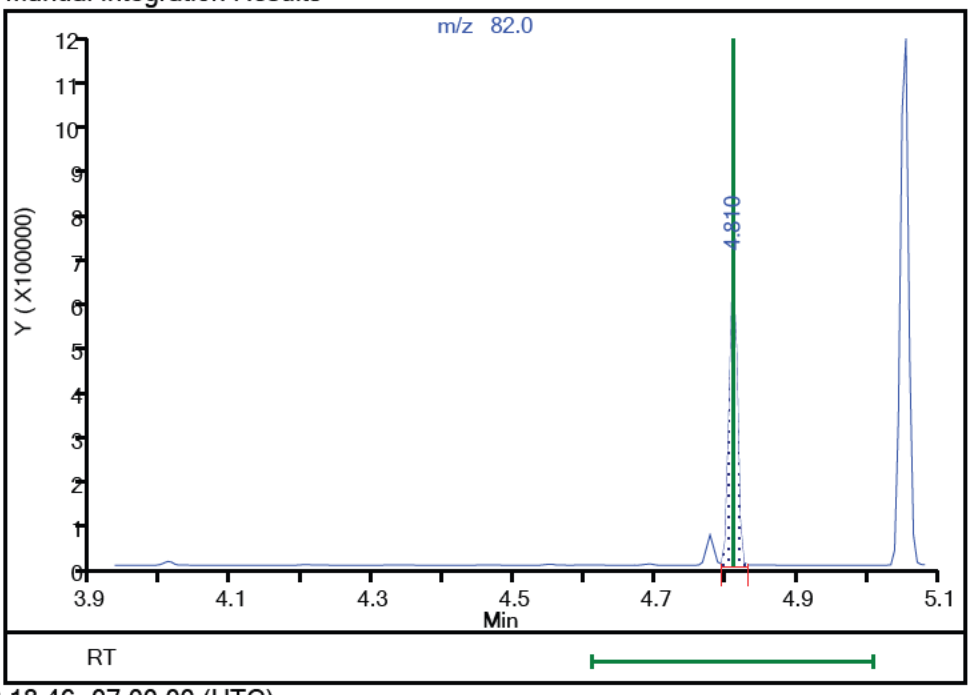
Processing Integration Results

RT: 4.21
Area: 1357
Amount: 0.256241
Amount Units: ug/ml



Manual Integration Results

RT: 4.81
Area: 521573
Amount: 80.158907
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:18:46 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

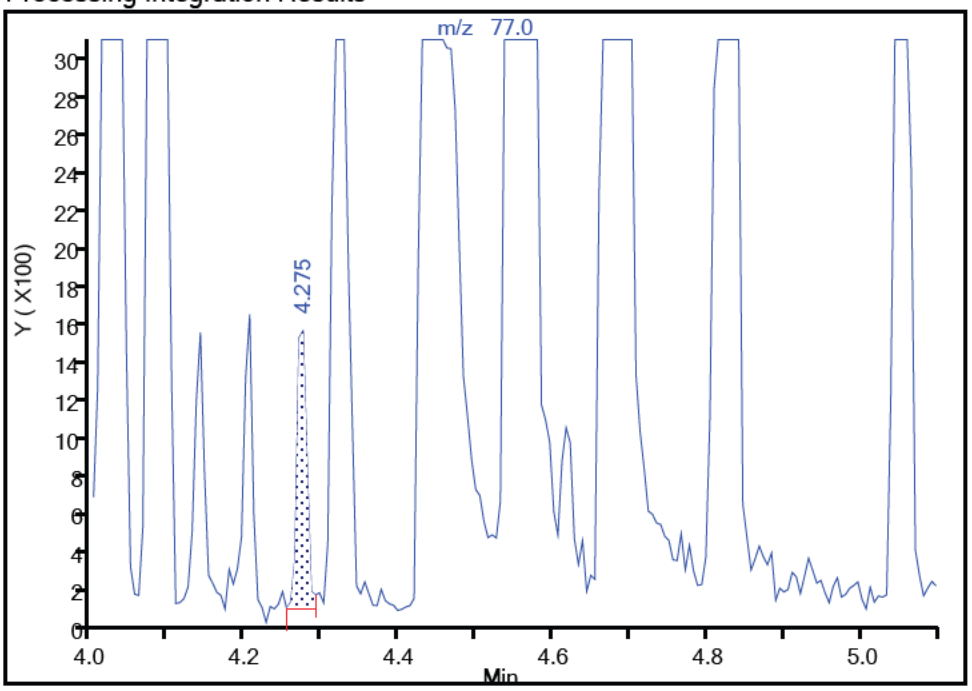
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

53 Nitrobenzene, CAS: 98-95-3

Signal: 1

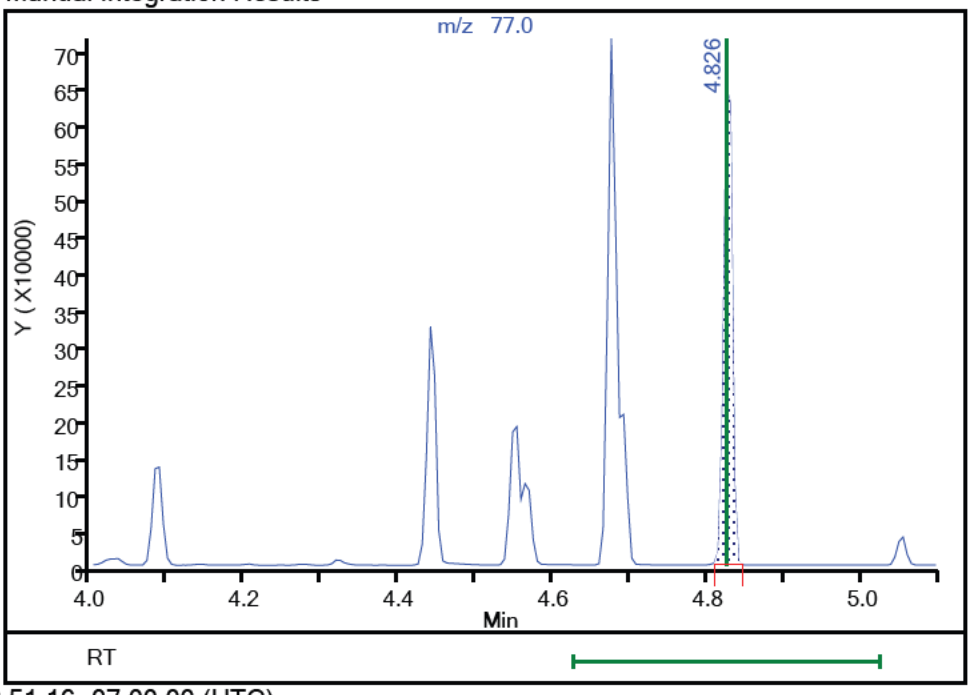
Processing Integration Results

RT: 4.27
Area: 1299
Amount: 0.244438
Amount Units: ug/ml



Manual Integration Results

RT: 4.83
Area: 518094
Amount: 80.003828
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:51:16 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

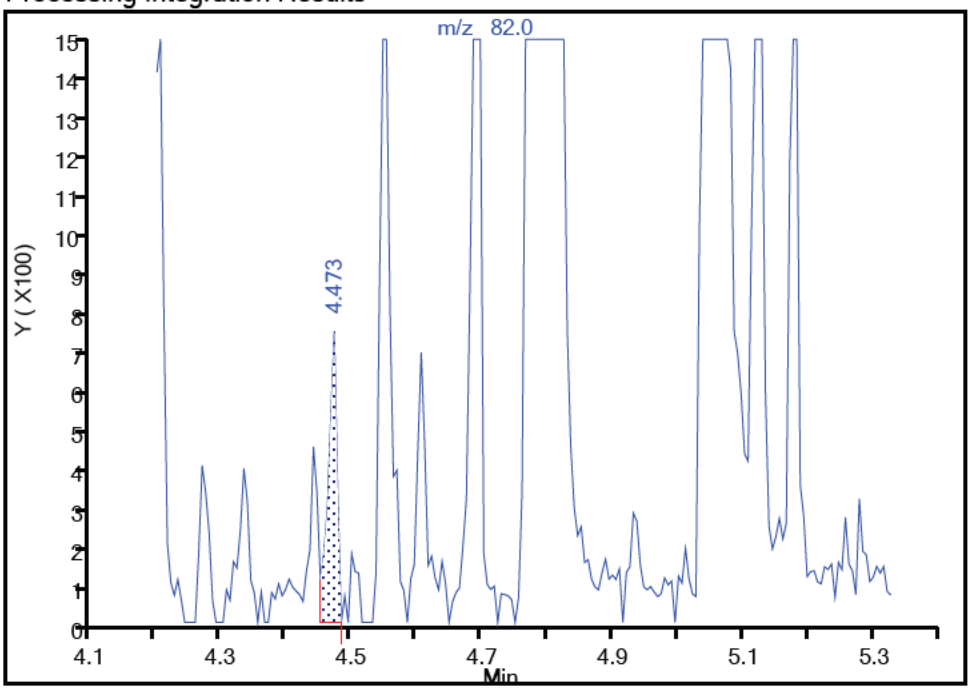
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

55 Isophorone, CAS: 78-59-1

Signal: 1

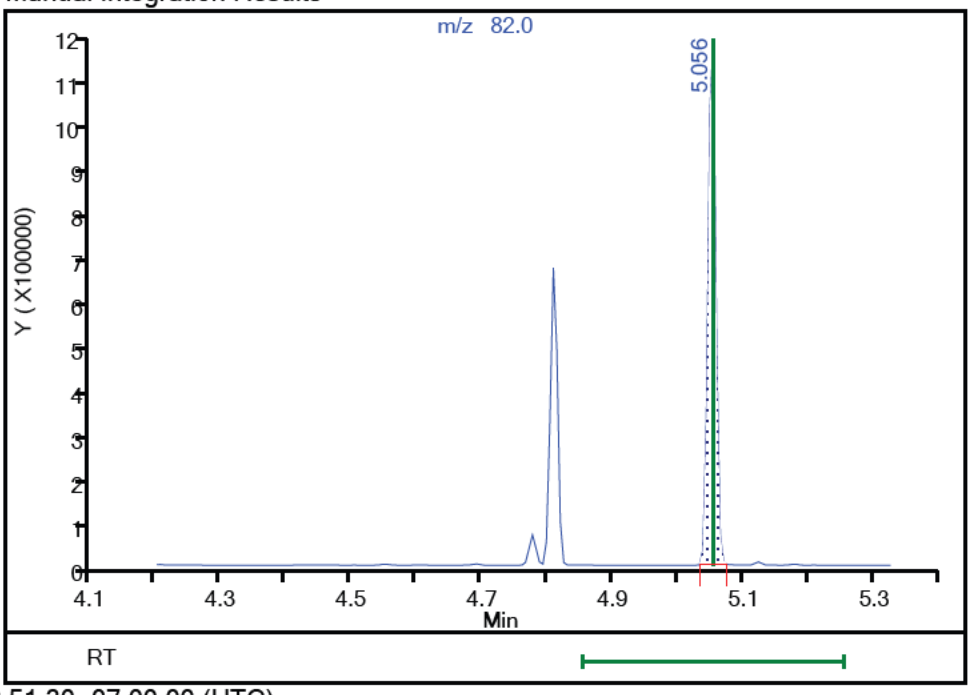
Processing Integration Results

RT: 4.47
Area: 689
Amount: 0.071153
Amount Units: ug/ml



Manual Integration Results

RT: 5.06
Area: 991560
Amount: 78.954260
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:51:30 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

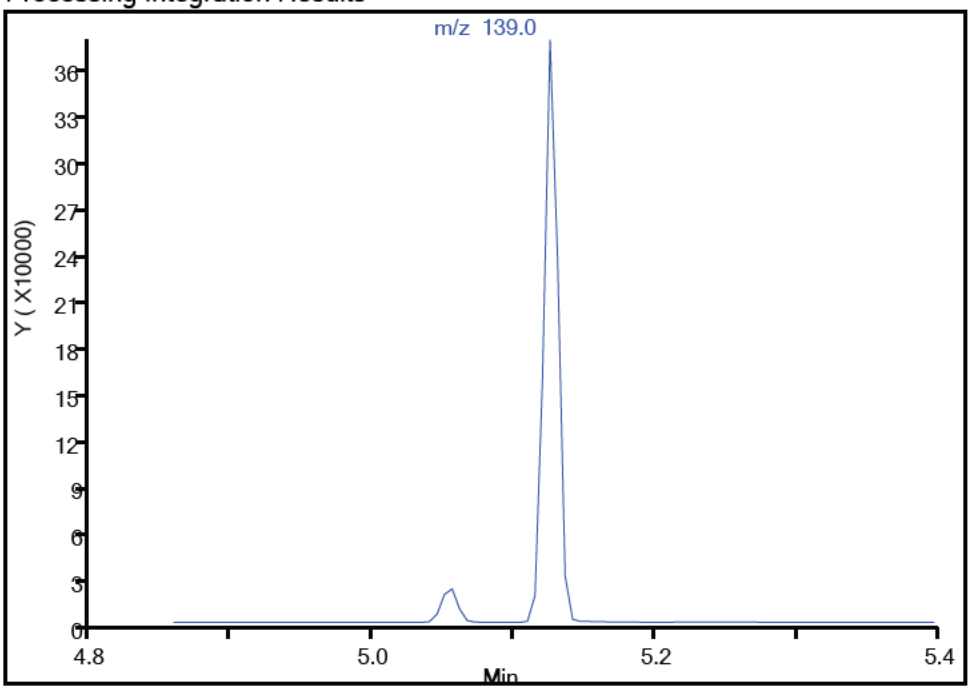
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

56 2-Nitrophenol, CAS: 88-75-5

Signal: 1

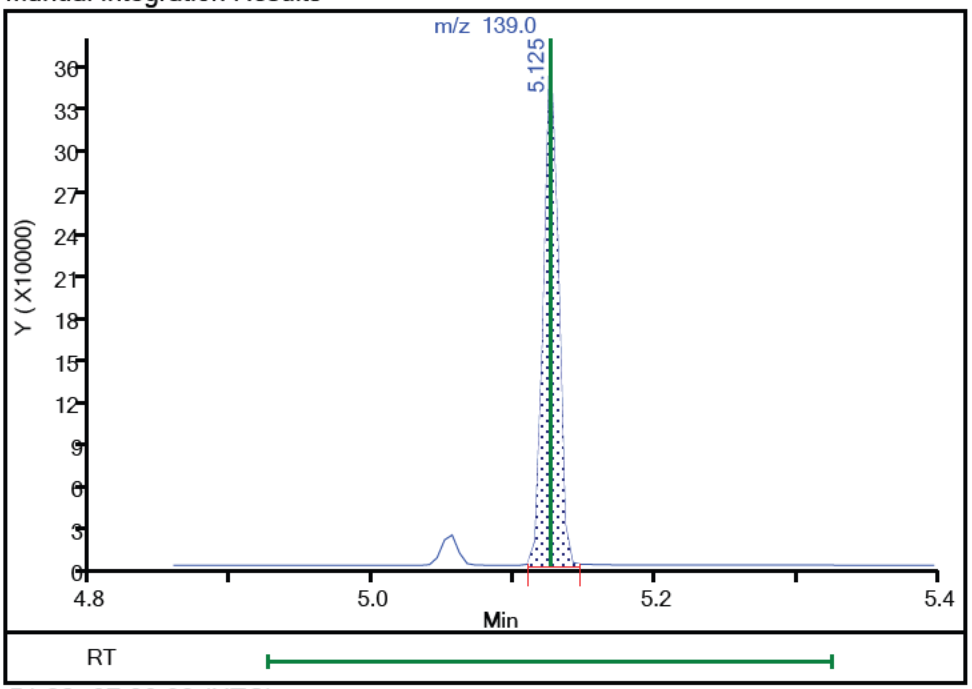
Not Detected
Expected RT: 5.13

Processing Integration Results



Manual Integration Results

RT: 5.13
Area: 264559
Amount: 84.351115
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:51:38 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

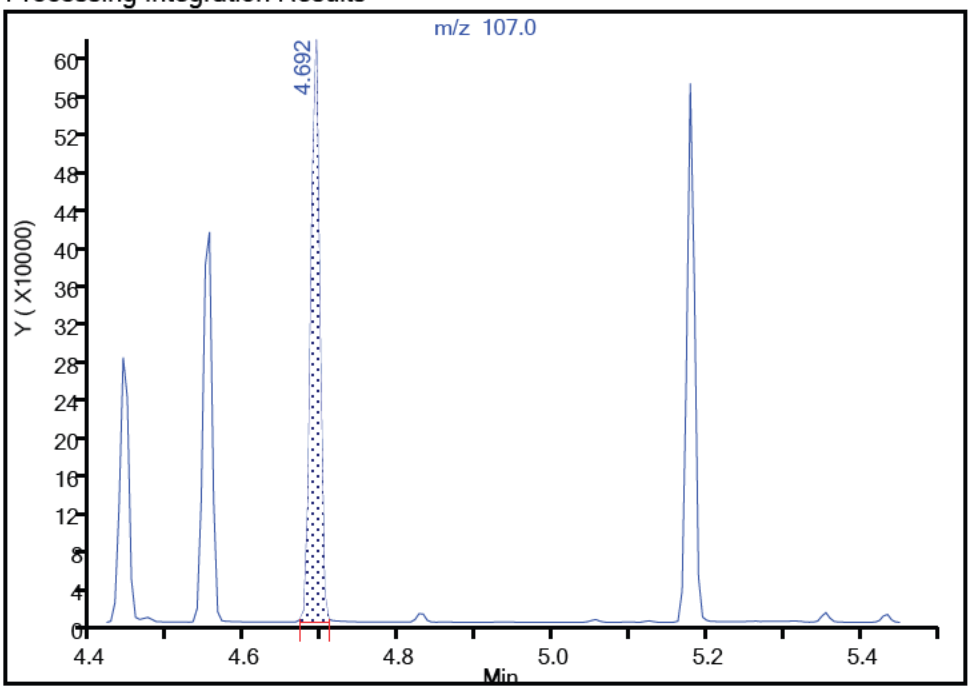
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

58 2,4-Dimethylphenol, CAS: 105-67-9

Signal: 1

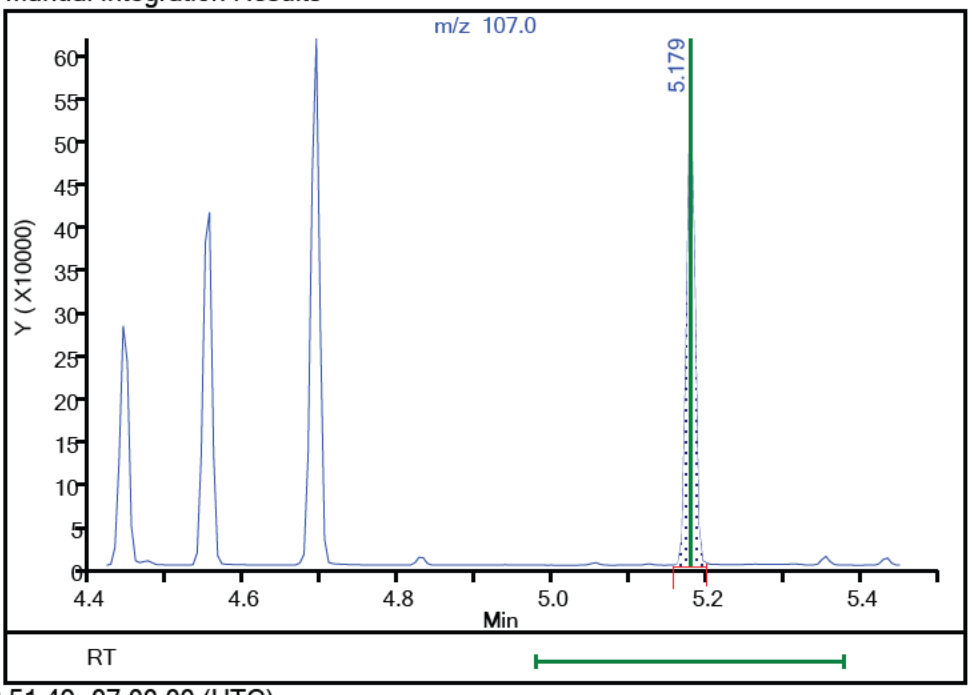
Processing Integration Results

RT: 4.69
Area: 491255
Amount: 112.2961
Amount Units: ug/ml



Manual Integration Results

RT: 5.18
Area: 409787
Amount: 80.045255
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:51:49 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

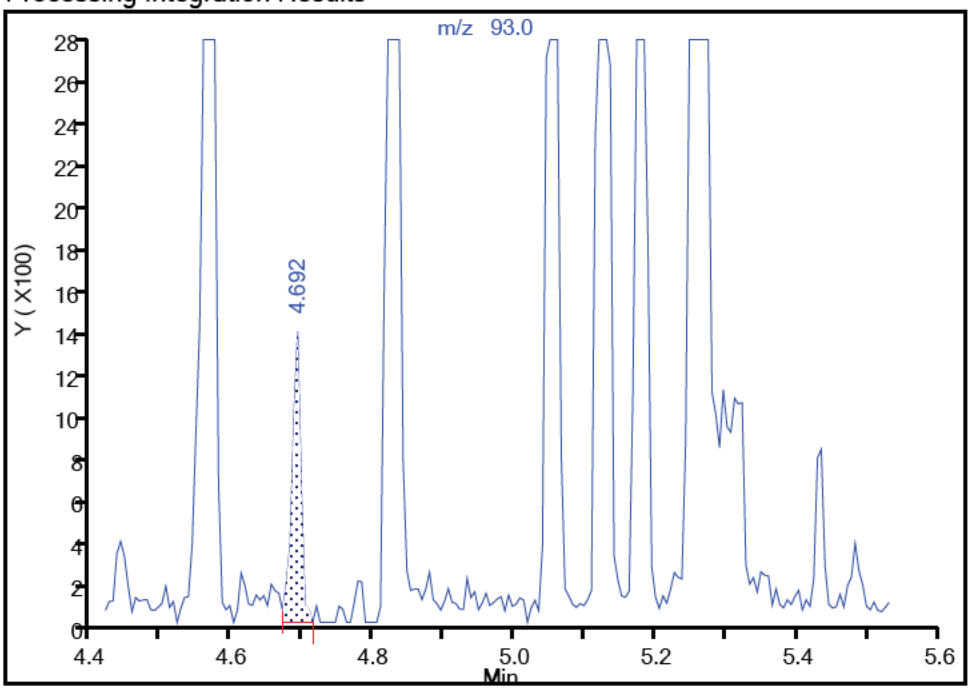
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

60 Bis(2-chloroethoxy)methane, CAS: 111-91-1

Signal: 1

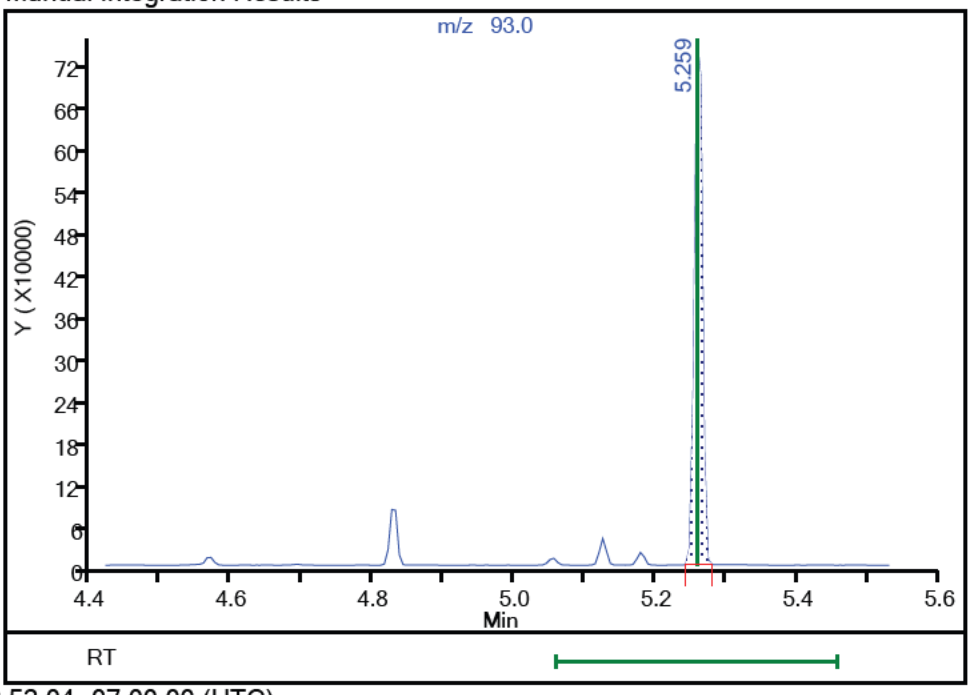
Processing Integration Results

RT: 4.69
Area: 1199
Amount: 0.196898
Amount Units: ug/ml



Manual Integration Results

RT: 5.26
Area: 606155
Amount: 79.851283
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:52:04 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

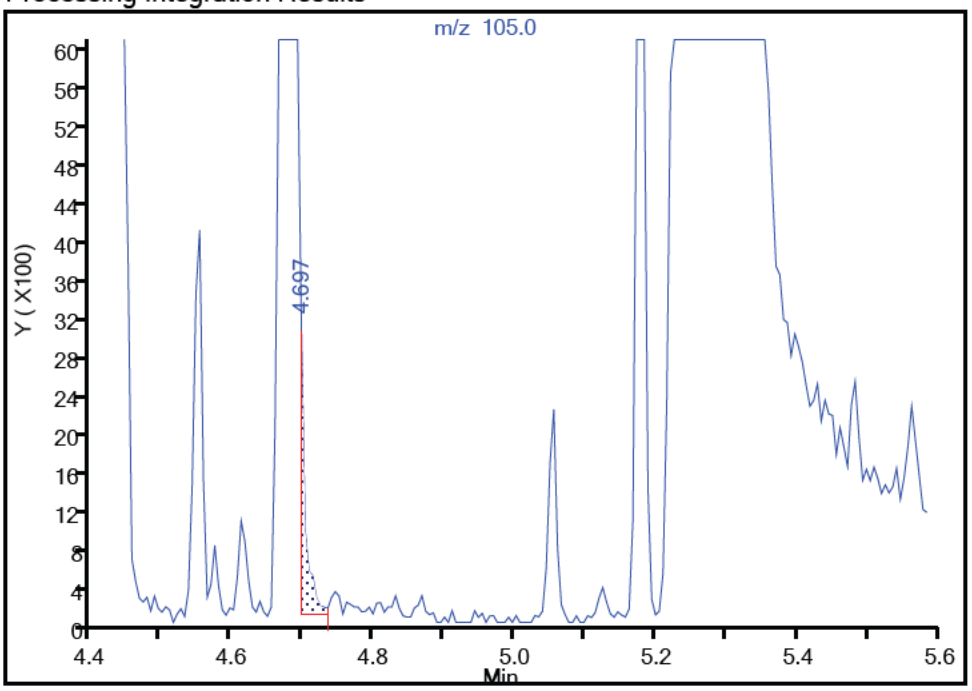
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

63 Benzoic acid, CAS: 65-85-0

Signal: 1

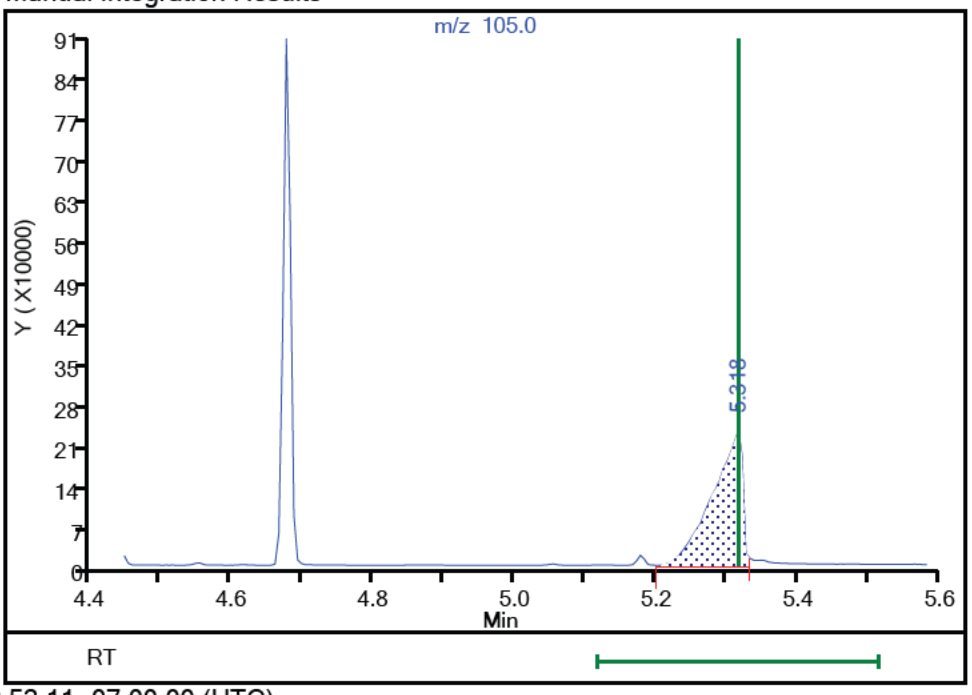
Processing Integration Results

RT: 4.70
Area: 1612
Amount: 3.595565
Amount Units: ug/ml



Manual Integration Results

RT: 5.32
Area: 676822
Amount: 162.9629
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:52:11 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

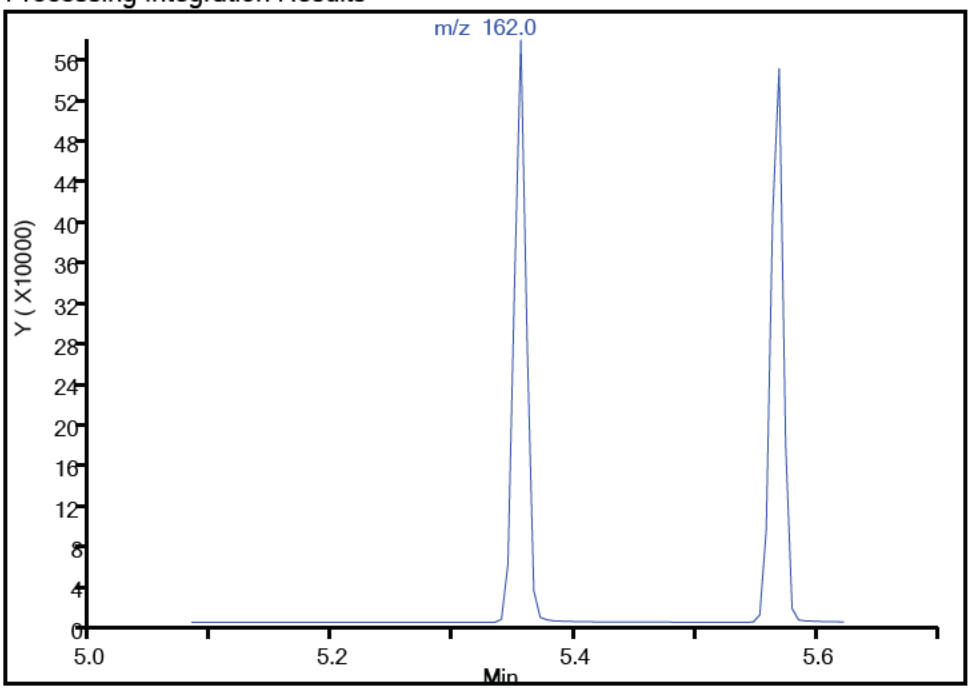
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

62 2,4-Dichlorophenol, CAS: 120-83-2

Signal: 1

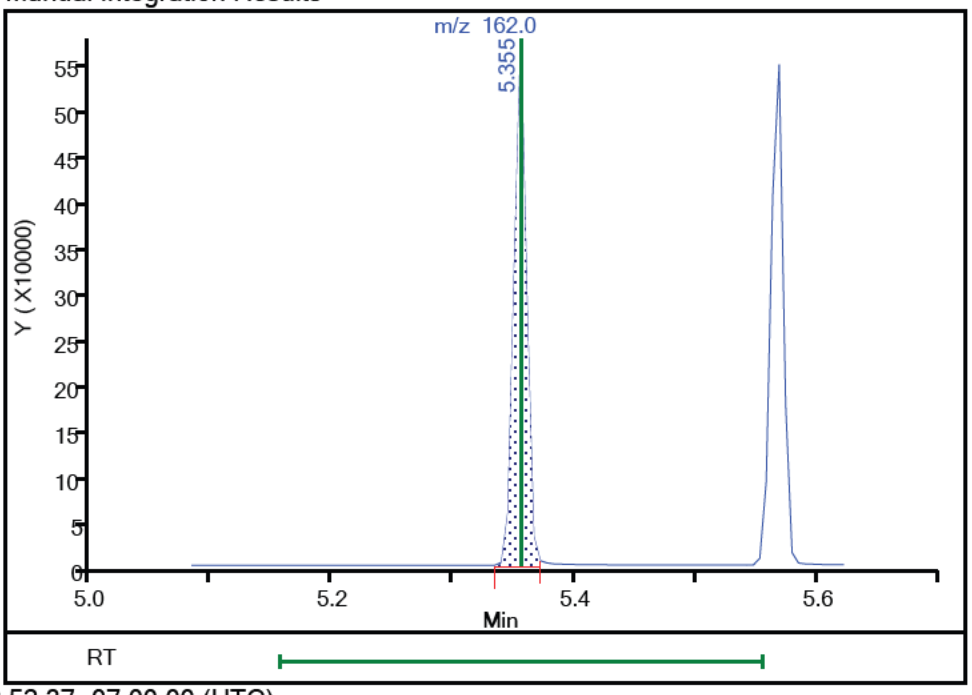
Not Detected
Expected RT: 5.36

Processing Integration Results



RT: 5.36
Area: 409532
Amount: 81.665060
Amount Units: ug/ml

Manual Integration Results



Reviewer: HPV7, 04-Mar-2024 12:52:37 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

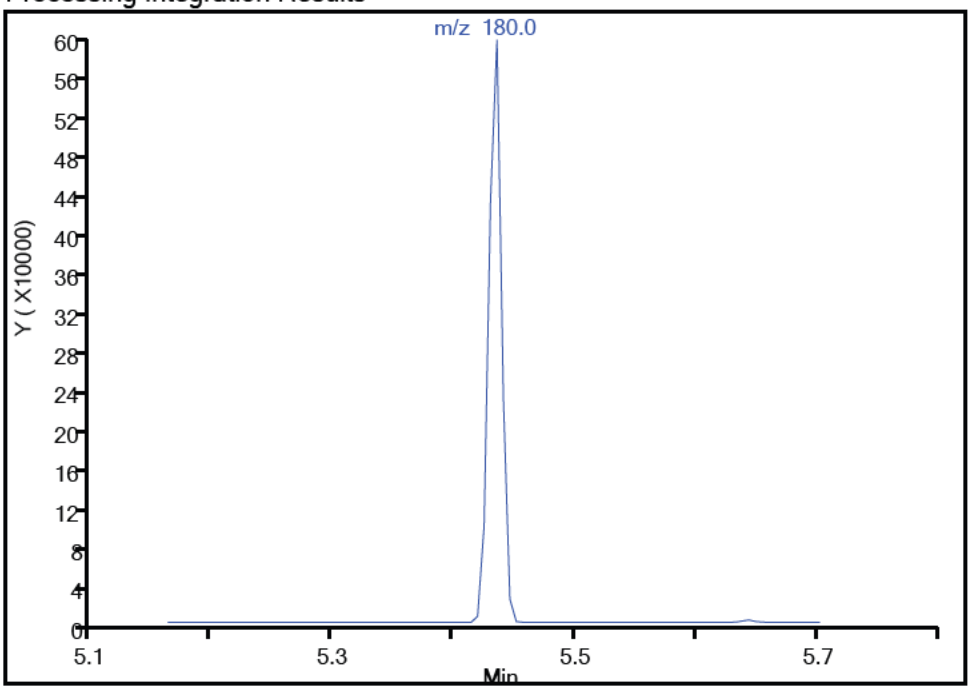
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

66 1,2,4-Trichlorobenzene, CAS: 120-82-1

Signal: 1

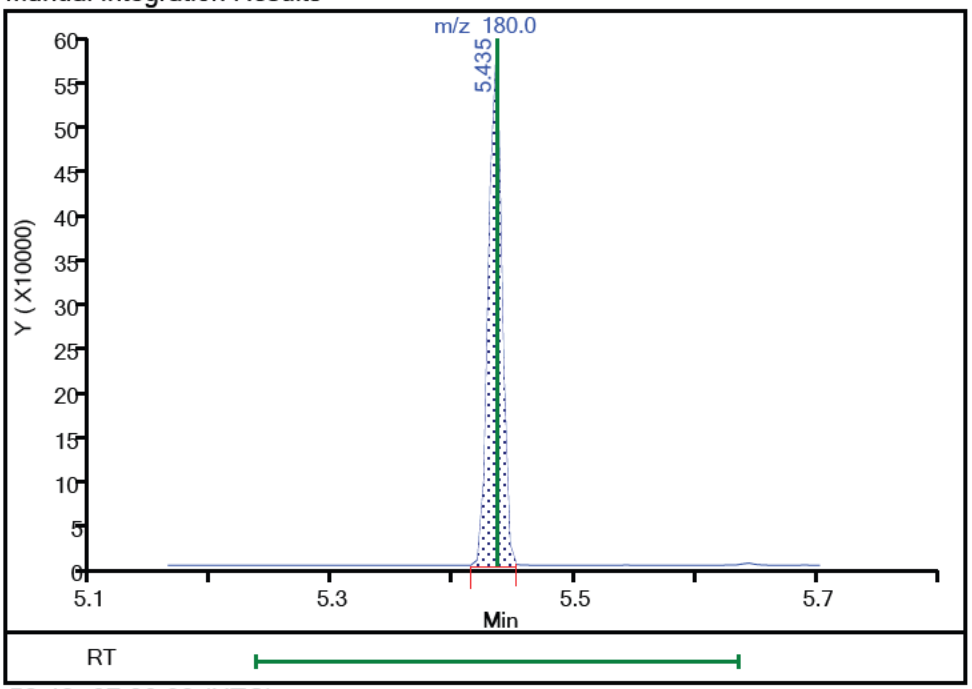
Not Detected
Expected RT: 5.44

Processing Integration Results



Manual Integration Results

RT: 5.44
Area: 440916
Amount: 80.612355
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:52:49 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

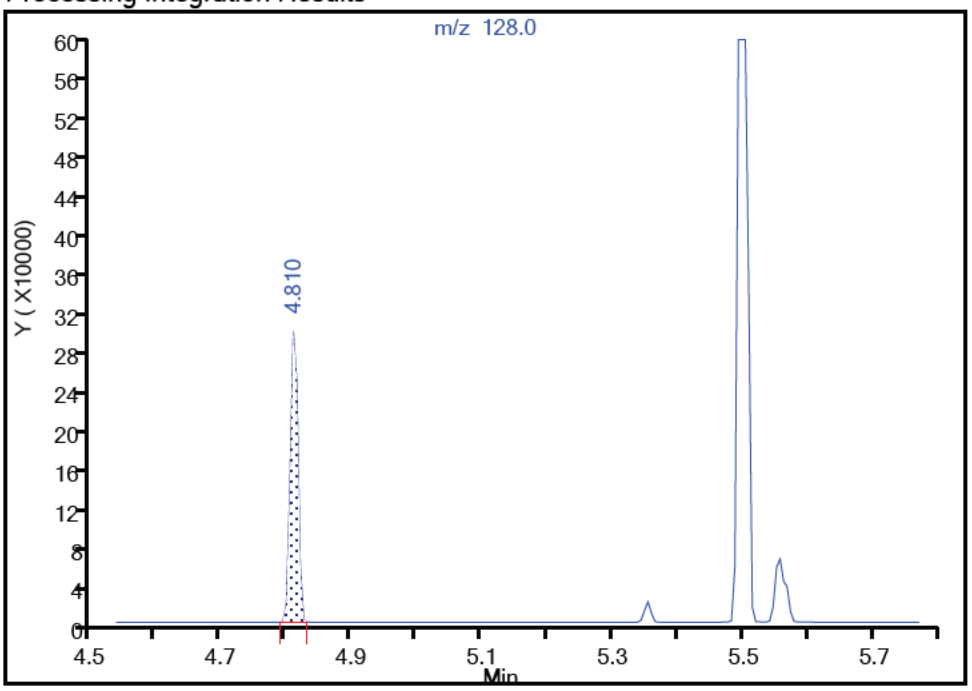
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

67 Naphthalene, CAS: 91-20-3

Signal: 1

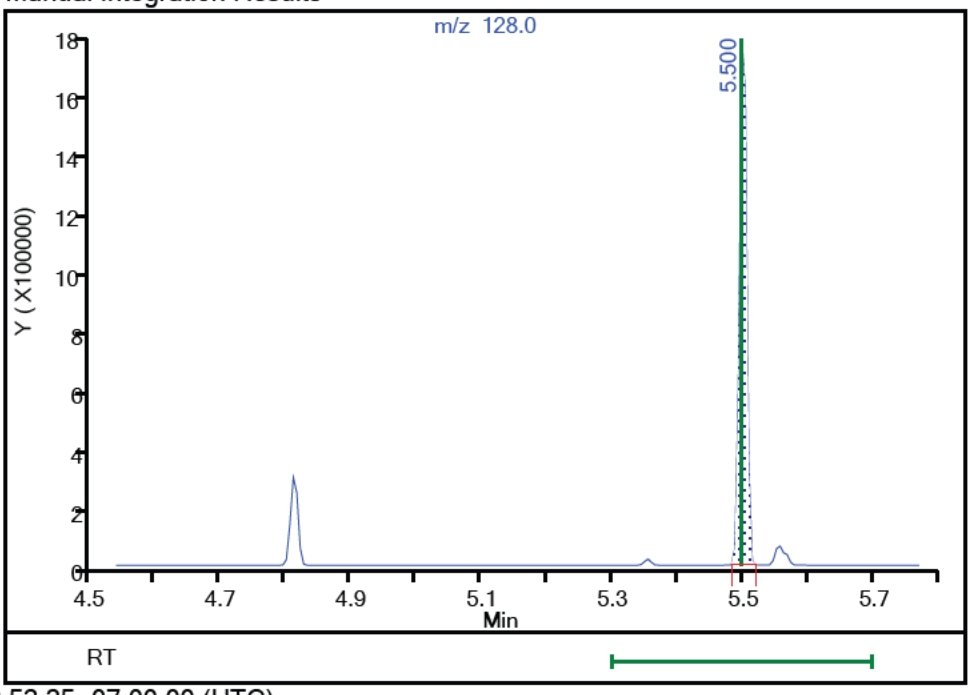
Processing Integration Results

RT: 4.81
Area: 243662
Amount: 16.087440
Amount Units: ug/ml



Manual Integration Results

RT: 5.50
Area: 1409405
Amount: 80.963682
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:52:25 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

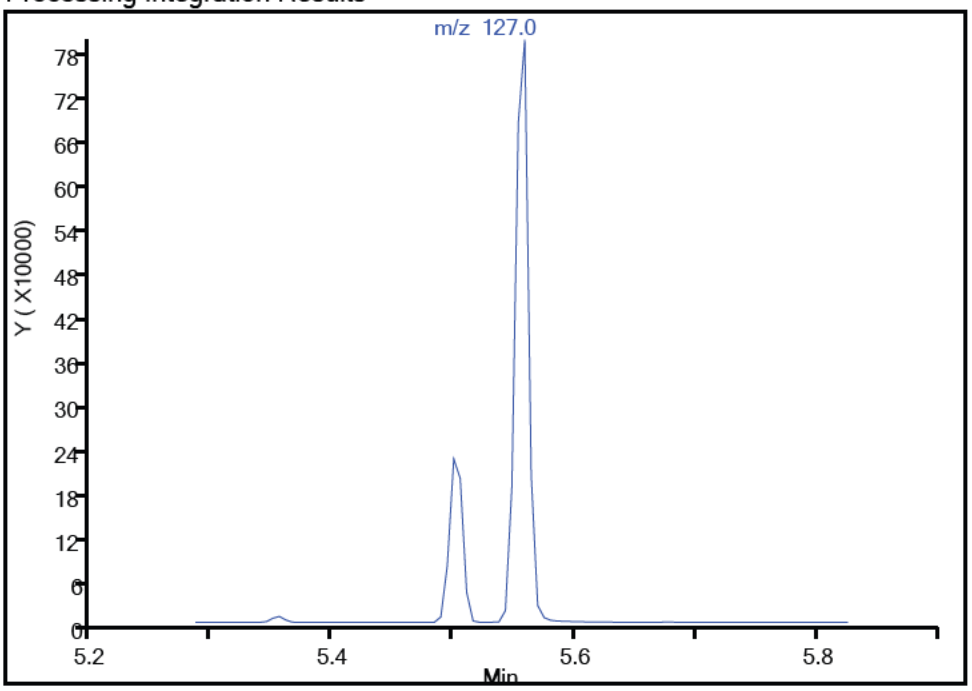
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

69 4-Chloroaniline, CAS: 106-47-8

Signal: 1

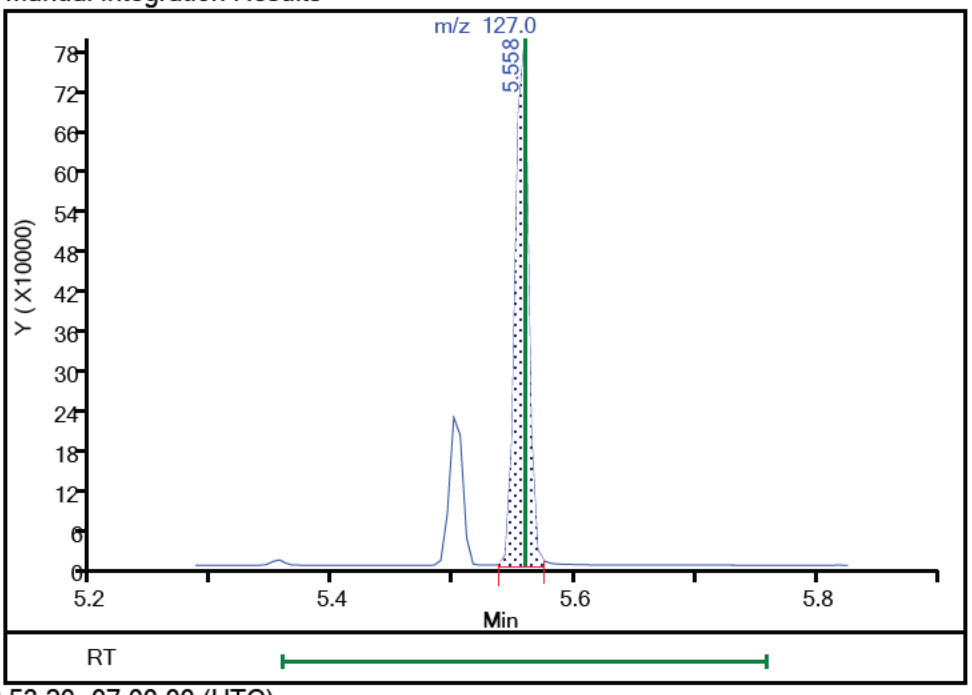
Not Detected
Expected RT: 5.56

Processing Integration Results



Manual Integration Results

RT: 5.56
Area: 614002
Amount: 80.993937
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:53:20 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

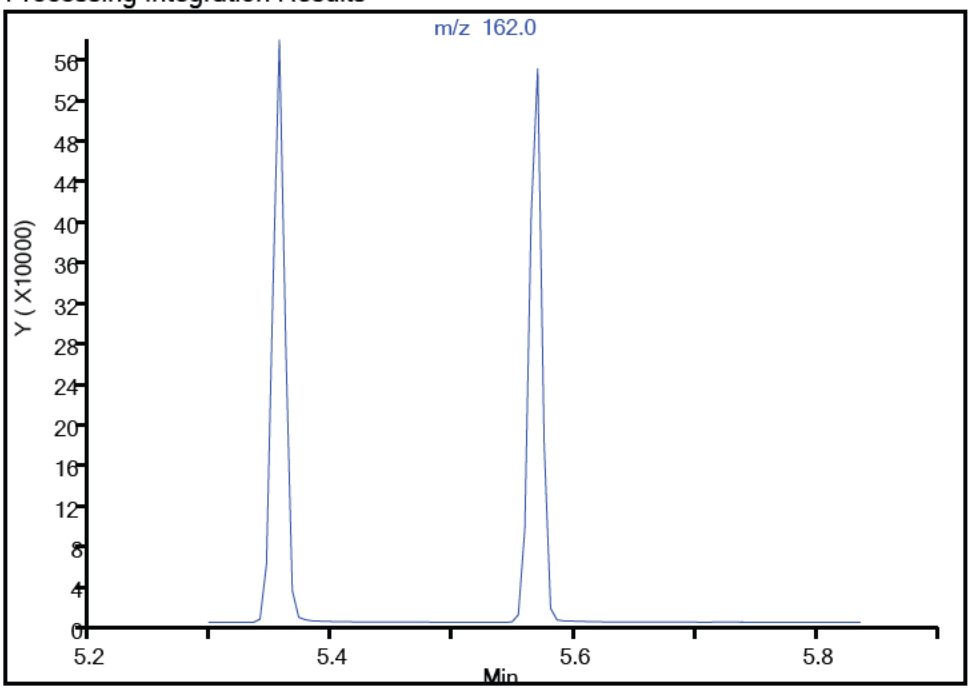
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

68 2,6-Dichlorophenol, CAS: 87-65-0

Signal: 1

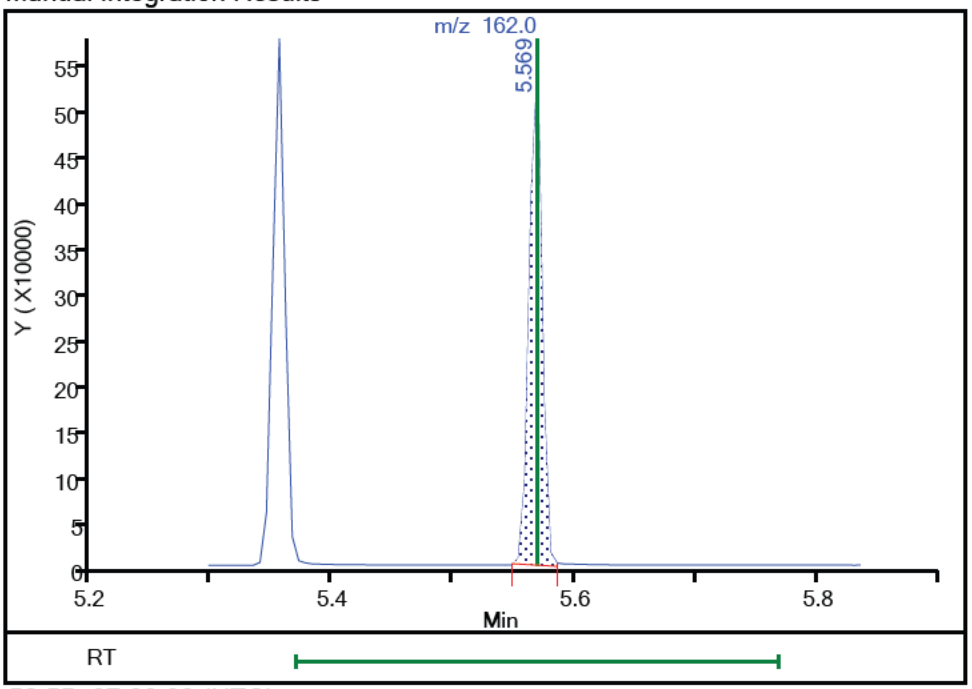
Not Detected
Expected RT: 5.57

Processing Integration Results



Manual Integration Results

RT: 5.57
Area: 399983
Amount: 81.541164
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:52:55 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

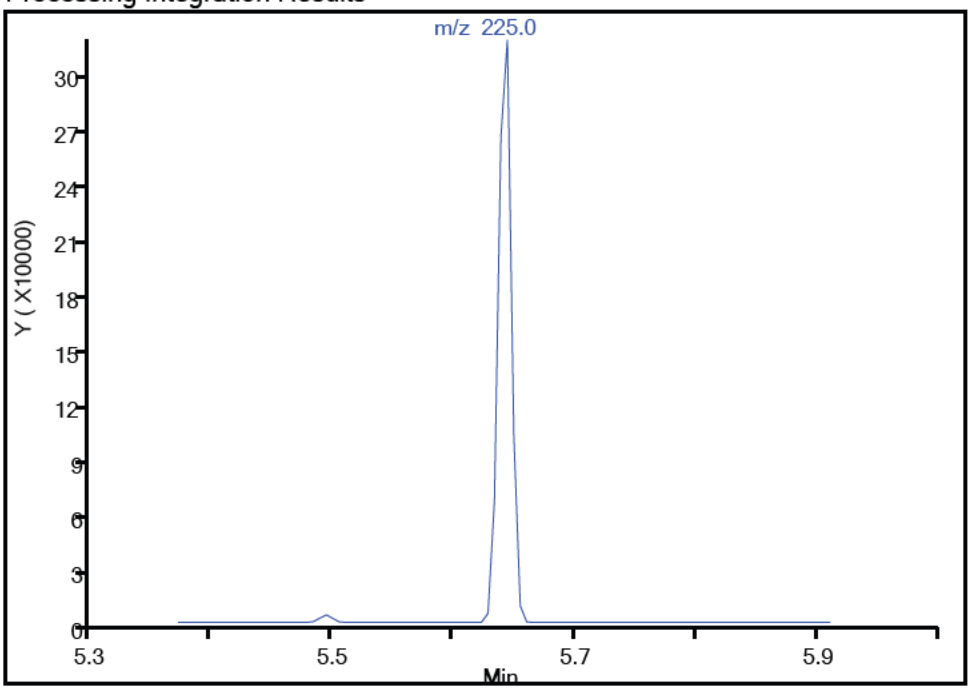
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

71 Hexachlorobutadiene, CAS: 87-68-3

Signal: 1

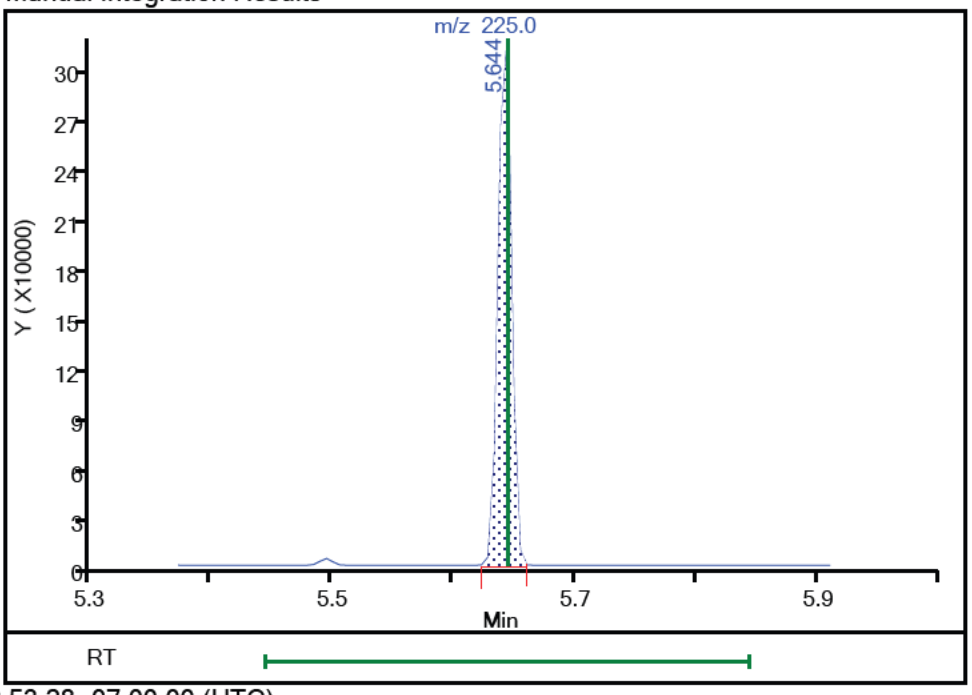
Not Detected
Expected RT: 5.64

Processing Integration Results



Manual Integration Results

RT: 5.64
Area: 239734
Amount: 81.707528
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:53:28 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Eurofins Denver

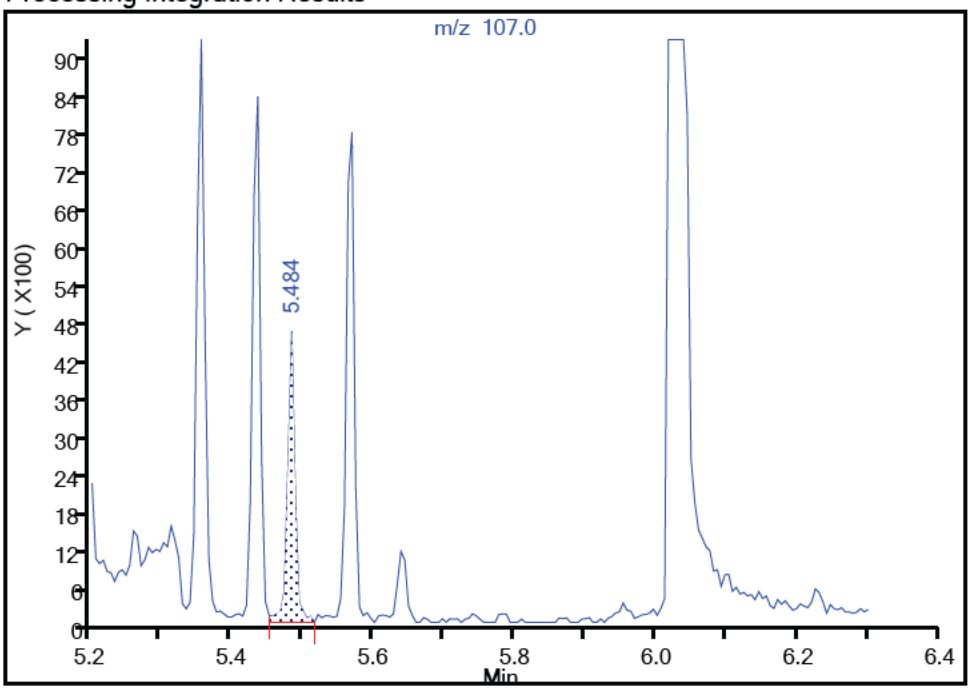
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

77 4-Chloro-3-methylphenol, CAS: 59-50-7

Signal: 1

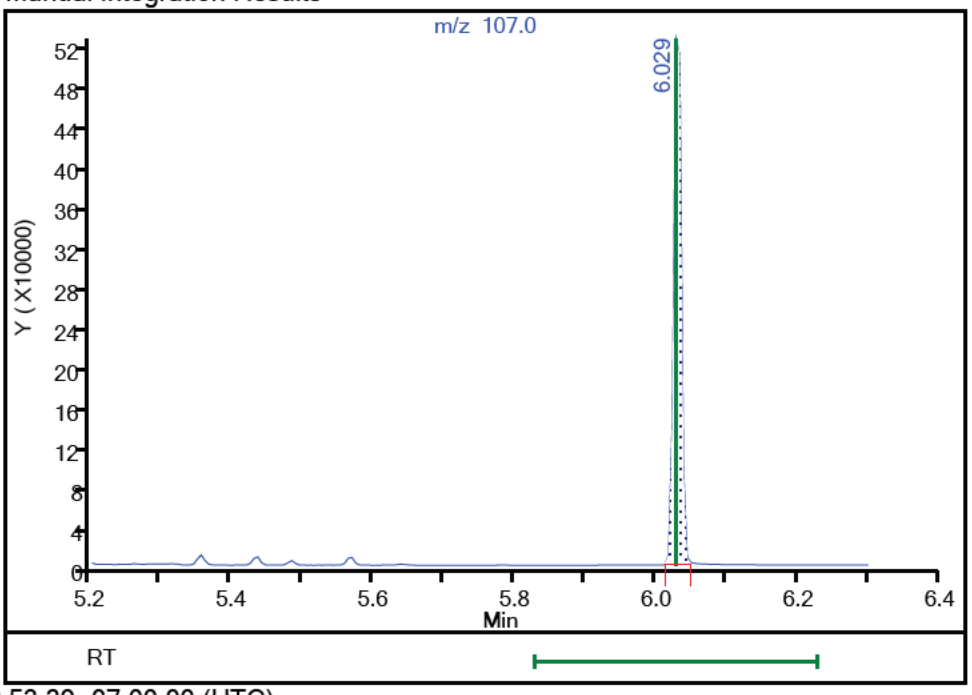
Processing Integration Results

RT: 5.48
Area: 3447
Amount: 0.805895
Amount Units: ug/ml



Manual Integration Results

RT: 6.03
Area: 416939
Amount: 81.117570
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:53:39 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

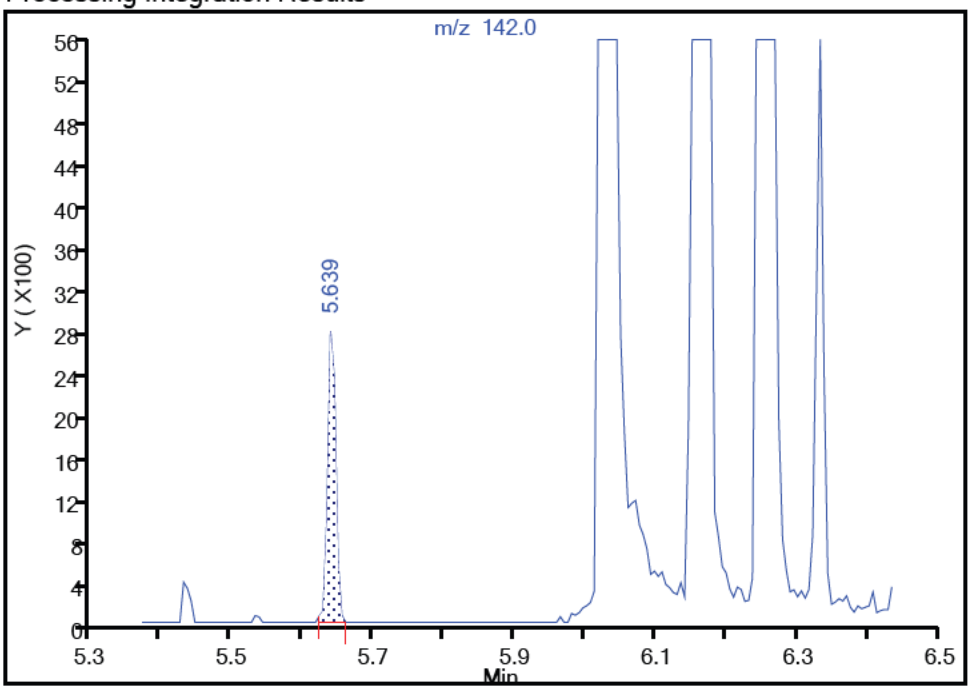
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

80 2-Methylnaphthalene, CAS: 91-57-6

Signal: 1

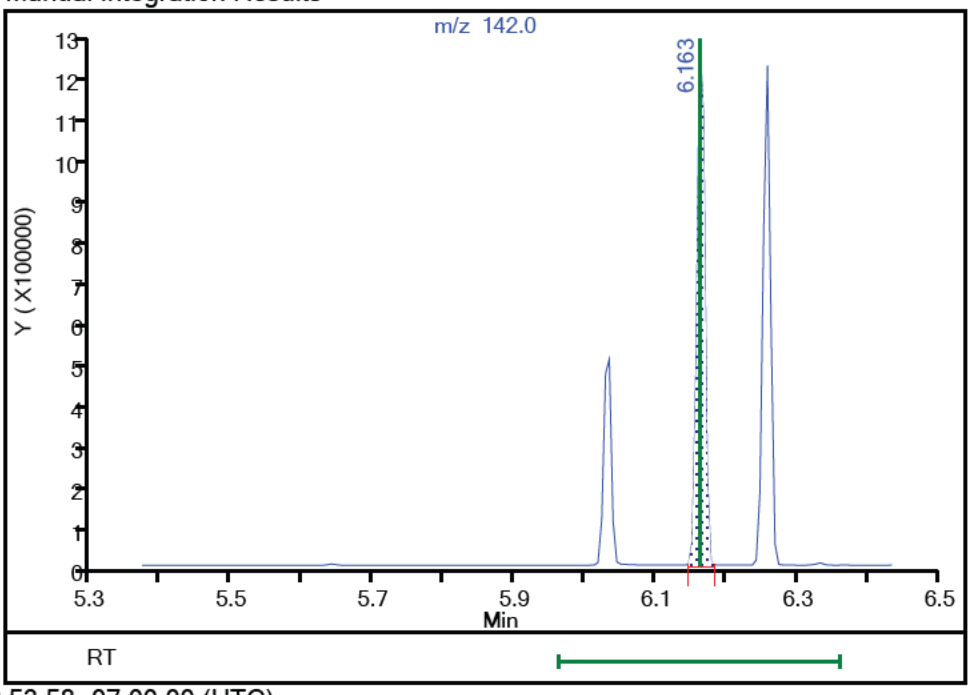
Processing Integration Results

RT: 5.64
Area: 2230
Amount: 0.229664
Amount Units: ug/ml



Manual Integration Results

RT: 6.16
Area: 980661
Amount: 81.995823
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:53:58 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

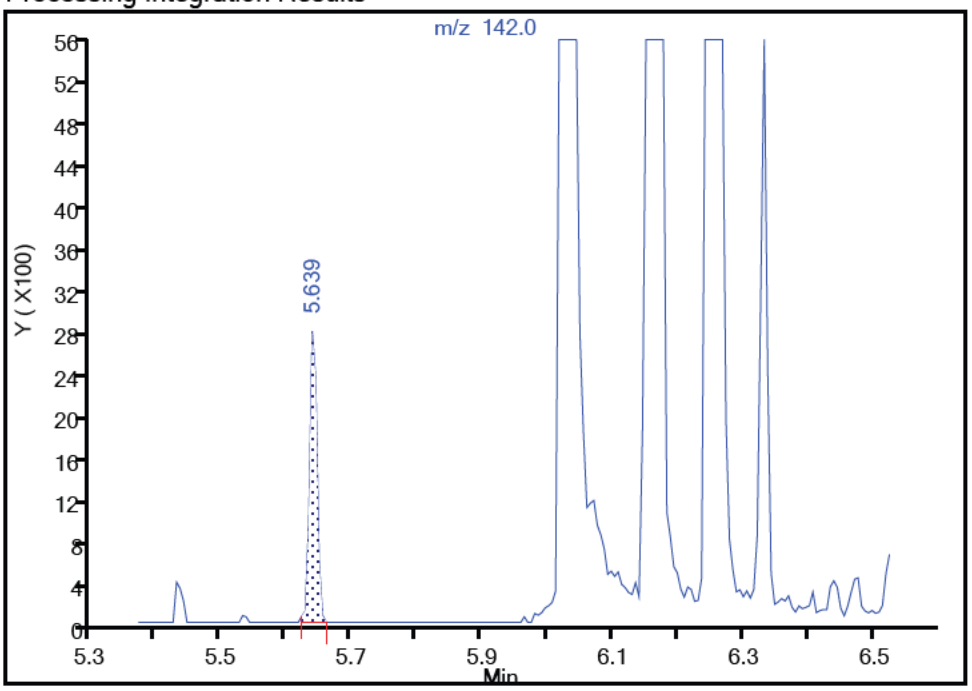
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

81 1-Methylnaphthalene, CAS: 90-12-0

Signal: 1

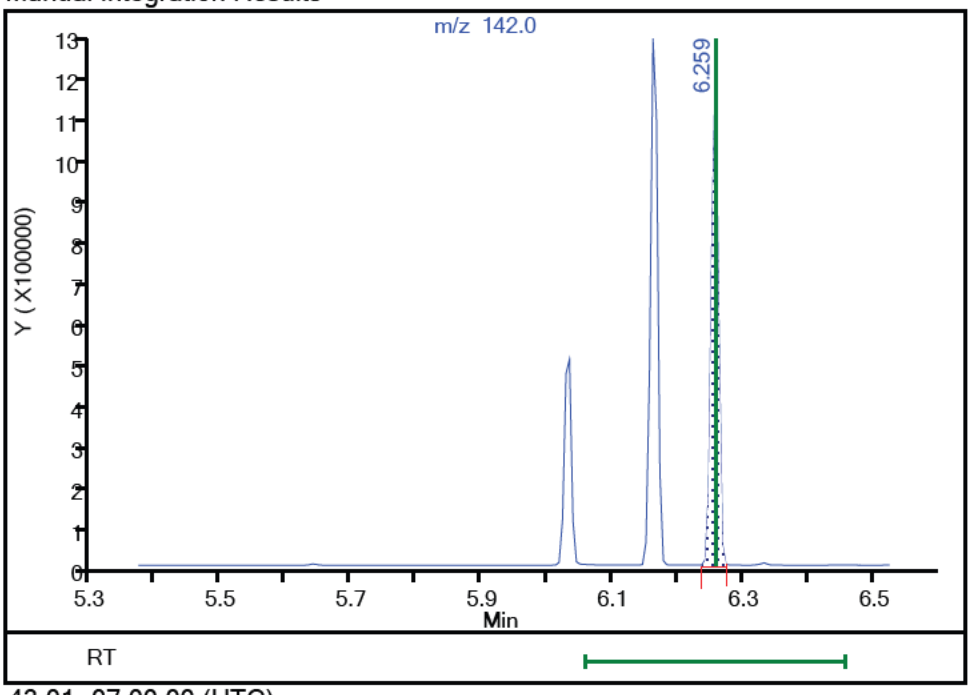
Processing Integration Results

RT: 5.64
Area: 2230
Amount: 0.248229
Amount Units: ug/ml



Manual Integration Results

RT: 6.26
Area: 886859
Amount: 81.358373
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:43:01 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Eurofins Denver

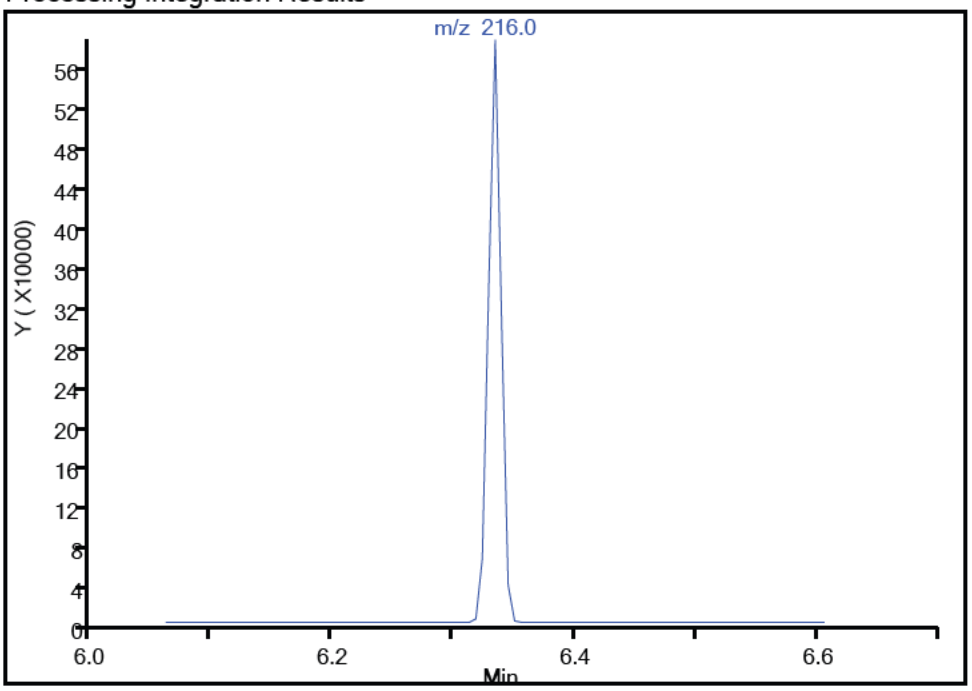
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

84 1,2,4,5-Tetrachlorobenzene, CAS: 95-94-3

Signal: 1

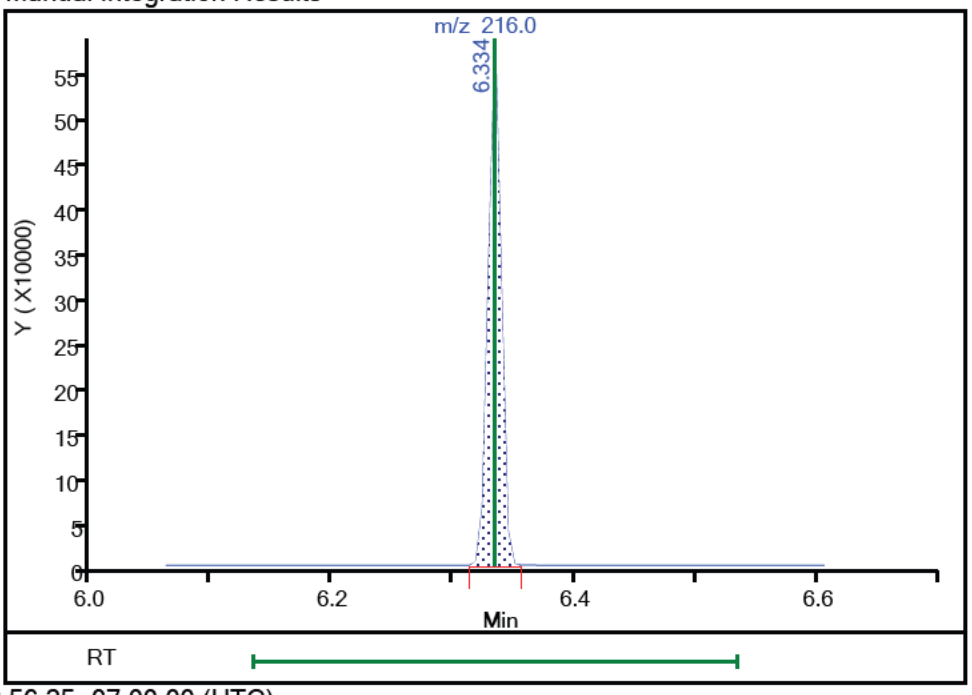
Not Detected
Expected RT: 6.33

Processing Integration Results



RT: 6.33
Area: 425421
Amount: 81.724144
Amount Units: ug/ml

Manual Integration Results



Reviewer: HPV7, 04-Mar-2024 12:56:25 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

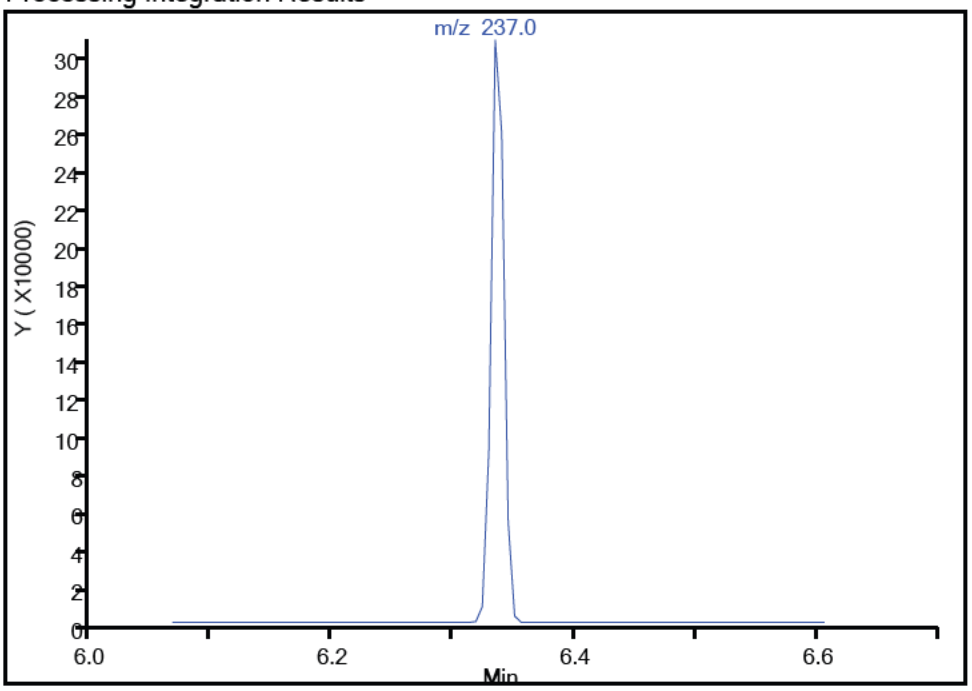
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

83 Hexachlorocyclopentadiene, CAS: 77-47-4

Signal: 1

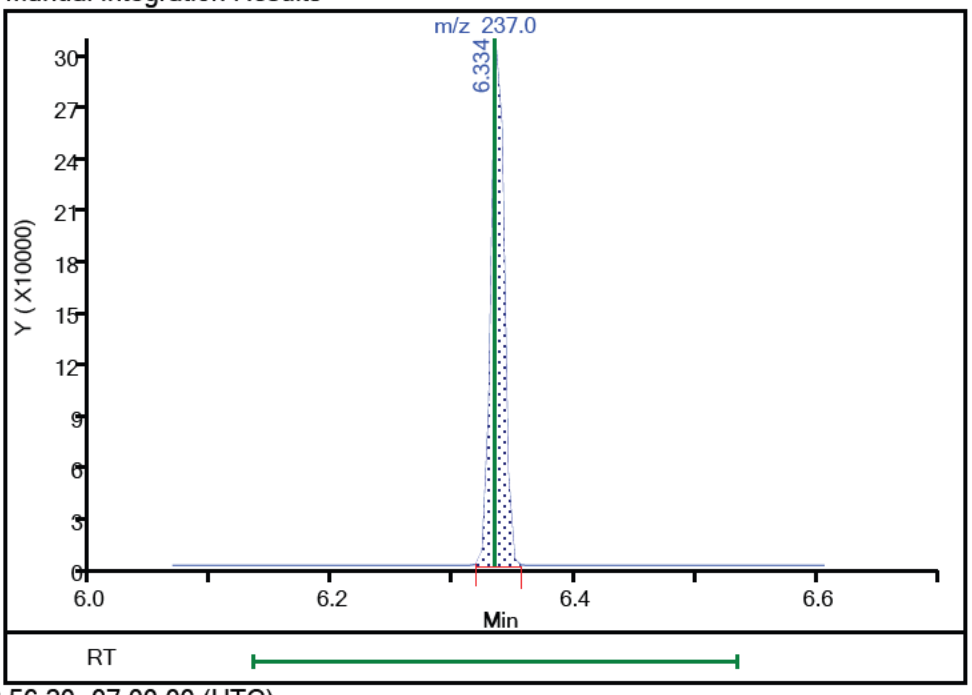
Not Detected
Expected RT: 6.33

Processing Integration Results



Manual Integration Results

RT: 6.33
Area: 226191
Amount: 87.359787
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:56:20 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

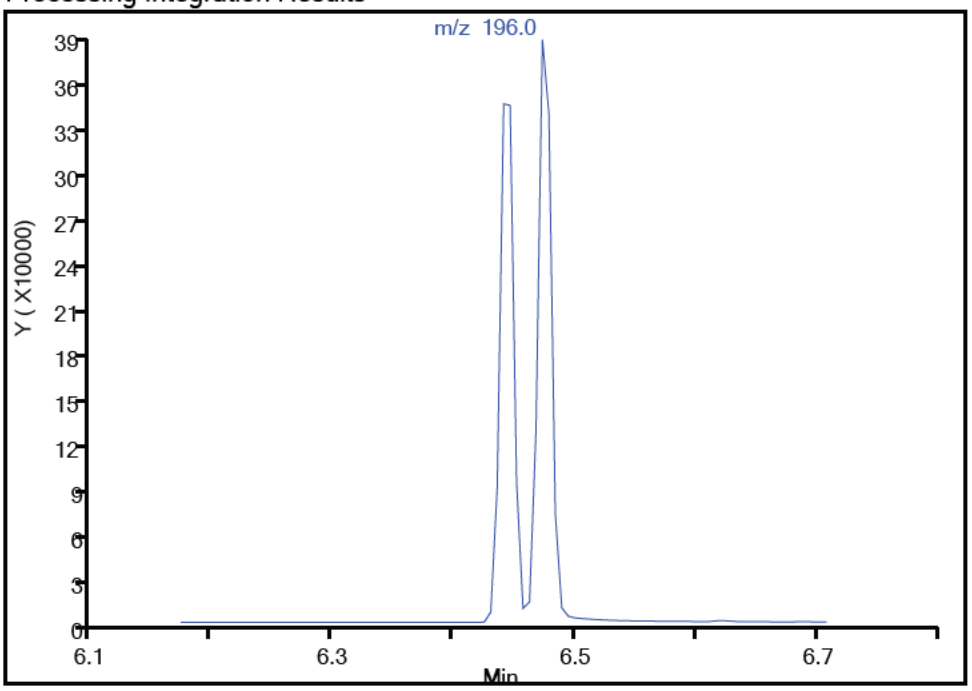
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

87 2,4,6-Trichlorophenol, CAS: 88-06-2

Signal: 1

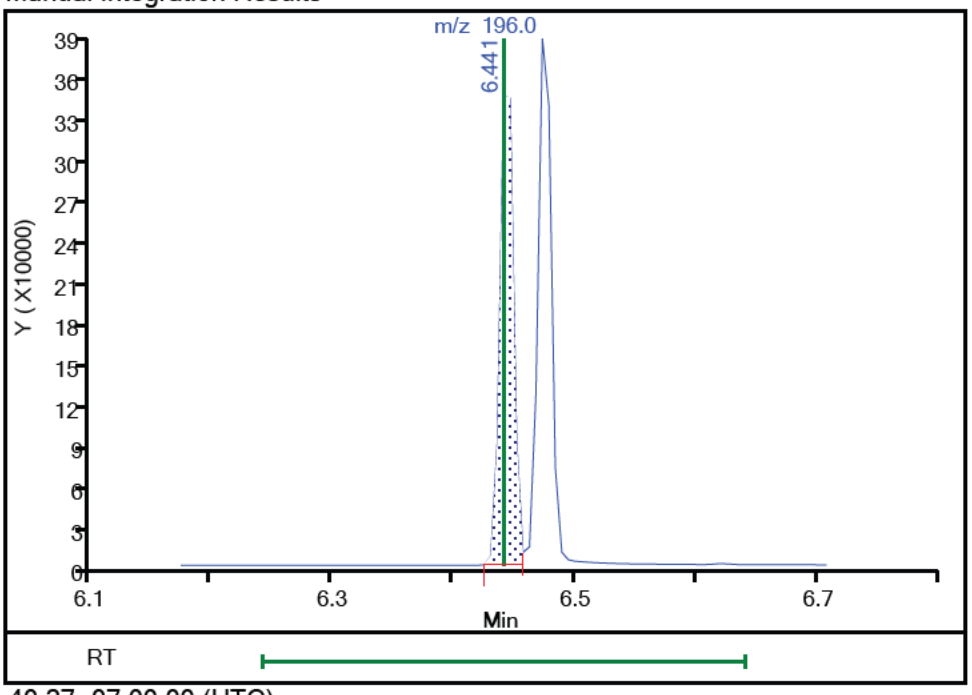
Not Detected
Expected RT: 6.44

Processing Integration Results



Manual Integration Results

RT: 6.44
Area: 282881
Amount: 83.854318
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:40:27 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Eurofins Denver

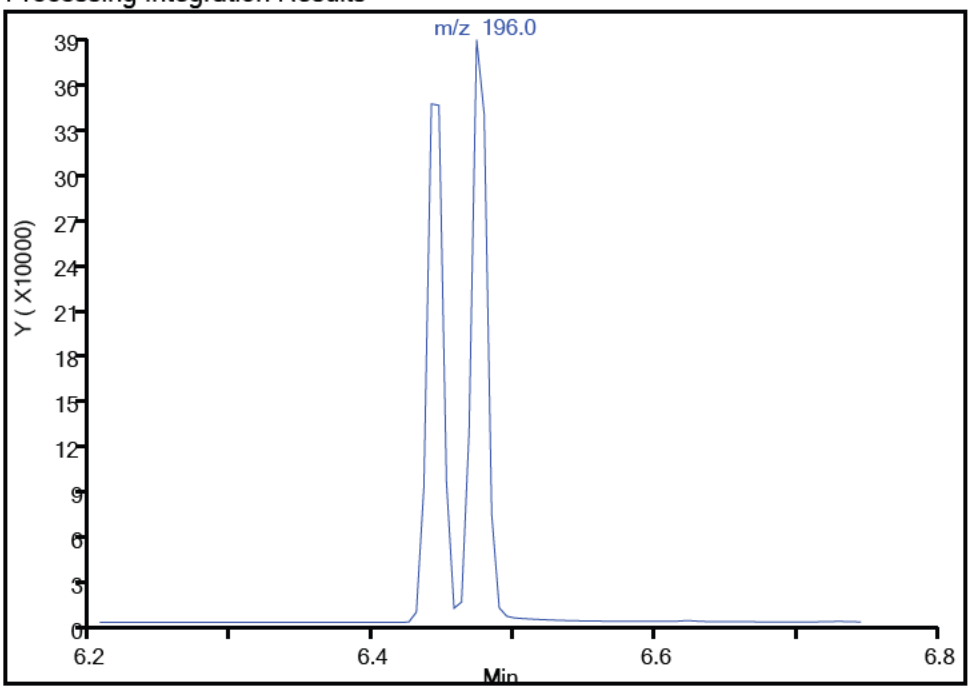
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

88 2,4,5-Trichlorophenol, CAS: 95-95-4

Signal: 1

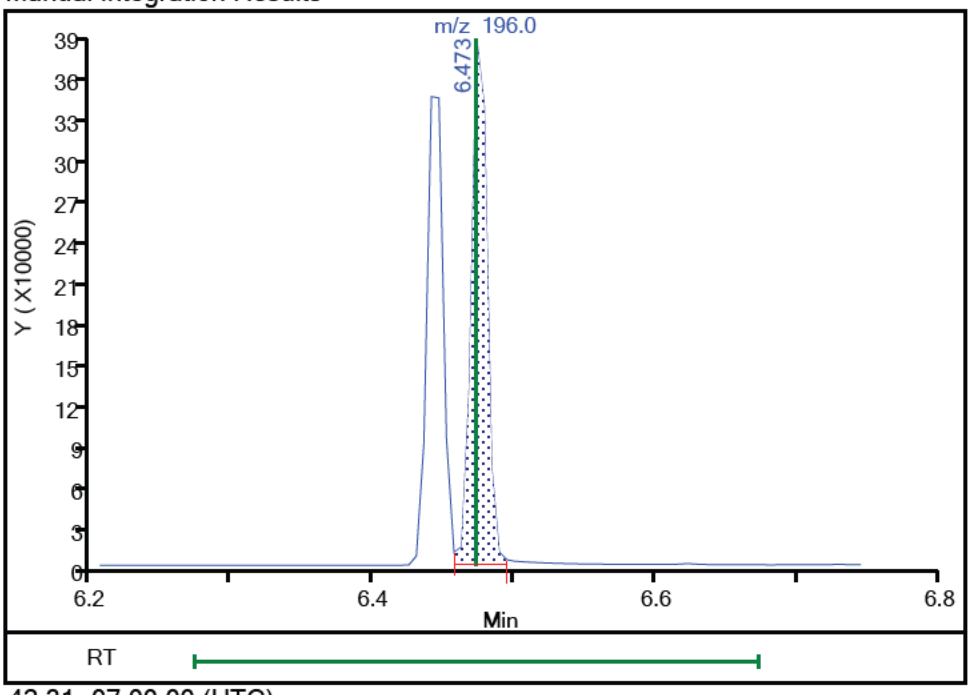
Not Detected
Expected RT: 6.47

Processing Integration Results



Manual Integration Results

RT: 6.47
Area: 306434
Amount: 83.887691
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:42:31 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

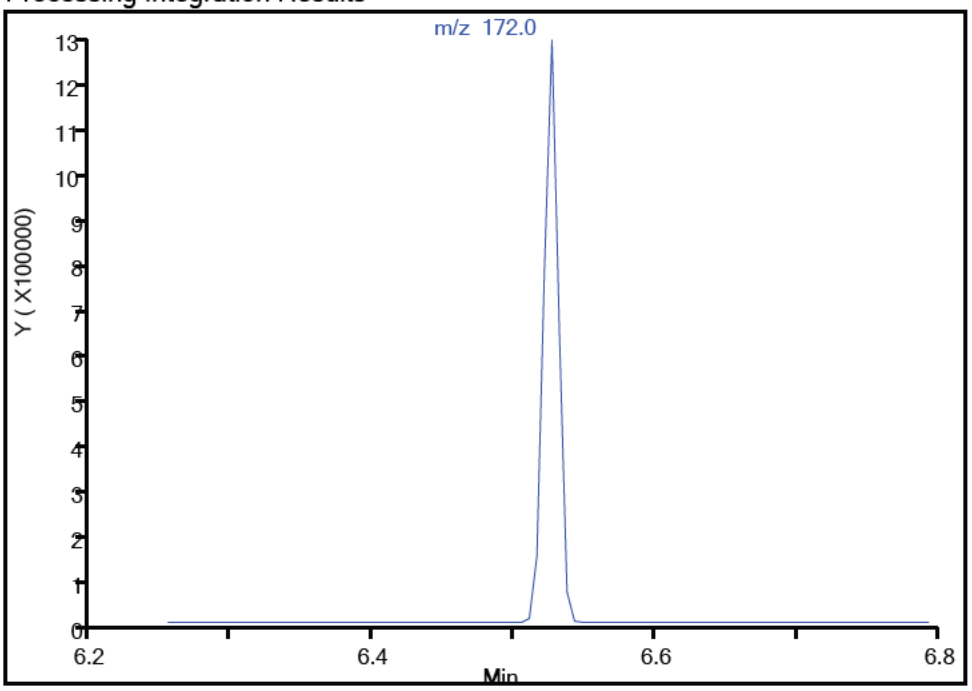
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

$ 11 2-Fluorobiphenyl, CAS: 321-60-8

Signal: 1

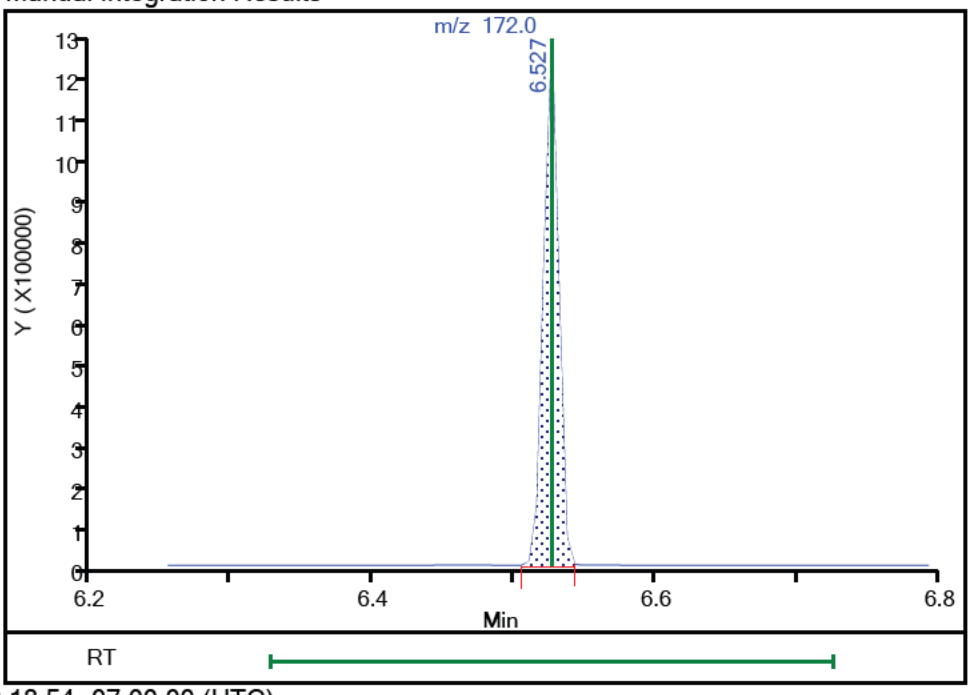
Not Detected
Expected RT: 6.53

Processing Integration Results



RT: 6.53
Area: 946640
Amount: 80.883307
Amount Units: ug/ml

Manual Integration Results



Reviewer: HPV7, 04-Mar-2024 12:18:54 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

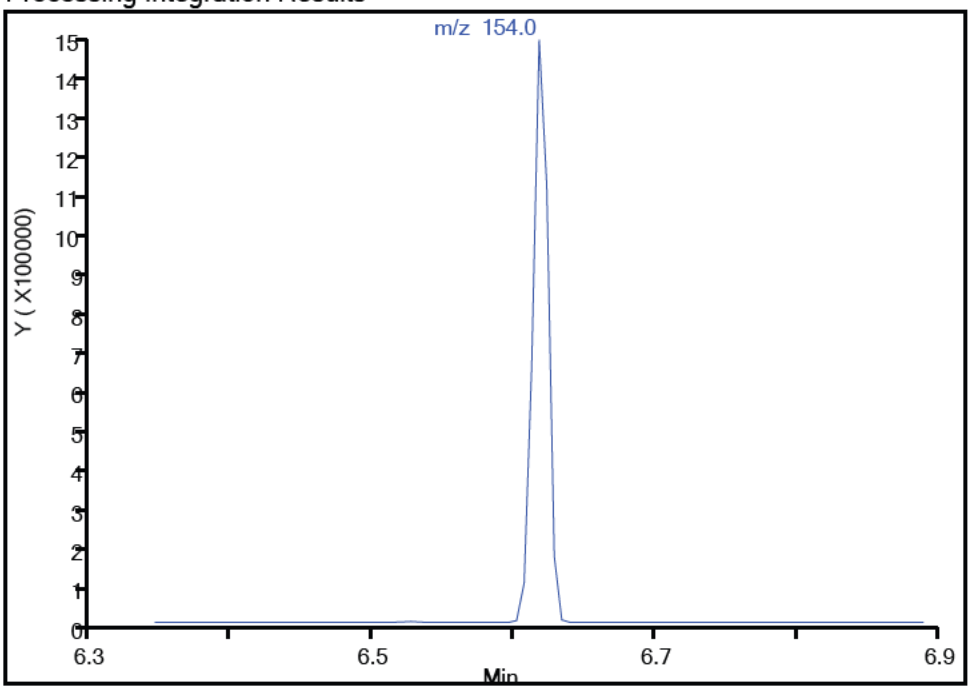
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

90 1,1'-Biphenyl, CAS: 92-52-4

Signal: 1

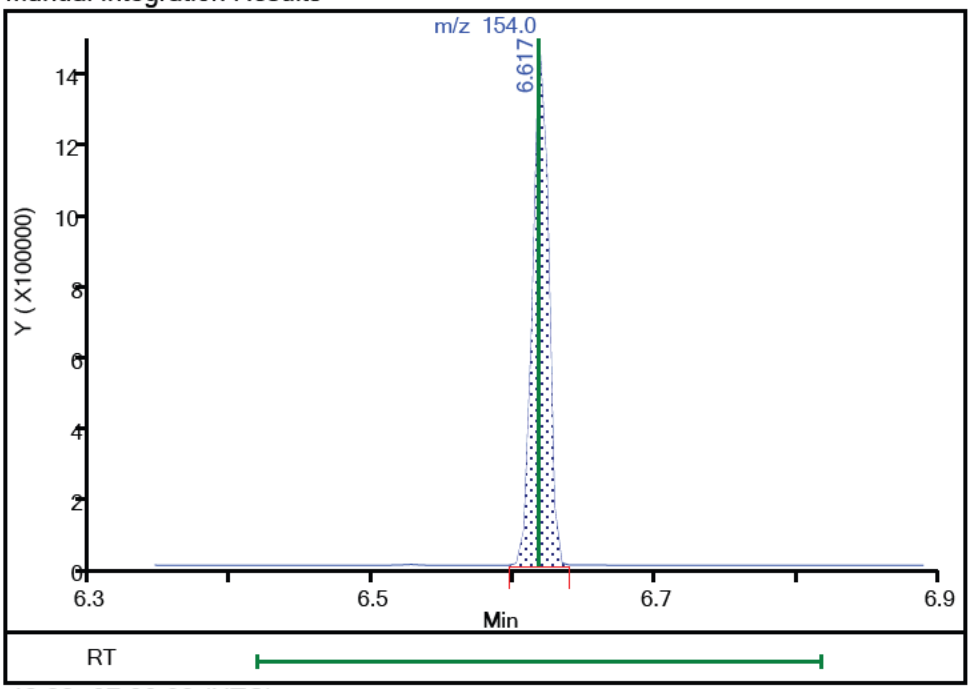
Not Detected
Expected RT: 6.62

Processing Integration Results



Manual Integration Results

RT: 6.62
Area: 1113584
Amount: 81.416553
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:42:39 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Eurofins Denver

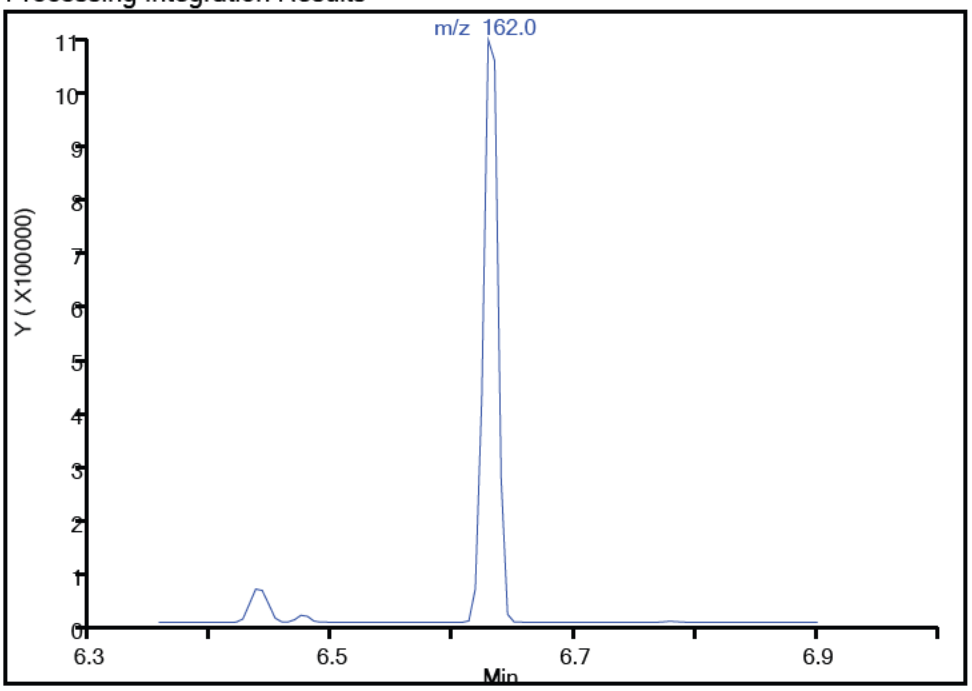
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

91 2-Chloronaphthalene, CAS: 91-58-7

Signal: 1

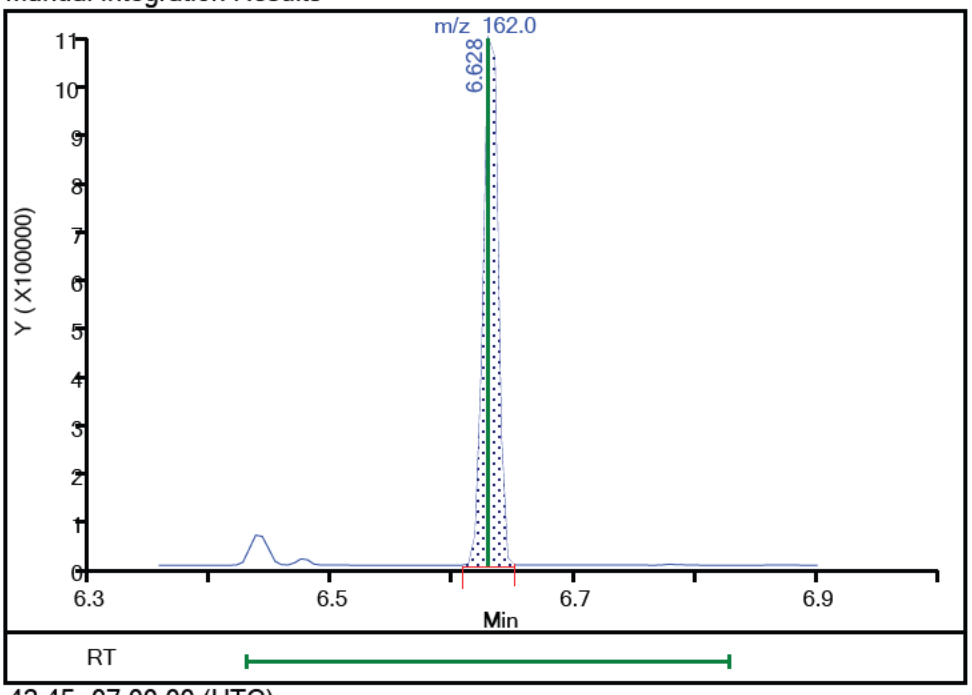
Not Detected
Expected RT: 6.63

Processing Integration Results



Manual Integration Results

RT: 6.63
Area: 859239
Amount: 81.166342
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:42:45 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

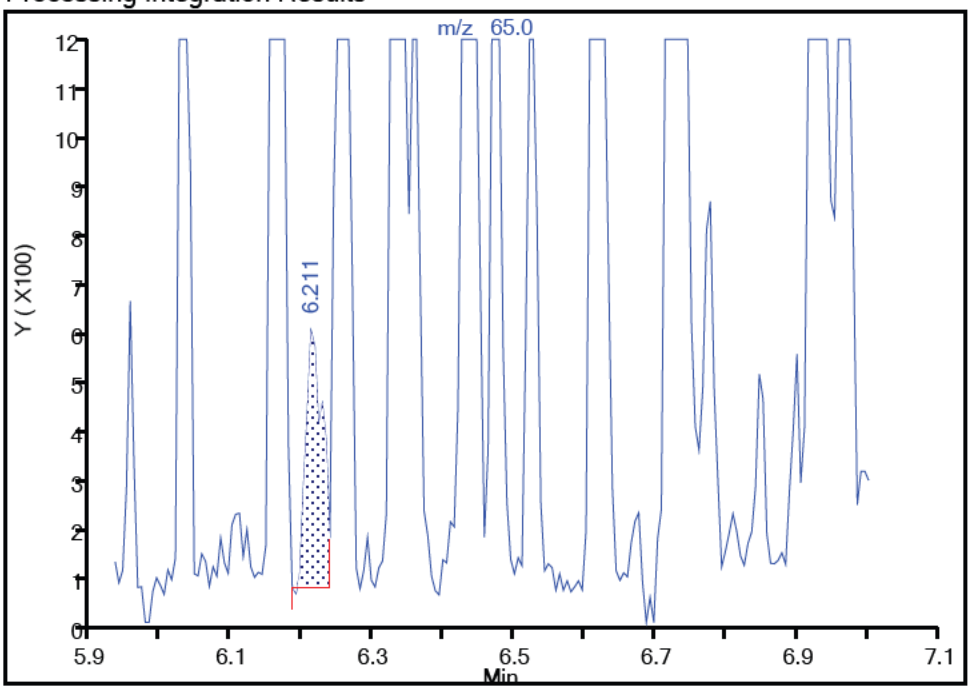
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

93 2-Nitroaniline, CAS: 88-74-4

Signal: 1

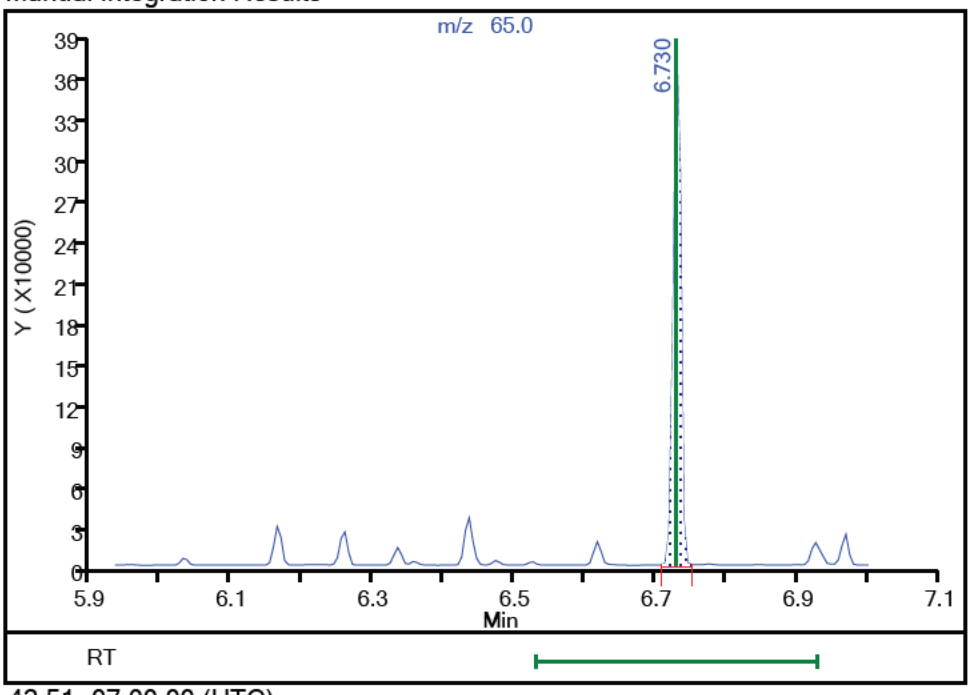
Processing Integration Results

RT: 6.21
Area: 844
Amount: 0.290370
Amount Units: ug/ml



Manual Integration Results

RT: 6.73
Area: 287968
Amount: 85.674738
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:42:51 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

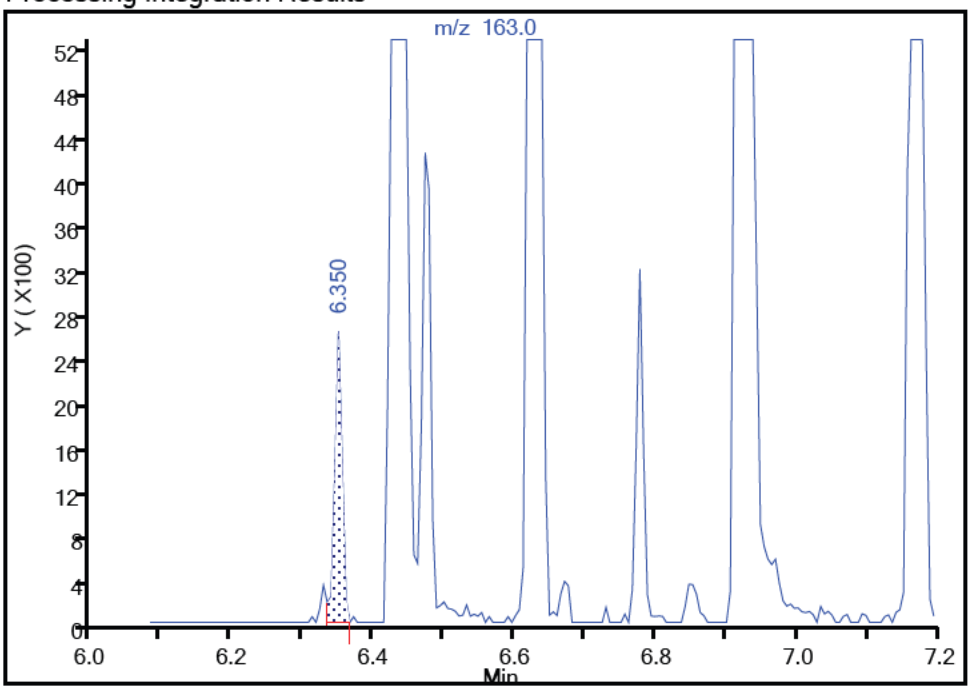
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

96 Dimethyl phthalate, CAS: 131-11-3

Signal: 1

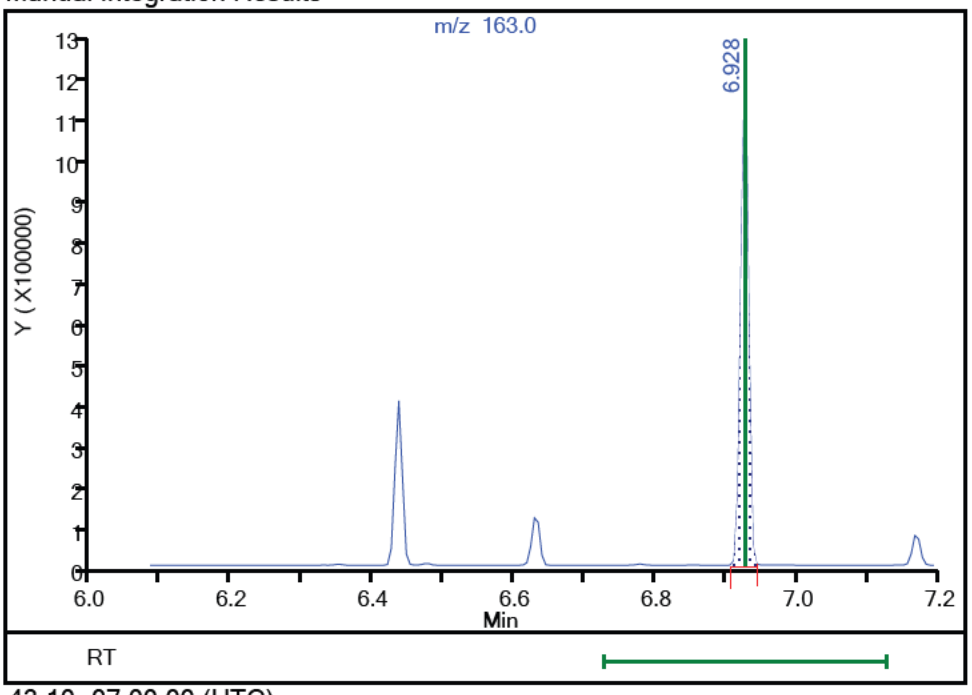
Processing Integration Results

RT: 6.35
Area: 1930
Amount: 0.180796
Amount Units: ug/ml



Manual Integration Results

RT: 6.93
Area: 926136
Amount: 80.827700
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:43:10 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

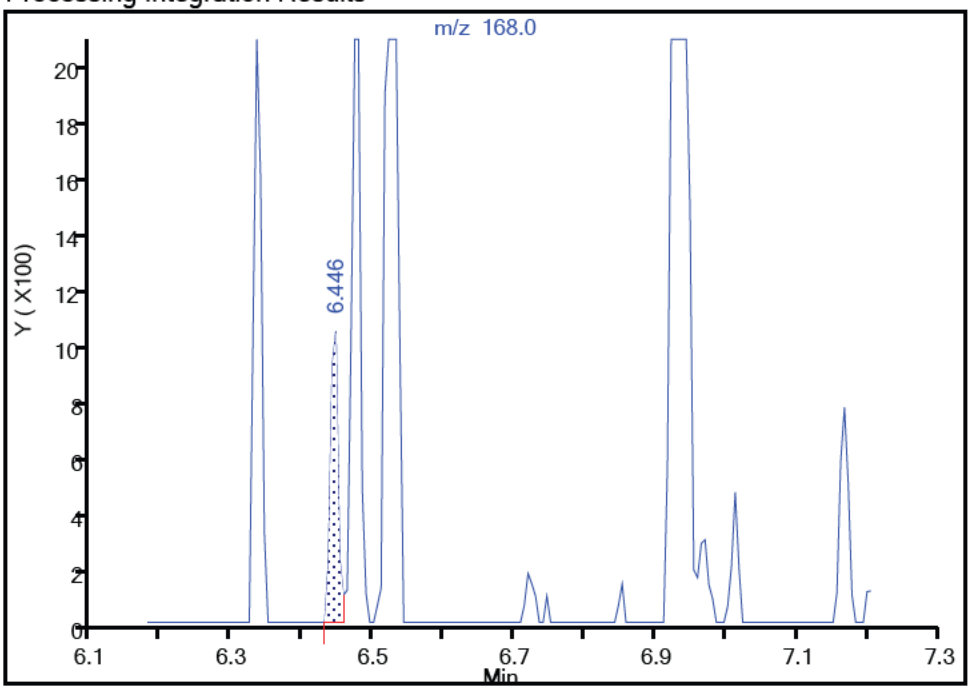
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

97 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

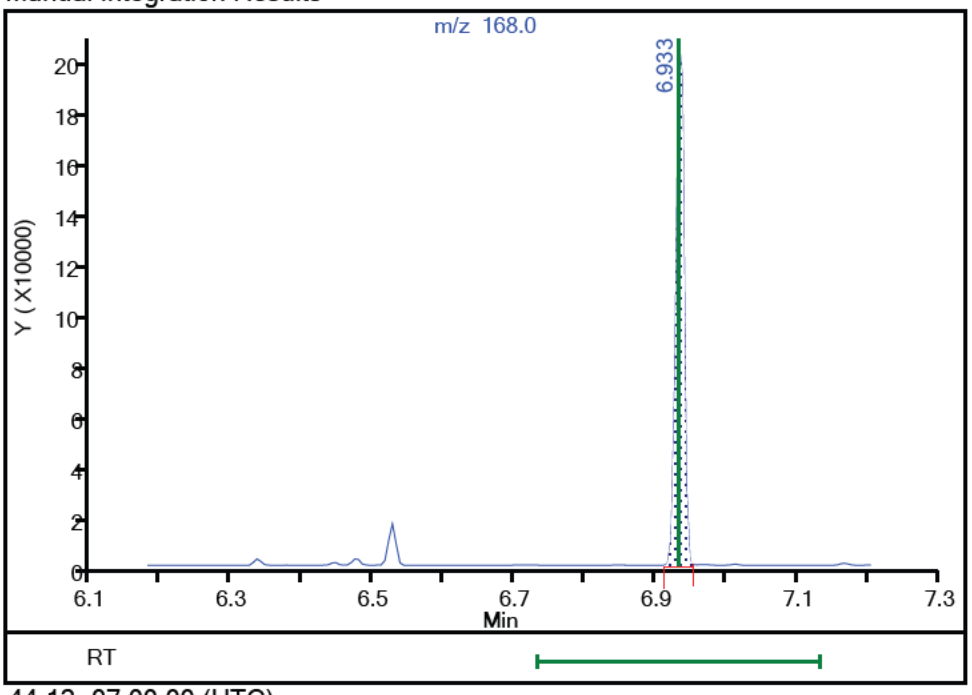
Processing Integration Results

RT: 6.45
Area: 796
Amount: 0.457081
Amount Units: ug/ml



Manual Integration Results

RT: 6.93
Area: 167373
Amount: 85.123653
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:44:12 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

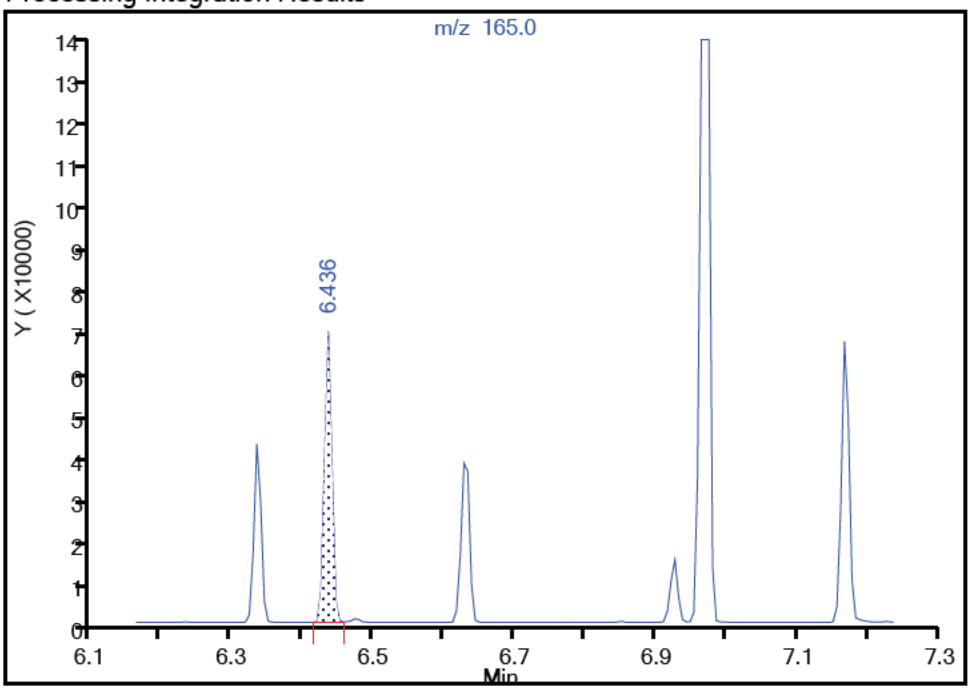
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

98 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

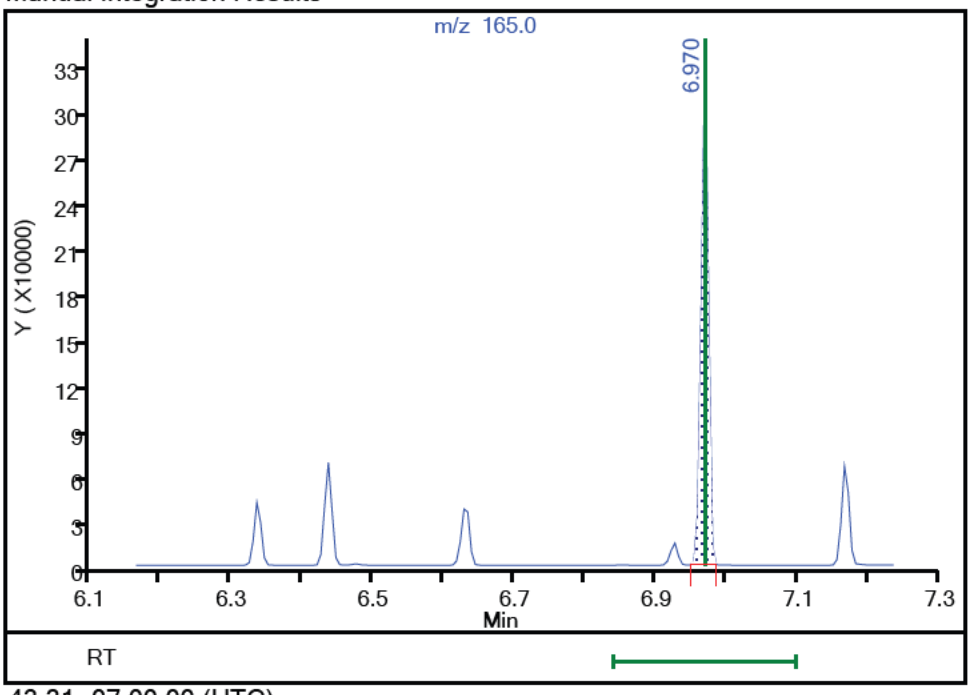
Processing Integration Results

RT: 6.44
Area: 49276
Amount: 19.472262
Amount Units: ug/ml



Manual Integration Results

RT: 6.97
Area: 233545
Amount: 87.006317
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:43:31 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

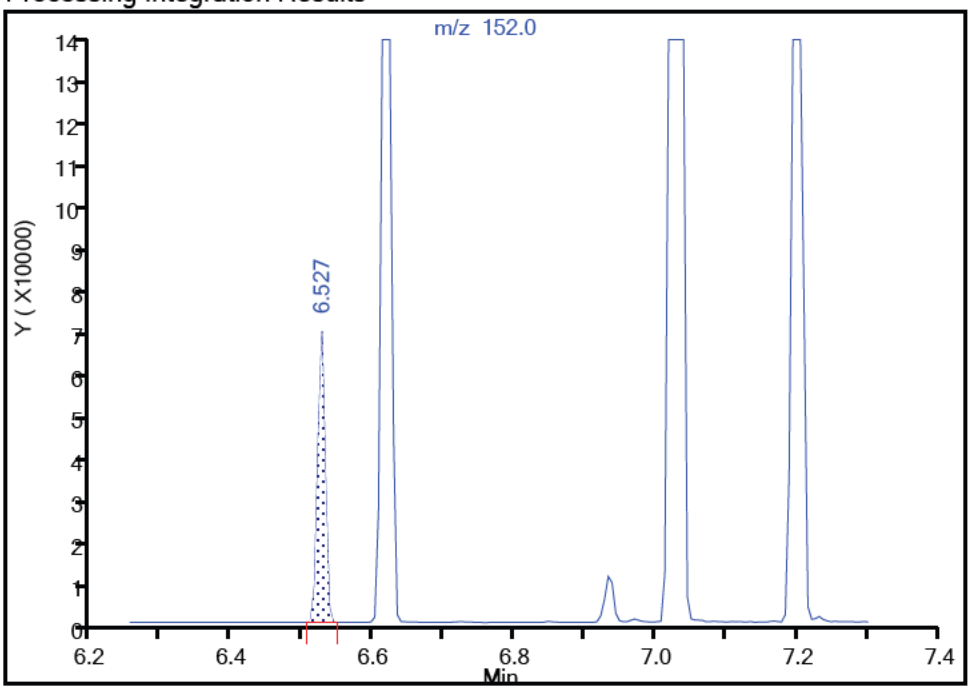
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

99 Acenaphthylene, CAS: 208-96-8

Signal: 1

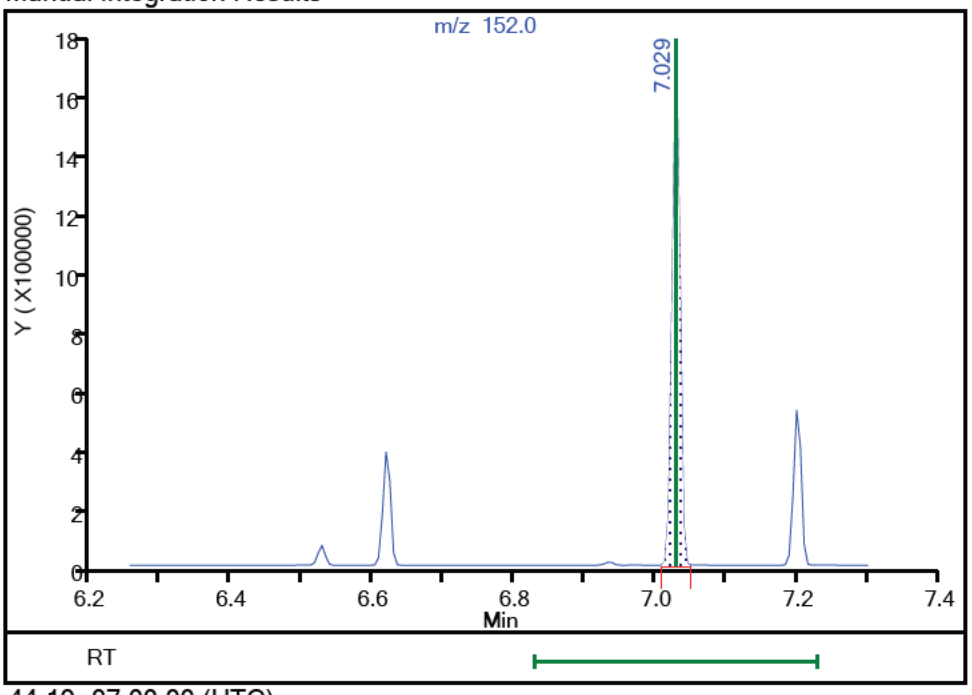
Processing Integration Results

RT: 6.53
Area: 47925
Amount: 3.243050
Amount Units: ug/ml



Manual Integration Results

RT: 7.03
Area: 1314220
Amount: 82.858377
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:44:19 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

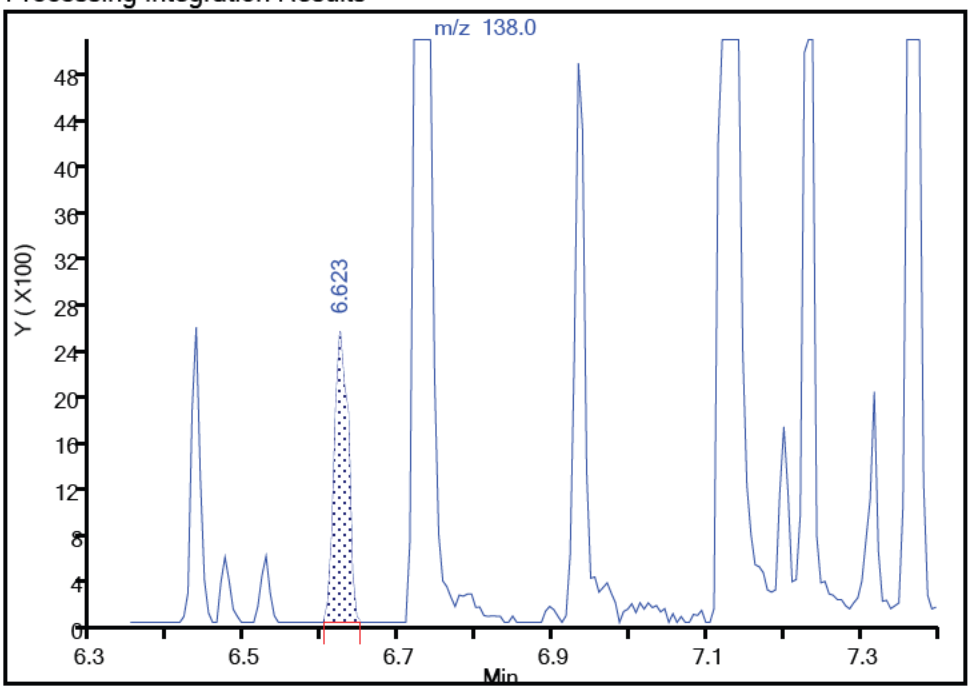
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

100 3-Nitroaniline, CAS: 99-09-2

Signal: 1

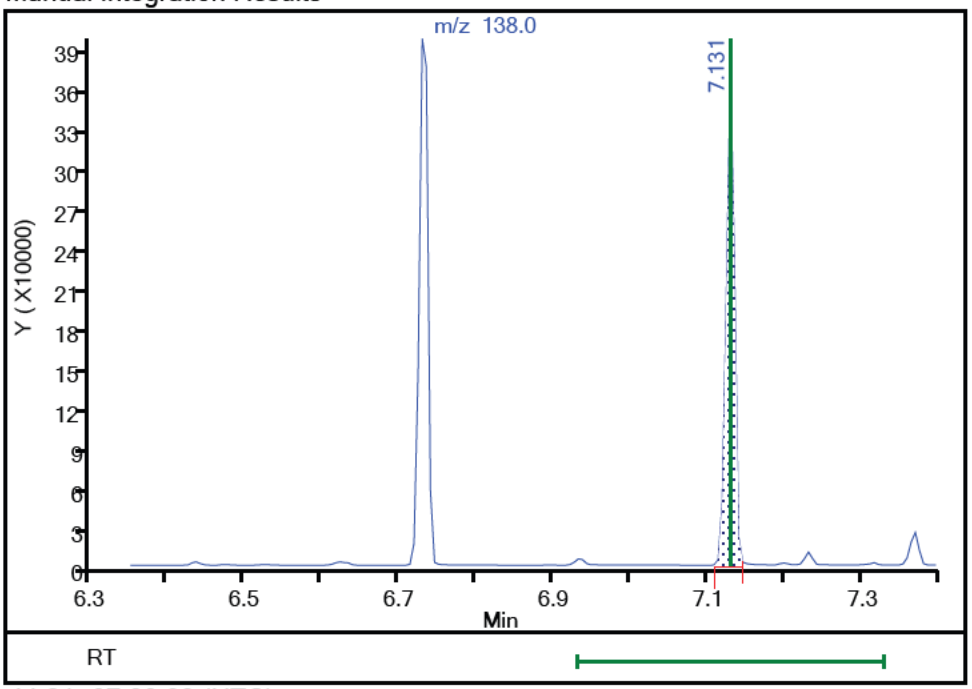
Processing Integration Results

RT: 6.62
Area: 3085
Amount: 1.134611
Amount Units: ug/ml



Manual Integration Results

RT: 7.13
Area: 281914
Amount: 84.345924
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:44:31 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

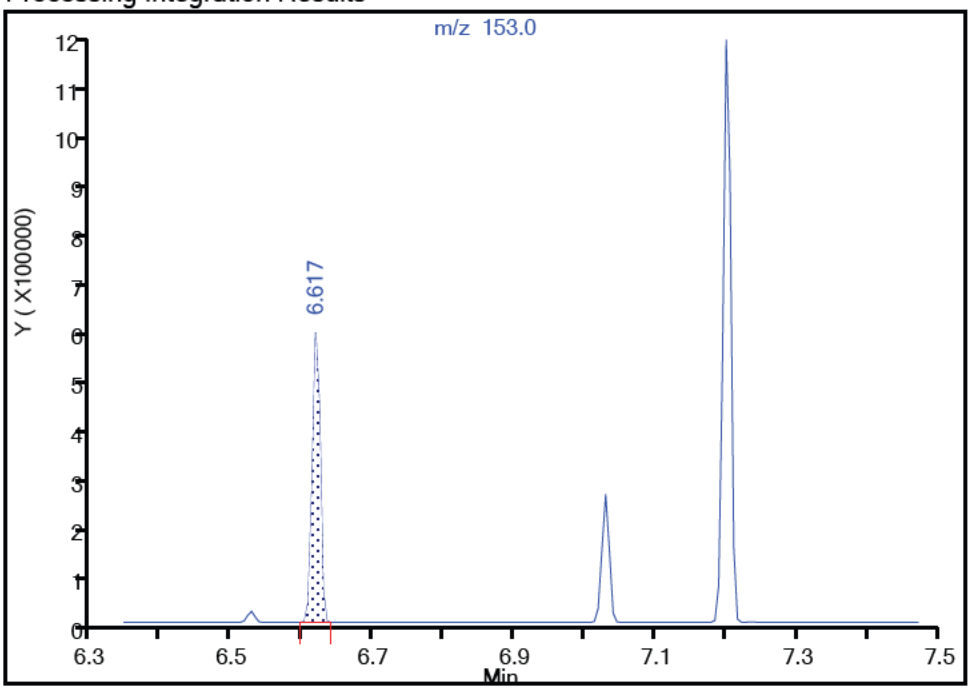
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

101 Acenaphthene, CAS: 83-32-9

Signal: 1

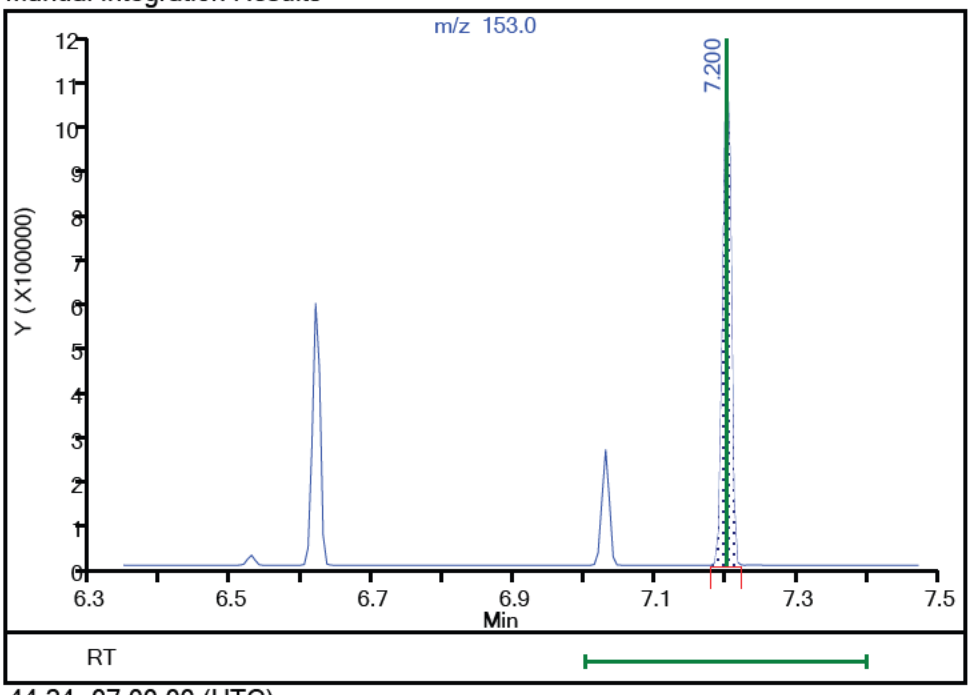
Processing Integration Results

RT: 6.62
Area: 425196
Amount: 42.211237
Amount Units: ug/ml



Manual Integration Results

RT: 7.20
Area: 862545
Amount: 81.563734
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:44:24 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

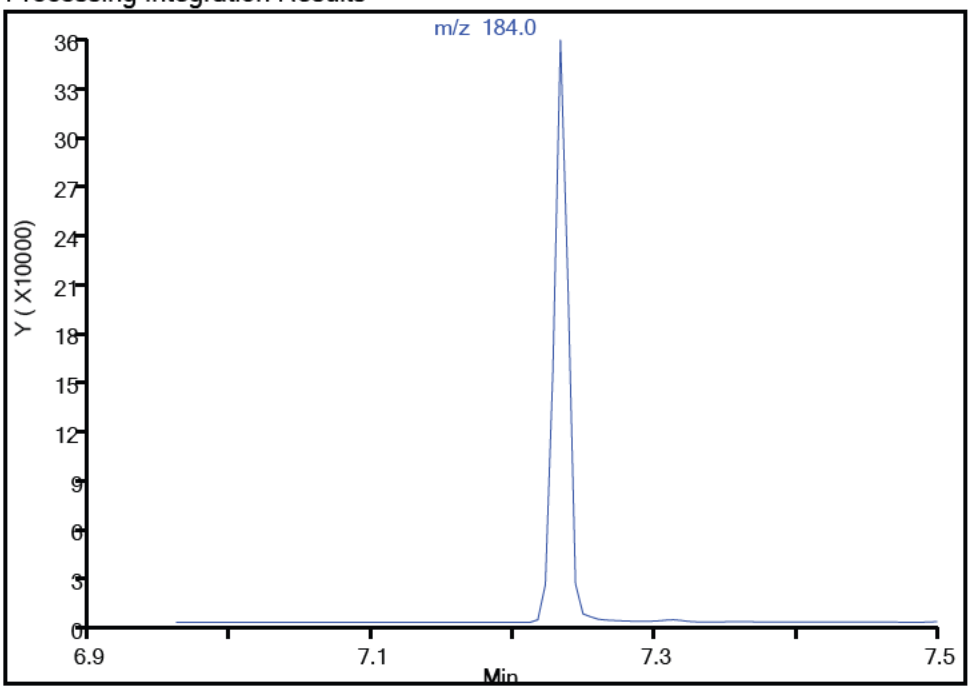
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

102 2,4-Dinitrophenol, CAS: 51-28-5

Signal: 1

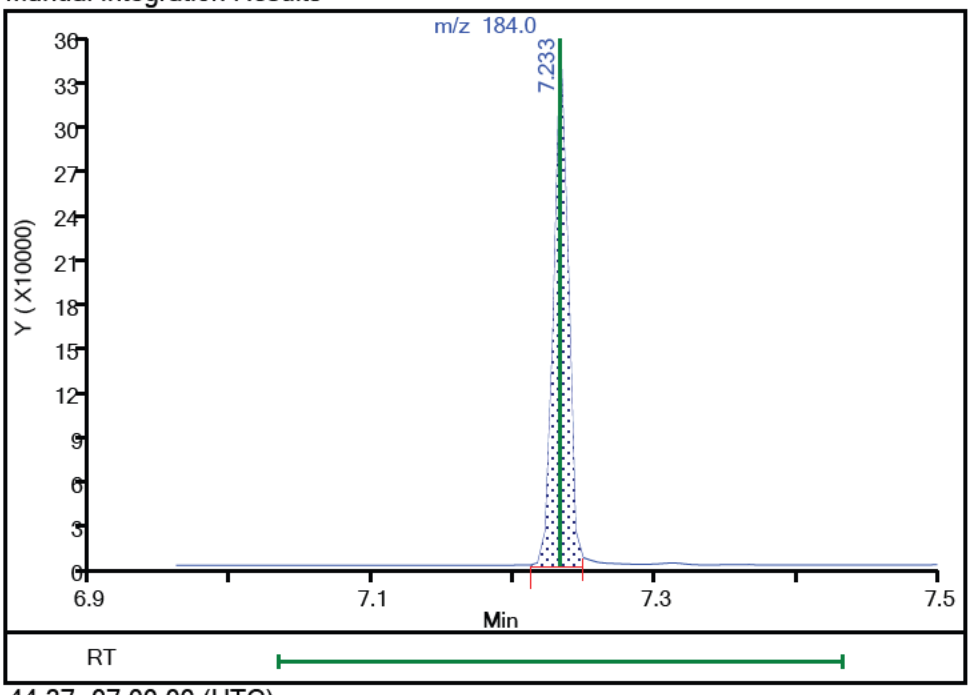
Not Detected
Expected RT: 7.23

Processing Integration Results



Manual Integration Results

RT: 7.23
Area: 249151
Amount: 156.7538
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:44:37 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

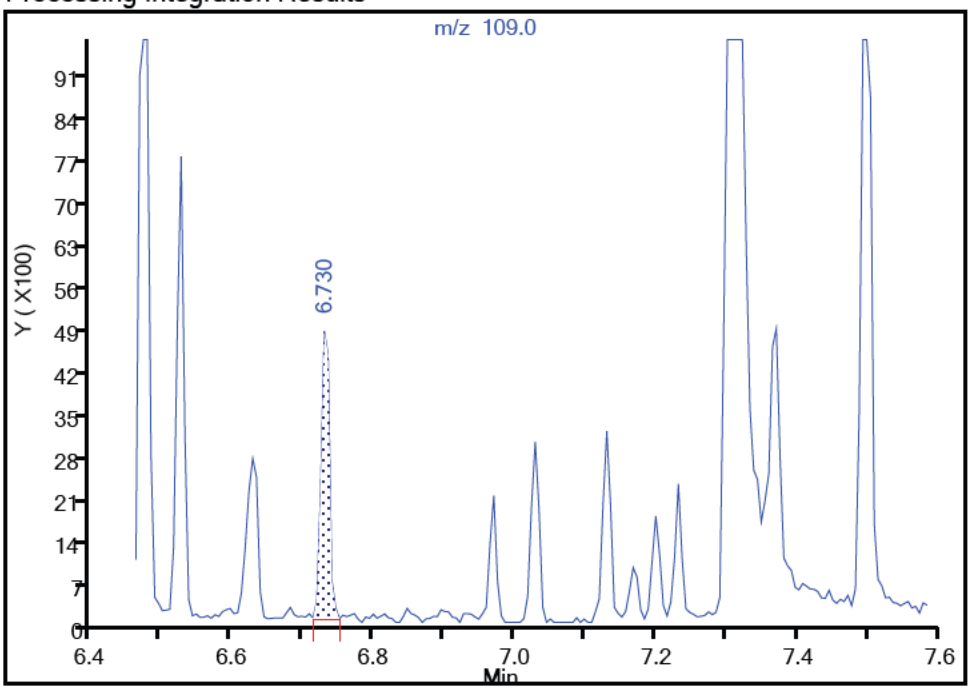
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D
Injection Date: 04-Mar-2024 10:17:30 Instrument ID: SMS_G6
Lims ID: ICIS
Client ID:
Operator ID: RC ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector MS SCAN

107 4-Nitrophenol, CAS: 100-02-7

Signal: 1

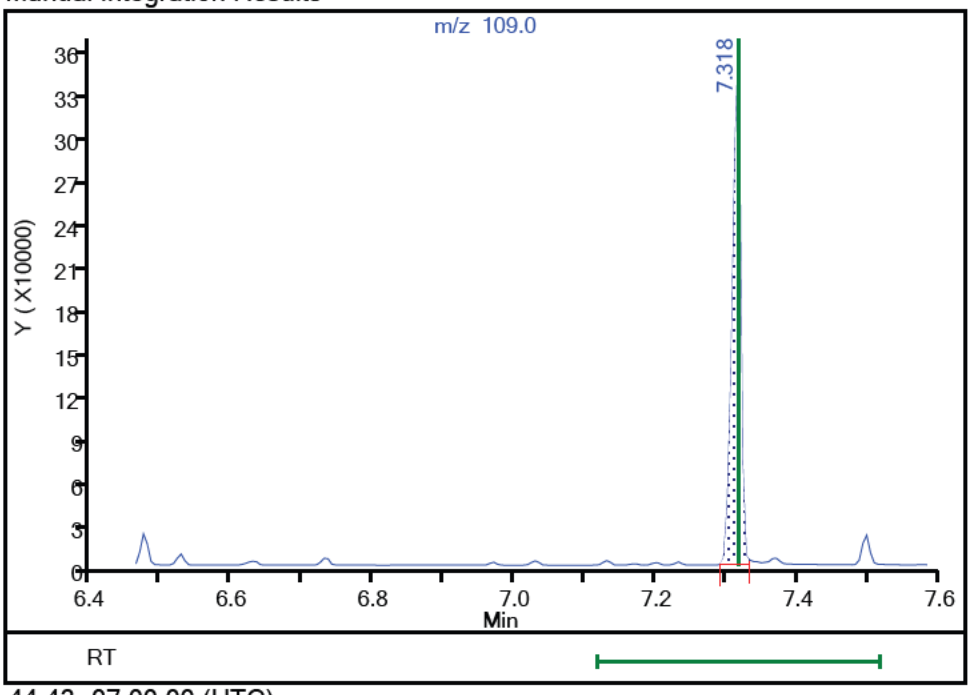
Processing Integration Results

RT: 6.73
Area: 3954
Amount: 2.917720
Amount Units: ug/ml



Manual Integration Results

RT: 7.32
Area: 290246
Amount: 172.9384
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:44:43 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

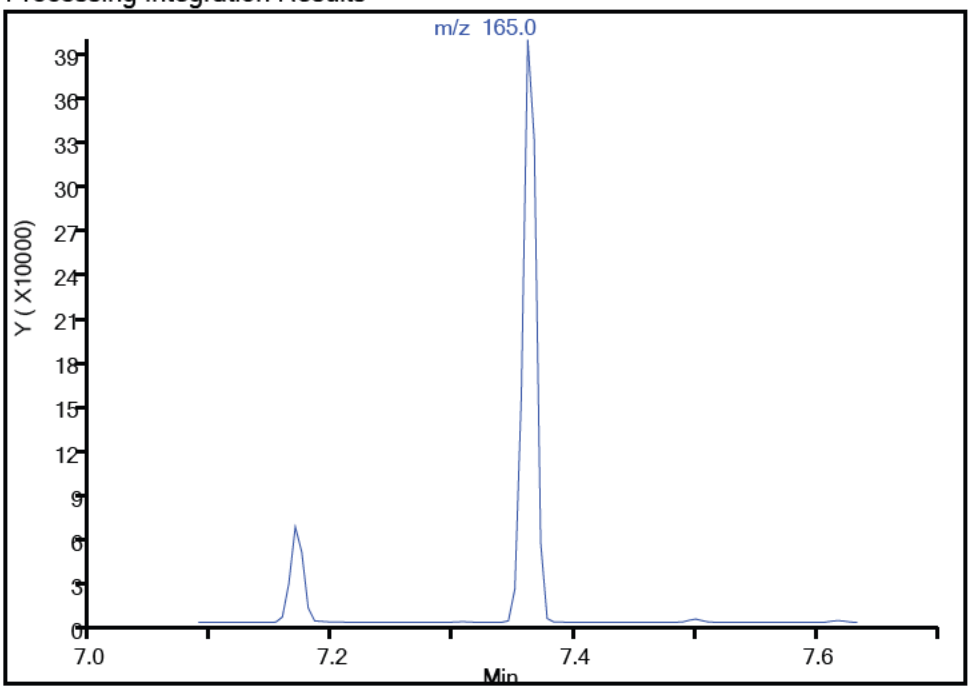
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

109 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

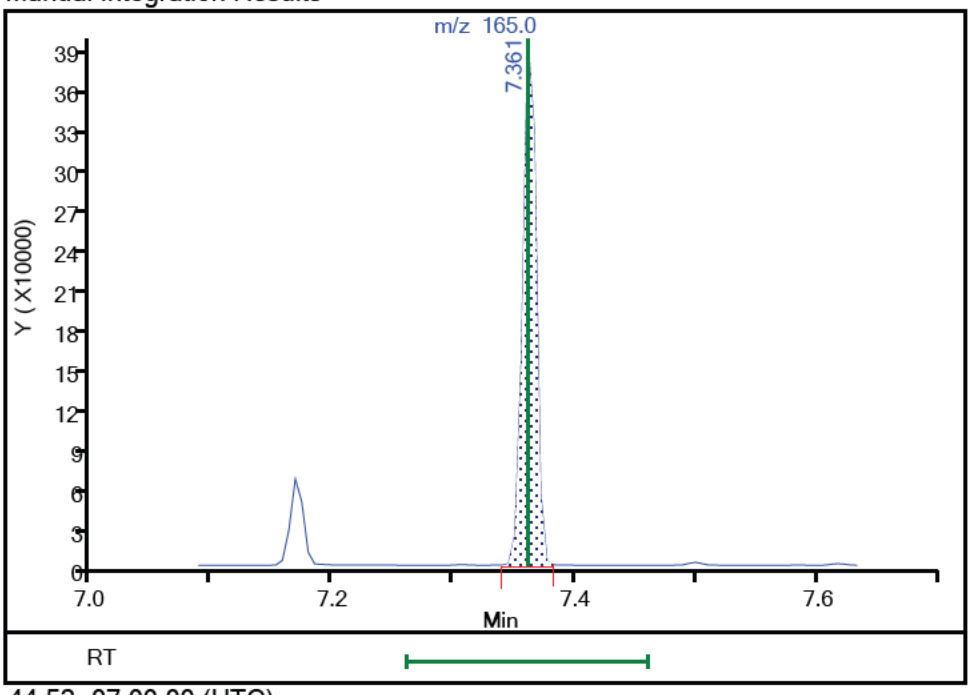
Not Detected
Expected RT: 7.36

Processing Integration Results



Manual Integration Results

RT: 7.36
Area: 306156
Amount: 87.627390
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:44:52 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

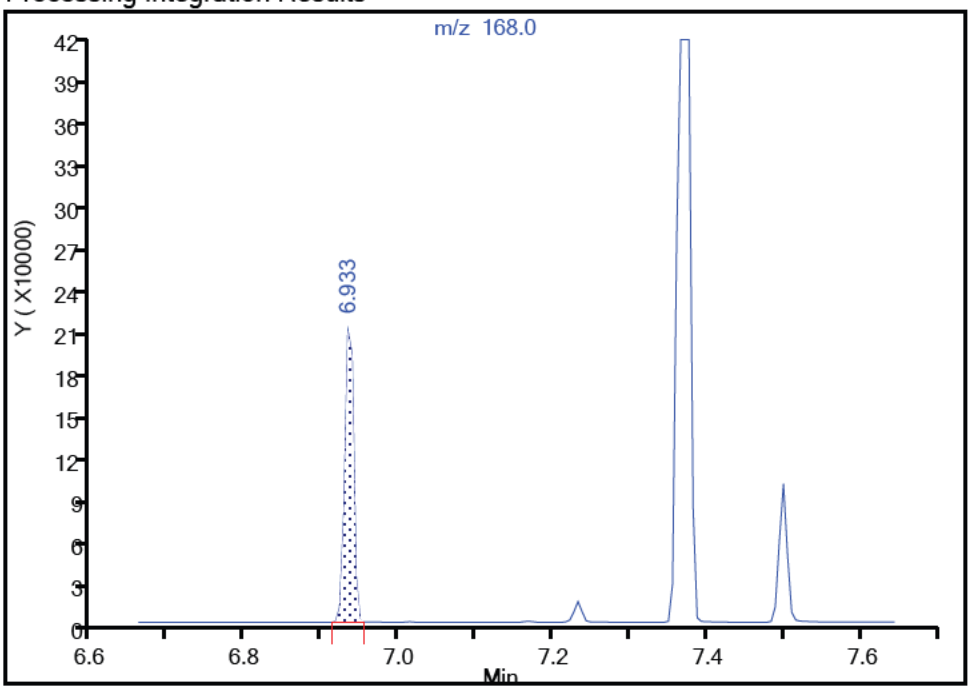
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

108 Dibenzofuran, CAS: 132-64-9

Signal: 1

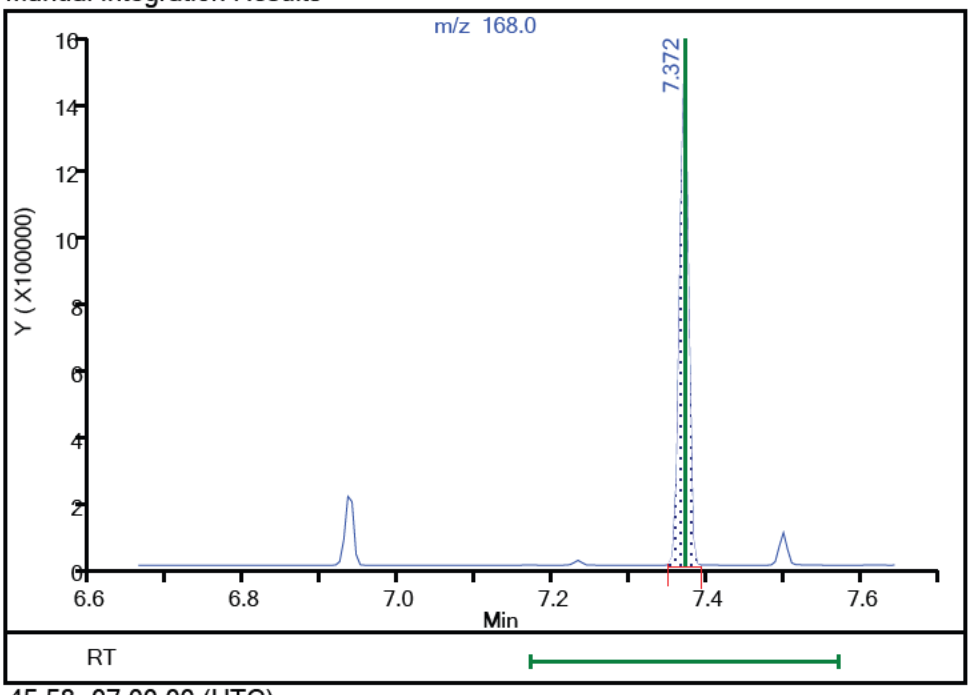
Processing Integration Results

RT: 6.93
Area: 167373
Amount: 12.488637
Amount Units: ug/ml



Manual Integration Results

RT: 7.37
Area: 1208060
Amount: 80.809330
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:45:58 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

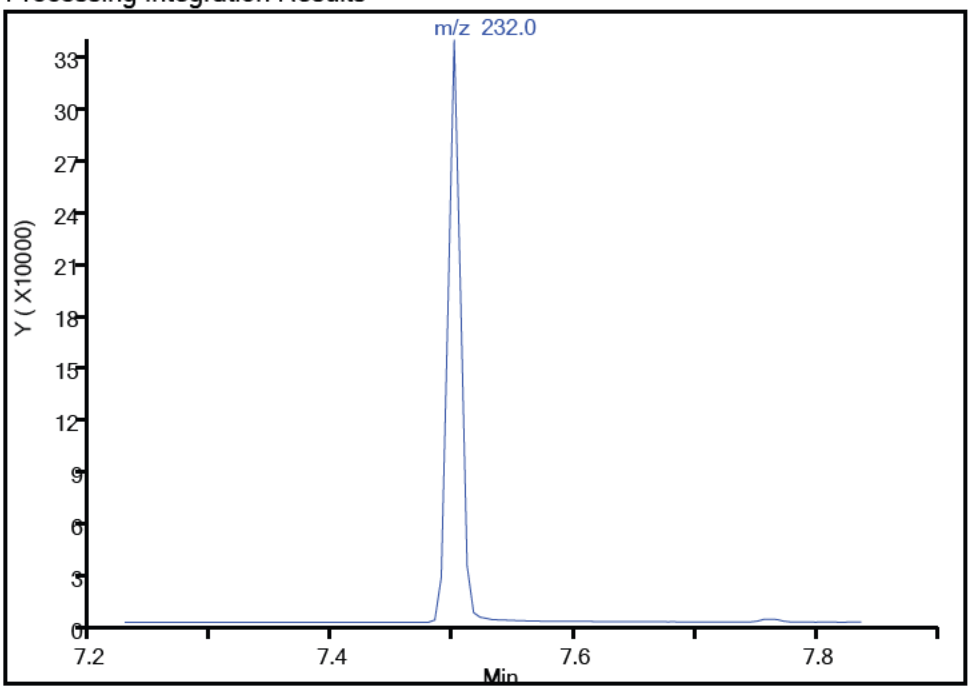
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

114 2,3,4,6-Tetrachlorophenol, CAS: 58-90-2

Signal: 1

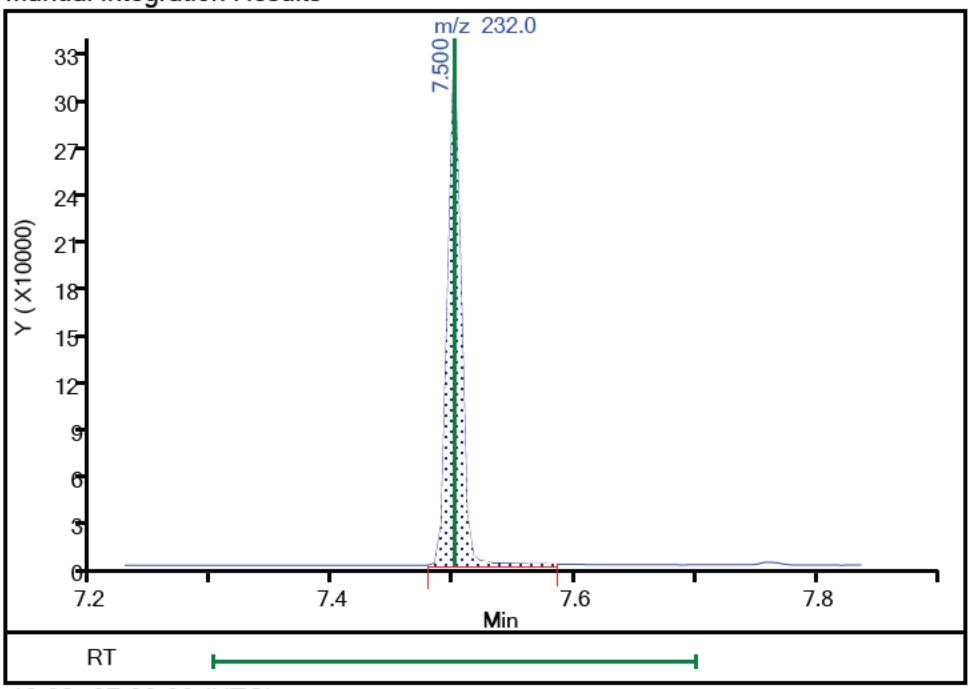
Not Detected
Expected RT: 7.50

Processing Integration Results



Manual Integration Results

RT: 7.50
Area: 249206
Amount: 88.233114
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:46:03 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

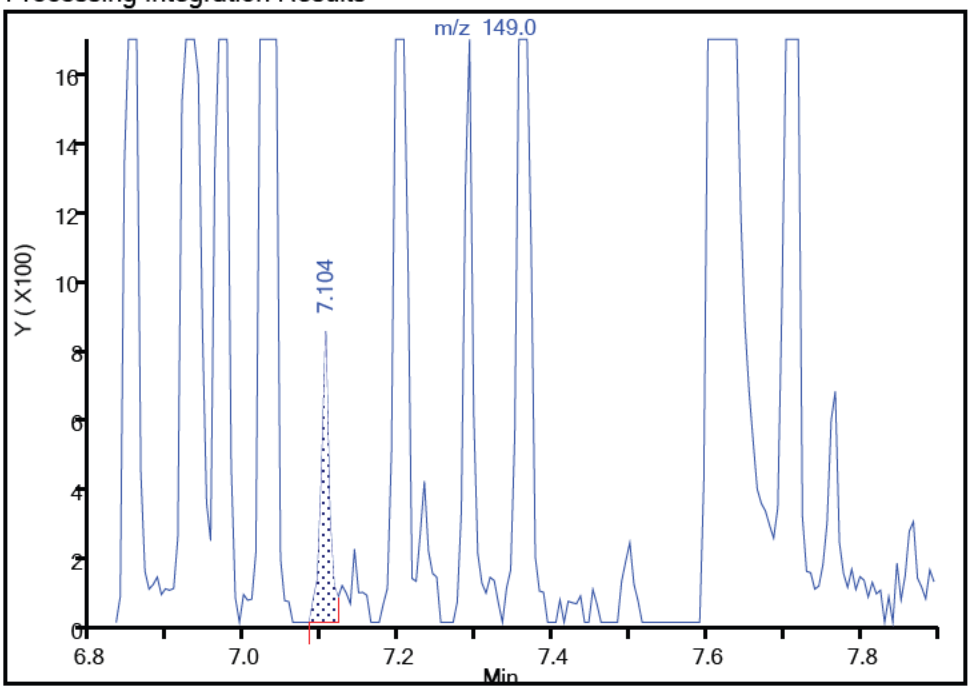
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

116 Diethyl phthalate, CAS: 84-66-2

Signal: 1

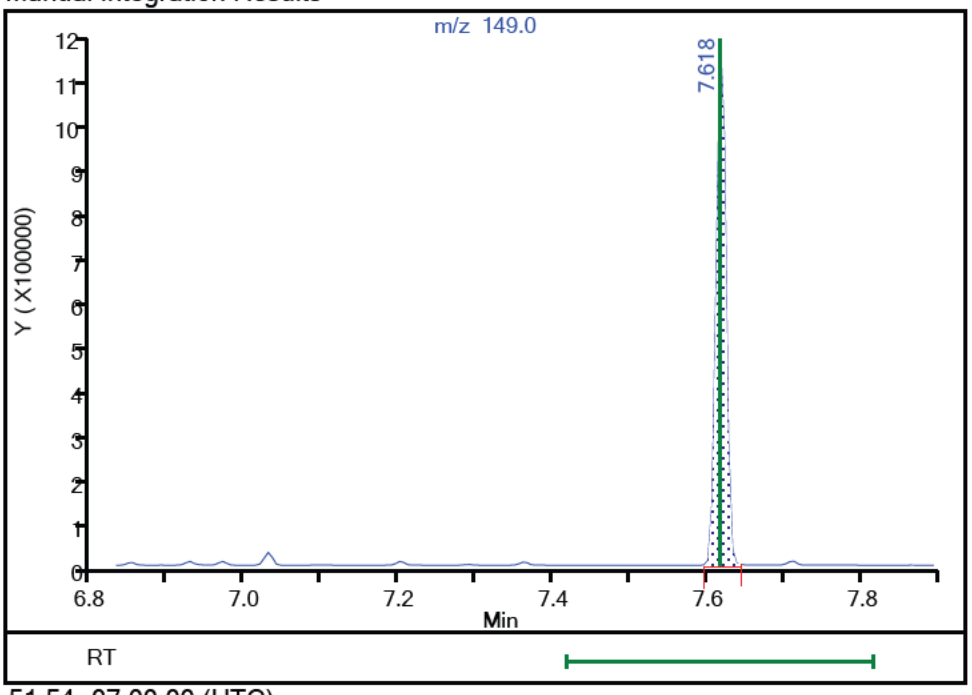
Processing Integration Results

RT: 7.10
Area: 605
Amount: 0.056897
Amount Units: ug/ml



Manual Integration Results

RT: 7.62
Area: 973794
Amount: 81.505221
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:51:54 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

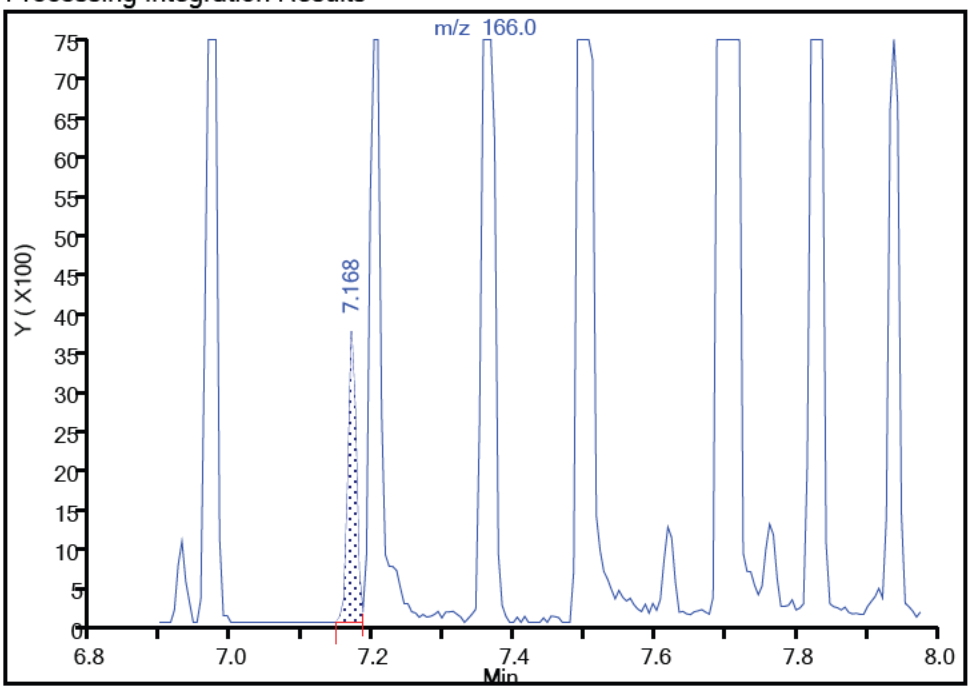
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

118 Fluorene, CAS: 86-73-7

Signal: 1

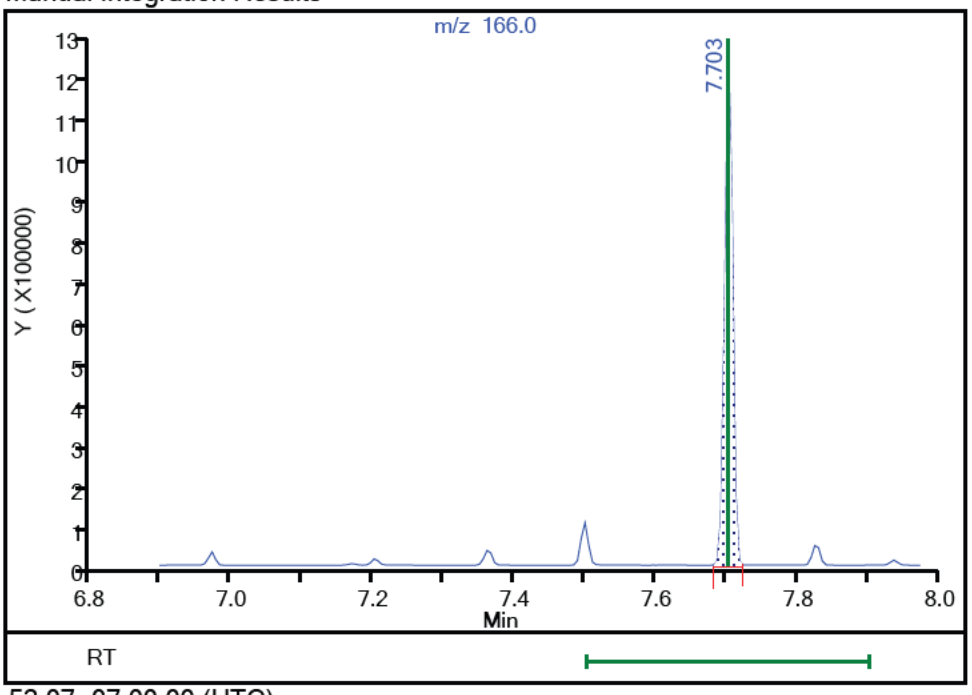
Processing Integration Results

RT: 7.17
Area: 3005
Amount: 0.277897
Amount Units: ug/ml



Manual Integration Results

RT: 7.70
Area: 972893
Amount: 82.320803
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:52:07 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

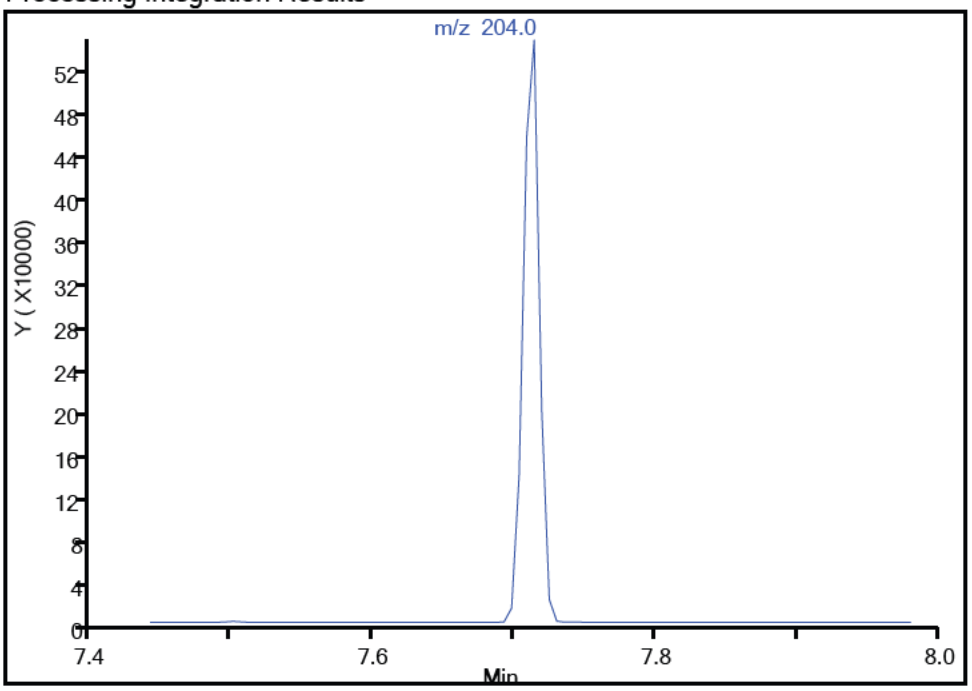
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

120 4-Chlorophenyl phenyl ether, CAS: 7005-72-3

Signal: 1

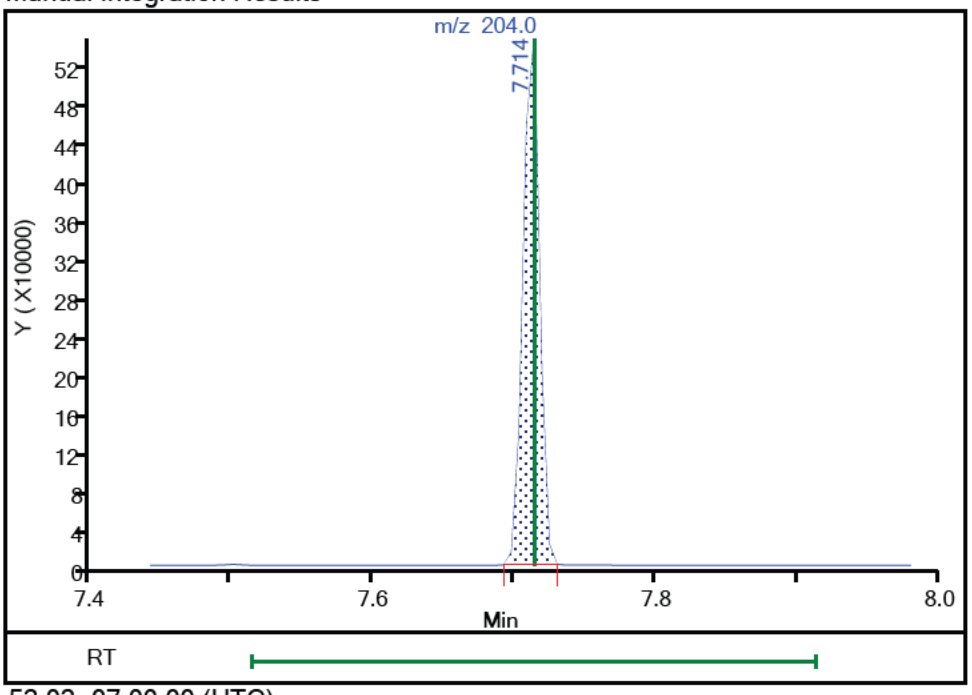
Not Detected
Expected RT: 7.71

Processing Integration Results



Manual Integration Results

RT: 7.71
Area: 436073
Amount: 80.481045
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:52:02 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

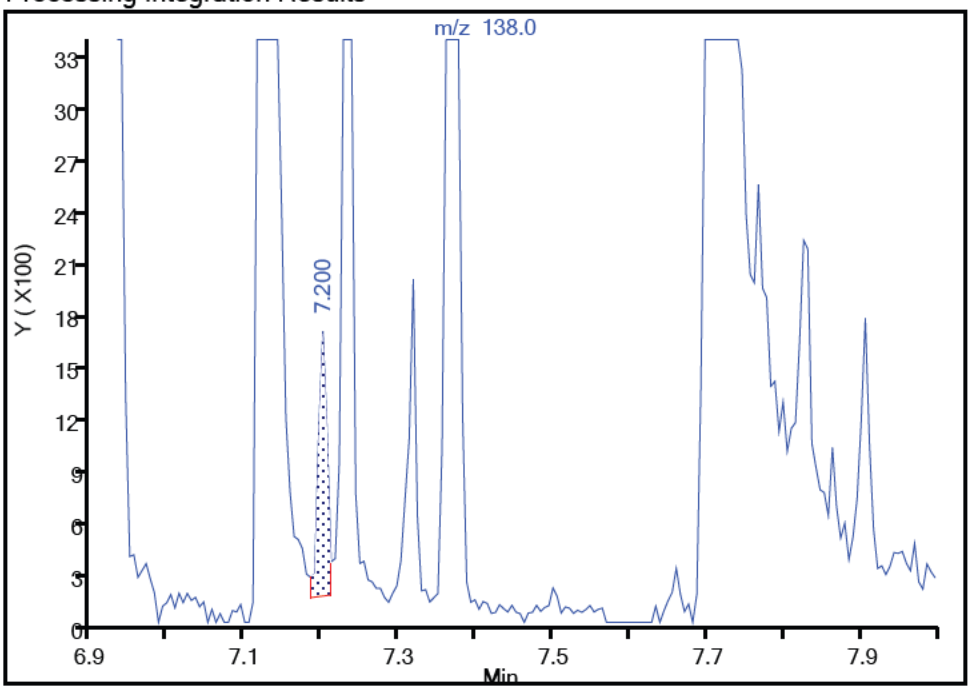
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

122 4-Nitroaniline, CAS: 100-01-6

Signal: 1

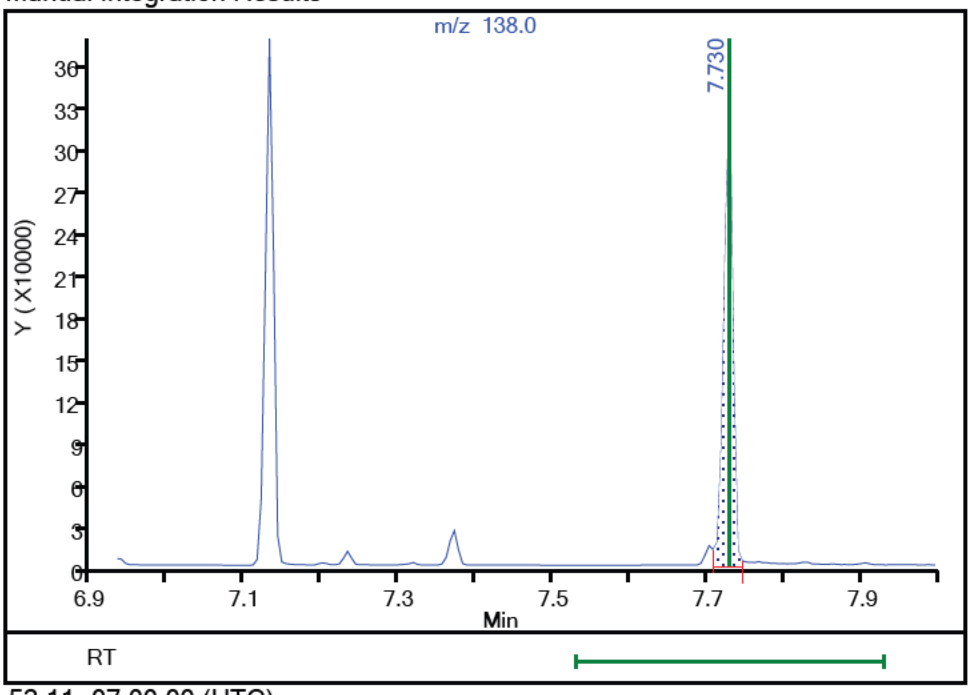
Processing Integration Results

RT: 7.20
Area: 1246
Amount: 0.463834
Amount Units: ug/ml



Manual Integration Results

RT: 7.73
Area: 267042
Amount: 80.972799
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:52:11 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

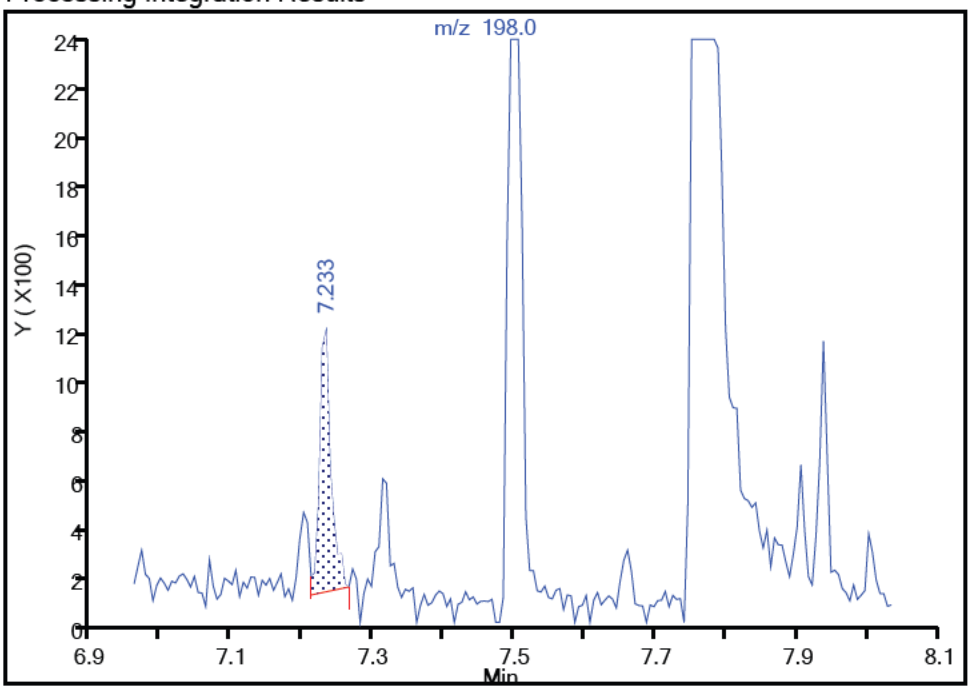
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

123 4,6-Dinitro-2-methylphenol, CAS: 534-52-1

Signal: 1

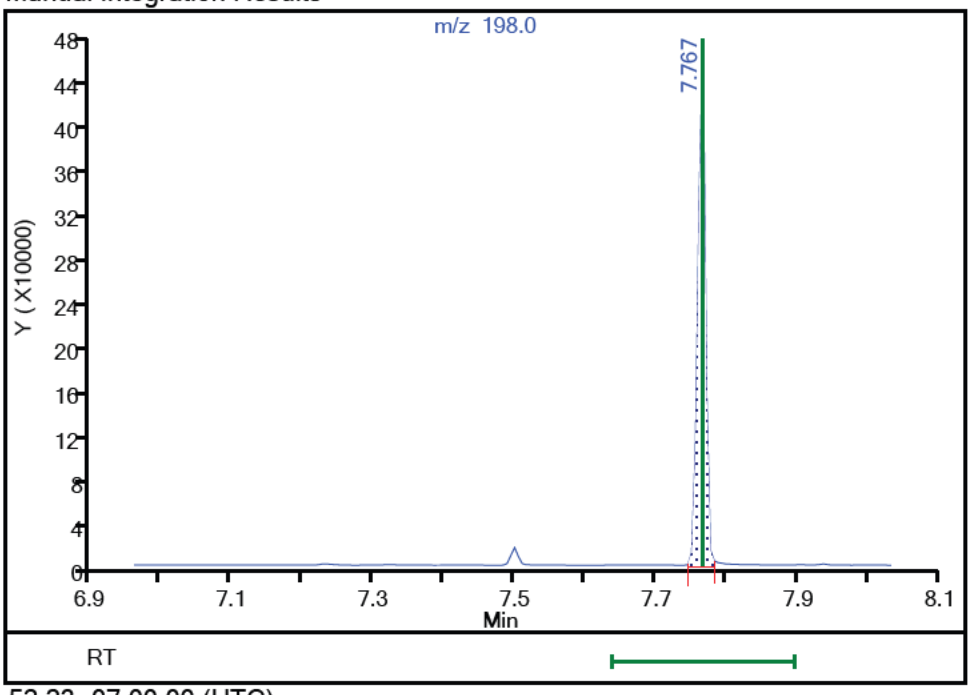
Processing Integration Results

RT: 7.23
Area: 1189
Amount: 0.677954
Amount Units: ug/ml



Manual Integration Results

RT: 7.77
Area: 349525
Amount: 158.5383
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:52:23 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

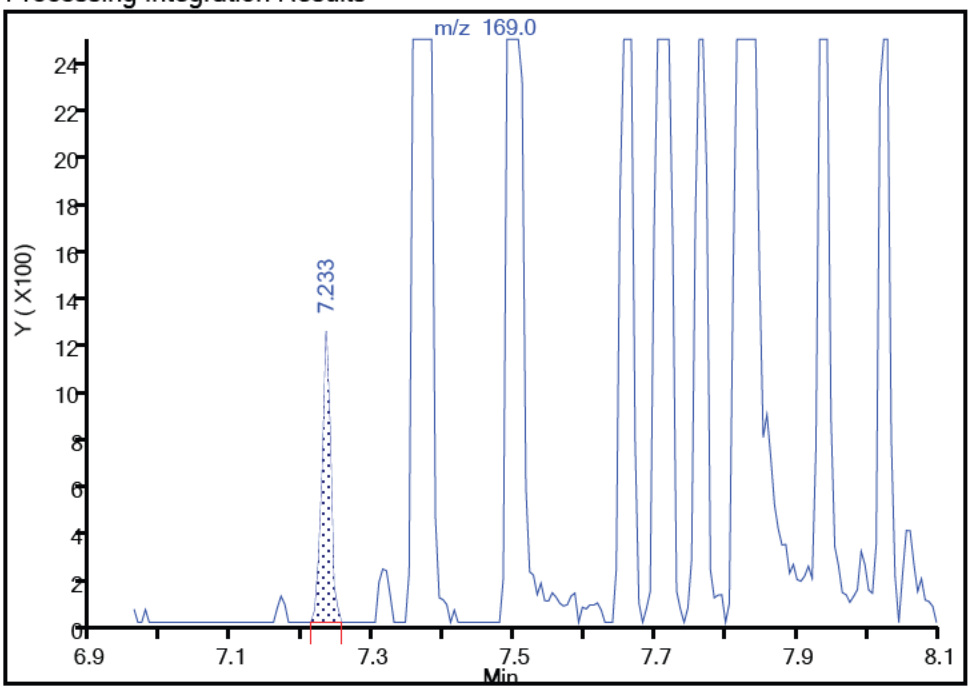
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

125 Diphenylamine, CAS: 122-39-4

Signal: 1

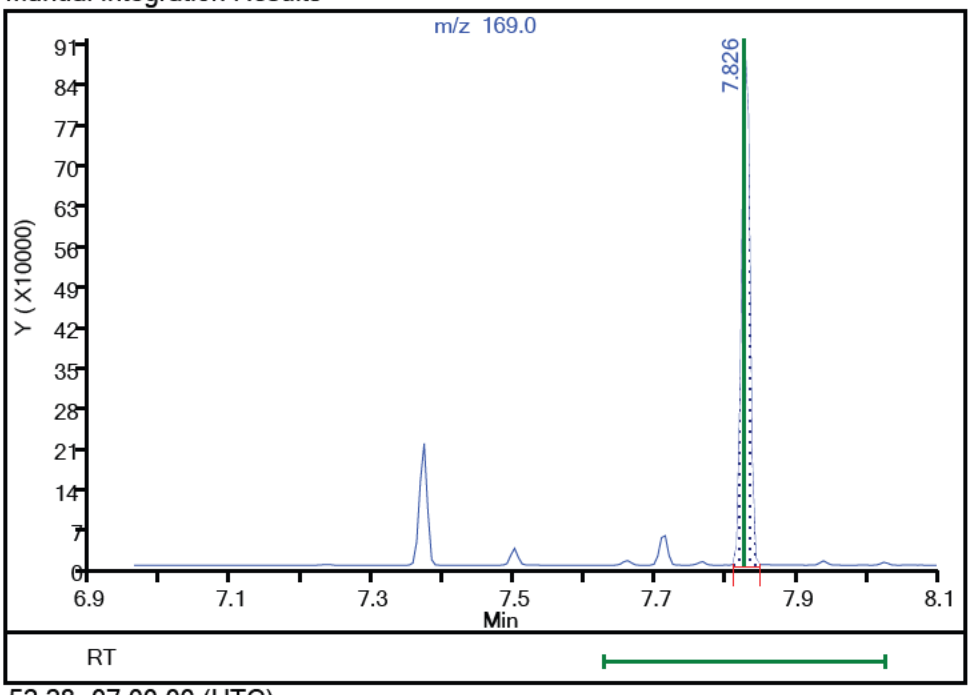
Processing Integration Results

RT: 7.23
Area: 1035
Amount: 0.111275
Amount Units: ug/ml



Manual Integration Results

RT: 7.83
Area: 724168
Amount: 70.024523
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:52:28 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

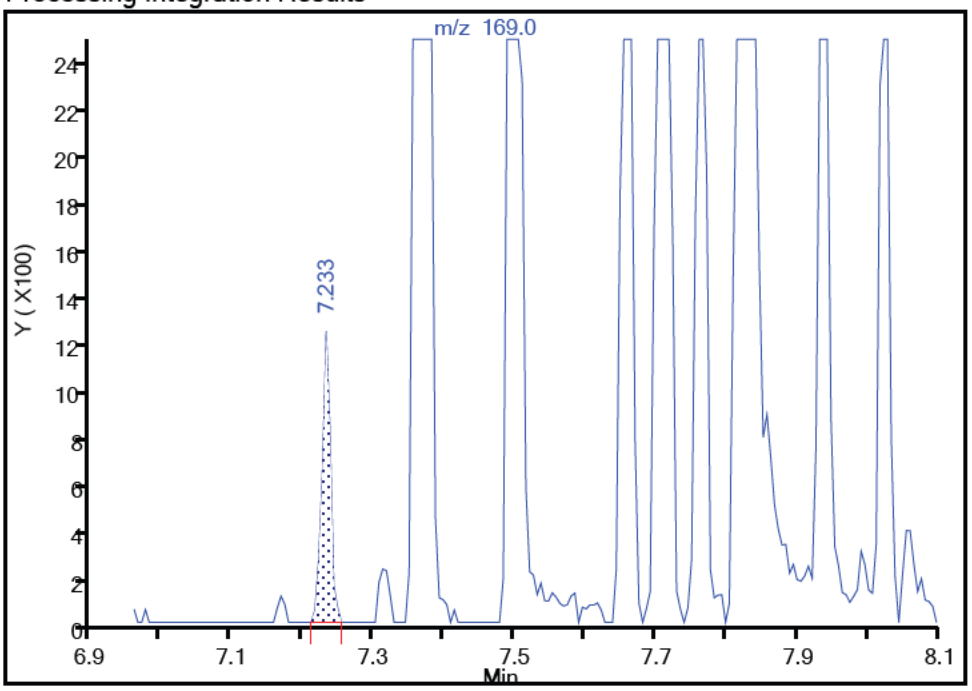
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

126 N-Nitrosodiphenylamine, CAS: 86-30-6

Signal: 1

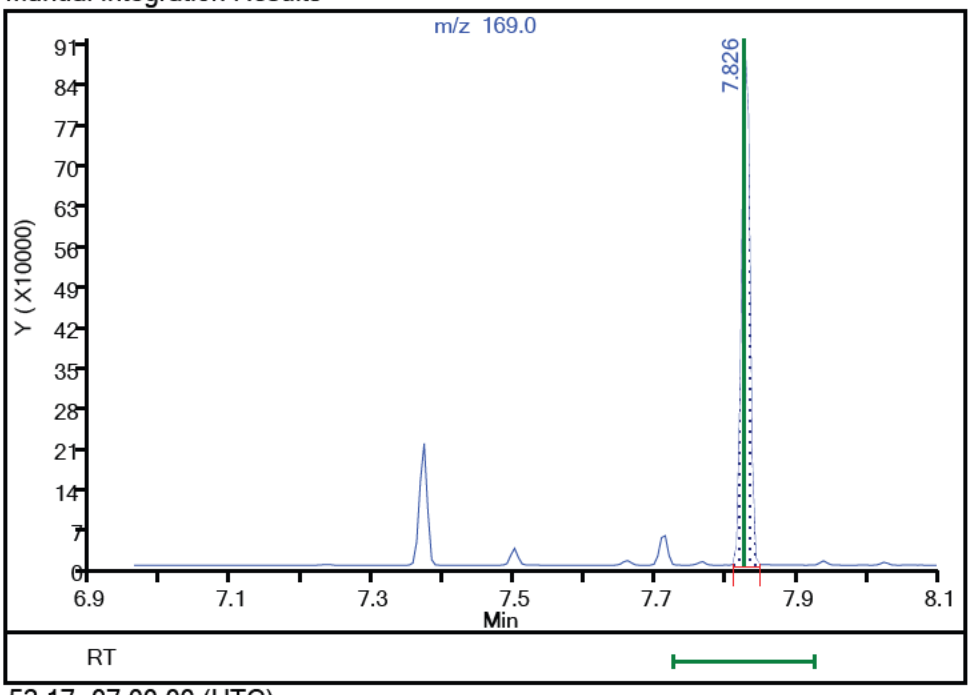
Processing Integration Results

RT: 7.23
Area: 1035
Amount: 0.136521
Amount Units: ug/ml



Manual Integration Results

RT: 7.83
Area: 724168
Amount: 81.721007
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:52:17 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

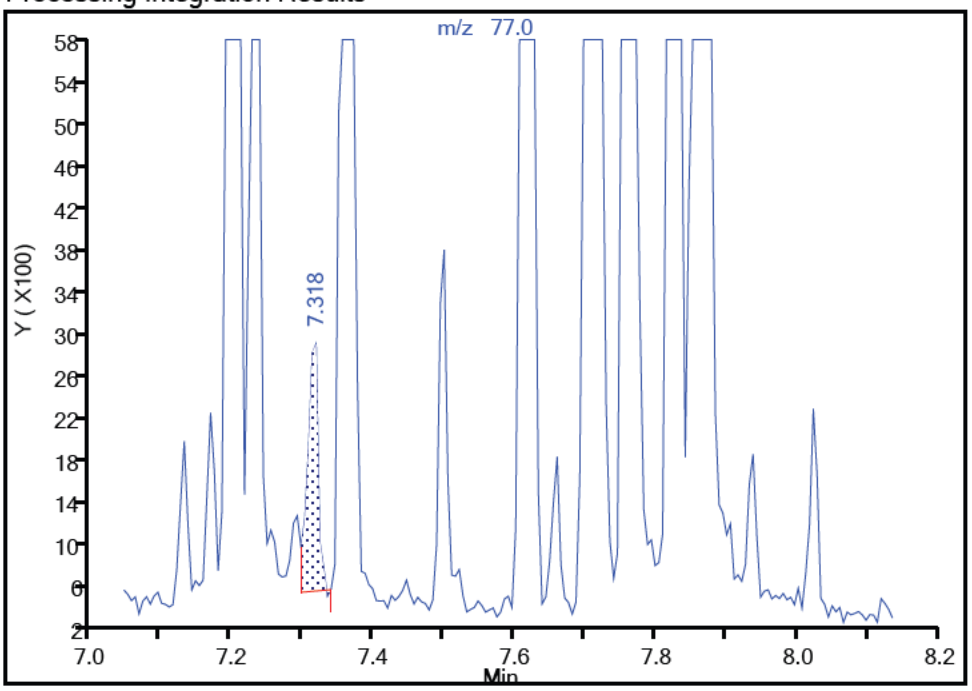
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

128 1,2-Diphenylhydrazine, CAS: 122-66-7

Signal: 1

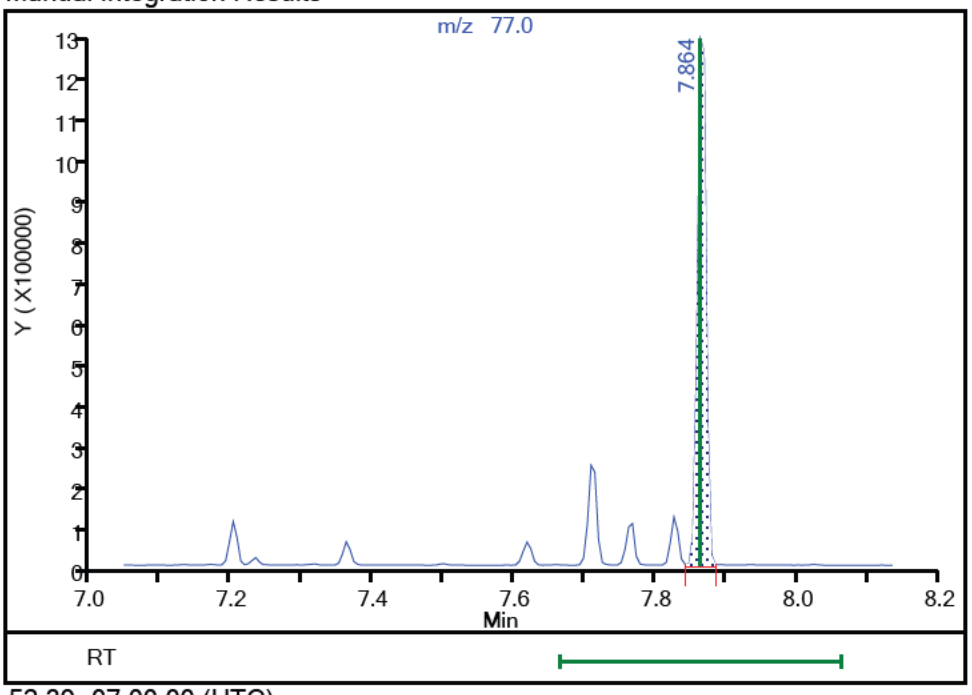
Processing Integration Results

RT: 7.32
Area: 2451
Amount: 0.237187
Amount Units: ug/ml



Manual Integration Results

RT: 7.86
Area: 1066374
Amount: 81.684782
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:52:39 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

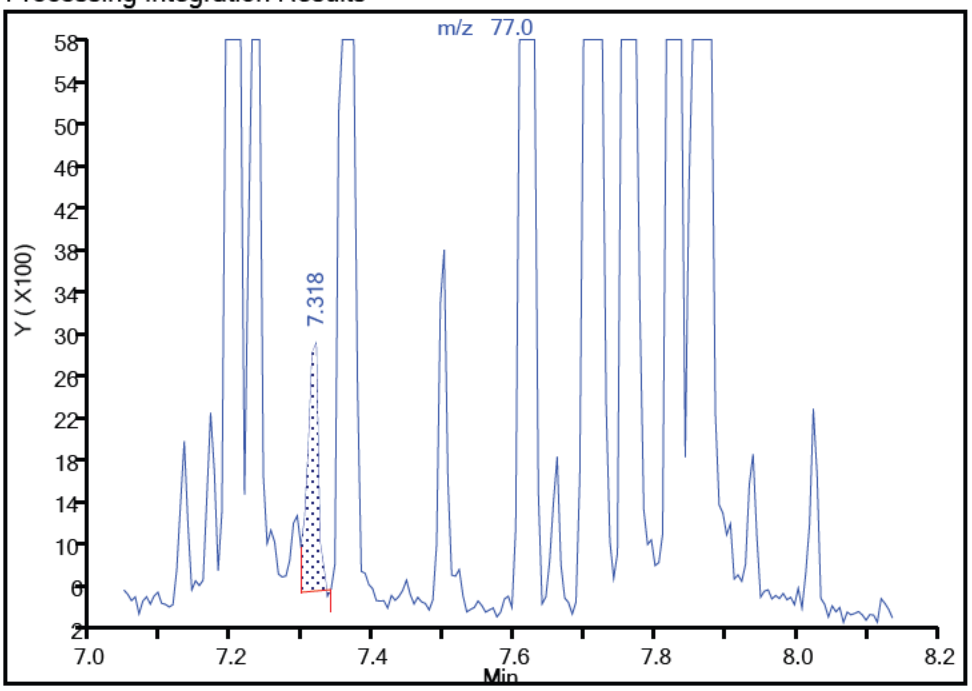
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

129 Azobenzene, CAS: 103-33-3

Signal: 1

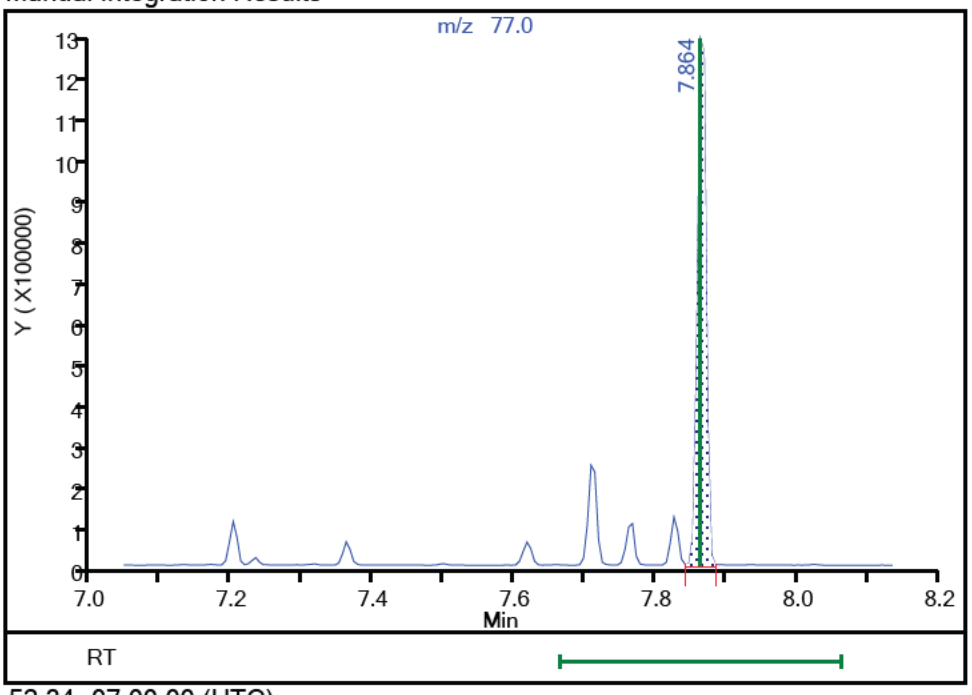
Processing Integration Results

RT: 7.32
Area: 2451
Amount: 0.234612
Amount Units: ug/ml



Manual Integration Results

RT: 7.86
Area: 1066376
Amount: 80.798193
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:52:34 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

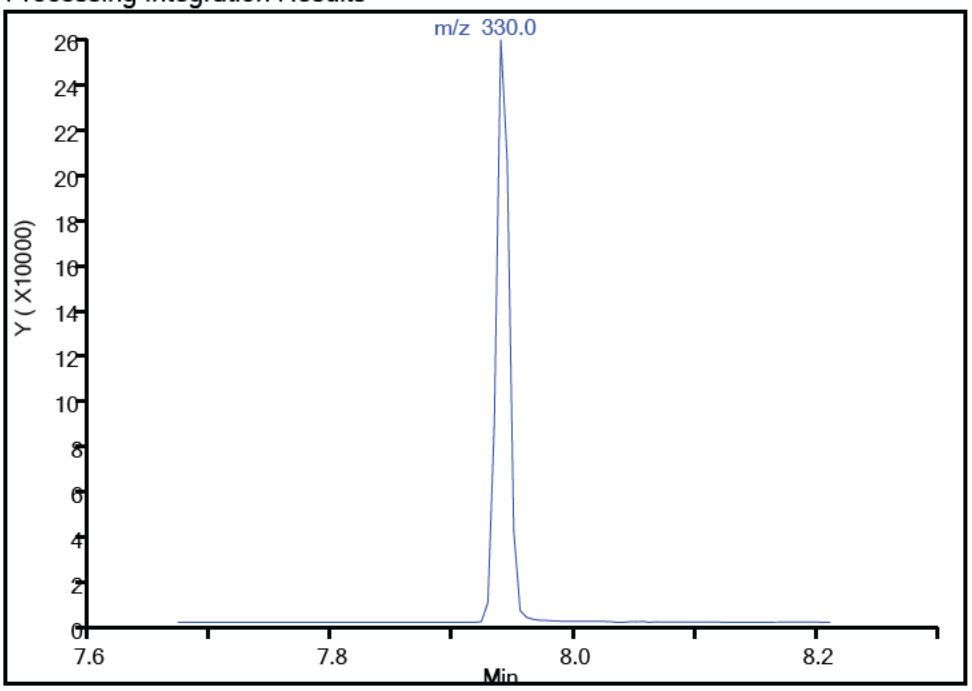
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

$ 12 2,4,6-Tribromophenol, CAS: 118-79-6

Signal: 1

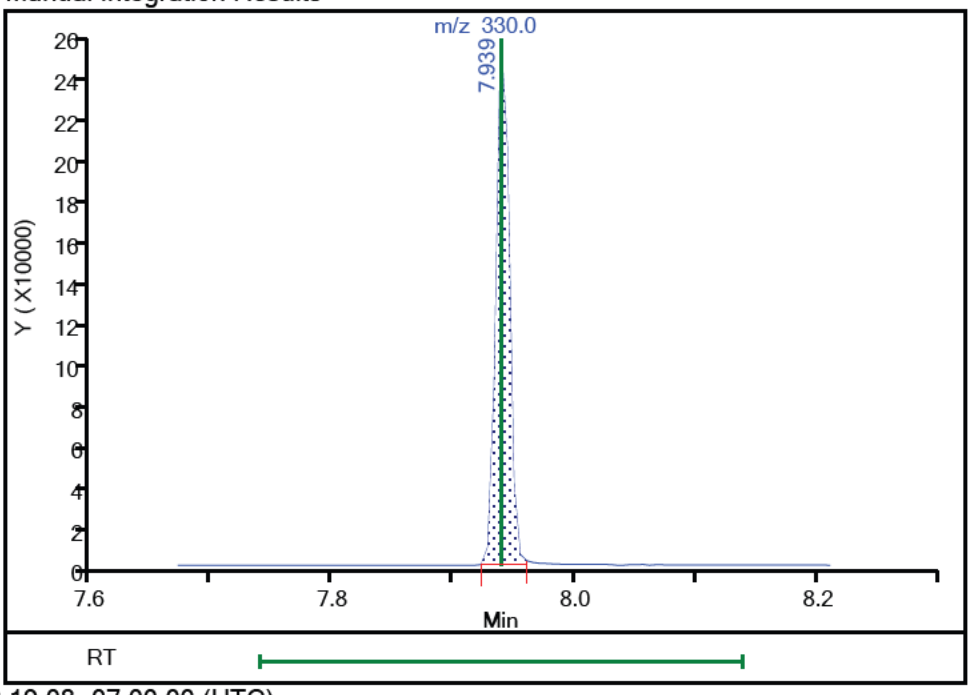
Not Detected
Expected RT: 7.94

Processing Integration Results



RT: 7.94
Area: 193361
Amount: 79.008037
Amount Units: ug/ml

Manual Integration Results



Reviewer: HPV7, 04-Mar-2024 12:19:08 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Eurofins Denver

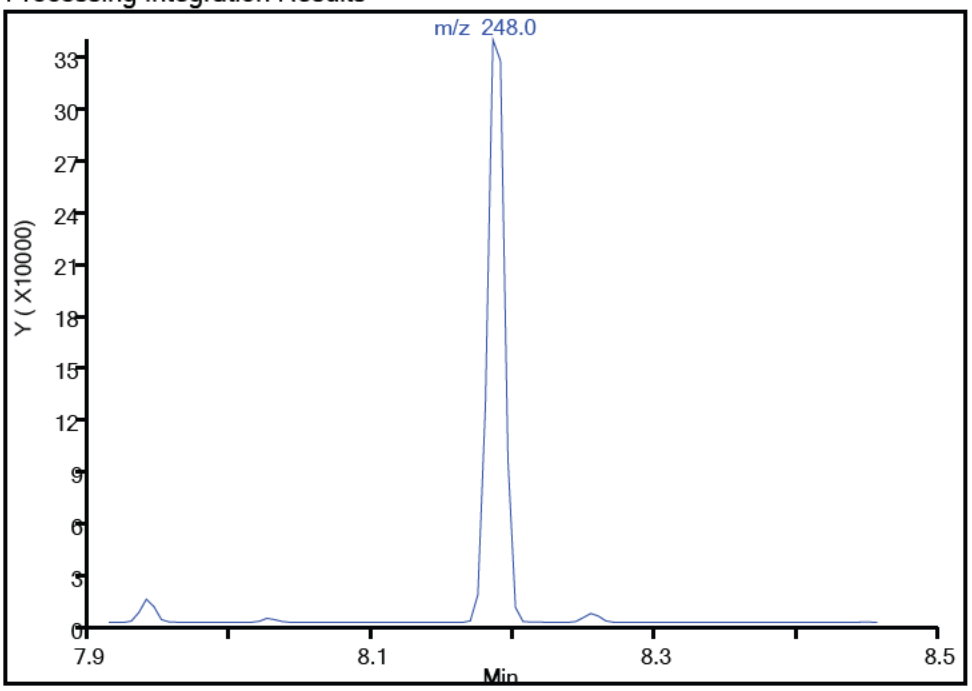
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

138 4-Bromophenyl phenyl ether, CAS: 101-55-3

Signal: 1

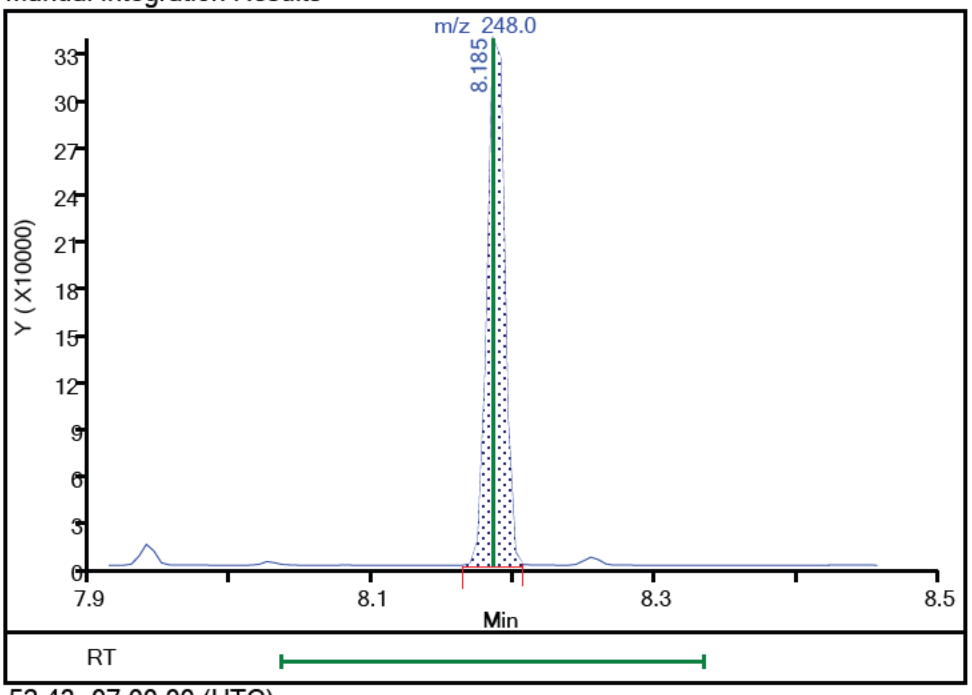
Not Detected
Expected RT: 8.18

Processing Integration Results



Manual Integration Results

RT: 8.18
Area: 287826
Amount: 82.540044
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:52:43 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

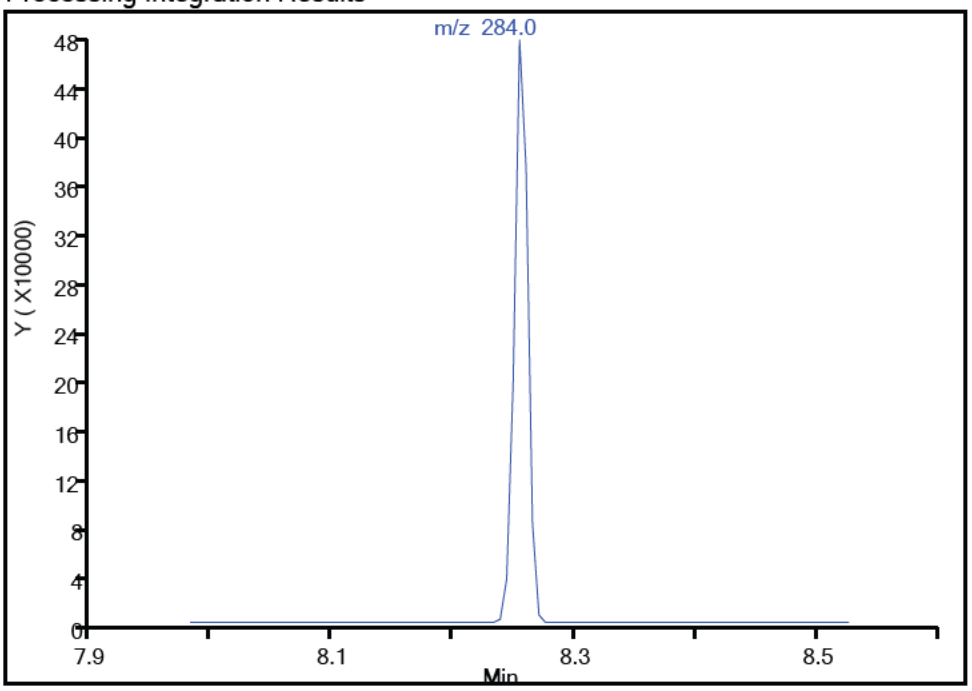
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

140 Hexachlorobenzene, CAS: 118-74-1

Signal: 1

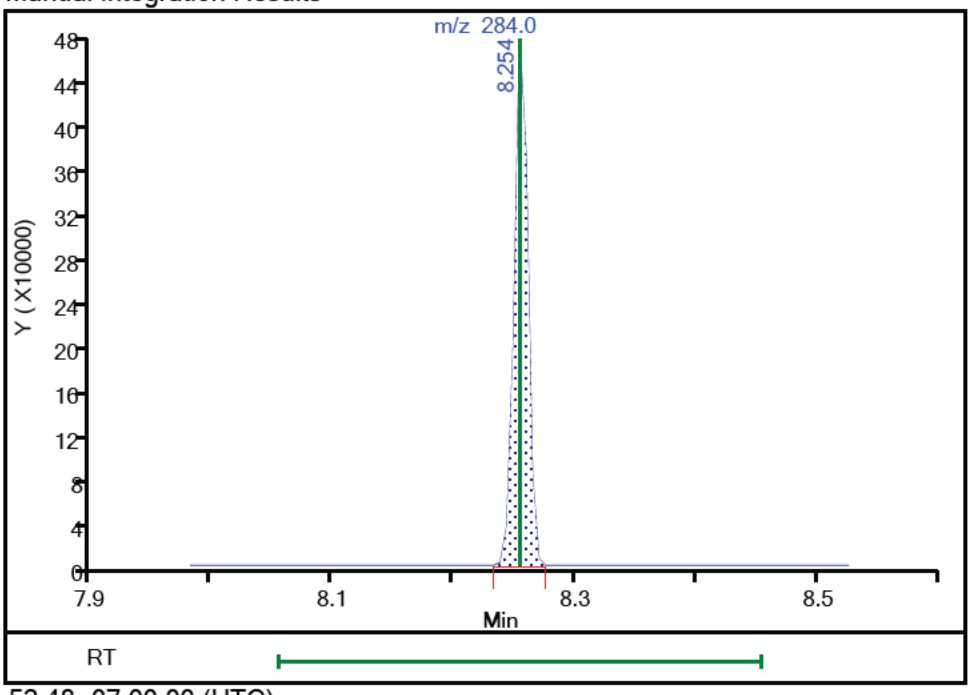
Not Detected
Expected RT: 8.25

Processing Integration Results



Manual Integration Results

RT: 8.25
Area: 374962
Amount: 82.594903
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:52:48 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Eurofins Denver

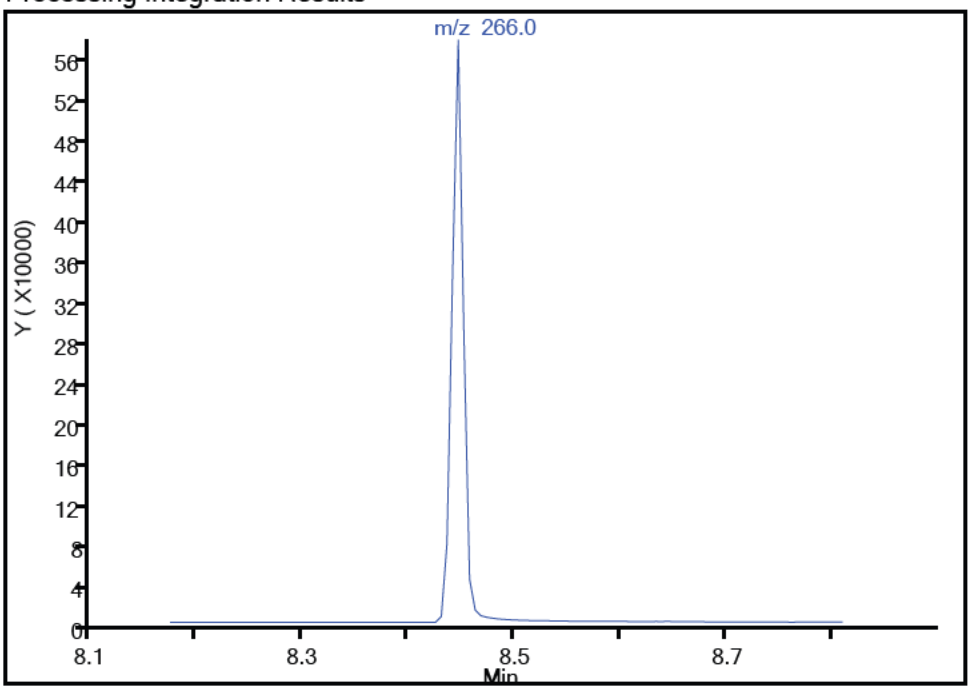
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

143 Pentachlorophenol, CAS: 87-86-5

Signal: 1

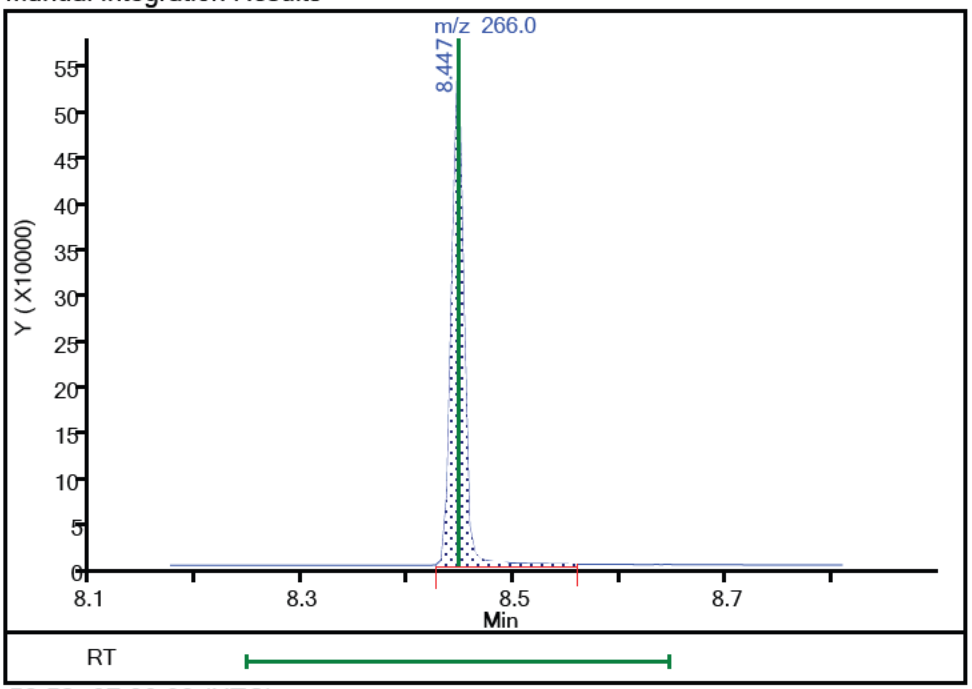
Not Detected
Expected RT: 8.45

Processing Integration Results



Manual Integration Results

RT: 8.45
Area: 442734
Amount: 177.4330
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:52:53 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

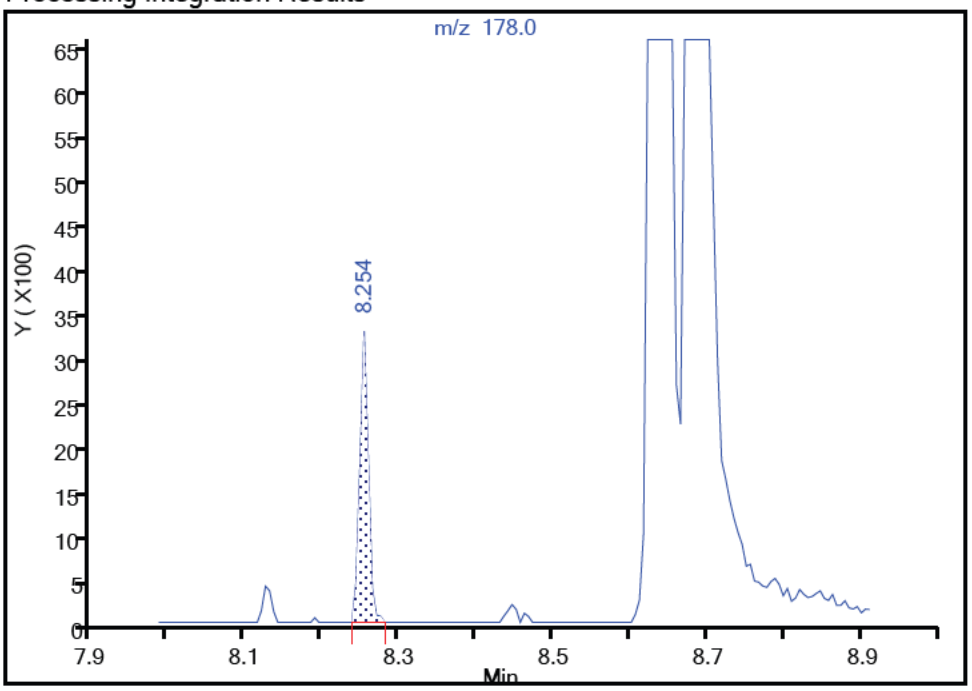
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

148 Phenanthrene, CAS: 85-01-8

Signal: 1

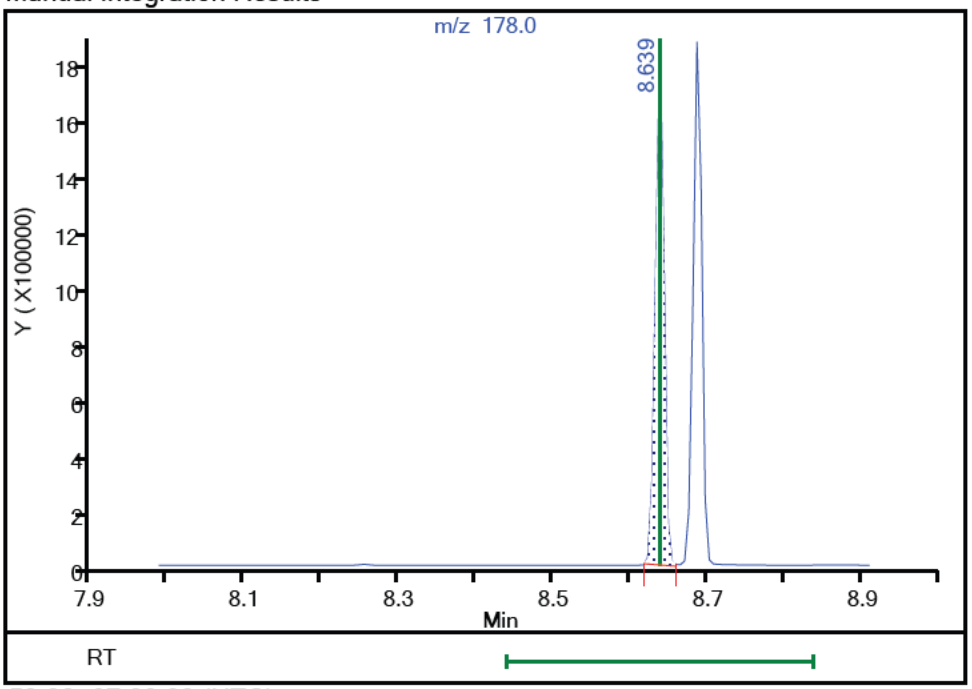
Processing Integration Results

RT: 8.25
Area: 2546
Amount: 0.170304
Amount Units: ug/ml



Manual Integration Results

RT: 8.64
Area: 1406801
Amount: 80.558499
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:53:06 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

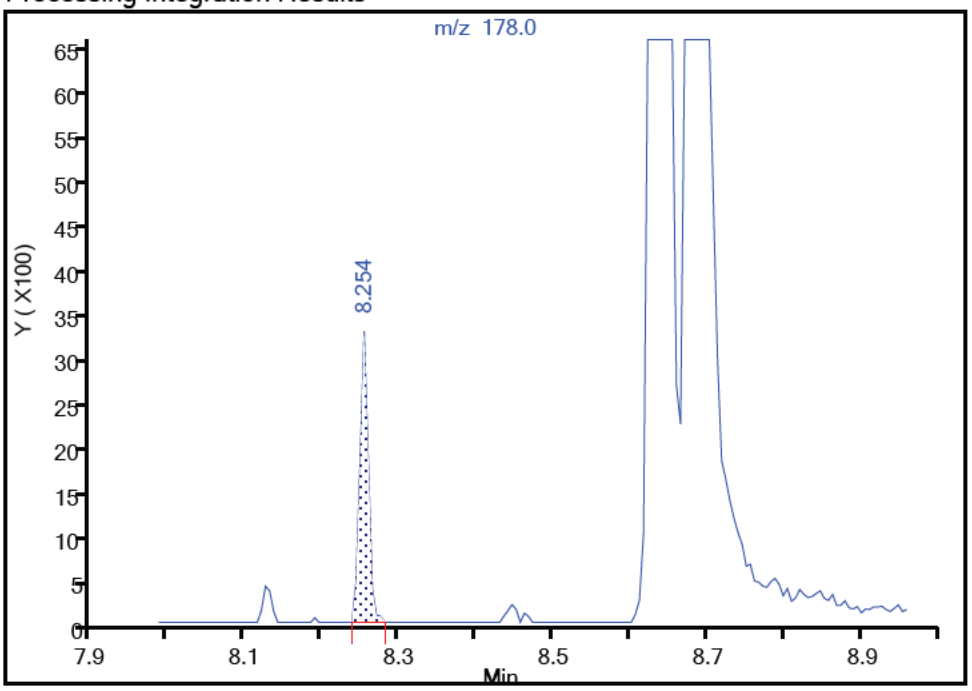
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

151 Anthracene, CAS: 120-12-7

Signal: 1

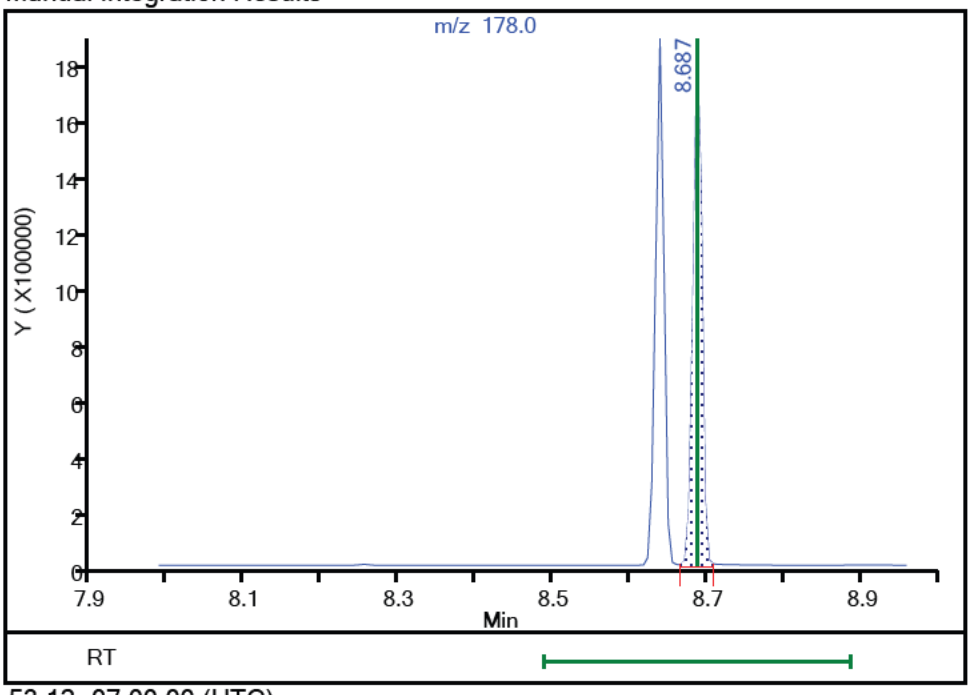
Processing Integration Results

RT: 8.25
Area: 2546
Amount: 0.171085
Amount Units: ug/ml



Manual Integration Results

RT: 8.69
Area: 1441330
Amount: 82.479994
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:53:12 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

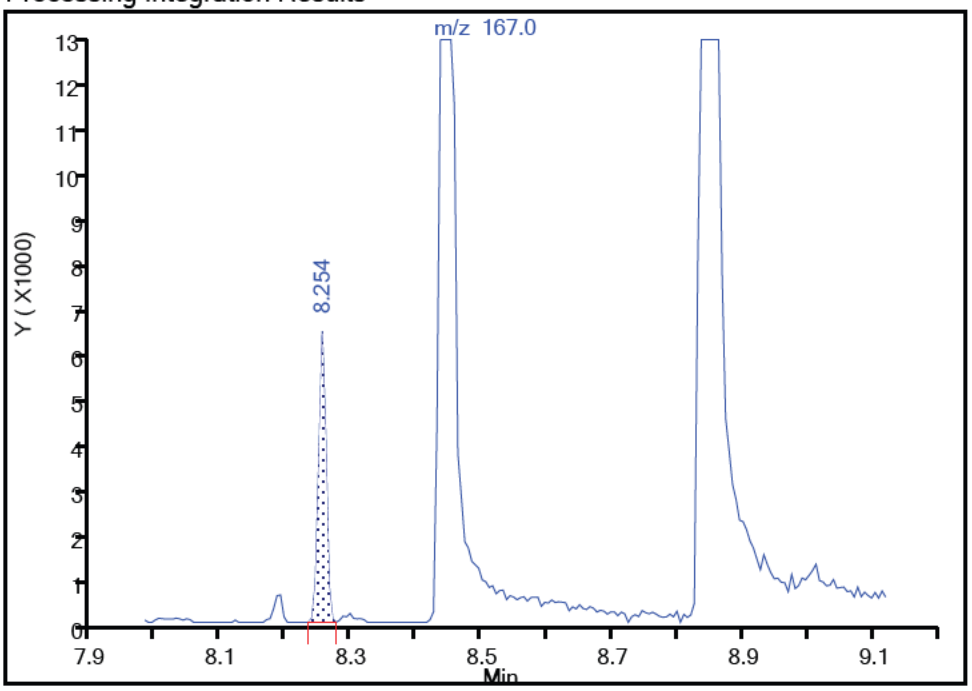
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

152 Carbazole, CAS: 86-74-8

Signal: 1

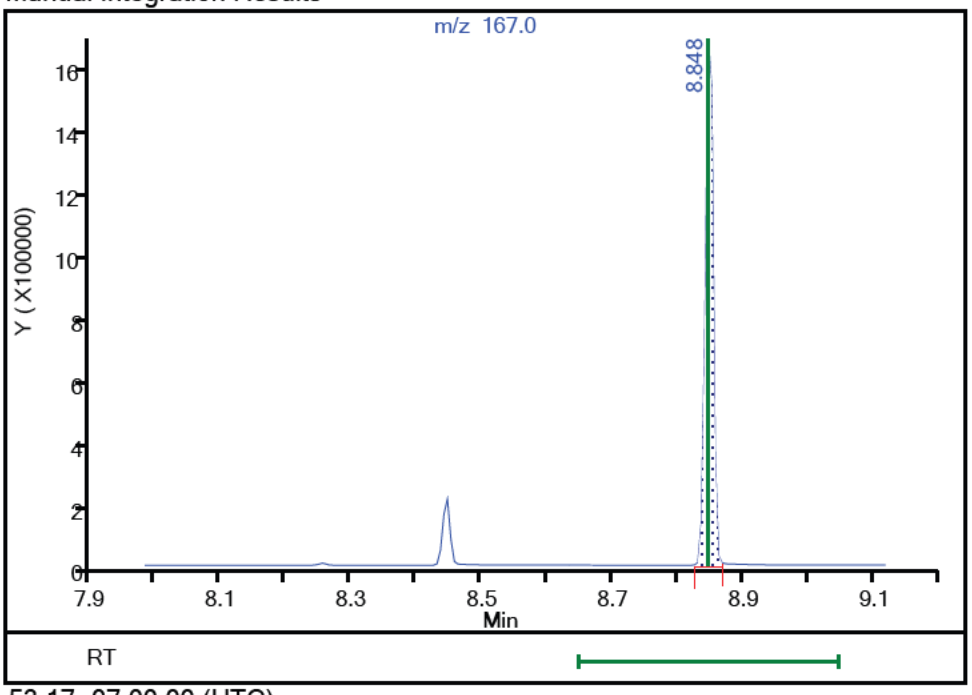
Processing Integration Results

RT: 8.25
Area: 5135
Amount: 0.367377
Amount Units: ug/ml



Manual Integration Results

RT: 8.85
Area: 1389287
Amount: 81.580765
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:53:17 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

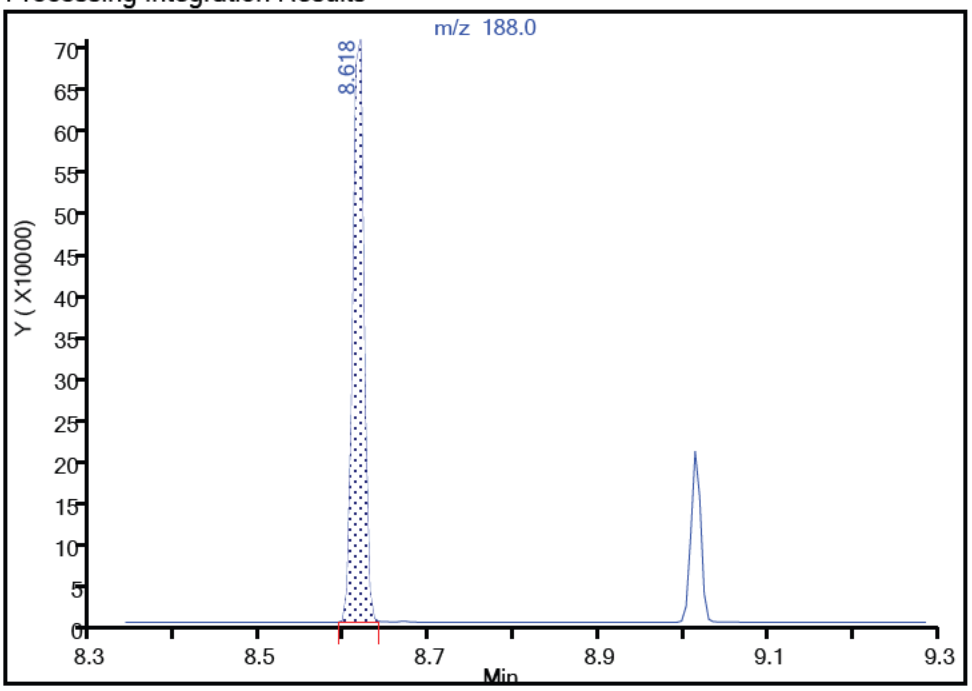
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

154 Alachlor, CAS: 15972-60-8

Signal: 1

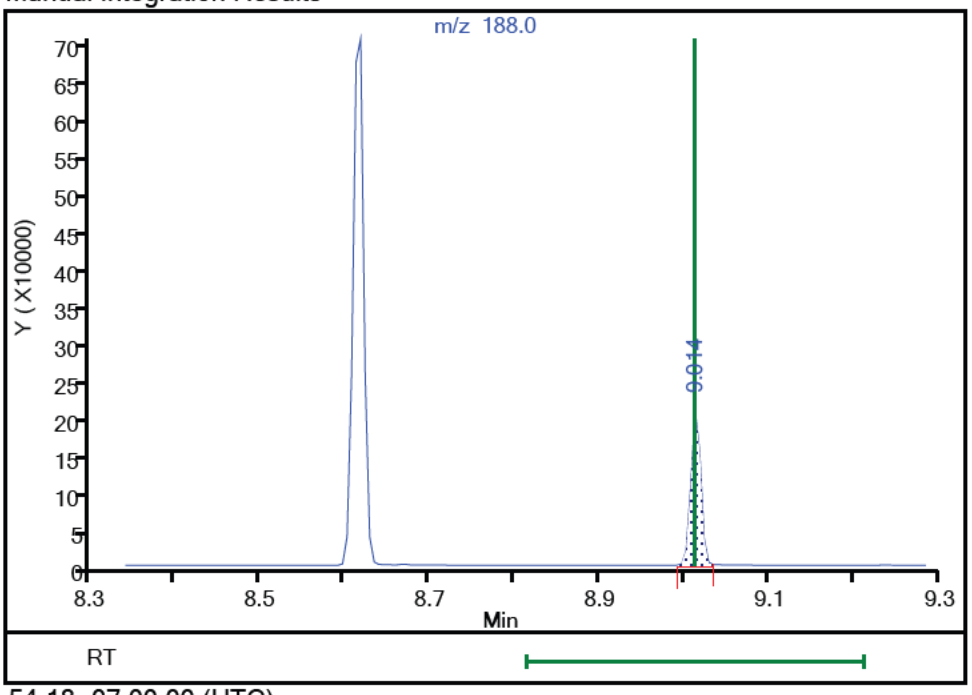
Processing Integration Results

RT: 8.62
Area: 638181
Amount: 224.6878
Amount Units: ug/ml



Manual Integration Results

RT: 9.01
Area: 168768
Amount: 87.552136
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:54:18 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

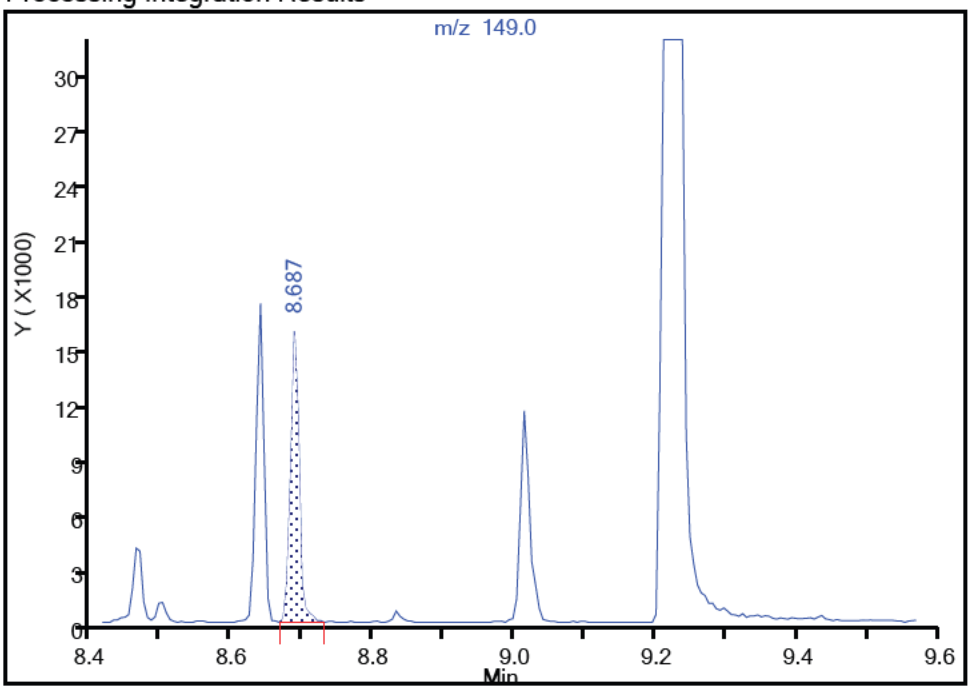
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

155 Di-n-butyl phthalate, CAS: 84-74-2

Signal: 1

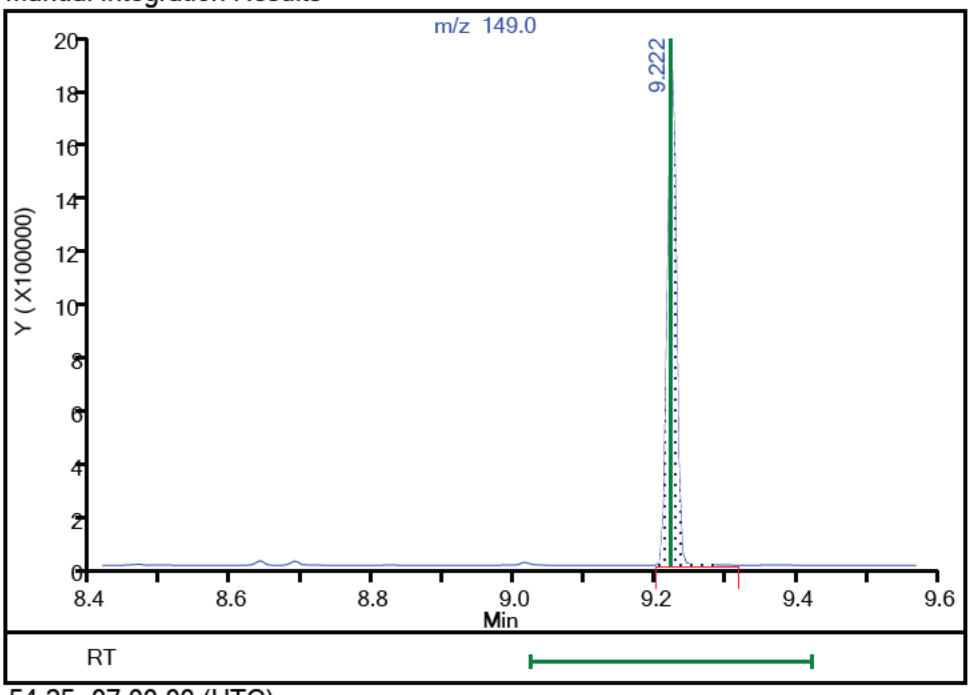
Processing Integration Results

RT: 8.69
Area: 13248
Amount: 0.815995
Amount Units: ug/ml



Manual Integration Results

RT: 9.22
Area: 1682754
Amount: 85.991279
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:54:25 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

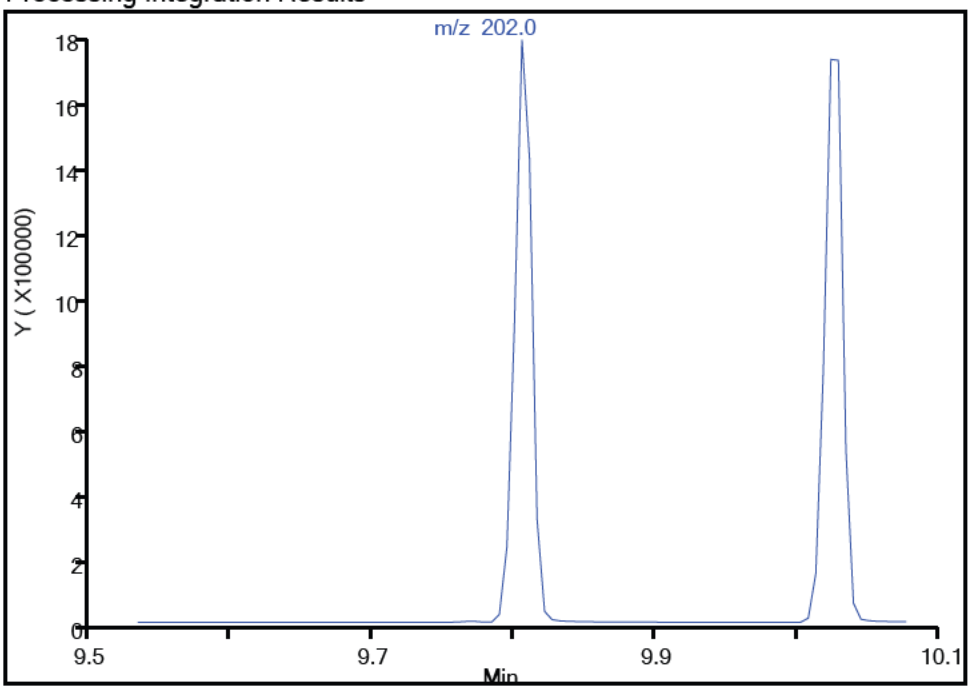
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

160 Fluoranthene, CAS: 206-44-0

Signal: 1

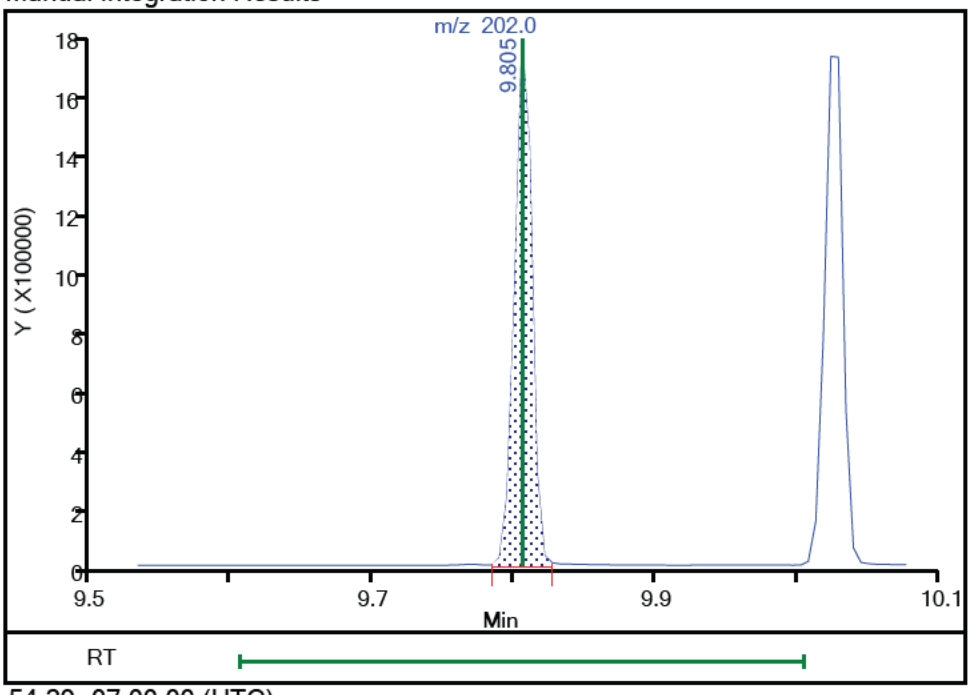
Not Detected
Expected RT: 9.81

Processing Integration Results



Manual Integration Results

RT: 9.81
Area: 1492947
Amount: 84.607778
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:54:29 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

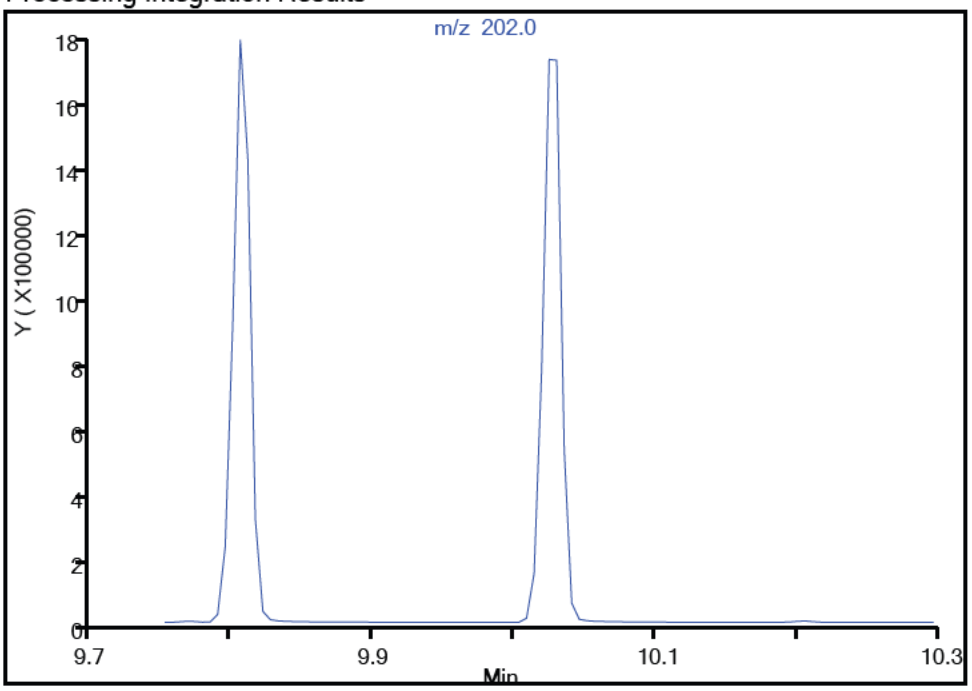
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

162 Pyrene, CAS: 129-00-0

Signal: 1

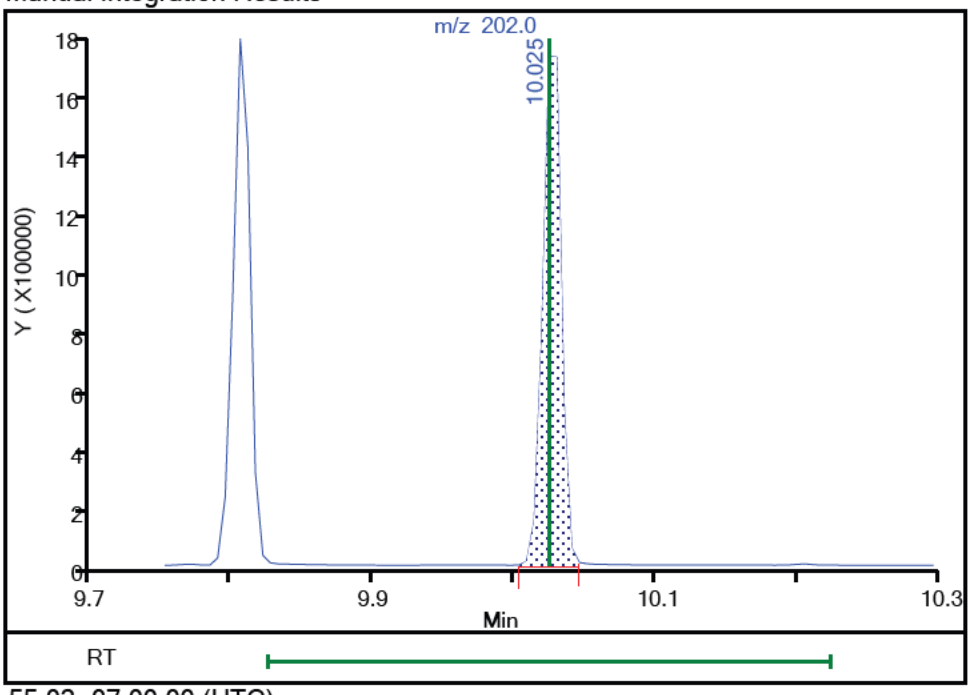
Not Detected
Expected RT: 10.02

Processing Integration Results



Manual Integration Results

RT: 10.02
Area: 1569755
Amount: 81.622333
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:55:02 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

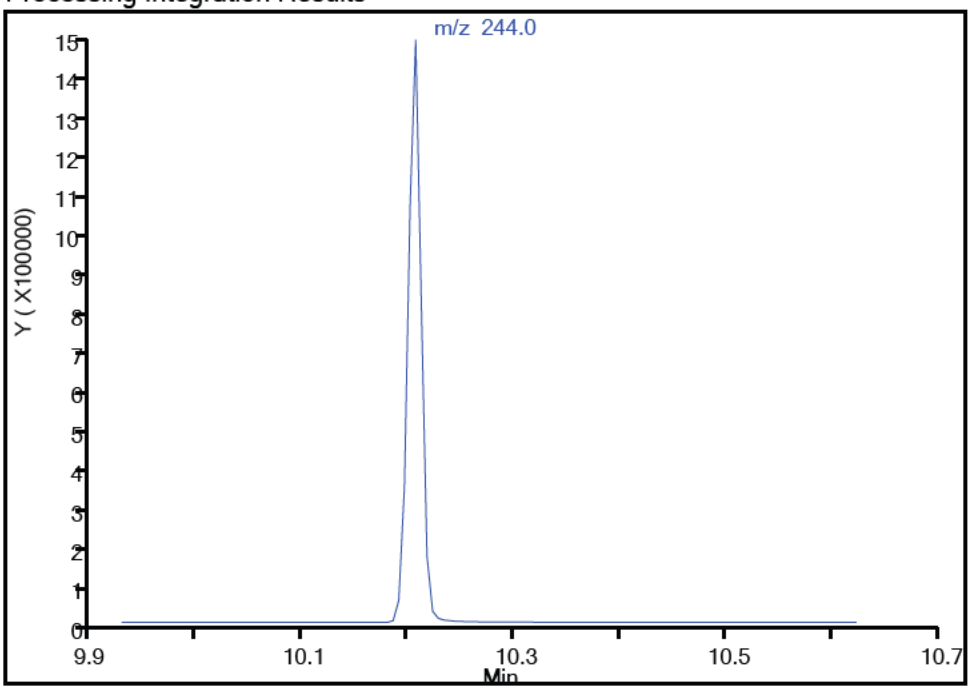
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

$ 13 Terphenyl-d14, CAS: 1718-51-0

Signal: 1

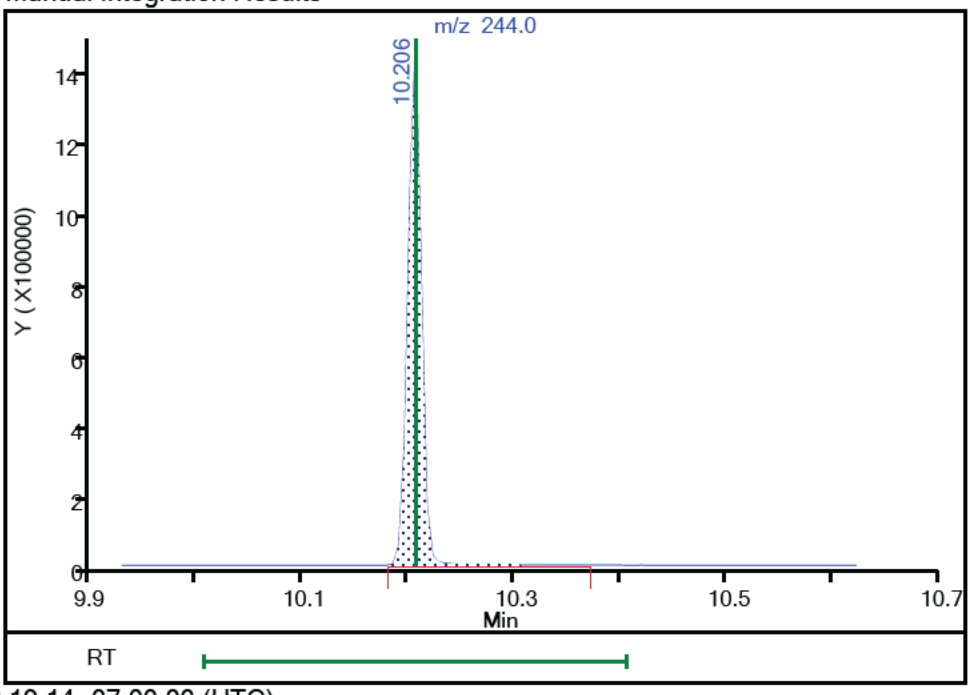
Not Detected
Expected RT: 10.21

Processing Integration Results



Manual Integration Results

RT: 10.21
Area: 1222487
Amount: 82.607230
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:19:14 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

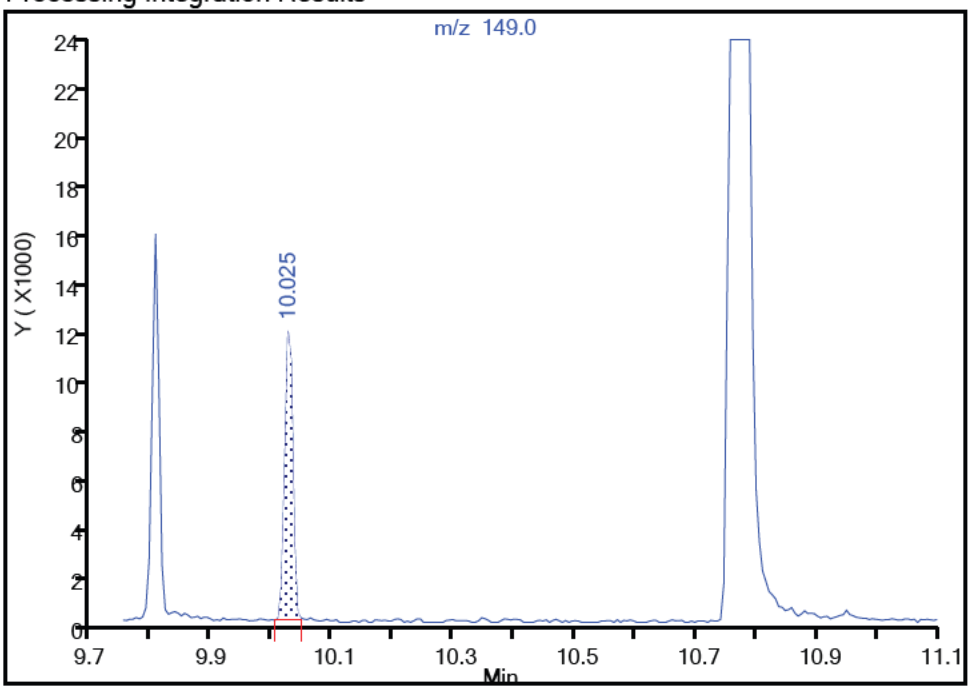
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

169 Butyl benzyl phthalate, CAS: 85-68-7

Signal: 1

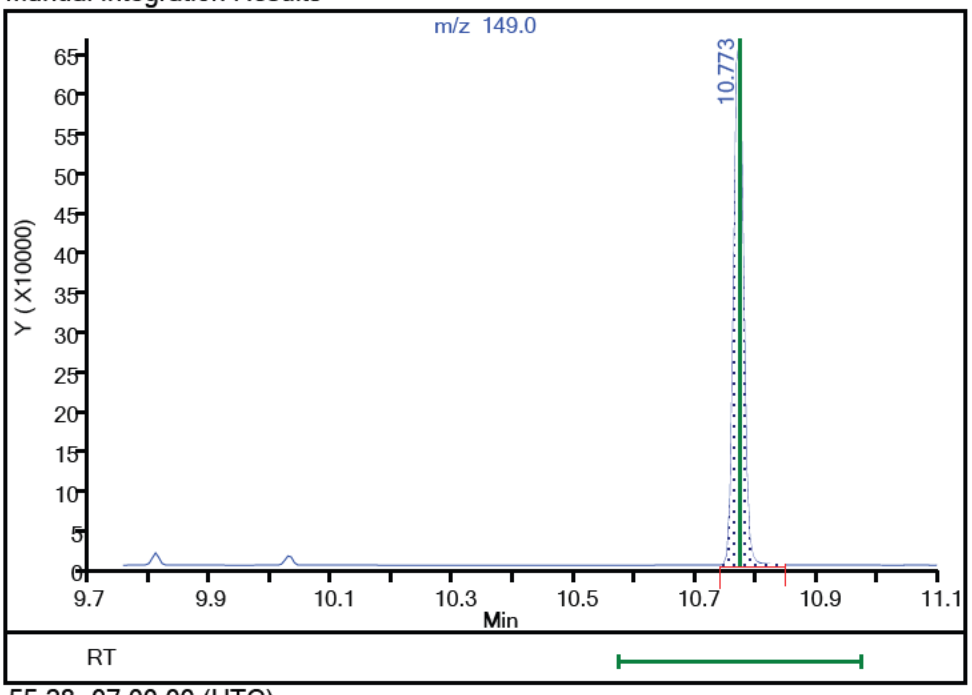
Processing Integration Results

RT: 10.02
Area: 10689
Amount: 1.554268
Amount Units: ug/ml



Manual Integration Results

RT: 10.77
Area: 744467
Amount: 83.433947
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:55:28 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

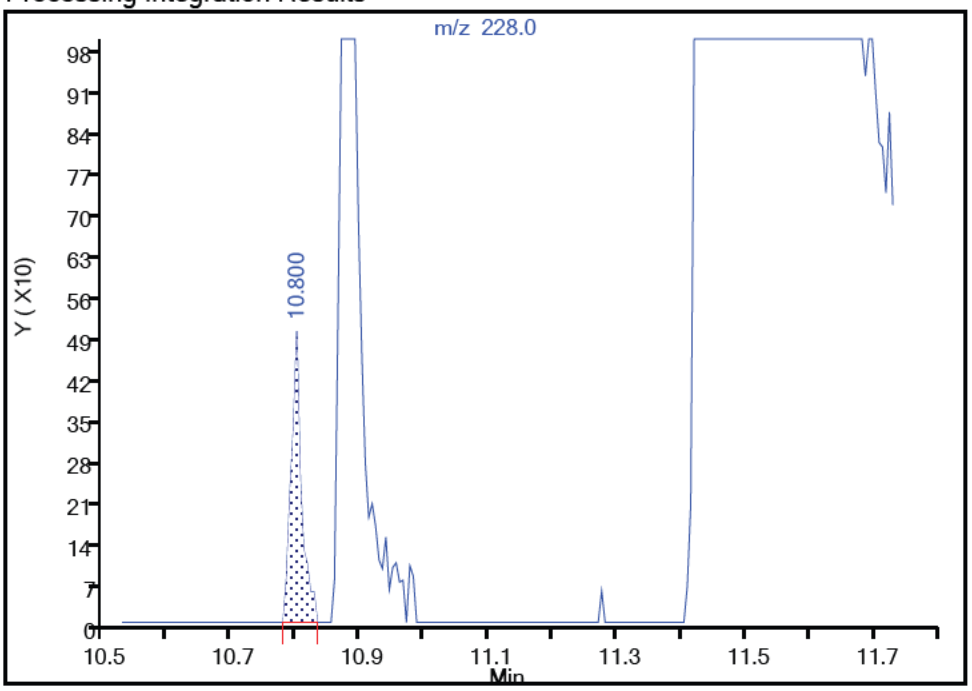
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

173 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

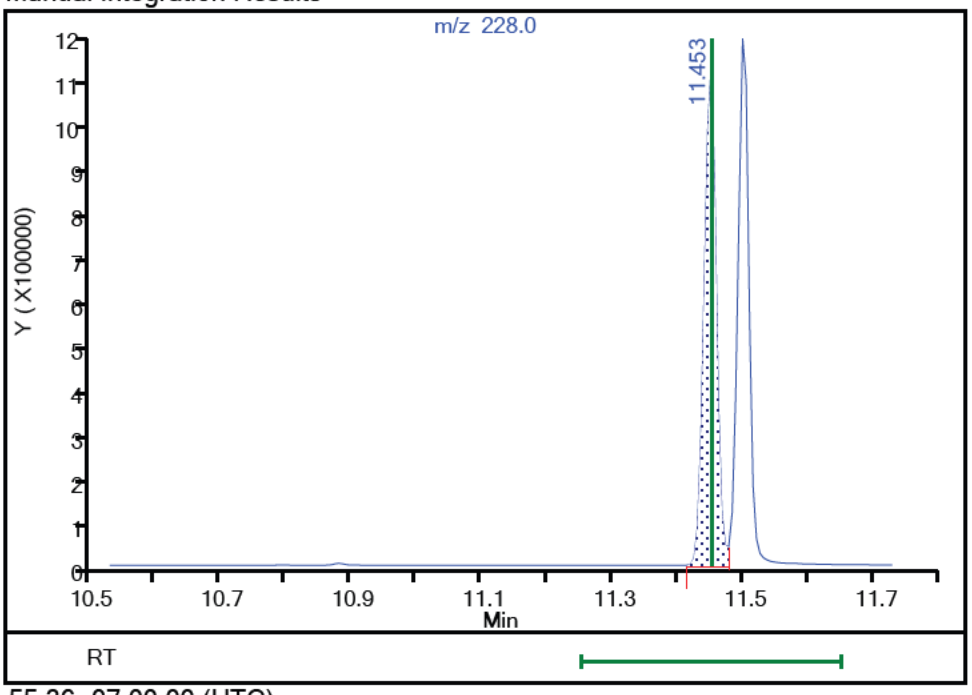
Processing Integration Results

RT: 10.80
Area: 546
Amount: 0.037009
Amount Units: ug/ml



Manual Integration Results

RT: 11.45
Area: 1479893
Amount: 85.989605
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:55:36 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

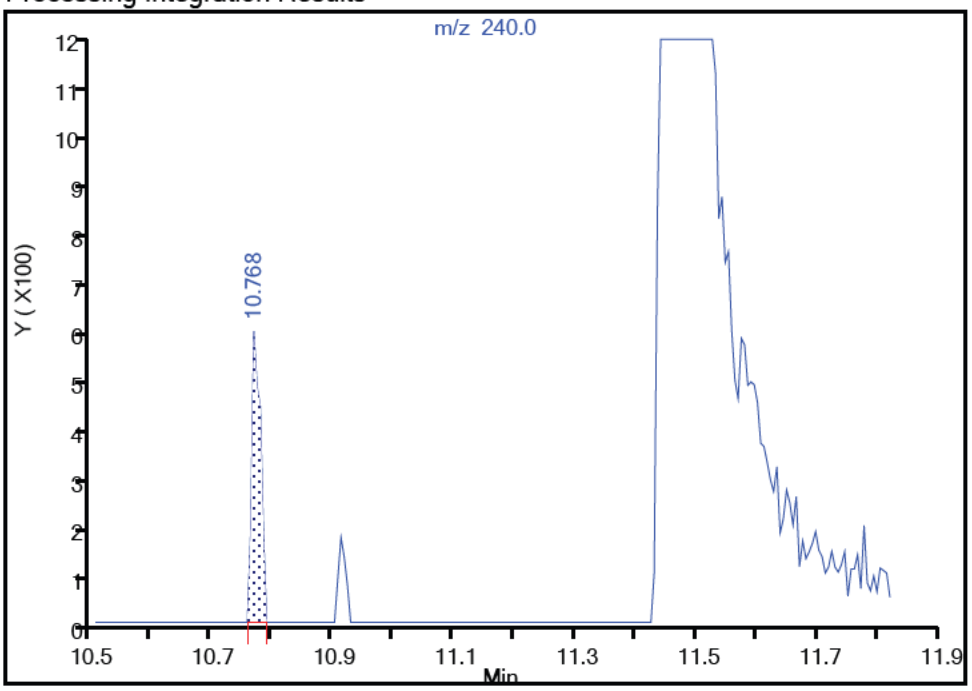
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

* 5 Chrysene-d12, CAS: 1719-03-5

Signal: 1

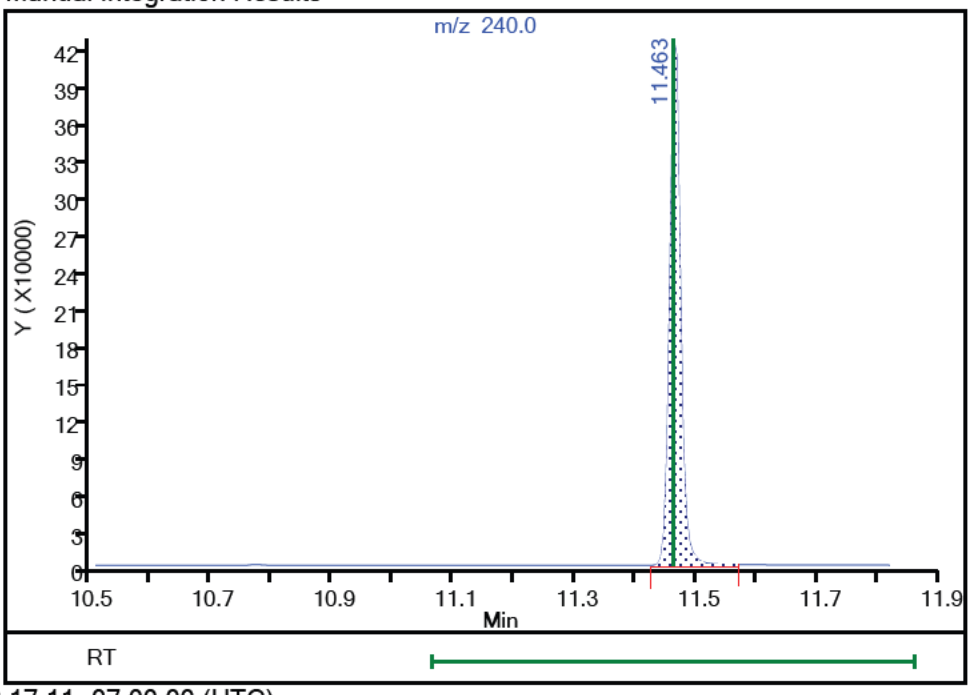
Processing Integration Results

RT: 10.77
Area: 597
Amount: 40.000000
Amount Units: ug/ml



Manual Integration Results

RT: 11.46
Area: 534352
Amount: 40.000000
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 12:17:11 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

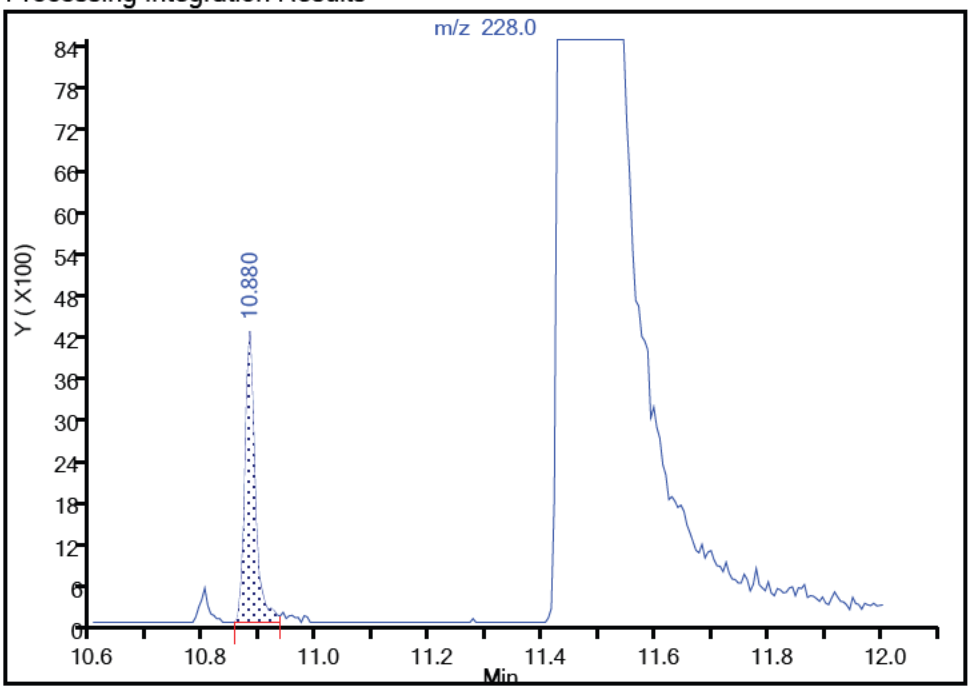
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

175 Chrysene, CAS: 218-01-9

Signal: 1

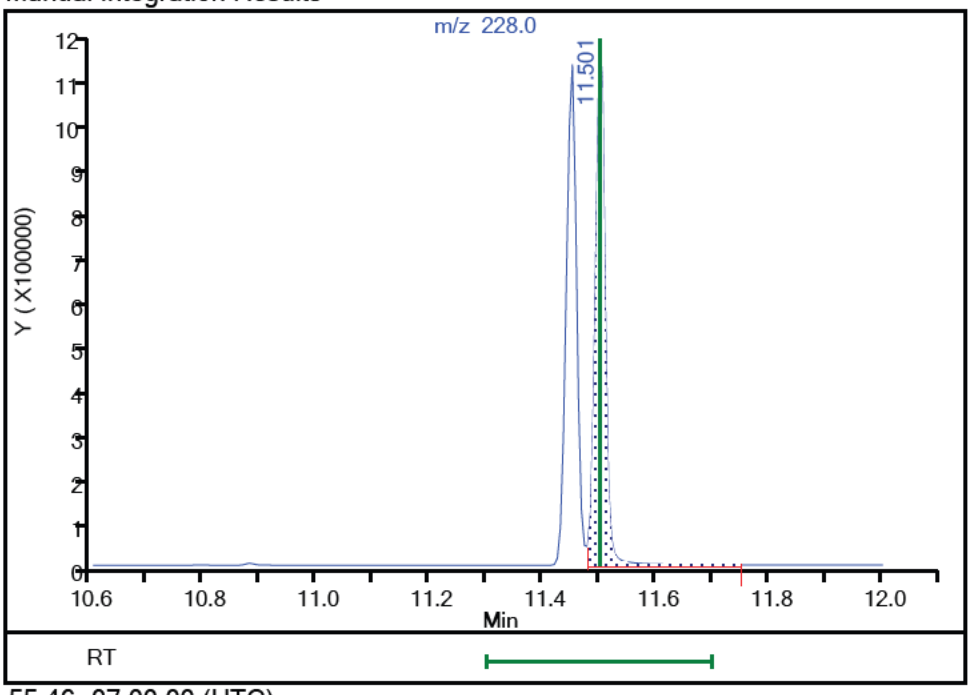
Processing Integration Results

RT: 10.88
Area: 5254
Amount: 0.322082
Amount Units: ug/ml



Manual Integration Results

RT: 11.50
Area: 1475304
Amount: 80.375993
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:55:46 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

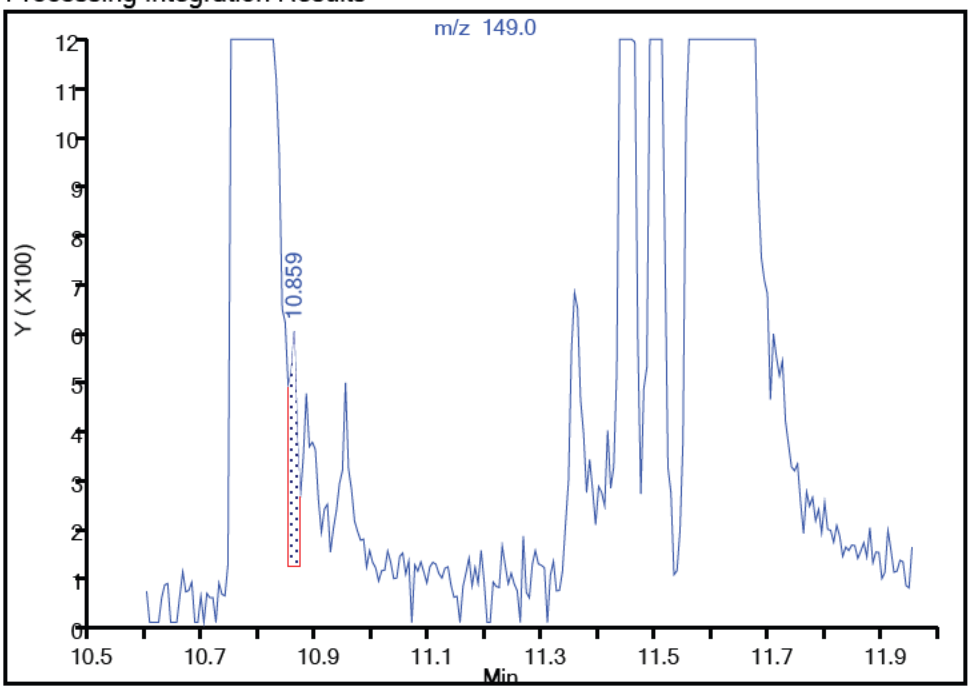
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

176 Bis(2-ethylhexyl) phthalate, CAS: 117-81-7

Signal: 1

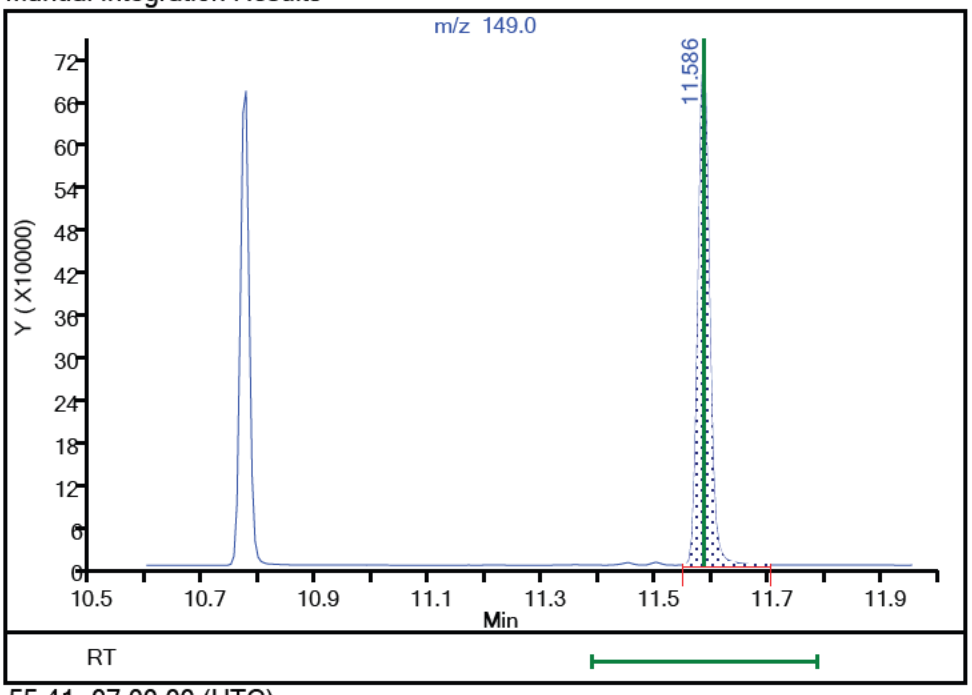
Processing Integration Results

RT: 10.86
Area: 524
Amount: 0.056235
Amount Units: ug/ml



Manual Integration Results

RT: 11.59
Area: 1011686
Amount: 82.556289
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:55:41 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

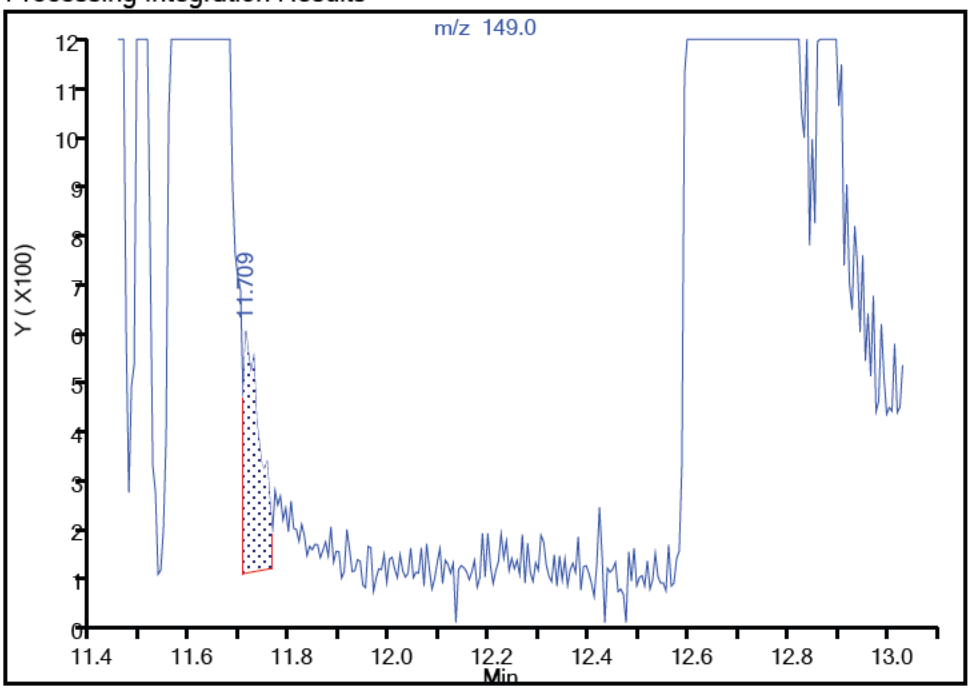
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

178 Di-n-octyl phthalate, CAS: 117-84-0

Signal: 1

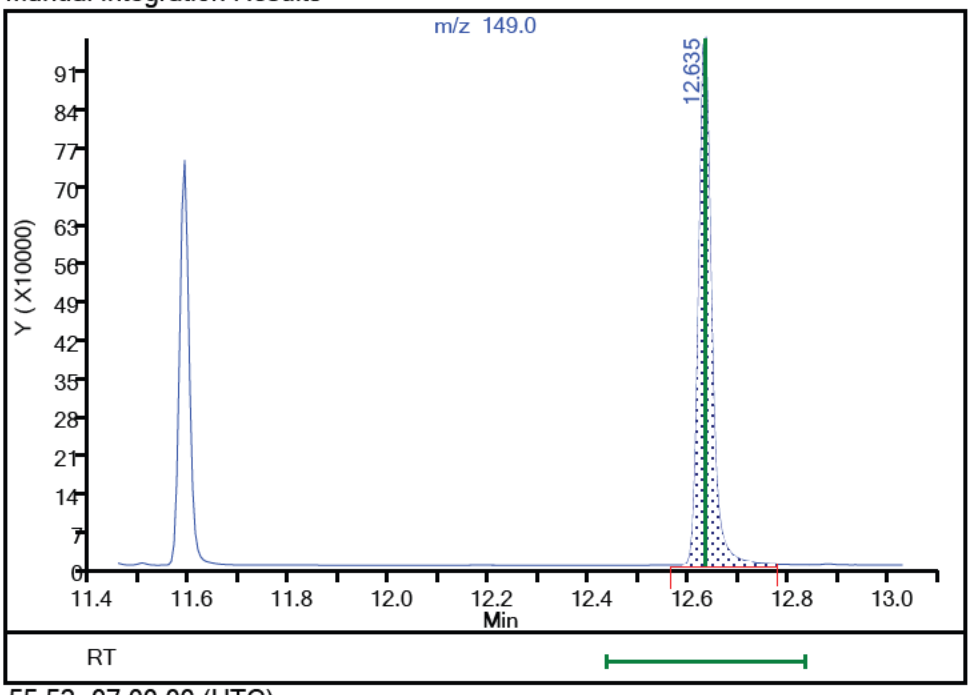
Processing Integration Results

RT: 11.71
Area: 1125
Amount: 4.464941
Amount Units: ug/ml



Manual Integration Results

RT: 12.63
Area: 1744504
Amount: 86.908635
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:55:52 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

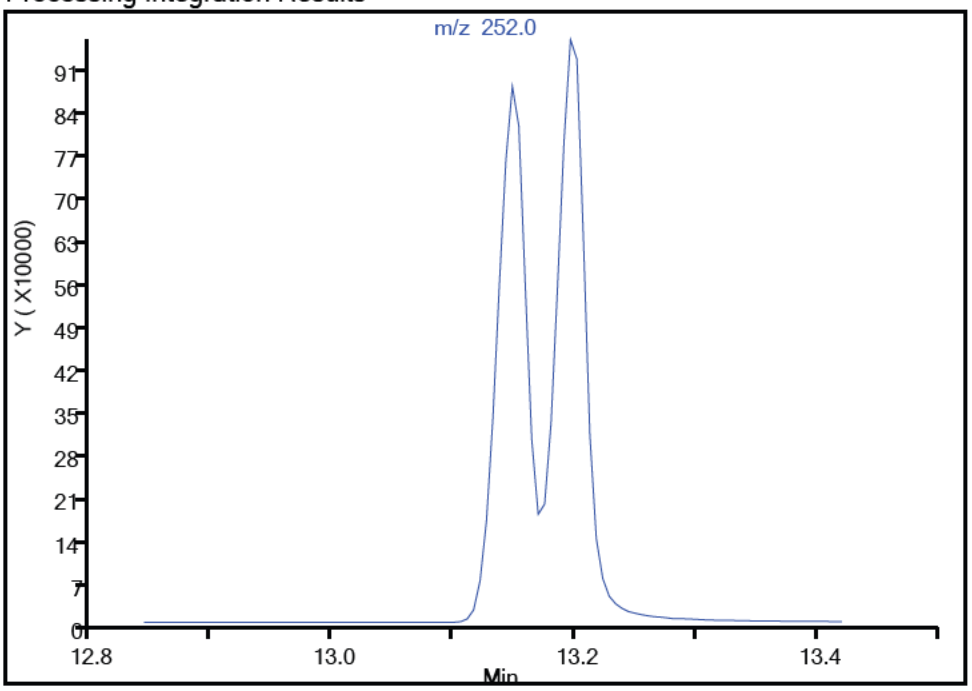
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

179 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

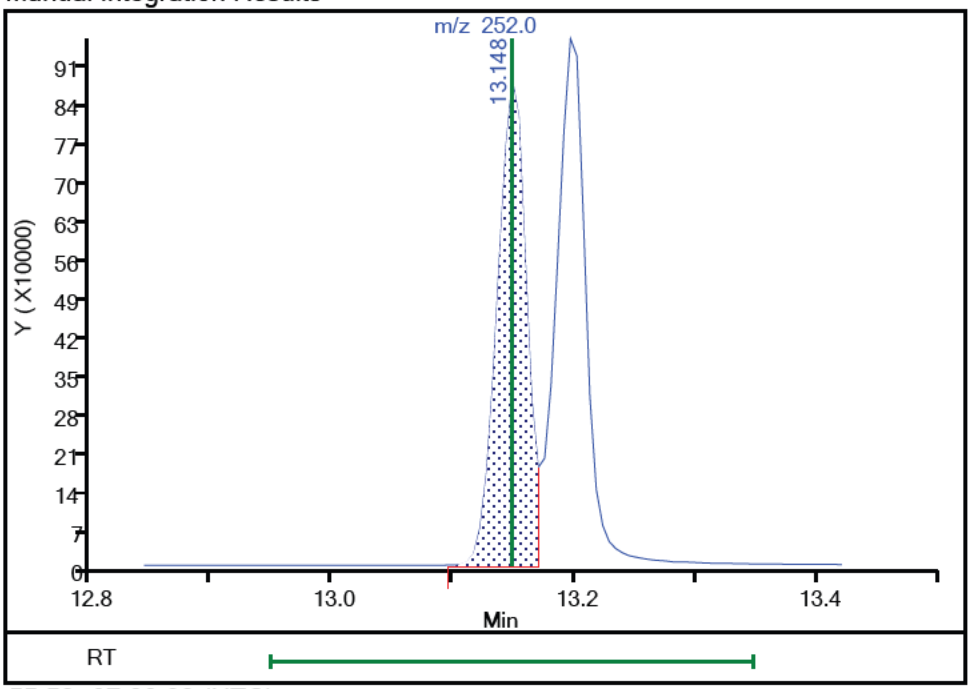
Not Detected
Expected RT: 13.15

Processing Integration Results



Manual Integration Results

RT: 13.15
Area: 1481664
Amount: 85.760569
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:55:59 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

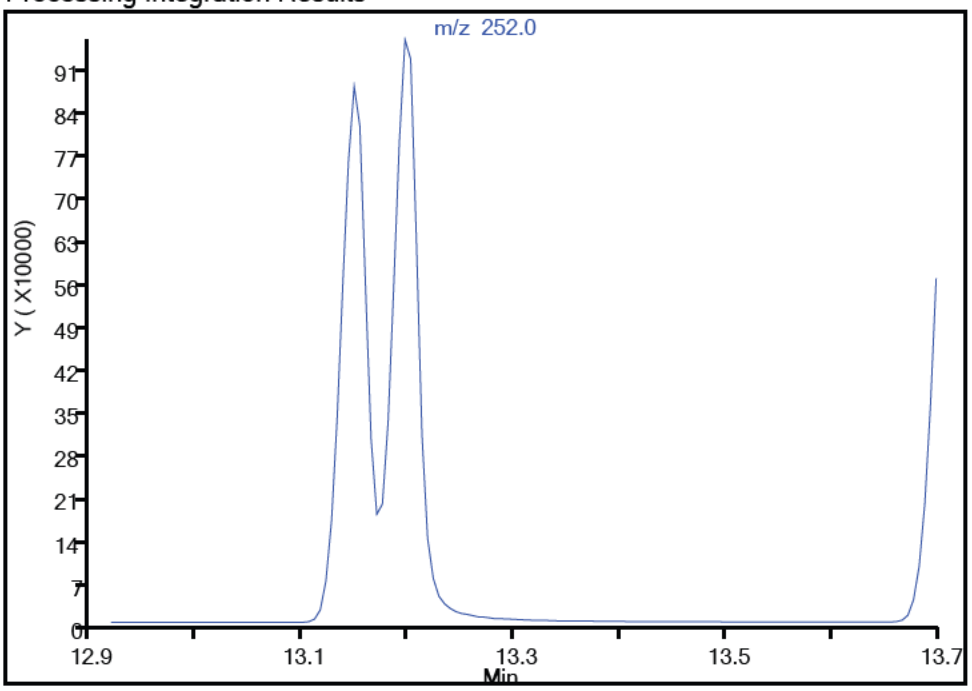
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

181 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

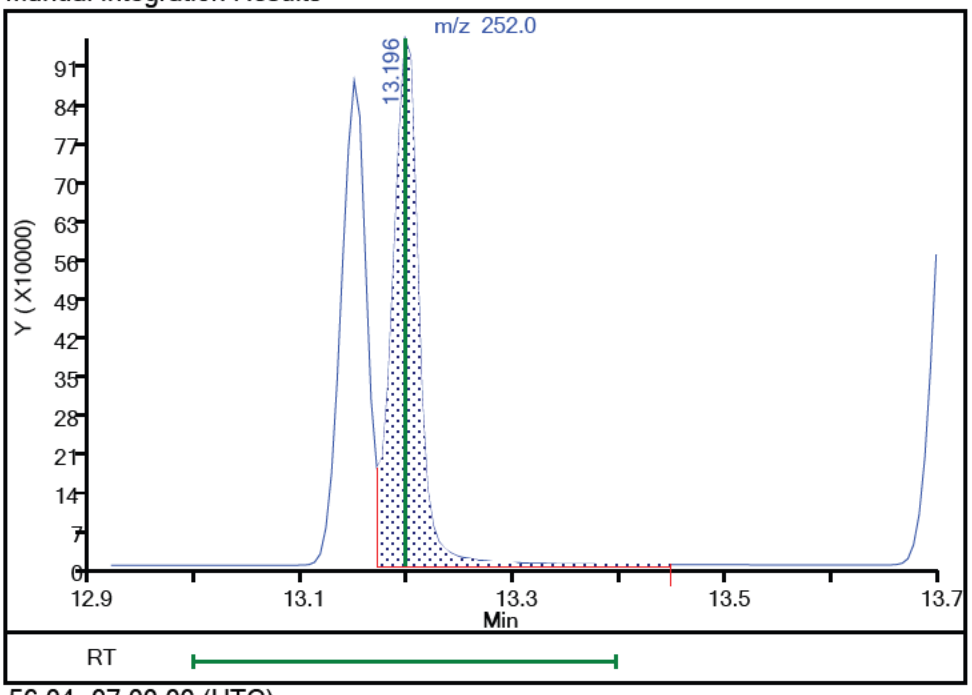
Not Detected
Expected RT: 13.20

Processing Integration Results



Manual Integration Results

RT: 13.20
Area: 1700166
Amount: 80.973777
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:56:04 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

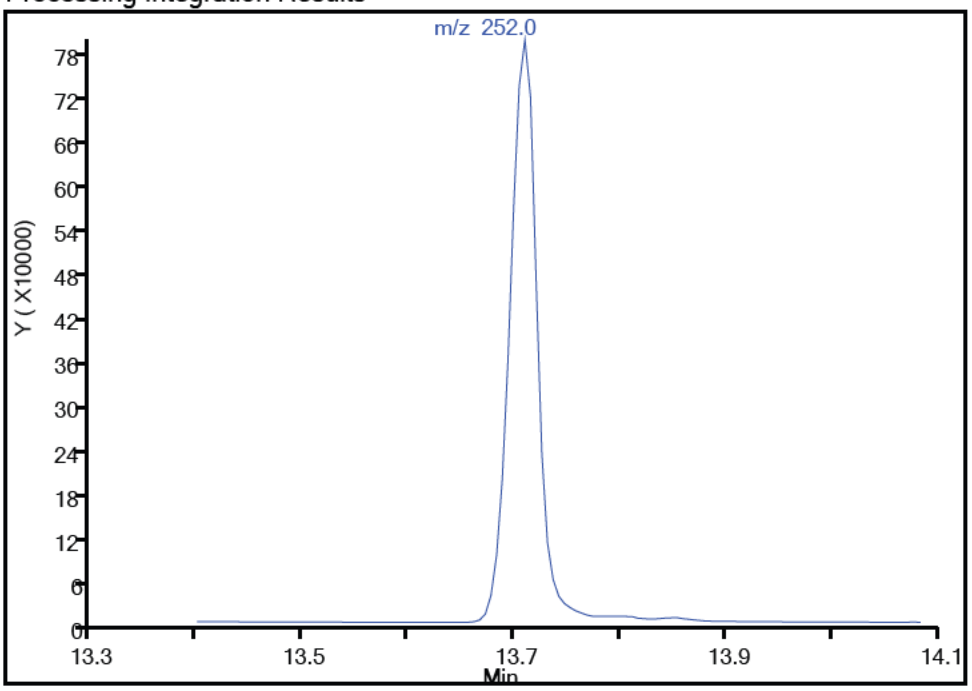
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

183 Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

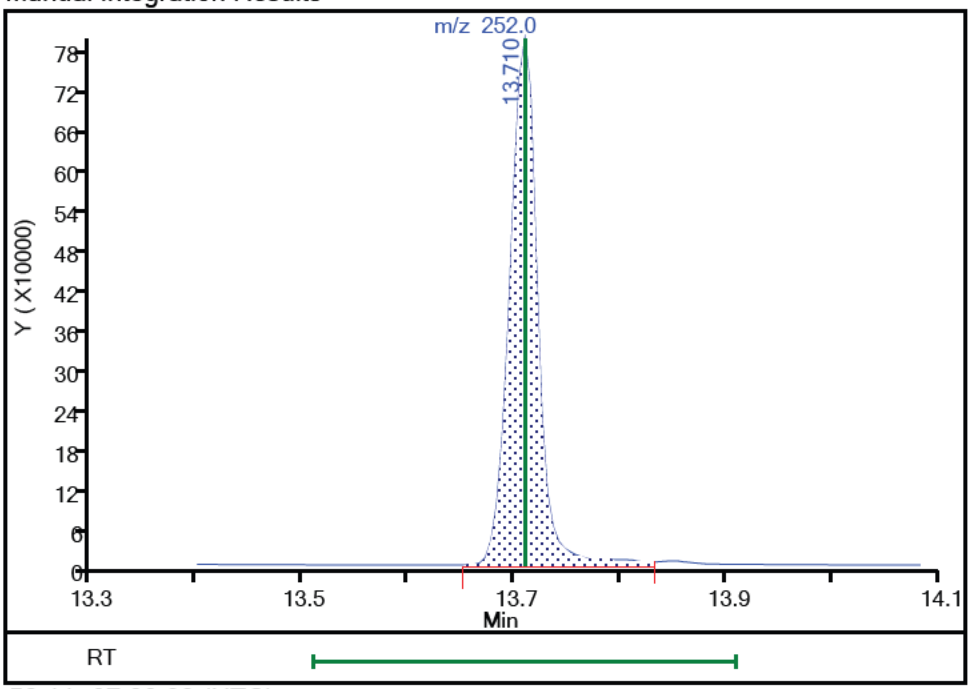
Not Detected
Expected RT: 13.71

Processing Integration Results



Manual Integration Results

RT: 13.71
Area: 1462223
Amount: 79.475527
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:56:11 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

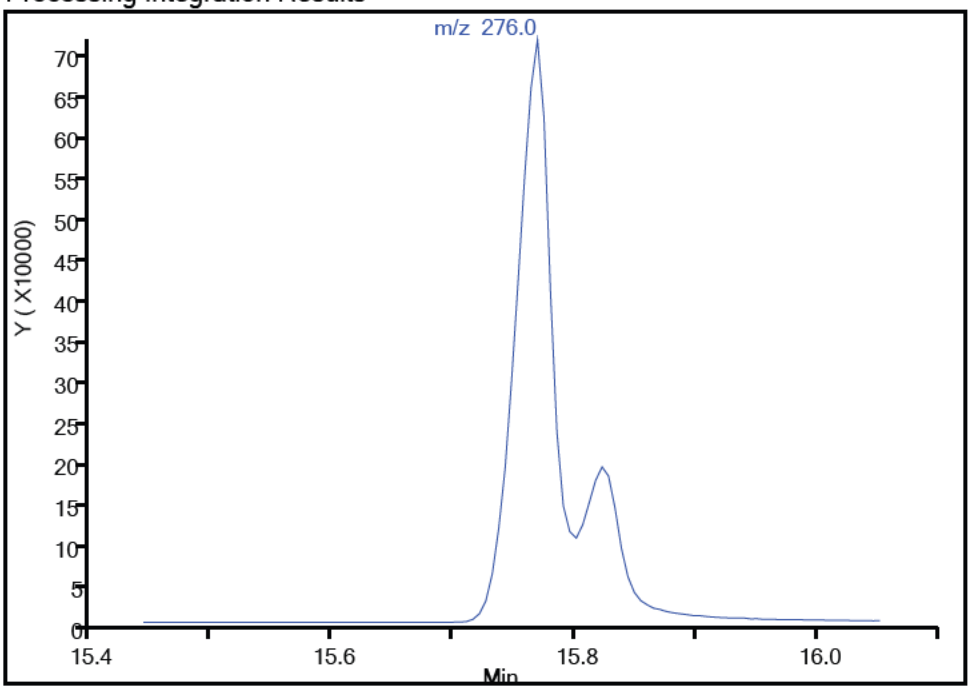
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

187 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

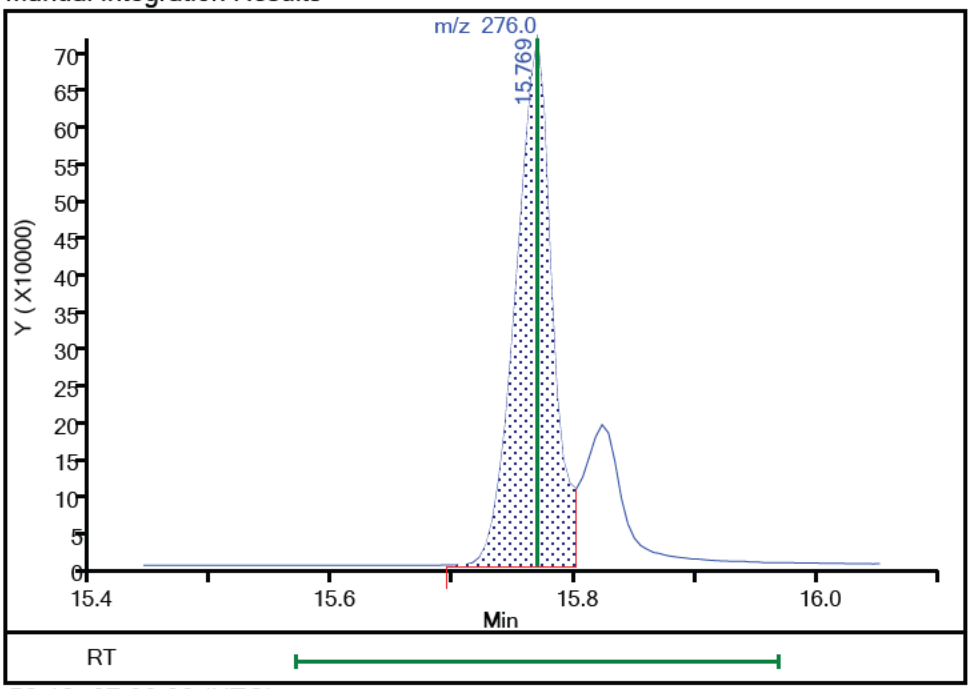
Not Detected
Expected RT: 15.77

Processing Integration Results



Manual Integration Results

RT: 15.77
Area: 1500178
Amount: 86.303866
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:56:18 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

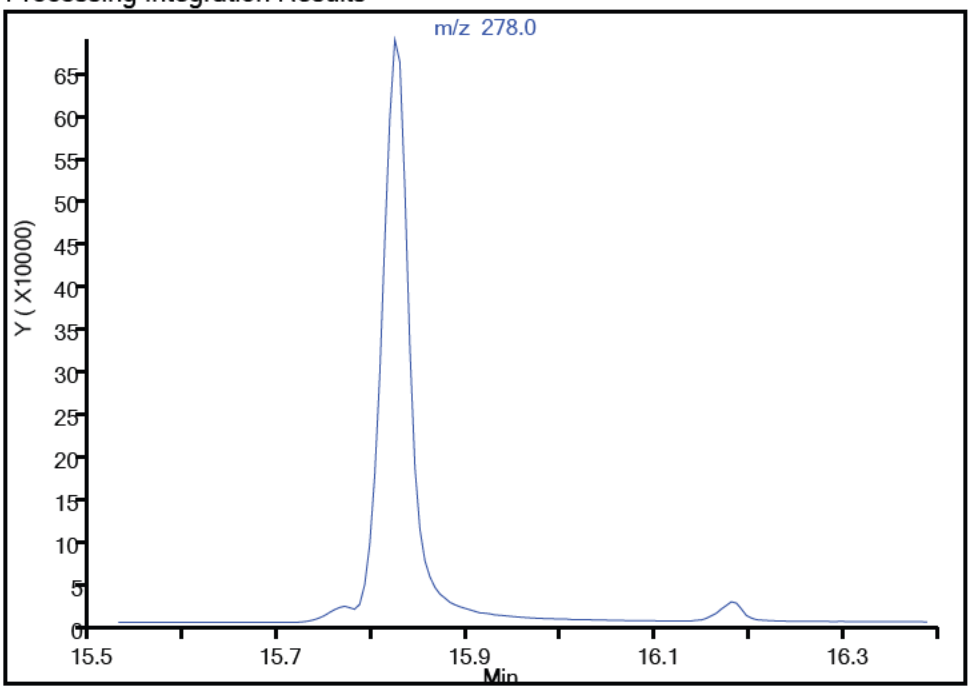
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

188 Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

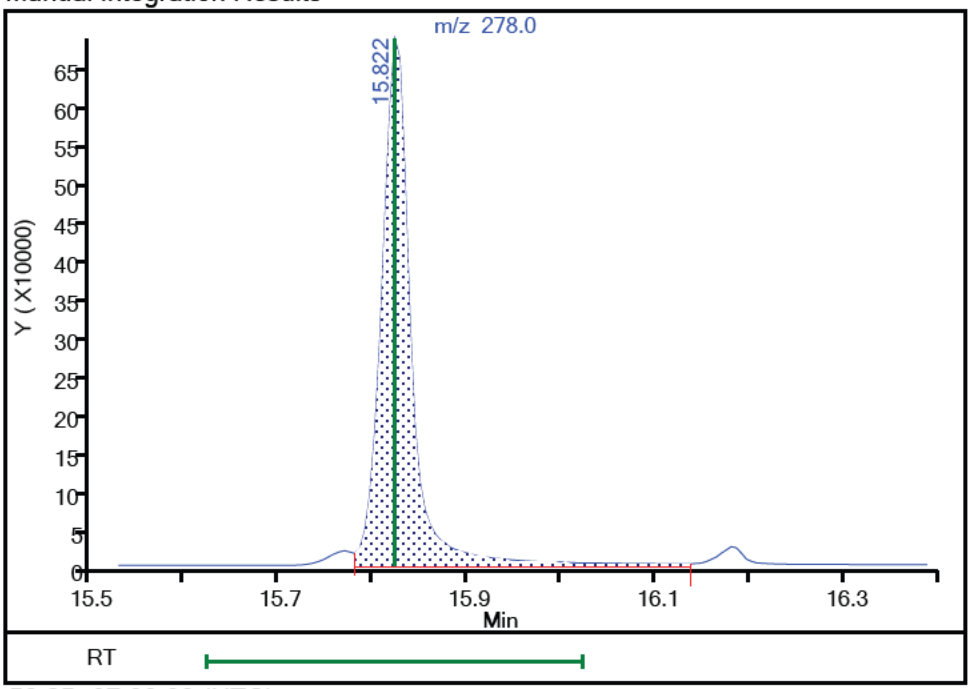
Not Detected
Expected RT: 15.82

Processing Integration Results



Manual Integration Results

RT: 15.82
Area: 1498563
Amount: 92.866731
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:56:25 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

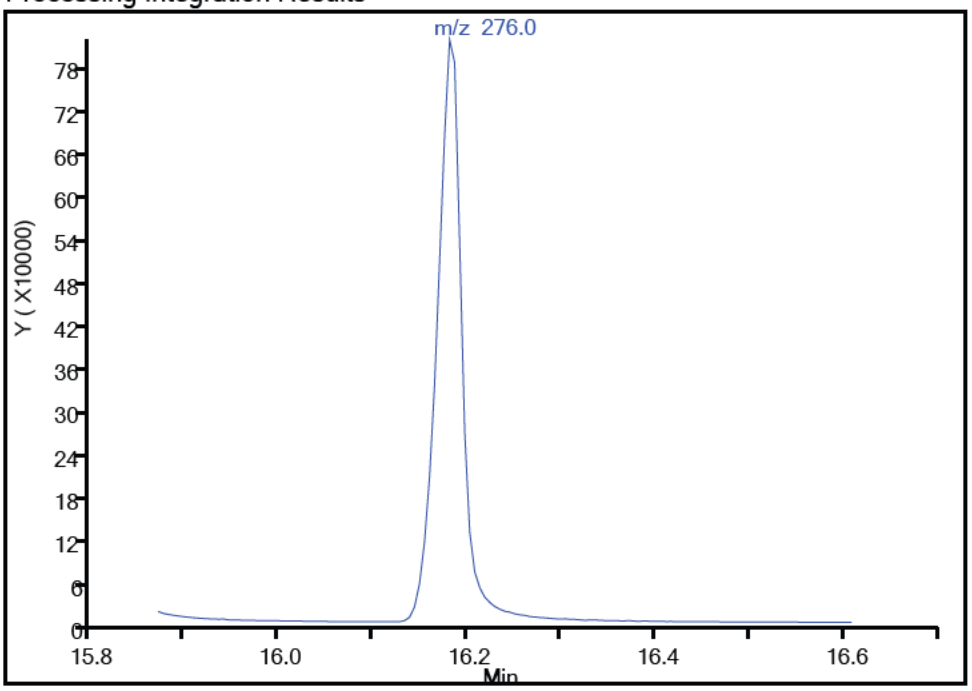
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424003.D				
Injection Date:	04-Mar-2024 10:17:30	Instrument ID:	SMS_G6		
Lims ID:	ICIS				
Client ID:					
Operator ID:	RC	ALS Bottle#:	2	Worklist Smp#:	3
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

189 Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

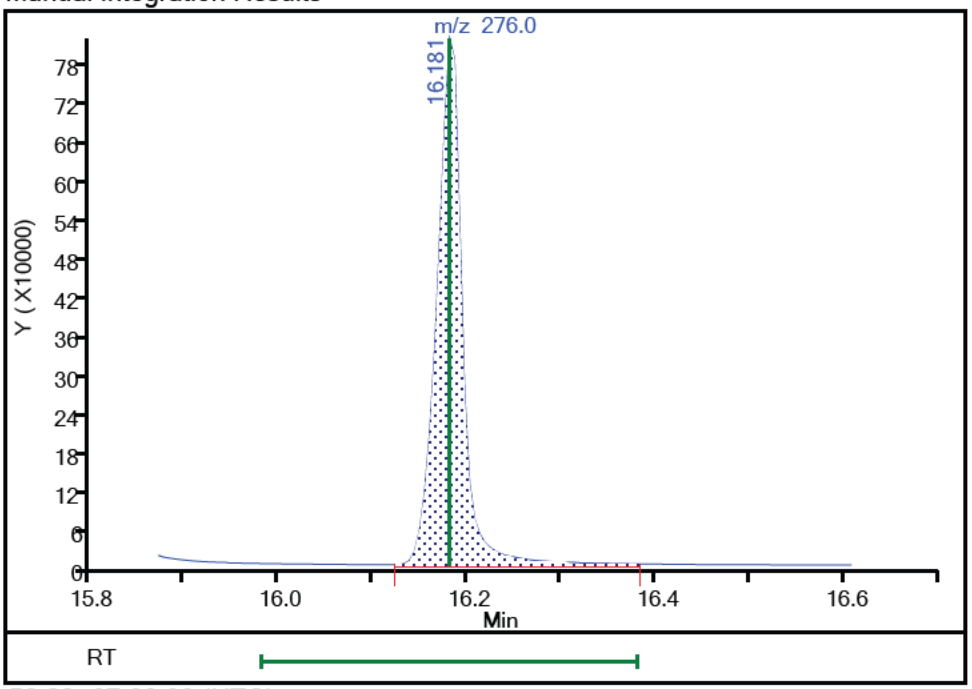
Not Detected
Expected RT: 16.18

Processing Integration Results



Manual Integration Results

RT: 16.18
Area: 1547074
Amount: 83.562074
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 13:56:29 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Report Date: 04-Mar-2024 15:40:08 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424004.D
Lims ID: STD004 HSL
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 04-Mar-2024 10:38:30 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: std004hsl
Operator ID: RC Instrument ID: SMS_G6
Sublist: chrom-SMSG6_8270C*sub97

Method: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 04-Mar-2024 15:40:08 Calib Date: 04-Mar-2024 12:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1687

First Level Reviewer: HPV7 Date: 04-Mar-2024 14:16:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.323	4.323	0.000	96	148435	40.0	40.0	
* 2 Naphthalene-d8	136	5.483	5.484	-0.001	99	587784	40.0	40.0	
* 3 Acenaphthene-d10	164	7.168	7.168	0.000	91	332766	40.0	40.0	
* 4 Phenanthrene-d10	188	8.612	8.618	-0.006	96	571123	40.0	40.0	
* 5 Chrysene-d12	240	11.453	11.463	-0.011	99	444830	40.0	40.0	
* 6 Perylene-d12	264	13.801	13.806	-0.005	99	509910	40.0	40.0	
$ 7 2-Fluorophenol	112	3.242	3.242	0.000	93	24640	4.00	4.56	
$ 8 Phenol-d5	99	4.007	4.007	0.000	95	31149	4.00	4.68	
$ 9 Nitrobenzene-d5	82	4.810	4.810	0.000	91	24731	4.00	4.30	
$ 11 2-Fluorobiphenyl	172	6.526	6.527	-0.001	100	48844	4.00	4.72	
$ 12 2,4,6-Tribromophenol	330	7.938	7.939	-0.001	94	6250	4.00	5.34	
$ 13 Terphenyl-d14	244	10.196	10.206	-0.010	97	52809	4.00	4.29	
16 1,4-Dioxane	88	2.039	2.039	0.000	96	44158	4.00	17.0	
17 N-Nitrosodimethylamine	74	2.231	2.232	-0.001	91	15241	4.00	4.49	
18 Pyridine	79	2.264	2.264	0.000	91	35862	8.00	8.17	
29 Phenol	94	4.018	4.023	-0.005	97	36304	4.00	4.79	
28 Aniline	93	4.034	4.034	0.000	96	35263	4.00	4.65	
31 Alpha Methyl Styrene	118	4.087	4.088	-0.001	86	23852	4.00	4.77	
32 Bis(2-chloroethyl)ether	93	4.087	4.088	-0.001	89	26465	4.00	5.02	
33 2-Chlorophenol	128	4.141	4.141	0.000	97	26405	4.00	4.69	
34 n-Decane	43	4.205	4.205	0.000	94	33015	4.00	4.86	
35 1,3-Dichlorobenzene	146	4.275	4.275	0.000	98	28483	4.00	4.78	
37 1,4-Dichlorobenzene	146	4.333	4.334	-0.001	94	29158	4.00	4.78	
39 Benzyl alcohol	108	4.440	4.441	-0.001	93	16249	4.00	4.46	
40 1,2-Dichlorobenzene	146	4.473	4.473	0.000	97	27975	4.00	4.84	
41 Indene	116	4.553	4.553	0.000	91	87682	8.00	10.2	
42 2-Methylphenol	108	4.547	4.553	-0.006	92	24250	4.00	5.11	
43 2,2'-oxybis[1-chloropropane]	45	4.569	4.564	0.005	92	47020	4.00	4.95	
45 Acetophenone	105	4.676	4.676	0.000	94	34961	4.00	4.88	
46 N-Nitrosodi-n-propylamine	70	4.681	4.687	-0.006	94	17411	4.00	4.83	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
47 4-Methylphenol	108	4.686	4.692	-0.006	91	25708	4.00	4.97	
48 3-Methylphenol	108	4.686	4.692	-0.006	92	25708	4.00	4.97	
49 3 & 4 Methylphenol	108	4.686	4.692	-0.006	93	25708	4.00	4.97	
52 Hexachloroethane	117	4.777	4.778	-0.001	96	11897	4.00	4.77	
53 Nitrobenzene	77	4.826	4.826	0.000	91	25774	4.00	4.50	
55 Isophorone	82	5.050	5.056	-0.006	99	50822	4.00	4.58	
56 2-Nitrophenol	139	5.125	5.125	0.000	94	9843	4.00	3.55	
58 2,4-Dimethylphenol	107	5.179	5.179	0.000	95	20876	4.00	4.61	
60 Bis(2-chloroethoxy)methane	93	5.259	5.259	0.000	98	31786	4.00	4.73	
63 Benzoic acid	105	5.232	5.318	-0.086	93	11207	8.00	14.7	
62 2,4-Dichlorophenol	162	5.355	5.355	0.000	95	20191	4.00	4.55	
66 1,2,4-Trichlorobenzene	180	5.435	5.435	0.000	94	22631	4.00	4.68	
67 Naphthalene	128	5.499	5.500	-0.001	98	73811	4.00	4.79	
69 4-Chloroaniline	127	5.558	5.558	0.000	97	31392	4.00	4.68	
68 2,6-Dichlorophenol	162	5.569	5.569	0.000	97	19515	4.00	4.50	
71 Hexachlorobutadiene	225	5.644	5.644	0.000	96	11538	4.00	4.45	
77 4-Chloro-3-methylphenol	107	6.029	6.029	0.000	97	20357	4.00	4.48	
80 2-Methylnaphthalene	142	6.163	6.163	0.000	94	48782	4.00	4.61	
81 1-Methylnaphthalene	142	6.259	6.259	0.000	96	44301	4.00	4.59	
83 Hexachlorocyclopentadiene	237	6.334	6.334	0.000	95	8254	4.00	3.60	
84 1,2,4,5-Tetrachlorobenzene	216	6.334	6.334	0.000	98	21903	4.00	4.76	
86 2,3-Dichlorobenzenamine	161	6.435	6.436	-0.001	94	23134	4.00	4.54	
87 2,4,6-Trichlorophenol	196	6.446	6.441	0.005	94	12164	4.00	4.08	
88 2,4,5-Trichlorophenol	196	6.478	6.473	0.005	94	13465	4.00	4.17	
90 1,1'-Biphenyl	154	6.617	6.617	0.000	95	57715	4.00	4.77	
91 2-Chloronaphthalene	162	6.628	6.628	0.000	97	45164	4.00	4.82	
93 2-Nitroaniline	65	6.730	6.730	0.000	85	9394	4.00	3.16	
96 Dimethyl phthalate	163	6.922	6.928	-0.006	98	46946	4.00	4.63	
97 1,3-Dinitrobenzene	168	6.933	6.933	0.000	82	4479	4.00	2.58	
98 2,6-Dinitrotoluene	165	6.965	6.970	-0.005	91	7575	4.00	3.19	
99 Acenaphthylene	152	7.029	7.029	0.000	98	60914	4.00	4.34	
100 3-Nitroaniline	138	7.125	7.131	-0.006	93	10513	4.00	3.56	
101 Acenaphthene	153	7.200	7.200	0.000	93	44331	4.00	4.74	
102 2,4-Dinitrophenol	184	7.227	7.233	-0.006	82	3544	8.00	11.3	
107 4-Nitrophenol	109	7.307	7.318	-0.011	96	9948	8.00	6.70	
109 2,4-Dinitrotoluene	165	7.355	7.361	-0.006	92	10183	4.00	3.29	
108 Dibenzofuran	168	7.366	7.372	-0.006	97	64034	4.00	4.84	
114 2,3,4,6-Tetrachlorophenol	232	7.500	7.500	0.000	74	8767	4.00	3.51	
116 Diethyl phthalate	149	7.612	7.618	-0.006	98	46711	4.00	4.42	
117 Hexadecane	57	7.655	7.660	-0.005	92	32943	4.00	4.19	
118 Fluorene	166	7.703	7.703	0.000	95	48928	4.00	4.68	
120 4-Chlorophenyl phenyl ether	204	7.708	7.714	-0.006	94	23844	4.00	4.97	
122 4-Nitroaniline	138	7.714	7.730	-0.016	83	10737	4.00	3.68	
123 4,6-Dinitro-2-methylphenol	198	7.757	7.767	-0.010	81	5491	8.00	10.4	
126 N-Nitrosodiphenylamine	169	7.821	7.826	-0.005	98	34809	4.00	4.39	
125 Diphenylamine	169	7.821	7.826	-0.005	95	34809	3.40	3.81	
128 1,2-Diphenylhydrazine	77	7.864	7.864	0.000	99	53199	4.04	4.61	
129 Azobenzene	77	7.864	7.864	0.000	100	53199	4.00	4.56	
138 4-Bromophenyl phenyl ether	248	8.184	8.185	-0.001	70	13292	4.00	4.26	
140 Hexachlorobenzene	284	8.249	8.254	-0.005	96	17962	4.00	4.42	
143 Pentachlorophenol	266	8.441	8.447	-0.006	97	10427	8.00	12.2	
288 n-Octadecane	57	8.559	8.564	-0.005	94	29781	4.00	3.74	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
148 Phenanthrene	178	8.634	8.639	-0.005	97	73555	4.00	4.71	
151 Anthracene	178	8.682	8.687	-0.005	97	67979	4.00	4.35	
152 Carbazole	167	8.842	8.848	-0.006	96	66702	4.00	4.38	
154 Alachlor	188	9.008	9.014	-0.006	91	5248	4.00	3.04	
155 Di-n-butyl phthalate	149	9.217	9.222	-0.005	99	63810	4.00	3.64	
160 Fluoranthene	202	9.800	9.805	-0.005	98	64333	4.00	4.07	
162 Pyrene	202	10.019	10.025	-0.006	97	70610	4.00	4.41	
169 Butyl benzyl phthalate	149	10.768	10.773	-0.005	97	18552	4.00	4.86	
173 Benzo[a]anthracene	228	11.442	11.453	-0.011	98	57471	4.00	4.01	
175 Chrysene	228	11.490	11.501	-0.011	98	65780	4.00	4.30	
176 Bis(2-ethylhexyl) phthalate	149	11.581	11.586	-0.005	97	22326	4.00	6.82	
178 Di-n-octyl phthalate	149	12.624	12.635	-0.011	98	29636	4.00	9.16	
179 Benzo[b]fluoranthene	252	13.132	13.148	-0.016	97	51303	4.00	3.60	
181 Benzo[k]fluoranthene	252	13.180	13.196	-0.016	98	69254	4.00	4.00	
183 Benzo[a]pyrene	252	13.694	13.710	-0.016	77	50029	4.00	5.19	
187 Indeno[1,2,3-cd]pyrene	276	15.747	15.769	-0.022	99	49216	4.00	8.12	
188 Dibenz(a,h)anthracene	278	15.806	15.822	-0.016	92	50297	4.00	3.78	
189 Benzo[g,h,i]perylene	276	16.159	16.181	-0.022	98	60301	4.00	3.95	
S 199 Total Cresols	108				0			10.1	
S 200 Methyl Phenols,Total	108				0			10.1	

QC Flag Legend

Processing Flags

Reagents:

MS-HSL-WS_00010	Amount Added: 10.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

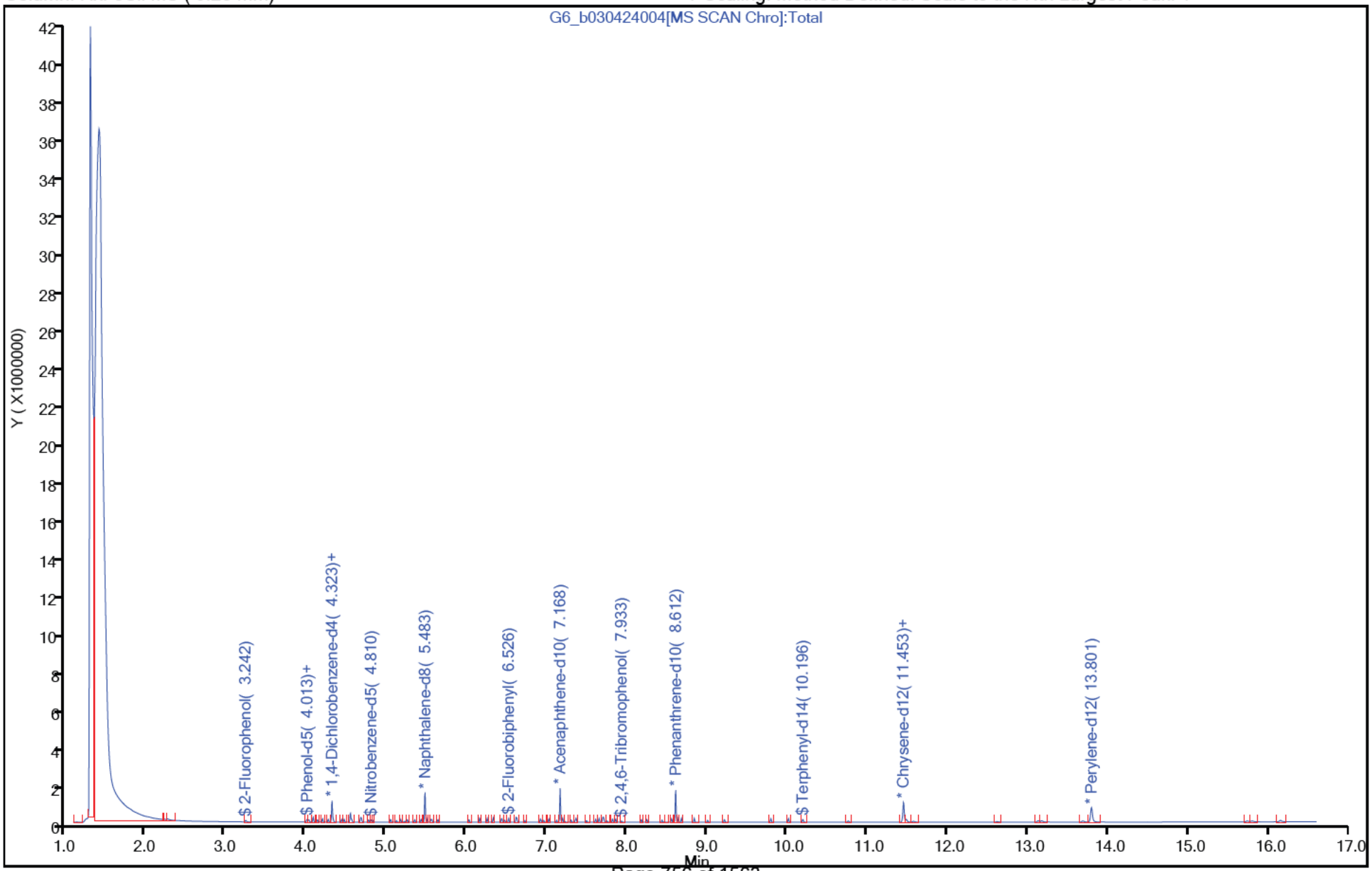
Report Date: 04-Mar-2024 15:40:08 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424004.D

Injection Date:	04-Mar-2024 10:38:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	STD004 HSL			Worklist Smp#:	4
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 04-Mar-2024 15:40:10 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424005.D
Lims ID: STD010 HSL
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 04-Mar-2024 11:00:30 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: std010hsl
Operator ID: RC Instrument ID: SMS_G6
Sublist: chrom-SMSG6_8270C*sub97

Method: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 04-Mar-2024 15:40:09 Calib Date: 04-Mar-2024 12:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1687

First Level Reviewer: HPV7 Date: 04-Mar-2024 14:20:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.323	4.323	0.000	96	166841	40.0	40.0	
* 2 Naphthalene-d8	136	5.483	5.484	-0.001	99	654051	40.0	40.0	
* 3 Acenaphthene-d10	164	7.168	7.168	0.000	90	373715	40.0	40.0	
* 4 Phenanthrene-d10	188	8.612	8.618	-0.006	96	627326	40.0	40.0	
* 5 Chrysene-d12	240	11.458	11.463	-0.005	99	498256	40.0	40.0	
* 6 Perylene-d12	264	13.801	13.806	-0.005	99	555479	40.0	40.0	
$ 7 2-Fluorophenol	112	3.248	3.242	0.006	93	58831	10.0	9.68	
$ 8 Phenol-d5	99	4.007	4.007	0.000	94	73887	10.0	9.88	
$ 9 Nitrobenzene-d5	82	4.809	4.810	-0.001	91	62712	10.0	9.79	
$ 11 2-Fluorobiphenyl	172	6.526	6.527	-0.001	99	117048	10.0	10.1	
$ 12 2,4,6-Tribromophenol	330	7.933	7.939	-0.006	95	17108	10.0	9.36	
$ 13 Terphenyl-d14	244	10.196	10.206	-0.010	97	130662	10.0	9.47	
16 1,4-Dioxane	88	2.044	2.039	0.005	98	70146	10.0	24.0	
17 N-Nitrosodimethylamine	74	2.231	2.232	-0.001	90	36322	10.0	9.52	
18 Pyridine	79	2.269	2.264	0.005	88	90326	20.0	18.3	
29 Phenol	94	4.018	4.023	-0.005	98	86888	10.0	10.2	
28 Aniline	93	4.034	4.034	0.000	96	87093	10.0	10.2	
31 Alpha Methyl Styrene	118	4.087	4.088	-0.001	87	56982	10.0	10.1	
32 Bis(2-chloroethyl)ether	93	4.087	4.088	-0.001	89	62755	10.0	10.6	
33 2-Chlorophenol	128	4.141	4.141	0.000	98	62183	10.0	9.83	
34 n-Decane	43	4.205	4.205	0.000	95	77677	10.0	10.2	
35 1,3-Dichlorobenzene	146	4.275	4.275	0.000	97	65994	10.0	9.85	
37 1,4-Dichlorobenzene	146	4.339	4.334	0.005	96	68069	10.0	9.93	
39 Benzyl alcohol	108	4.440	4.441	-0.001	93	40441	10.0	9.88	
40 1,2-Dichlorobenzene	146	4.473	4.473	-0.001	96	64805	10.0	9.98	
41 Indene	116	4.553	4.553	0.000	91	204955	20.0	21.2	
42 2-Methylphenol	108	4.547	4.553	-0.006	95	55850	10.0	10.5	
43 2,2'-oxybis[1-chloropropane]	45	4.569	4.564	0.005	93	113210	10.0	10.6	
45 Acetophenone	105	4.676	4.676	0.000	95	83954	10.0	10.4	
46 N-Nitrosodi-n-propylamine	70	4.681	4.687	-0.006	94	42260	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
47 4-Methylphenol	108	4.692	4.692	0.000	93	60147	10.0	10.3	
48 3-Methylphenol	108	4.692	4.692	0.000	94	60147	10.0	10.3	
49 3 & 4 Methylphenol	108	4.692	4.692	0.000	88	60147	10.0	10.3	
52 Hexachloroethane	117	4.777	4.778	-0.001	97	27868	10.0	9.94	
53 Nitrobenzene	77	4.826	4.826	0.000	93	64340	10.0	10.1	
55 Isophorone	82	5.050	5.056	-0.006	99	123509	10.0	10.0	
56 2-Nitrophenol	139	5.125	5.125	0.000	93	27699	10.0	8.97	
58 2,4-Dimethylphenol	107	5.179	5.179	0.000	95	50365	10.0	10.0	
60 Bis(2-chloroethoxy)methane	93	5.259	5.259	0.000	97	77025	10.0	10.3	
63 Benzoic acid	105	5.248	5.318	-0.070	92	42143	20.0	21.5	
62 2,4-Dichlorophenol	162	5.355	5.355	0.000	95	48702	10.0	9.87	
66 1,2,4-Trichlorobenzene	180	5.435	5.435	0.000	94	54279	10.0	10.1	
67 Naphthalene	128	5.499	5.500	-0.001	98	177173	10.0	10.3	
69 4-Chloroaniline	127	5.553	5.558	-0.005	96	75376	10.0	10.1	
68 2,6-Dichlorophenol	162	5.569	5.569	0.000	97	48278	10.0	10.0	
71 Hexachlorobutadiene	225	5.644	5.644	0.000	97	29318	10.0	10.2	
77 4-Chloro-3-methylphenol	107	6.029	6.029	0.000	97	50072	10.0	9.90	
80 2-Methylnaphthalene	142	6.163	6.163	0.000	95	118112	10.0	10.0	
81 1-Methylnaphthalene	142	6.259	6.259	0.000	95	108929	10.0	10.2	
83 Hexachlorocyclopentadiene	237	6.334	6.334	0.000	96	23126	10.0	8.99	
84 1,2,4,5-Tetrachlorobenzene	216	6.334	6.334	0.000	98	51389	10.0	10.0	
86 2,3-Dichlorobenzenamine	161	6.435	6.436	-0.001	97	56680	10.0	9.90	
87 2,4,6-Trichlorophenol	196	6.441	6.441	0.000	94	31460	10.0	9.39	
88 2,4,5-Trichlorophenol	196	6.473	6.473	0.000	93	34020	10.0	9.37	
90 1,1'-Biphenyl	154	6.617	6.617	0.000	95	138370	10.0	10.2	
91 2-Chloronaphthalene	162	6.628	6.628	0.000	97	107346	10.0	10.2	
93 2-Nitroaniline	65	6.730	6.730	0.000	86	29253	10.0	8.76	
96 Dimethyl phthalate	163	6.922	6.928	-0.006	97	114722	10.0	10.1	
97 1,3-Dinitrobenzene	168	6.933	6.933	0.000	82	14614	10.0	7.48	
98 2,6-Dinitrotoluene	165	6.965	6.970	-0.005	92	23290	10.0	8.73	
99 Acenaphthylene	152	7.029	7.029	0.000	98	154688	10.0	9.82	
100 3-Nitroaniline	138	7.125	7.131	-0.006	94	30803	10.0	9.28	
101 Acenaphthene	153	7.200	7.200	0.000	94	105872	10.0	10.1	
102 2,4-Dinitrophenol	184	7.227	7.233	-0.006	82	13953	20.0	17.3	
107 4-Nitrophenol	109	7.302	7.318	-0.016	96	29749	20.0	17.8	
109 2,4-Dinitrotoluene	165	7.355	7.361	-0.006	93	31480	10.0	9.07	
108 Dibenzofuran	168	7.366	7.372	-0.006	97	154373	10.0	10.4	
114 2,3,4,6-Tetrachlorophenol	232	7.494	7.500	-0.006	76	24230	10.0	8.64	
116 Diethyl phthalate	149	7.612	7.618	-0.006	98	116567	10.0	9.82	
117 Hexadecane	57	7.655	7.660	-0.005	92	87645	10.0	9.92	
118 Fluorene	166	7.698	7.703	-0.005	95	121095	10.0	10.3	
120 4-Chlorophenyl phenyl ether	204	7.708	7.714	-0.006	95	55529	10.0	10.3	
122 4-Nitroaniline	138	7.714	7.730	-0.016	85	31381	10.0	9.58	
123 4,6-Dinitro-2-methylphenol	198	7.757	7.767	-0.010	83	23935	20.0	18.3	
126 N-Nitrosodiphenylamine	169	7.821	7.826	-0.005	98	85745	10.0	9.84	
125 Diphenylamine	169	7.821	7.826	-0.005	95	85745	8.50	8.35	
128 1,2-Diphenylhydrazine	77	7.864	7.864	0.000	99	134866	10.1	10.4	
129 Azobenzene	77	7.864	7.864	0.000	99	134866	10.0	10.3	
138 4-Bromophenyl phenyl ether	248	8.184	8.185	-0.001	69	32715	10.0	9.54	
140 Hexachlorobenzene	284	8.249	8.254	-0.005	96	42022	10.0	9.42	
143 Pentachlorophenol	266	8.441	8.447	-0.006	98	33801	20.0	20.9	
288 n-Octadecane	57	8.559	8.564	-0.005	94	85112	10.0	9.73	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
148 Phenanthrene	178	8.634	8.639	-0.005	97	173212	10.0	10.1	
151 Anthracene	178	8.682	8.687	-0.005	97	169218	10.0	9.85	
152 Carbazole	167	8.842	8.848	-0.006	96	167855	10.0	10.0	
154 Alachlor	188	9.008	9.014	-0.006	92	16488	10.0	8.70	
155 Di-n-butyl phthalate	149	9.217	9.222	-0.005	99	177898	10.0	9.25	
160 Fluoranthene	202	9.800	9.805	-0.005	98	166960	10.0	9.63	
162 Pyrene	202	10.019	10.025	-0.006	97	174046	10.0	9.71	
169 Butyl benzyl phthalate	149	10.768	10.773	-0.005	98	56741	10.0	9.05	
173 Benzo[a]anthracene	228	11.442	11.453	-0.011	98	143361	10.0	8.93	
175 Chrysene	228	11.490	11.501	-0.011	97	167780	10.0	9.80	
176 Bis(2-ethylhexyl) phthalate	149	11.581	11.586	-0.005	98	70952	10.0	10.6	
178 Di-n-octyl phthalate	149	12.624	12.635	-0.011	99	83564	10.0	11.8	
179 Benzo[b]fluoranthene	252	13.132	13.148	-0.016	97	129773	10.0	8.37	
181 Benzo[k]fluoranthene	252	13.180	13.196	-0.016	99	170559	10.0	9.05	
183 Benzo[a]pyrene	252	13.694	13.710	-0.016	77	123479	10.0	9.26	
187 Indeno[1,2,3-cd]pyrene	276	15.747	15.769	-0.022	98	114395	10.0	11.6	
188 Dibenz(a,h)anthracene	278	15.806	15.822	-0.016	93	124916	10.0	8.62	
189 Benzo[g,h,i]perylene	276	16.159	16.181	-0.022	99	147817	10.0	8.89	
S 199 Total Cresols	108				0			20.8	
S 200 Methyl Phenols,Total	108				0			20.8	

QC Flag Legend

Processing Flags

Reagents:

MS-HSL-WS_00010	Amount Added: 25.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

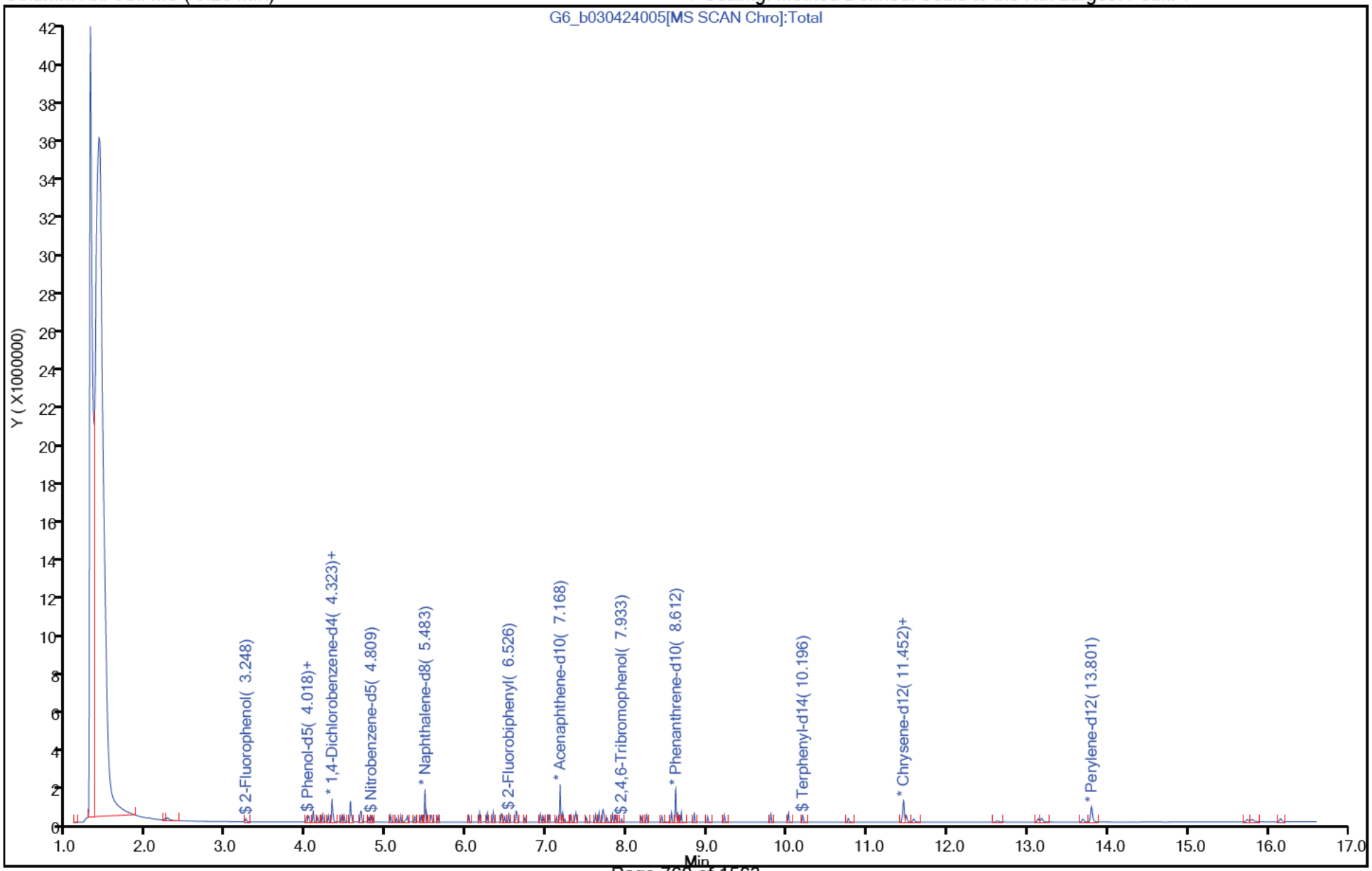
Report Date: 04-Mar-2024 15:40:10 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424005.D

Injection Date:	04-Mar-2024 11:00:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	STD010 HSL			Worklist Smp#:	5
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424006.D
Lims ID: STD020 HSL
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 04-Mar-2024 11:21:30 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: std020hsl
Operator ID: RC Instrument ID: SMS_G6
Sublist: chrom-SMSG6_8270C*sub97

Method: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 04-Mar-2024 15:40:11 Calib Date: 04-Mar-2024 12:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1687

First Level Reviewer: HPV7 Date: 04-Mar-2024 14:22:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.323	4.323	0.000	96	180159	40.0	40.0	
* 2 Naphthalene-d8	136	5.483	5.484	-0.001	99	713168	40.0	40.0	
* 3 Acenaphthene-d10	164	7.168	7.168	0.000	90	400736	40.0	40.0	
* 4 Phenanthrene-d10	188	8.612	8.618	-0.006	96	680110	40.0	40.0	
* 5 Chrysene-d12	240	11.458	11.463	-0.005	99	545722	40.0	40.0	
* 6 Perylene-d12	264	13.801	13.806	-0.005	99	599922	40.0	40.0	
$ 7 2-Fluorophenol	112	3.248	3.242	0.006	93	114905	20.0	17.5	
$ 8 Phenol-d5	99	4.007	4.007	0.000	94	144391	20.0	17.9	
$ 9 Nitrobenzene-d5	82	4.810	4.810	0.000	91	125497	20.0	18.0	
$ 11 2-Fluorobiphenyl	172	6.526	6.527	-0.001	99	223784	20.0	17.9	
$ 12 2,4,6-Tribromophenol	330	7.938	7.939	-0.001	95	36658	20.0	16.2	
$ 13 Terphenyl-d14	244	10.201	10.206	-0.005	97	260229	20.0	17.2	
16 1,4-Dioxane	88	2.044	2.039	0.005	98	66698	20.0	21.1	
17 N-Nitrosodimethylamine	74	2.231	2.232	-0.001	90	70970	20.0	17.2	
18 Pyridine	79	2.269	2.264	0.005	88	182546	40.0	34.2	
29 Phenol	94	4.018	4.023	-0.005	97	168910	20.0	18.4	
28 Aniline	93	4.034	4.034	0.000	96	167771	20.0	18.2	
31 Alpha Methyl Styrene	118	4.087	4.088	-0.001	87	109668	20.0	18.1	
32 Bis(2-chloroethyl)ether	93	4.087	4.088	-0.001	89	118999	20.0	18.6	
33 2-Chlorophenol	128	4.141	4.141	0.000	98	122064	20.0	17.9	
34 n-Decane	43	4.205	4.205	0.000	94	152324	20.0	18.5	
35 1,3-Dichlorobenzene	146	4.275	4.275	0.000	98	129451	20.0	17.9	
37 1,4-Dichlorobenzene	146	4.339	4.334	0.005	96	131636	20.0	17.8	
39 Benzyl alcohol	108	4.440	4.441	-0.001	93	78840	20.0	17.8	
40 1,2-Dichlorobenzene	146	4.473	4.473	0.000	96	125865	20.0	17.9	
41 Indene	116	4.553	4.553	0.000	92	398240	40.0	38.2	
42 2-Methylphenol	108	4.547	4.553	-0.006	94	108185	20.0	18.8	
43 2,2'-oxybis[1-chloropropane]	45	4.569	4.564	0.005	93	217455	20.0	18.9	
45 Acetophenone	105	4.676	4.676	0.000	96	162513	20.0	18.7	
46 N-Nitrosodi-n-propylamine	70	4.681	4.687	-0.006	94	83494	20.0	19.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
47 4-Methylphenol	108	4.692	4.692	0.000	93	117920	20.0	18.8	
48 3-Methylphenol	108	4.692	4.692	0.000	94	117920	20.0	18.8	
49 3 & 4 Methylphenol	108	4.692	4.692	0.000	87	117920	20.0	18.8	
52 Hexachloroethane	117	4.777	4.778	-0.001	98	56248	20.0	18.6	
53 Nitrobenzene	77	4.826	4.826	0.000	91	126448	20.0	18.2	
55 Isophorone	82	5.050	5.056	-0.006	99	241272	20.0	17.9	
56 2-Nitrophenol	139	5.125	5.125	0.000	94	57912	20.0	17.2	
58 2,4-Dimethylphenol	107	5.179	5.179	0.000	95	97523	20.0	17.8	
60 Bis(2-chloroethoxy)methane	93	5.259	5.259	0.000	98	147537	20.0	18.1	
63 Benzoic acid	105	5.264	5.318	-0.054	93	107162	40.0	34.2	
62 2,4-Dichlorophenol	162	5.355	5.355	0.000	95	92652	20.0	17.2	
66 1,2,4-Trichlorobenzene	180	5.435	5.435	0.000	94	104182	20.0	17.7	
67 Naphthalene	128	5.500	5.500	0.000	98	335144	20.0	17.9	
69 4-Chloroaniline	127	5.553	5.558	-0.005	97	148047	20.0	18.2	
68 2,6-Dichlorophenol	162	5.569	5.569	0.000	97	94431	20.0	17.9	
71 Hexachlorobutadiene	225	5.644	5.644	0.000	98	56322	20.0	17.9	
77 4-Chloro-3-methylphenol	107	6.029	6.029	0.000	96	97236	20.0	17.6	
80 2-Methylnaphthalene	142	6.163	6.163	0.000	94	227820	20.0	17.7	
81 1-Methylnaphthalene	142	6.259	6.259	0.000	95	205648	20.0	17.6	
83 Hexachlorocyclopentadiene	237	6.334	6.334	0.000	97	48295	20.0	17.5	
84 1,2,4,5-Tetrachlorobenzene	216	6.334	6.334	0.000	98	100314	20.0	18.0	
86 2,3-Dichlorobenzenamine	161	6.436	6.436	0.000	96	111034	20.0	18.1	
87 2,4,6-Trichlorophenol	196	6.441	6.441	0.000	94	64111	20.0	17.8	
88 2,4,5-Trichlorophenol	196	6.473	6.473	0.000	93	67653	20.0	17.4	
90 1,1'-Biphenyl	154	6.617	6.617	0.000	95	264113	20.0	18.1	
91 2-Chloronaphthalene	162	6.628	6.628	0.000	97	207459	20.0	18.4	
93 2-Nitroaniline	65	6.730	6.730	0.000	86	62732	20.0	17.5	
96 Dimethyl phthalate	163	6.922	6.928	-0.006	97	221655	20.0	18.2	
97 1,3-Dinitrobenzene	168	6.933	6.933	0.000	86	34726	20.0	16.6	
98 2,6-Dinitrotoluene	165	6.965	6.970	-0.005	94	51326	20.0	18.0	
99 Acenaphthylene	152	7.029	7.029	0.000	98	302221	20.0	17.9	
100 3-Nitroaniline	138	7.125	7.131	-0.006	94	63201	20.0	17.8	
101 Acenaphthene	153	7.200	7.200	0.000	93	203709	20.0	18.1	
102 2,4-Dinitrophenol	184	7.227	7.233	-0.006	83	38721	40.0	30.5	
107 4-Nitrophenol	109	7.307	7.318	-0.011	94	62217	40.0	34.8	
109 2,4-Dinitrotoluene	165	7.355	7.361	-0.006	94	68542	20.0	18.4	
108 Dibenzofuran	168	7.366	7.372	-0.006	97	297137	20.0	18.7	
114 2,3,4,6-Tetrachlorophenol	232	7.500	7.500	0.000	75	50781	20.0	16.9	
116 Diethyl phthalate	149	7.612	7.618	-0.006	98	227993	20.0	17.9	
117 Hexadecane	57	7.655	7.660	-0.005	92	175464	20.0	18.5	
118 Fluorene	166	7.703	7.703	0.000	96	232194	20.0	18.4	
120 4-Chlorophenyl phenyl ether	204	7.708	7.714	-0.006	95	106164	20.0	18.4	
122 4-Nitroaniline	138	7.719	7.730	-0.011	85	63775	20.0	18.2	a
123 4,6-Dinitro-2-methylphenol	198	7.757	7.767	-0.010	81	59908	40.0	32.0	
126 N-Nitrosodiphenylamine	169	7.821	7.826	-0.005	98	166824	20.0	17.7	
125 Diphenylamine	169	7.821	7.826	-0.005	95	166824	17.0	15.1	
128 1,2-Diphenylhydrazine	77	7.864	7.864	0.000	99	262082	20.2	18.8	
129 Azobenzene	77	7.864	7.864	0.000	99	262082	20.0	18.6	
138 4-Bromophenyl phenyl ether	248	8.185	8.185	0.000	69	63634	20.0	17.1	
140 Hexachlorobenzene	284	8.249	8.254	-0.005	96	82473	20.0	17.0	
143 Pentachlorophenol	266	8.441	8.447	-0.006	99	77792	40.0	35.7	
288 n-Octadecane	57	8.559	8.564	-0.005	93	175697	20.0	18.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
148 Phenanthrene	178	8.634	8.639	-0.005	97	336219	20.0	18.1	
151 Anthracene	178	8.682	8.687	-0.005	97	334509	20.0	18.0	
152 Carbazole	167	8.842	8.848	-0.006	96	325494	20.0	17.9	
154 Alachlor	188	9.008	9.014	-0.006	92	35383	20.0	17.2	
155 Di-n-butyl phthalate	149	9.217	9.222	-0.005	99	374056	20.0	17.9	
160 Fluoranthene	202	9.800	9.805	-0.005	98	329286	20.0	17.5	
162 Pyrene	202	10.019	10.025	-0.006	97	346178	20.0	17.6	
169 Butyl benzyl phthalate	149	10.768	10.773	-0.005	98	131503	20.0	16.4	
173 Benzo[a]anthracene	228	11.442	11.453	-0.011	98	287798	20.0	16.4	
175 Chrysene	228	11.490	11.501	-0.011	97	329385	20.0	17.6	
176 Bis(2-ethylhexyl) phthalate	149	11.581	11.586	-0.005	98	167638	20.0	17.4	
178 Di-n-octyl phthalate	149	12.629	12.635	-0.006	99	207369	20.0	17.3	
179 Benzo[b]fluoranthene	252	13.137	13.148	-0.011	97	259305	20.0	15.5	
181 Benzo[k]fluoranthene	252	13.180	13.196	-0.016	99	356785	20.0	17.5	
183 Benzo[a]pyrene	252	13.694	13.710	-0.016	77	253843	20.0	15.9	
187 Indeno[1,2,3-cd]pyrene	276	15.747	15.769	-0.022	98	227031	20.0	17.0	
188 Dibenz(a,h)anthracene	278	15.806	15.822	-0.016	94	255932	20.0	16.4	
189 Benzo[g,h,i]perylene	276	16.159	16.181	-0.022	99	289864	20.0	16.1	
S 199 Total Cresols	108				0			37.6	
S 200 Methyl Phenols,Total	108				0			37.6	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSL-WS_00010	Amount Added: 50.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

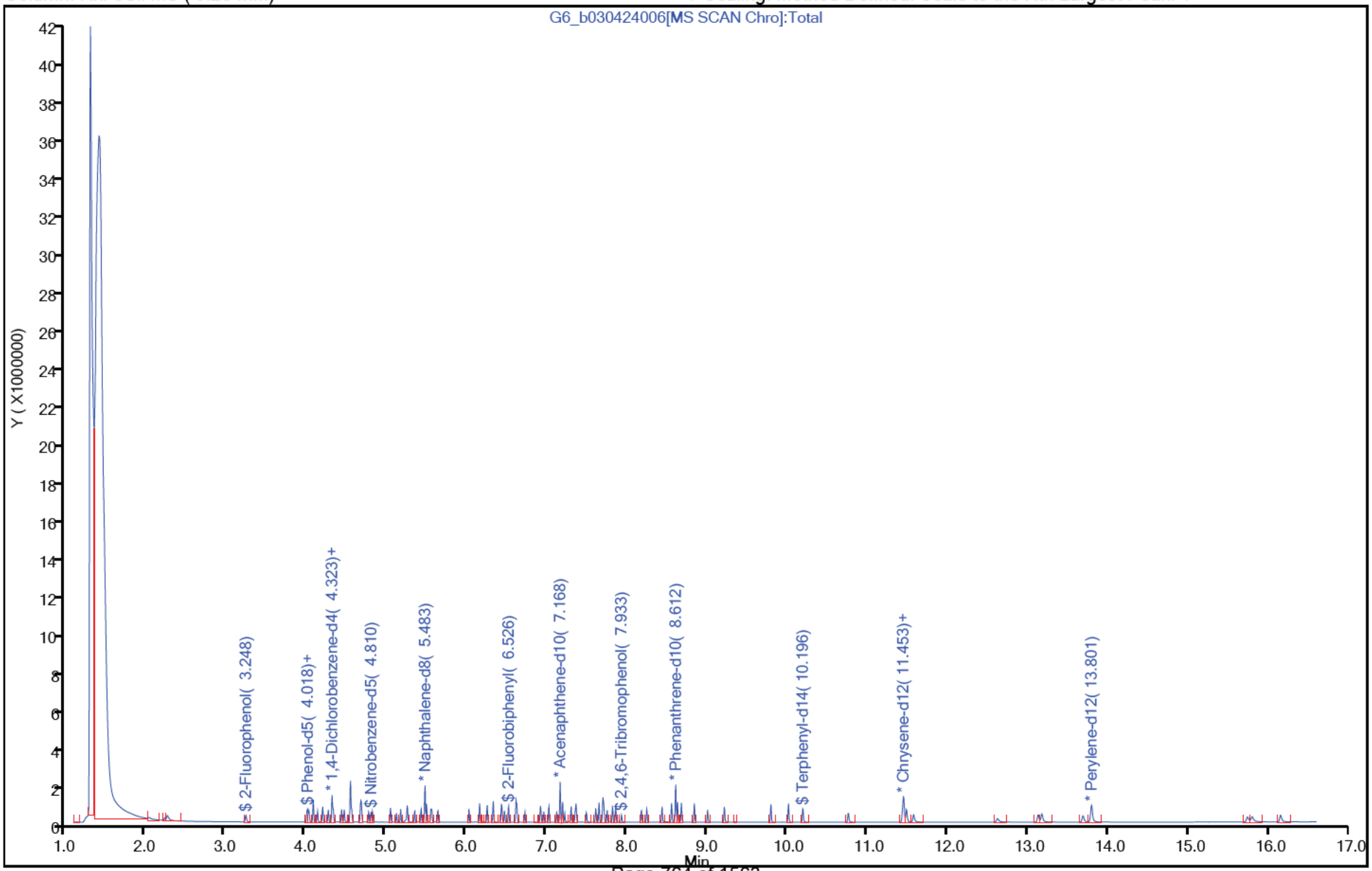
Report Date: 04-Mar-2024 15:40:12 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424006.D

Injection Date:	04-Mar-2024 11:21:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	STD020 HSL			Worklist Smp#:	6
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

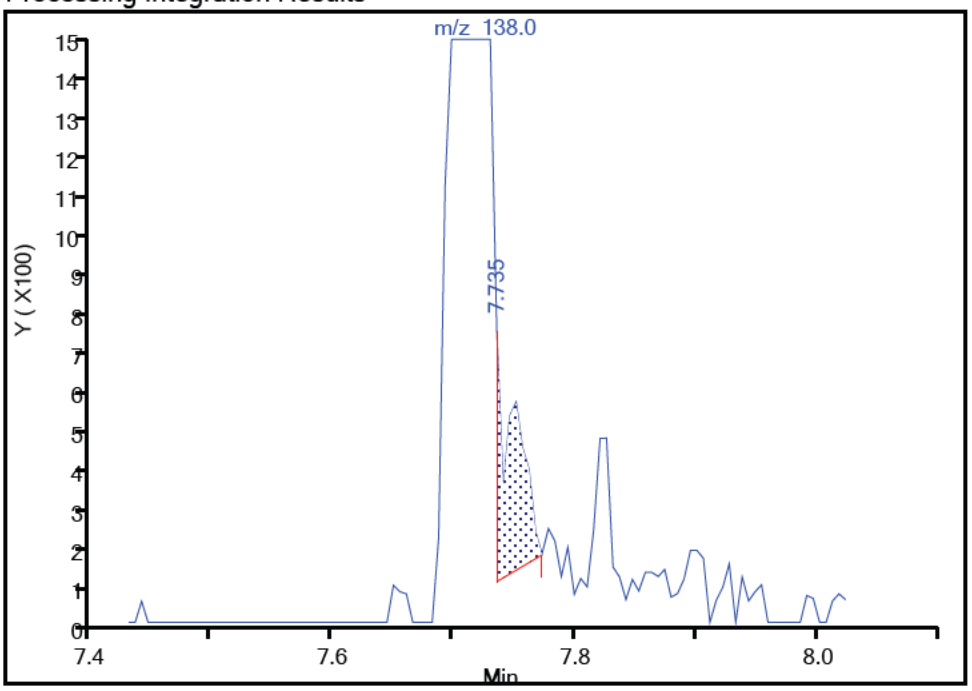
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424006.D				
Injection Date:	04-Mar-2024 11:21:30	Instrument ID:	SMS_G6		
Lims ID:	STD020 HSL				
Client ID:					
Operator ID:	RC	ALS Bottle#:	5	Worklist Smp#:	6
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

122 4-Nitroaniline, CAS: 100-01-6

Signal: 1

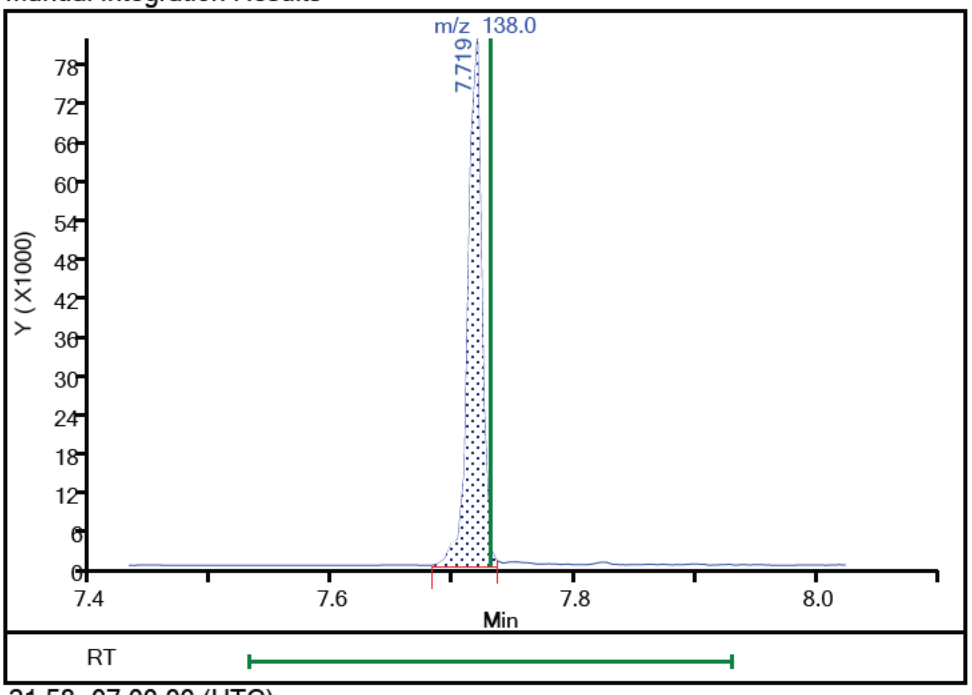
Processing Integration Results

RT: 7.74
Area: 703
Amount: 0.237381
Amount Units: ug/ml



Manual Integration Results

RT: 7.72
Area: 63775
Amount: 18.153633
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 14:21:58 -07:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424007.D
Lims ID: STD050 HSL
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 04-Mar-2024 11:43:30 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: std050hsl
Operator ID: RC Instrument ID: SMS_G6
Sublist: chrom-SMSG6_8270C*sub97

Method: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 04-Mar-2024 15:40:14 Calib Date: 04-Mar-2024 12:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1687

First Level Reviewer: HPV7 Date: 04-Mar-2024 14:26:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.323	4.323	0.000	96	156615	40.0	40.0	
* 2 Naphthalene-d8	136	5.483	5.484	-0.001	99	602365	40.0	40.0	
* 3 Acenaphthene-d10	164	7.168	7.168	0.000	90	343853	40.0	40.0	
* 4 Phenanthrene-d10	188	8.612	8.618	-0.006	96	574809	40.0	40.0	
* 5 Chrysene-d12	240	11.458	11.463	-0.005	99	462998	40.0	40.0	
* 6 Perylene-d12	264	13.801	13.806	-0.005	98	510243	40.0	40.0	
$ 7 2-Fluorophenol	112	3.248	3.242	0.006	94	285671	50.0	50.1	
$ 8 Phenol-d5	99	4.007	4.007	0.000	95	356188	50.0	50.7	
$ 9 Nitrobenzene-d5	82	4.810	4.810	0.000	92	309132	50.0	52.4	
$ 11 2-Fluorobiphenyl	172	6.526	6.527	-0.001	100	549955	50.0	51.4	
$ 12 2,4,6-Tribromophenol	330	7.938	7.939	-0.001	95	98758	50.0	45.3	
$ 13 Terphenyl-d14	244	10.201	10.206	-0.005	97	669511	50.0	52.2	
16 1,4-Dioxane	88	2.039	2.039	0.000	98	145822	50.0	53.1	
17 N-Nitrosodimethylamine	74	2.231	2.232	-0.001	89	176753	50.0	49.4	
18 Pyridine	79	2.264	2.264	0.000	88	458952	100.0	99.1	
29 Phenol	94	4.018	4.023	-0.005	98	409845	50.0	51.2	
28 Aniline	93	4.034	4.034	0.000	98	405415	50.0	50.7	
31 Alpha Methyl Styrene	118	4.087	4.088	-0.001	87	269651	50.0	51.2	
32 Bis(2-chloroethyl)ether	93	4.087	4.088	-0.001	89	283756	50.0	51.0	
33 2-Chlorophenol	128	4.141	4.141	0.000	98	298968	50.0	50.3	
34 n-Decane	43	4.205	4.205	0.000	94	369923	50.0	51.6	
35 1,3-Dichlorobenzene	146	4.275	4.275	0.000	98	312981	50.0	49.8	
37 1,4-Dichlorobenzene	146	4.339	4.334	0.005	93	324753	50.0	50.5	
39 Benzyl alcohol	108	4.440	4.441	-0.001	93	195908	50.0	51.0	
40 1,2-Dichlorobenzene	146	4.473	4.473	0.000	96	304505	50.0	50.0	
41 Indene	116	4.553	4.553	0.000	92	933560	100.0	102.9	
42 2-Methylphenol	108	4.553	4.553	0.000	95	254963	50.0	51.0	
43 2,2'-oxybis[1-chloropropane]	45	4.569	4.564	0.005	93	521439	50.0	52.1	
45 Acetophenone	105	4.676	4.676	0.000	97	391023	50.0	51.8	
46 N-Nitrosodi-n-propylamine	70	4.686	4.687	-0.001	94	200531	50.0	52.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
47 4-Methylphenol	108	4.692	4.692	0.000	93	282479	50.0	51.8	
48 3-Methylphenol	108	4.692	4.692	0.000	94	282479	50.0	51.8	
49 3 & 4 Methylphenol	108	4.692	4.692	0.000	91	282479	50.0	51.8	
52 Hexachloroethane	117	4.777	4.778	-0.001	98	135727	50.0	51.6	
53 Nitrobenzene	77	4.826	4.826	0.000	93	304920	50.0	51.9	
55 Isophorone	82	5.056	5.056	0.000	99	585189	50.0	51.4	
56 2-Nitrophenol	139	5.125	5.125	0.000	95	152499	50.0	53.6	
58 2,4-Dimethylphenol	107	5.179	5.179	0.000	95	242236	50.0	52.2	
60 Bis(2-chloroethoxy)methane	93	5.259	5.259	0.000	97	352342	50.0	51.2	
63 Benzoic acid	105	5.296	5.318	-0.022	92	340175	100.0	95.7	a
62 2,4-Dichlorophenol	162	5.355	5.355	0.000	95	235076	50.0	51.7	
66 1,2,4-Trichlorobenzene	180	5.435	5.435	0.000	94	254702	50.0	51.4	
67 Naphthalene	128	5.499	5.500	-0.001	98	812673	50.0	51.5	
69 4-Chloroaniline	127	5.558	5.558	0.000	96	357631	50.0	52.0	
68 2,6-Dichlorophenol	162	5.569	5.569	0.000	96	231233	50.0	52.0	
71 Hexachlorobutadiene	225	5.644	5.644	0.000	98	136096	50.0	51.2	
77 4-Chloro-3-methylphenol	107	6.029	6.029	0.000	96	241101	50.0	51.7	
80 2-Methylnaphthalene	142	6.163	6.163	0.000	95	562385	50.0	51.9	
81 1-Methylnaphthalene	142	6.259	6.259	0.000	96	511672	50.0	51.8	
83 Hexachlorocyclopentadiene	237	6.334	6.334	0.000	96	130946	50.0	55.3	
84 1,2,4,5-Tetrachlorobenzene	216	6.334	6.334	0.000	98	242977	50.0	51.5	
86 2,3-Dichlorobenzenamine	161	6.436	6.436	0.000	96	271718	50.0	51.6	
87 2,4,6-Trichlorophenol	196	6.441	6.441	0.000	94	163190	50.0	52.9	
88 2,4,5-Trichlorophenol	196	6.473	6.473	0.000	93	169417	50.0	50.7	
90 1,1'-Biphenyl	154	6.617	6.617	0.000	94	645743	50.0	51.7	
91 2-Chloronaphthalene	162	6.628	6.628	0.000	97	497462	50.0	51.4	
93 2-Nitroaniline	65	6.730	6.730	0.000	85	169998	50.0	55.3	
96 Dimethyl phthalate	163	6.922	6.928	-0.006	97	540796	50.0	51.6	
97 1,3-Dinitrobenzene	168	6.933	6.933	0.000	84	97304	50.0	54.1	
98 2,6-Dinitrotoluene	165	6.970	6.970	0.000	96	132125	50.0	53.9	
99 Acenaphthylene	152	7.029	7.029	0.000	98	751424	50.0	51.8	
100 3-Nitroaniline	138	7.125	7.131	-0.006	94	161627	50.0	52.9	
101 Acenaphthene	153	7.200	7.200	0.000	93	499753	50.0	51.7	
102 2,4-Dinitrophenol	184	7.227	7.233	-0.006	85	131116	100.0	94.0	
107 4-Nitrophenol	109	7.313	7.318	-0.005	94	166231	100.0	108.4	
109 2,4-Dinitrotoluene	165	7.361	7.361	0.000	93	178416	50.0	55.9	
108 Dibenzofuran	168	7.372	7.372	0.000	97	705390	50.0	51.6	
114 2,3,4,6-Tetrachlorophenol	232	7.500	7.500	0.000	74	133402	50.0	51.7	
116 Diethyl phthalate	149	7.618	7.618	0.000	98	566333	50.0	51.9	
117 Hexadecane	57	7.655	7.660	-0.005	92	437827	50.0	53.9	
118 Fluorene	166	7.703	7.703	0.000	96	568892	50.0	52.7	
120 4-Chlorophenyl phenyl ether	204	7.708	7.714	-0.006	96	255513	50.0	51.6	
122 4-Nitroaniline	138	7.725	7.730	-0.005	87	154888	50.0	51.4	
123 4,6-Dinitro-2-methylphenol	198	7.762	7.767	-0.005	85	185062	100.0	96.4	
126 N-Nitrosodiphenylamine	169	7.826	7.826	0.000	99	411990	50.0	51.6	
125 Diphenylamine	169	7.826	7.826	0.000	95	411990	42.5	43.6	
128 1,2-Diphenylhydrazine	77	7.864	7.864	0.000	99	639755	50.5	53.6	
129 Azobenzene	77	7.864	7.864	0.000	100	639755	50.0	53.0	
138 4-Bromophenyl phenyl ether	248	8.185	8.185	-0.001	68	159673	50.0	50.8	
140 Hexachlorobenzene	284	8.254	8.254	0.000	97	205523	50.0	50.3	
143 Pentachlorophenol	266	8.441	8.447	-0.006	99	212824	100.0	98.3	
288 n-Octadecane	57	8.559	8.564	-0.005	93	441224	50.0	55.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
148 Phenanthrene	178	8.634	8.639	-0.005	97	820348	50.0	52.2	
151 Anthracene	178	8.682	8.687	-0.005	97	827742	50.0	52.6	
152 Carbazole	167	8.848	8.848	0.000	96	789682	50.0	51.5	
154 Alachlor	188	9.008	9.014	-0.006	92	96188	50.0	55.4	
155 Di-n-butyl phthalate	149	9.217	9.222	-0.005	99	962856	50.0	54.6	
160 Fluoranthene	202	9.800	9.805	-0.005	97	836929	50.0	52.7	
162 Pyrene	202	10.019	10.025	-0.006	97	878709	50.0	52.7	
169 Butyl benzyl phthalate	149	10.763	10.773	-0.010	98	387665	50.0	51.1	
173 Benzo[a]anthracene	228	11.442	11.453	-0.011	98	763852	50.0	51.2	
175 Chrysene	228	11.495	11.501	-0.006	97	838809	50.0	52.7	
176 Bis(2-ethylhexyl) phthalate	149	11.581	11.586	-0.005	98	506302	50.0	49.7	
178 Di-n-octyl phthalate	149	12.629	12.635	-0.006	99	748573	50.0	48.1	
179 Benzo[b]fluoranthene	252	13.137	13.148	-0.011	97	743787	50.0	52.2	
181 Benzo[k]fluoranthene	252	13.185	13.196	-0.011	99	917062	50.0	53.0	
183 Benzo[a]pyrene	252	13.699	13.710	-0.011	77	712744	50.0	47.8	
187 Indeno[1,2,3-cd]pyrene	276	15.758	15.769	-0.011	98	660297	50.0	46.3	
188 Dibenz(a,h)anthracene	278	15.812	15.822	-0.010	93	712270	50.0	53.5	
189 Benzo[g,h,i]perylene	276	16.170	16.181	-0.011	99	793008	50.0	51.9	
S 199 Total Cresols	108				0			102.7	
S 200 Methyl Phenols,Total	108				0			102.7	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSL-WS_00010	Amount Added: 125.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

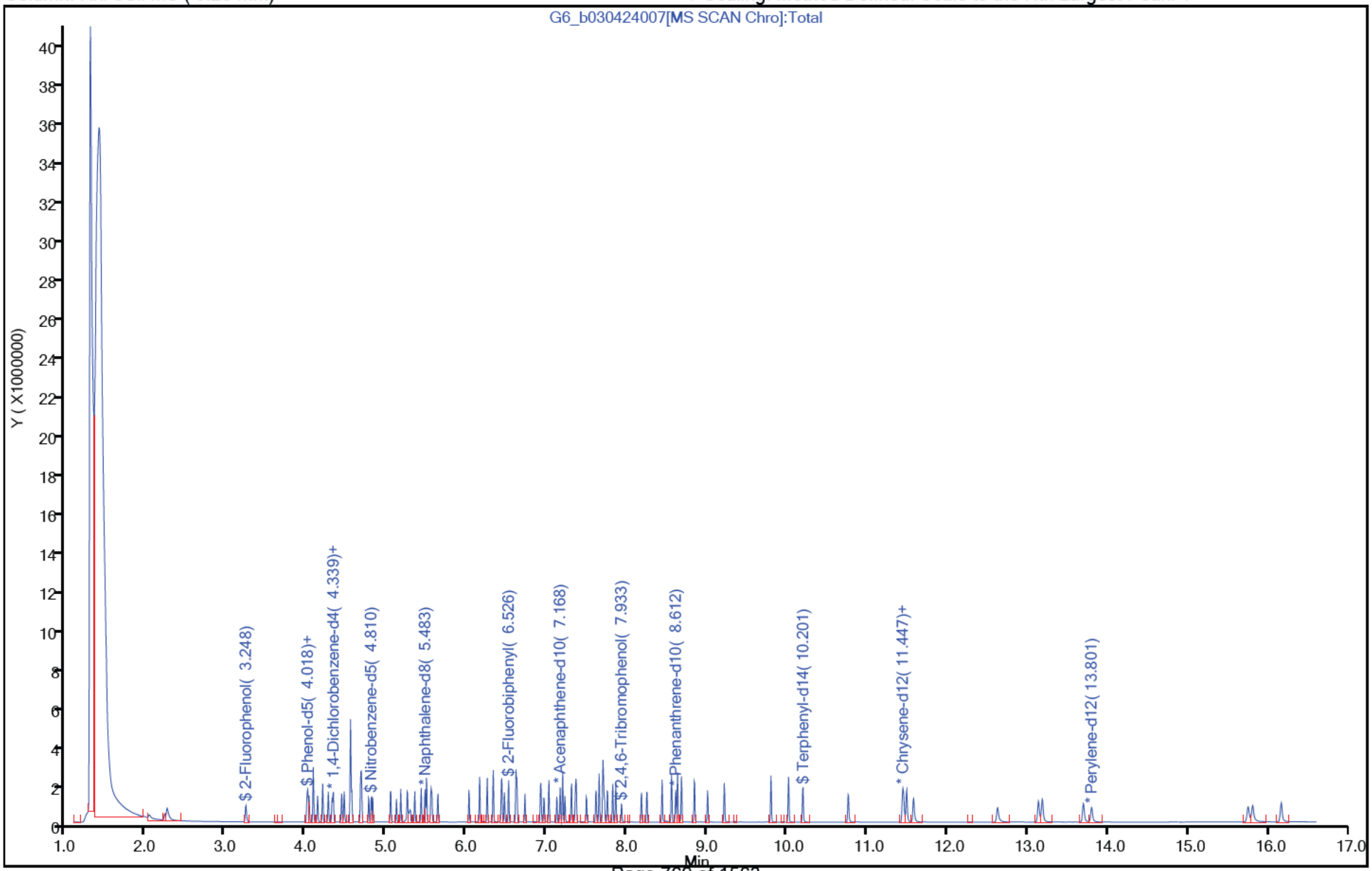
Report Date: 04-Mar-2024 15:40:14 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424007.D

Injection Date:	04-Mar-2024 11:43:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	STD050 HSL			Worklist Smp#:	7
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

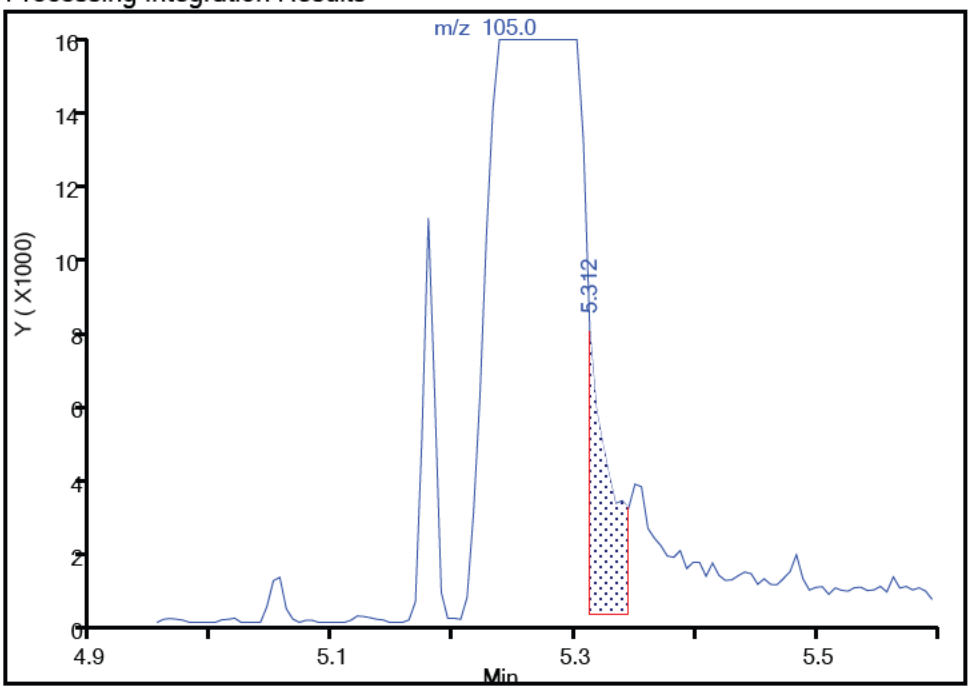
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424007.D				
Injection Date:	04-Mar-2024 11:43:30	Instrument ID:	SMS_G6		
Lims ID:	STD050 HSL				
Client ID:					
Operator ID:	RC	ALS Bottle#:	6	Worklist Smp#:	7
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

63 Benzoic acid, CAS: 65-85-0

Signal: 1

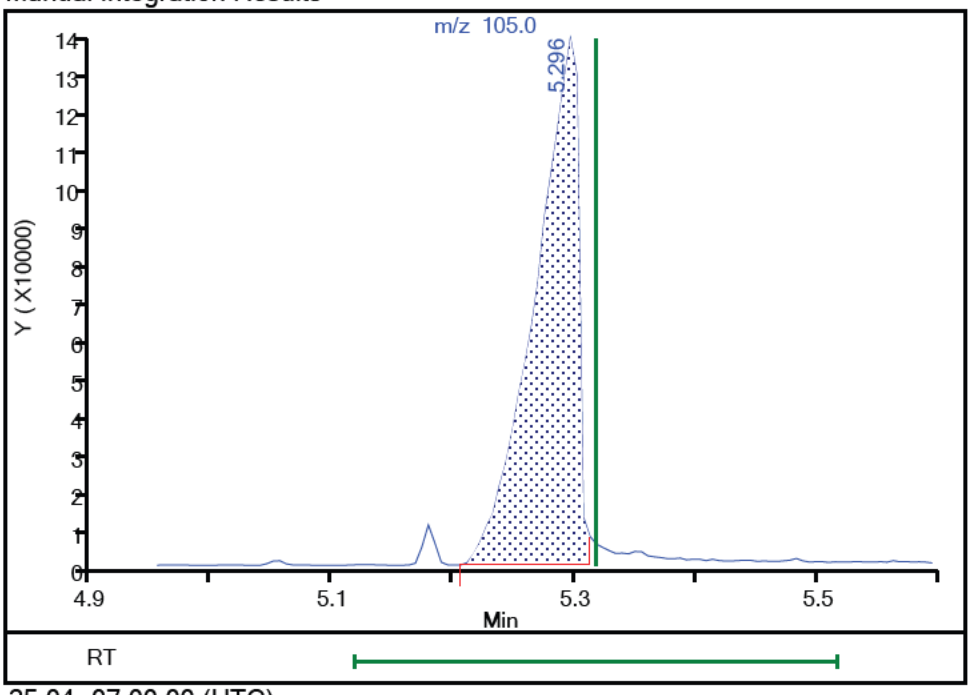
Processing Integration Results

RT: 5.31
Area: 9339
Amount: 8.327198
Amount Units: ug/ml



Manual Integration Results

RT: 5.30
Area: 340175
Amount: 95.666728
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 14:25:04 -07:00:00 (UTC)

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Report Date: 04-Mar-2024 15:40:02 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424008.D
Lims ID: STD120 HSL
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 04-Mar-2024 12:04:30 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: std120hsl
Operator ID: RC Instrument ID: SMS_G6
Sublist: chrom-SMSG6_8270C*sub97

Method: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 04-Mar-2024 15:40:02 Calib Date: 04-Mar-2024 12:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1687

First Level Reviewer: HPV7 Date: 04-Mar-2024 15:40:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.323	4.323	0.000	96	157664	40.0	40.0	
* 2 Naphthalene-d8	136	5.484	5.484	0.000	100	608685	40.0	40.0	
* 3 Acenaphthene-d10	164	7.168	7.168	0.000	91	344793	40.0	40.0	
* 4 Phenanthrene-d10	188	8.613	8.618	-0.005	96	582595	40.0	40.0	
* 5 Chrysene-d12	240	11.463	11.463	0.000	99	479095	40.0	40.0	
* 6 Perylene-d12	264	13.806	13.806	0.000	99	526473	40.0	40.0	
$ 7 2-Fluorophenol	112	3.248	3.242	0.006	94	661452	120.0	115.2	
$ 8 Phenol-d5	99	4.013	4.007	0.006	94	809014	120.0	114.5	
$ 9 Nitrobenzene-d5	82	4.815	4.810	0.005	91	706862	120.0	118.6	
$ 11 2-Fluorobiphenyl	172	6.527	6.527	0.000	100	1226749	120.0	114.4	
$ 12 2,4,6-Tribromophenol	330	7.939	7.939	0.000	94	256033	120.0	113.0	
$ 13 Terphenyl-d14	244	10.201	10.206	-0.005	97	1577817	120.0	118.9	
16 1,4-Dioxane	88	2.044	2.039	0.005	98	279993	120.0	101.3	
17 N-Nitrosodimethylamine	74	2.232	2.232	0.000	89	411405	120.0	114.1	
18 Pyridine	79	2.264	2.264	0.000	88	1096681	240.0	235.1	
29 Phenol	94	4.023	4.023	0.000	98	914162	120.0	113.5	
28 Aniline	93	4.039	4.034	0.005	99	920833	120.0	114.4	
31 Alpha Methyl Styrene	118	4.088	4.088	0.000	93	606677	120.0	114.3	
32 Bis(2-chloroethyl)ether	93	4.093	4.088	0.005	93	624582	120.0	111.5	
33 2-Chlorophenol	128	4.146	4.141	0.005	98	689308	120.0	115.3	
34 n-Decane	43	4.205	4.205	0.000	94	824436	120.0	114.2	
35 1,3-Dichlorobenzene	146	4.275	4.275	0.000	98	721989	120.0	114.0	
37 1,4-Dichlorobenzene	146	4.339	4.334	0.005	94	741257	120.0	114.4	
39 Benzyl alcohol	108	4.446	4.441	0.005	93	454888	120.0	117.6	
40 1,2-Dichlorobenzene	146	4.473	4.473	0.000	97	701520	120.0	114.3	
42 2-Methylphenol	108	4.553	4.553	0.000	57	543309	120.0	107.9	
41 Indene	116	4.553	4.553	0.000	92	1949226	240.0	213.4	
43 2,2'-oxybis[1-chloropropane]	45	4.569	4.564	0.005	92	1141321	120.0	113.2	
45 Acetophenone	105	4.681	4.676	0.005	96	862409	120.0	113.4	
46 N-Nitrosodi-n-propylamine	70	4.692	4.687	0.005	95	435968	120.0	113.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
47 4-Methylphenol	108	4.697	4.692	0.005	95	622622	120.0	113.3	
49 3 & 4 Methylphenol	108	4.697	4.692	0.005	89	622622	120.0	113.3	
48 3-Methylphenol	108	4.697	4.692	0.005	92	622622	120.0	113.3	
52 Hexachloroethane	117	4.778	4.778	0.000	98	308236	120.0	116.4	
53 Nitrobenzene	77	4.831	4.826	0.005	92	688023	120.0	116.0	
55 Isophorone	82	5.061	5.056	0.005	99	1332054	120.0	115.8	
56 2-Nitrophenol	139	5.131	5.125	0.006	94	365585	120.0	127.3	
58 2,4-Dimethylphenol	107	5.184	5.179	0.005	94	542198	120.0	115.6	
60 Bis(2-chloroethoxy)methane	93	5.264	5.259	0.005	97	789405	120.0	113.5	
63 Benzoic acid	105	5.345	5.318	0.026	92	932904	240.0	239.2	
62 2,4-Dichlorophenol	162	5.355	5.355	0.000	96	538440	120.0	117.2	
66 1,2,4-Trichlorobenzene	180	5.435	5.435	0.000	94	577168	120.0	115.2	
67 Naphthalene	128	5.505	5.500	0.005	97	1820328	120.0	114.2	
69 4-Chloroaniline	127	5.558	5.558	0.000	97	797624	120.0	114.9	
68 2,6-Dichlorophenol	162	5.569	5.569	0.000	96	524820	120.0	116.8	
71 Hexachlorobutadiene	225	5.644	5.644	0.000	97	312178	120.0	116.2	
77 4-Chloro-3-methylphenol	107	6.034	6.029	0.005	96	557900	120.0	118.5	
80 2-Methylnaphthalene	142	6.168	6.163	0.005	95	1273754	120.0	116.3	
81 1-Methylnaphthalene	142	6.259	6.259	0.000	96	1164760	120.0	116.7	
83 Hexachlorocyclopentadiene	237	6.334	6.334	0.000	96	308565	120.0	130.0	
84 1,2,4,5-Tetrachlorobenzene	216	6.334	6.334	0.000	97	553597	120.0	116.1	
86 2,3-Dichlorobenzenamine	161	6.436	6.436	0.000	95	615271	120.0	116.4	
87 2,4,6-Trichlorophenol	196	6.446	6.441	0.005	93	375655	120.0	121.5	
88 2,4,5-Trichlorophenol	196	6.478	6.473	0.005	94	402175	120.0	120.1	
90 1,1'-Biphenyl	154	6.617	6.617	0.000	95	1443536	120.0	115.2	
91 2-Chloronaphthalene	162	6.634	6.628	0.006	97	1105573	120.0	113.9	
93 2-Nitroaniline	65	6.735	6.730	0.005	87	400979	120.0	130.2	
96 Dimethyl phthalate	163	6.928	6.928	0.000	97	1216154	120.0	115.8	
97 1,3-Dinitrobenzene	168	6.938	6.933	0.005	87	233687	120.0	129.7	
98 2,6-Dinitrotoluene	165	6.970	6.970	0.000	94	309912	120.0	126.0	
99 Acenaphthylene	152	7.029	7.029	0.000	98	1716431	120.0	118.1	
100 3-Nitroaniline	138	7.131	7.131	0.000	95	382527	120.0	124.9	
101 Acenaphthene	153	7.200	7.200	0.000	93	1123322	120.0	115.9	
102 2,4-Dinitrophenol	184	7.238	7.233	0.005	85	348215	240.0	234.3	
107 4-Nitrophenol	109	7.318	7.318	0.000	96	398513	240.0	259.1	
109 2,4-Dinitrotoluene	165	7.366	7.361	0.005	93	409351	120.0	127.8	
108 Dibenzofuran	168	7.372	7.372	0.000	96	1555346	120.0	113.5	
114 2,3,4,6-Tetrachlorophenol	232	7.500	7.500	0.000	73	326008	120.0	125.9	
116 Diethyl phthalate	149	7.618	7.618	0.000	98	1294212	120.0	118.2	
117 Hexadecane	57	7.660	7.660	0.000	92	972336	120.0	119.3	
118 Fluorene	166	7.703	7.703	0.000	96	1260854	120.0	116.4	
120 4-Chlorophenyl phenyl ether	204	7.714	7.714	0.000	94	563489	120.0	113.5	
122 4-Nitroaniline	138	7.735	7.730	0.005	86	369322	120.0	122.2	
123 4,6-Dinitro-2-methylphenol	198	7.767	7.767	0.000	82	478480	240.0	233.9	
125 Diphenylamine	169	7.832	7.826	0.006	96	950402	102.0	100.3	
126 N-Nitrosodiphenylamine	169	7.832	7.826	0.006	99	950402	120.0	117.5	
129 Azobenzene	77	7.864	7.864	0.000	99	1409159	120.0	116.5	
128 1,2-Diphenylhydrazine	77	7.864	7.864	0.000	98	1409159	121.3	117.8	
138 4-Bromophenyl phenyl ether	248	8.185	8.185	0.000	67	373972	120.0	117.5	
140 Hexachlorobenzene	284	8.254	8.254	0.000	97	484303	120.0	116.9	
143 Pentachlorophenol	266	8.447	8.447	0.000	98	507933	240.0	221.0	
288 n-Octadecane	57	8.559	8.564	-0.005	93	987042	120.0	121.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
148 Phenanthrene	178	8.639	8.639	0.000	97	1831228	120.0	114.9	
151 Anthracene	178	8.687	8.687	0.000	97	1864412	120.0	116.9	
152 Carbazole	167	8.848	8.848	0.000	95	1808673	120.0	116.3	
154 Alachlor	188	9.014	9.014	0.000	95	226761	120.0	128.9	
155 Di-n-butyl phthalate	149	9.222	9.222	0.000	99	2226198	120.0	124.6	
160 Fluoranthene	202	9.805	9.805	0.000	97	1937948	120.0	120.3	
162 Pyrene	202	10.025	10.025	0.000	98	2026638	120.0	117.5	
169 Butyl benzyl phthalate	149	10.768	10.773	-0.005	98	961352	120.0	119.1	
173 Benzo[a]anthracene	228	11.447	11.453	-0.006	98	1877105	120.0	121.6	
175 Chrysene	228	11.501	11.501	0.000	97	1943716	120.0	118.1	
176 Bis(2-ethylhexyl) phthalate	149	11.581	11.586	-0.005	98	1305848	120.0	116.8	
178 Di-n-octyl phthalate	149	12.629	12.635	-0.006	99	2147236	120.0	114.1	
179 Benzo[b]fluoranthene	252	13.148	13.148	0.000	97	1892420	120.0	128.7	
181 Benzo[k]fluoranthene	252	13.202	13.196	0.006	99	2207221	120.0	123.6	
183 Benzo[a]pyrene	252	13.710	13.710	0.000	76	1845796	120.0	117.0	
187 Indeno[1,2,3-cd]pyrene	276	15.769	15.769	0.000	98	1883732	120.0	118.9	
188 Dibenz(a,h)anthracene	278	15.828	15.822	0.006	93	1882603	120.0	137.1	
189 Benzo[g,h,i]perylene	276	16.186	16.181	0.005	99	1981359	120.0	125.8	
S 200 Methyl Phenols,Total	108				0			221.2	
S 199 Total Cresols	108				0			221.2	

QC Flag Legend

Processing Flags

Reagents:

MS-HSL-WS_00010	Amount Added: 300.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

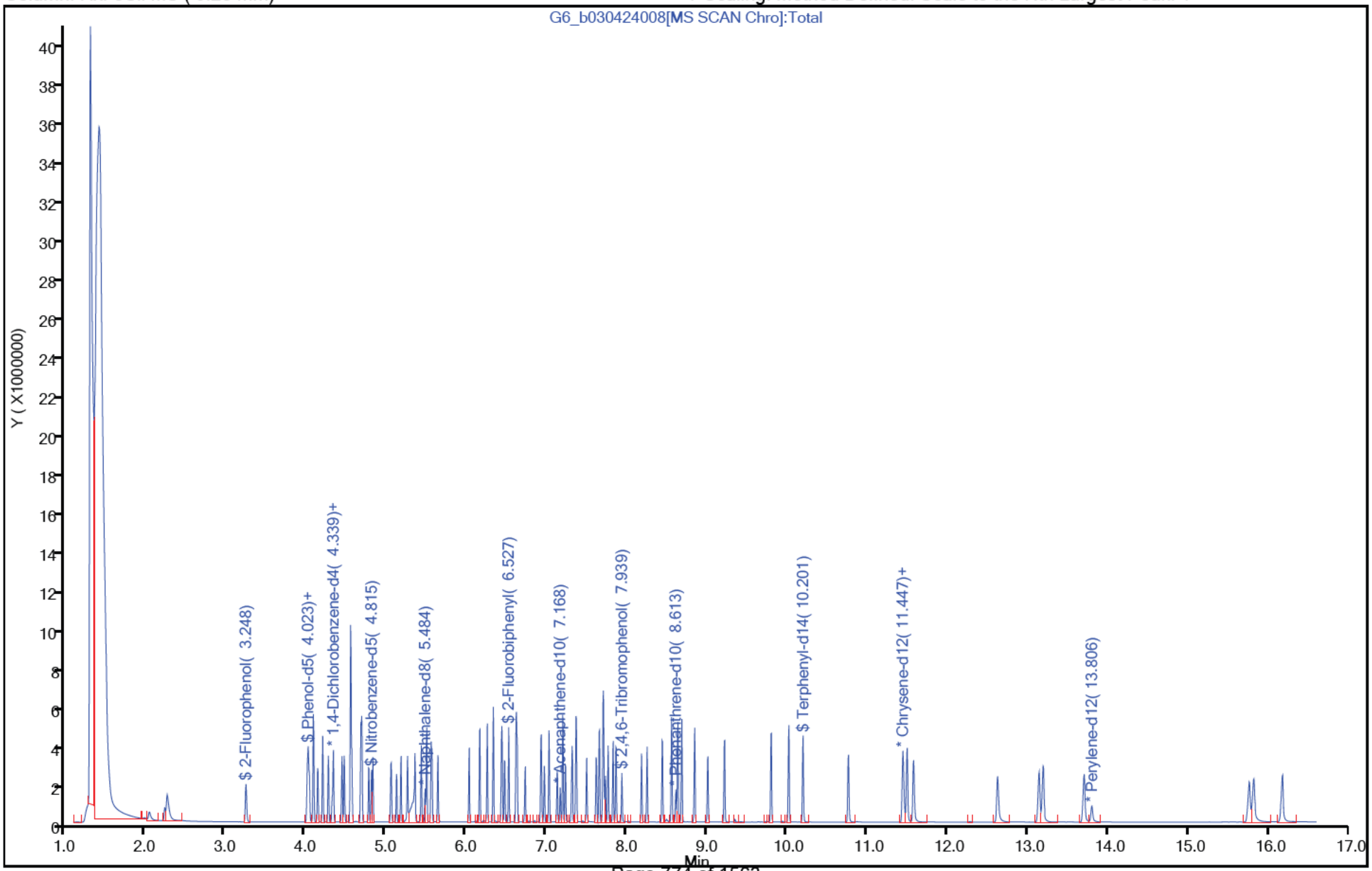
Report Date: 04-Mar-2024 15:40:02 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424008.D

Injection Date:	04-Mar-2024 12:04:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	STD120 HSL			Worklist Smp#:	8
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 04-Mar-2024 15:40:16 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424009.D
Lims ID: STD160 HSL
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 04-Mar-2024 12:26:30 ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: std160hsl
Operator ID: RC Instrument ID: SMS_G6
Sublist: chrom-SMSG6_8270C*sub97

Method: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 04-Mar-2024 15:40:16 Calib Date: 04-Mar-2024 12:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1687

First Level Reviewer: HPV7 Date: 04-Mar-2024 14:45:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.325	4.323	0.002	95	172384	40.0	40.0	
* 2 Naphthalene-d8	136	5.486	5.484	0.002	99	645698	40.0	40.0	
* 3 Acenaphthene-d10	164	7.171	7.168	0.003	90	359310	40.0	40.0	
* 4 Phenanthrene-d10	188	8.615	8.618	-0.003	96	593240	40.0	40.0	
* 5 Chrysene-d12	240	11.466	11.463	0.003	99	487140	40.0	40.0	
* 6 Perylene-d12	264	13.808	13.806	0.002	99	548089	40.0	40.0	
$ 7 2-Fluorophenol	112	3.250	3.242	0.008	93	1032526	160.0	164.4	
$ 8 Phenol-d5	99	4.015	4.007	0.008	95	1225346	160.0	158.6	
$ 9 Nitrobenzene-d5	82	4.817	4.810	0.007	91	1018332	160.0	161.1	
$ 11 2-Fluorobiphenyl	172	6.529	6.527	0.002	99	1756267	160.0	157.1	
$ 12 2,4,6-Tribromophenol	330	7.941	7.939	0.002	93	393231	160.0	165.3	
$ 13 Terphenyl-d14	244	10.203	10.206	-0.003	97	2250101	160.0	166.8	
16 1,4-Dioxane	88	2.041	2.039	0.002	98	475511	160.0	157.3	
17 N-Nitrosodimethylamine	74	2.234	2.232	0.002	90	675011	160.0	171.3	
18 Pyridine	79	2.266	2.264	0.002	89	1822975	320.0	357.4	
29 Phenol	94	4.026	4.023	0.003	98	1359338	160.0	154.3	
28 Aniline	93	4.042	4.034	0.008	98	1379843	160.0	156.7	
31 Alpha Methyl Styrene	118	4.090	4.088	0.002	89	897440	160.0	154.7	
32 Bis(2-chloroethyl)ether	93	4.095	4.088	0.007	91	907568	160.0	148.2	
33 2-Chlorophenol	128	4.143	4.141	0.002	98	1039263	160.0	159.0	
34 n-Decane	43	4.208	4.205	0.003	93	1200186	160.0	152.0	
35 1,3-Dichlorobenzene	146	4.277	4.275	0.002	98	1101662	160.0	159.1	
37 1,4-Dichlorobenzene	146	4.341	4.334	0.007	95	1119125	160.0	158.0	
39 Benzyl alcohol	108	4.448	4.441	0.007	94	677529	160.0	160.2	
40 1,2-Dichlorobenzene	146	4.475	4.473	0.002	97	1045777	160.0	155.9	
41 Indene	116	4.555	4.553	0.002	92	2654646	320.0	265.8	
42 2-Methylphenol	108	4.555	4.553	0.002	56	748364	160.0	135.9	
43 2,2'-oxybis[1-chloropropane]	45	4.571	4.564	0.007	93	1606871	160.0	145.8	
45 Acetophenone	105	4.684	4.676	0.008	96	1237706	160.0	148.9	
46 N-Nitrosodi-n-propylamine	70	4.694	4.687	0.007	95	612944	160.0	146.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
47 4-Methylphenol	108	4.700	4.692	0.008	94	884130	160.0	147.2	
48 3-Methylphenol	108	4.700	4.692	0.008	91	884130	160.0	147.2	
49 3 & 4 Methylphenol	108	4.700	4.692	0.008	91	884130	160.0	147.2	
52 Hexachloroethane	117	4.780	4.778	0.002	97	441150	160.0	152.3	
53 Nitrobenzene	77	4.833	4.826	0.007	91	991594	160.0	157.6	
55 Isophorone	82	5.063	5.056	0.007	99	1937973	160.0	158.8	
56 2-Nitrophenol	139	5.128	5.125	0.003	94	526970	160.0	172.9	
58 2,4-Dimethylphenol	107	5.186	5.179	0.007	94	780110	160.0	156.8	
60 Bis(2-chloroethoxy)methane	93	5.267	5.259	0.008	97	1138762	160.0	154.4	
63 Benzoic acid	105	5.363	5.318	0.045	91	1409299	320.0	335.6	
62 2,4-Dichlorophenol	162	5.358	5.355	0.003	95	777573	160.0	159.6	
66 1,2,4-Trichlorobenzene	180	5.438	5.435	0.003	95	835112	160.0	157.1	
67 Naphthalene	128	5.507	5.500	0.007	97	2584352	160.0	152.8	
69 4-Chloroaniline	127	5.561	5.558	0.003	97	1132528	160.0	153.7	
68 2,6-Dichlorophenol	162	5.572	5.569	0.003	97	749165	160.0	157.2	
71 Hexachlorobutadiene	225	5.641	5.644	-0.003	97	452707	160.0	158.8	
77 4-Chloro-3-methylphenol	107	6.037	6.029	0.008	96	792730	160.0	158.7	
80 2-Methylnaphthalene	142	6.165	6.163	0.002	95	1819318	160.0	156.6	
81 1-Methylnaphthalene	142	6.261	6.259	0.002	96	1660859	160.0	156.8	
83 Hexachlorocyclopentadiene	237	6.336	6.334	0.002	76	414083	160.0	167.4	
84 1,2,4,5-Tetrachlorobenzene	216	6.336	6.334	0.002	97	777479	160.0	153.7	
86 2,3-Dichlorobenzenamine	161	6.438	6.436	0.002	96	873866	160.0	158.7	
87 2,4,6-Trichlorophenol	196	6.449	6.441	0.008	93	527826	160.0	163.8	
88 2,4,5-Trichlorophenol	196	6.475	6.473	0.002	94	591707	160.0	169.6	
90 1,1'-Biphenyl	154	6.620	6.617	0.003	94	2016791	160.0	154.4	
91 2-Chloronaphthalene	162	6.636	6.628	0.008	97	1542519	160.0	152.6	
93 2-Nitroaniline	65	6.738	6.730	0.008	87	567529	160.0	176.8	
96 Dimethyl phthalate	163	6.935	6.928	0.007	98	1714627	160.0	156.7	
97 1,3-Dinitrobenzene	168	6.941	6.933	0.008	90	334942	160.0	178.4	
98 2,6-Dinitrotoluene	165	6.978	6.970	0.008	96	458647	160.0	178.9	
99 Acenaphthylene	152	7.032	7.029	0.003	98	2438155	160.0	160.9	
100 3-Nitroaniline	138	7.139	7.131	0.008	95	546681	160.0	171.2	
101 Acenaphthene	153	7.203	7.200	0.003	92	1558736	160.0	154.3	
102 2,4-Dinitrophenol	184	7.240	7.233	0.007	85	507384	320.0	324.1	
107 4-Nitrophenol	109	7.326	7.318	0.008	93	555772	320.0	346.7	
109 2,4-Dinitrotoluene	165	7.369	7.361	0.008	90	565352	160.0	169.4	
108 Dibenzofuran	168	7.374	7.372	0.002	96	2142378	160.0	150.0	
114 2,3,4,6-Tetrachlorophenol	232	7.502	7.500	0.002	73	482209	160.0	178.8	
116 Diethyl phthalate	149	7.625	7.618	0.007	99	1827119	160.0	160.1	
117 Hexadecane	57	7.657	7.660	-0.003	92	1338082	160.0	157.5	
118 Fluorene	166	7.706	7.703	0.003	96	1705651	160.0	151.1	
120 4-Chlorophenyl phenyl ether	204	7.716	7.714	0.002	94	778191	160.0	150.4	
122 4-Nitroaniline	138	7.743	7.730	0.013	86	538163	160.0	170.9	
123 4,6-Dinitro-2-methylphenol	198	7.775	7.767	0.008	86	695642	320.0	330.6	
126 N-Nitrosodiphenylamine	169	7.834	7.826	0.008	99	1343494	160.0	163.1	
125 Diphenylamine	169	7.834	7.826	0.008	95	1343494	136.0	136.0	
128 1,2-Diphenylhydrazine	77	7.866	7.864	0.002	98	1912221	161.8	153.4	
129 Azobenzene	77	7.866	7.864	0.002	99	1912221	160.0	151.7	
138 4-Bromophenyl phenyl ether	248	8.187	8.185	0.002	66	545575	160.0	168.3	
140 Hexachlorobenzene	284	8.257	8.254	0.003	97	713719	160.0	169.1	
143 Pentachlorophenol	266	8.449	8.447	0.002	98	776470	320.0	327.9	
288 n-Octadecane	57	8.561	8.564	-0.003	94	1355326	160.0	163.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
148 Phenanthrene	178	8.642	8.639	0.003	97	2544917	160.0	156.8	
151 Anthracene	178	8.690	8.687	0.003	97	2613796	160.0	160.9	
152 Carbazole	167	8.850	8.848	0.002	95	2550294	160.0	161.1	
154 Alachlor	188	9.011	9.014	-0.003	94	323761	160.0	180.7	
155 Di-n-butyl phthalate	149	9.219	9.222	-0.003	99	3059511	160.0	168.2	
160 Fluoranthene	202	9.802	9.805	-0.003	97	2723493	160.0	166.0	
162 Pyrene	202	10.027	10.025	0.002	98	2849613	160.0	162.5	
169 Butyl benzyl phthalate	149	10.770	10.773	-0.003	97	1415592	160.0	171.4	
173 Benzo[a]anthracene	228	11.450	11.453	-0.003	98	2737431	160.0	174.5	
175 Chrysene	228	11.503	11.501	0.002	97	2751992	160.0	164.5	
176 Bis(2-ethylhexyl) phthalate	149	11.583	11.586	-0.003	97	1919761	160.0	166.7	
178 Di-n-octyl phthalate	149	12.632	12.635	-0.003	99	3284896	160.0	161.8	
179 Benzo[b]fluoranthene	252	13.151	13.148	0.003	97	2783951	160.0	181.9	
181 Benzo[k]fluoranthene	252	13.204	13.196	0.008	98	3205122	160.0	172.3	
183 Benzo[a]pyrene	252	13.717	13.710	0.007	79	2799098	160.0	169.5	
187 Indeno[1,2,3-cd]pyrene	276	15.782	15.769	0.013	98	2866206	160.0	175.5	
188 Dibenz(a,h)anthracene	278	15.836	15.822	0.014	91	2788829	160.0	195.1	
189 Benzo[g,h,i]perylene	276	16.194	16.181	0.013	99	2887806	160.0	176.1	
S 199 Total Cresols	108				0			283.1	
S 200 Methyl Phenols,Total	108				0			283.1	

QC Flag Legend

Processing Flags

Reagents:

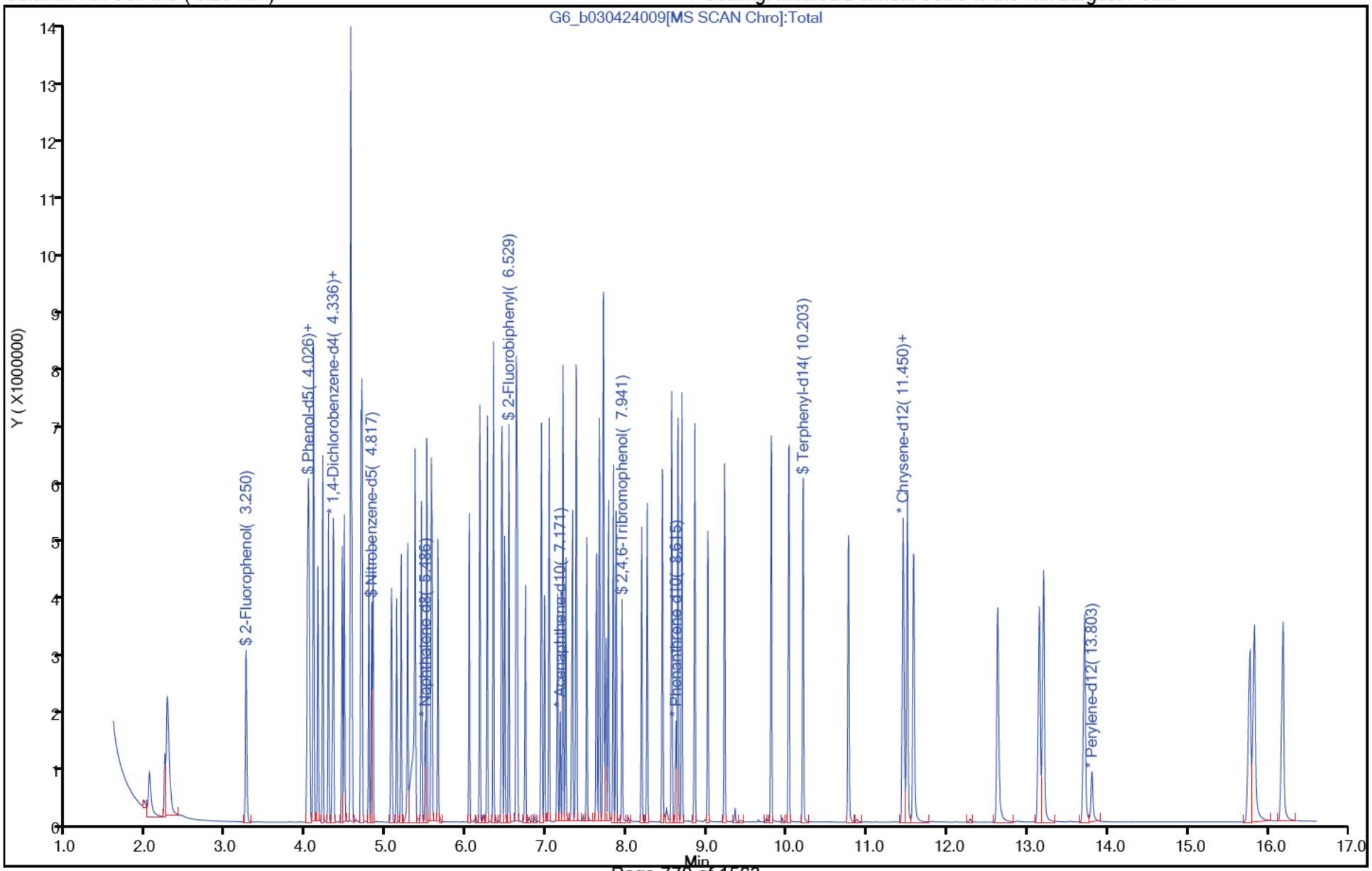
MS-HSL-WS_00010	Amount Added: 400.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

Report Date: 04-Mar-2024 15:40:16 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424009.D				
Injection Date:	04-Mar-2024 12:26:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	STD160 HSL			Worklist Smp#:	9
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 04-Mar-2024 15:40:18 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D
Lims ID: STD200 HSL
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 04-Mar-2024 12:47:30 ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: std200hsl
Operator ID: RC Instrument ID: SMS_G6
Sublist: chrom-SMSG6_8270C*sub97

Method: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 04-Mar-2024 15:40:18 Calib Date: 04-Mar-2024 12:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1687

First Level Reviewer: HPV7 Date: 04-Mar-2024 14:41:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.325	4.323	0.002	96	174258	40.0	40.0	
* 2 Naphthalene-d8	136	5.486	5.484	0.002	99	655133	40.0	40.0	
* 3 Acenaphthene-d10	164	7.171	7.168	0.003	90	366873	40.0	40.0	
* 4 Phenanthrene-d10	188	8.615	8.618	-0.003	96	609139	40.0	40.0	
* 5 Chrysene-d12	240	11.466	11.463	0.003	99	497635	40.0	40.0	
* 6 Perylene-d12	264	13.808	13.806	0.002	99	563658	40.0	40.0	
$ 7 2-Fluorophenol	112	3.250	3.242	0.008	93	1313232	200.0	206.9	
$ 8 Phenol-d5	99	4.020	4.007	0.013	94	1541860	200.0	197.4	
$ 9 Nitrobenzene-d5	82	4.817	4.810	0.007	91	1286388	200.0	200.5	
$ 11 2-Fluorobiphenyl	172	6.529	6.527	0.002	99	2150598	200.0	188.4	
$ 12 2,4,6-Tribromophenol	330	7.946	7.939	0.007	92	512875	200.0	210.5	
$ 13 Terphenyl-d14	244	10.203	10.206	-0.003	97	2784922	200.0	202.1	
16 1,4-Dioxane	88	2.041	2.039	0.002	98	586022	200.0	191.8	
17 N-Nitrosodimethylamine	74	2.239	2.232	0.007	90	866885	200.0	217.6	
18 Pyridine	79	2.271	2.264	0.007	89	2372688	400.0	460.2	
29 Phenol	94	4.031	4.023	0.008	98	1661657	200.0	186.6	
28 Aniline	93	4.042	4.034	0.008	98	1721073	200.0	193.4	
31 Alpha Methyl Styrene	118	4.090	4.088	0.002	93	1105396	200.0	188.5	
32 Bis(2-chloroethyl)ether	93	4.095	4.088	0.007	92	1111525	200.0	179.5	
33 2-Chlorophenol	128	4.149	4.141	0.008	97	1313734	200.0	198.8	
34 n-Decane	43	4.208	4.205	0.003	94	1494995	200.0	187.3	
35 1,3-Dichlorobenzene	146	4.277	4.275	0.002	98	1378024	200.0	196.9	
37 1,4-Dichlorobenzene	146	4.341	4.334	0.007	95	1395925	200.0	194.9	
39 Benzyl alcohol	108	4.454	4.441	0.013	94	853756	200.0	199.7	
40 1,2-Dichlorobenzene	146	4.475	4.473	0.002	98	1312327	200.0	193.5	
41 Indene	116	4.561	4.553	0.008	92	3125800	400.0	309.6	
42 2-Methylphenol	108	4.555	4.553	0.002	57	886404	200.0	159.2	
43 2,2'-oxybis[1-chloropropane]	45	4.571	4.564	0.007	93	1951821	200.0	175.2	
45 Acetophenone	105	4.684	4.676	0.008	96	1524032	200.0	181.4	
46 N-Nitrosodi-n-propylamine	70	4.694	4.687	0.007	95	752993	200.0	177.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
47 4-Methylphenol	108	4.700	4.692	0.008	94	1083007	200.0	178.3	
48 3-Methylphenol	108	4.700	4.692	0.008	94	1083007	200.0	178.3	
49 3 & 4 Methylphenol	108	4.700	4.692	0.008	95	1083007	200.0	178.3	
52 Hexachloroethane	117	4.780	4.778	0.002	97	547550	200.0	187.1	
53 Nitrobenzene	77	4.839	4.826	0.013	90	1232818	200.0	193.1	
55 Isophorone	82	5.069	5.056	0.013	99	2449943	200.0	197.9	
56 2-Nitrophenol	139	5.133	5.125	0.008	93	672270	200.0	217.4	
58 2,4-Dimethylphenol	107	5.186	5.179	0.007	94	981293	200.0	194.4	
60 Bis(2-chloroethoxy)methane	93	5.267	5.259	0.008	97	1417147	200.0	189.4	
63 Benzoic acid	105	5.384	5.318	0.066	92	1804158	400.0	420.3	M
62 2,4-Dichlorophenol	162	5.363	5.355	0.008	94	974167	200.0	197.0	
66 1,2,4-Trichlorobenzene	180	5.438	5.435	0.003	95	1032775	200.0	191.5	
67 Naphthalene	128	5.507	5.500	0.007	97	3165314	200.0	184.4	
69 4-Chloroaniline	127	5.561	5.558	0.003	96	1402162	200.0	187.6	
68 2,6-Dichlorophenol	162	5.571	5.569	0.002	98	932003	200.0	192.7	
71 Hexachlorobutadiene	225	5.646	5.644	0.002	97	563329	200.0	194.7	
77 4-Chloro-3-methylphenol	107	6.037	6.029	0.008	96	994186	200.0	196.2	
80 2-Methylnaphthalene	142	6.171	6.163	0.008	95	2231959	200.0	189.3	
81 1-Methylnaphthalene	142	6.261	6.259	0.002	96	2046786	200.0	190.5	
83 Hexachlorocyclopentadiene	237	6.336	6.334	0.002	76	502843	200.0	199.1	
84 1,2,4,5-Tetrachlorobenzene	216	6.336	6.334	0.002	97	954902	200.0	186.1	
86 2,3-Dichlorobenzenamine	161	6.438	6.436	0.002	97	1080977	200.0	192.2	
87 2,4,6-Trichlorophenol	196	6.449	6.441	0.008	93	662685	200.0	201.4	
88 2,4,5-Trichlorophenol	196	6.481	6.473	0.008	94	731721	200.0	205.4	
90 1,1'-Biphenyl	154	6.625	6.617	0.008	94	2420851	200.0	181.5	
91 2-Chloronaphthalene	162	6.636	6.628	0.008	97	1874325	200.0	181.6	
93 2-Nitroaniline	65	6.737	6.730	0.007	86	715098	200.0	218.2	
96 Dimethyl phthalate	163	6.935	6.928	0.007	97	2098137	200.0	187.8	
97 1,3-Dinitrobenzene	168	6.946	6.933	0.013	86	414430	200.0	216.1	
98 2,6-Dinitrotoluene	165	6.978	6.970	0.008	95	575375	200.0	219.8	
99 Acenaphthylene	152	7.032	7.029	0.003	98	3020241	200.0	195.3	
100 3-Nitroaniline	138	7.144	7.131	0.013	97	699134	200.0	214.5	
101 Acenaphthene	153	7.208	7.200	0.008	92	1896270	200.0	183.9	
102 2,4-Dinitrophenol	184	7.246	7.233	0.013	86	675160	400.0	419.7	
107 4-Nitrophenol	109	7.331	7.318	0.013	93	702358	400.0	429.1	
109 2,4-Dinitrotoluene	165	7.374	7.361	0.013	93	689351	200.0	202.3	
108 Dibenzofuran	168	7.374	7.372	0.002	97	2597130	200.0	178.1	
114 2,3,4,6-Tetrachlorophenol	232	7.502	7.500	0.002	72	612672	200.0	222.4	
116 Diethyl phthalate	149	7.625	7.618	0.007	98	2273418	200.0	195.1	
117 Hexadecane	57	7.657	7.660	-0.003	92	1620734	200.0	186.8	
118 Fluorene	166	7.706	7.703	0.003	96	2027531	200.0	175.9	
120 4-Chlorophenyl phenyl ether	204	7.716	7.714	0.002	93	931808	200.0	176.3	
122 4-Nitroaniline	138	7.748	7.730	0.018	87	700161	200.0	217.7	
123 4,6-Dinitro-2-methylphenol	198	7.780	7.767	0.013	88	885479	400.0	407.9	
126 N-Nitrosodiphenylamine	169	7.834	7.826	0.008	99	1662524	200.0	196.6	
125 Diphenylamine	169	7.834	7.826	0.008	96	1662524	170.0	164.8	
128 1,2-Diphenylhydrazine	77	7.871	7.864	0.007	97	2343927	202.2	184.1	
129 Azobenzene	77	7.871	7.864	0.007	98	2343927	200.0	182.1	
138 4-Bromophenyl phenyl ether	248	8.187	8.185	0.002	65	695776	200.0	209.0	
140 Hexachlorobenzene	284	8.257	8.254	0.002	97	894519	200.0	206.4	
143 Pentachlorophenol	266	8.449	8.447	0.002	97	998895	400.0	408.8	
288 n-Octadecane	57	8.561	8.564	-0.003	93	1644866	200.0	193.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
148 Phenanthrene	178	8.642	8.639	0.003	97	3079908	200.0	184.8	
151 Anthracene	178	8.690	8.687	0.003	97	3228206	200.0	193.5	
152 Carbazole	167	8.850	8.848	0.002	95	3187595	200.0	196.1	
154 Alachlor	188	9.016	9.014	0.002	96	405726	200.0	220.5	
155 Di-n-butyl phthalate	149	9.219	9.222	-0.003	99	3774322	200.0	202.1	
160 Fluoranthene	202	9.808	9.805	0.003	97	3342758	200.0	198.5	
162 Pyrene	202	10.027	10.025	0.002	97	3494078	200.0	195.1	
169 Butyl benzyl phthalate	149	10.765	10.773	-0.008	97	1792556	200.0	211.9	
173 Benzo[a]anthracene	228	11.450	11.453	-0.003	98	3466848	200.0	216.3	
175 Chrysene	228	11.503	11.501	0.002	97	3395563	200.0	198.6	
176 Bis(2-ethylhexyl) phthalate	149	11.578	11.586	-0.008	98	2435785	200.0	205.9	
178 Di-n-octyl phthalate	149	12.632	12.635	-0.003	99	4291486	200.0	199.1	
179 Benzo[b]fluoranthene	252	13.156	13.148	0.008	96	3658257	200.0	232.5	
181 Benzo[k]fluoranthene	252	13.209	13.196	0.013	98	3977479	200.0	208.0	
183 Benzo[a]pyrene	252	13.717	13.710	0.007	76	3537898	200.0	207.8	
187 Indeno[1,2,3-cd]pyrene	276	15.787	15.769	0.018	98	3775223	200.0	224.9	
188 Dibenz(a,h)anthracene	278	15.841	15.822	0.019	91	3675468	200.0	250.0	
189 Benzo[g,h,i]perylene	276	16.199	16.181	0.018	98	3652302	200.0	216.6	
S 199 Total Cresols	108				0			337.6	
S 200 Methyl Phenols,Total	108				0			337.6	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

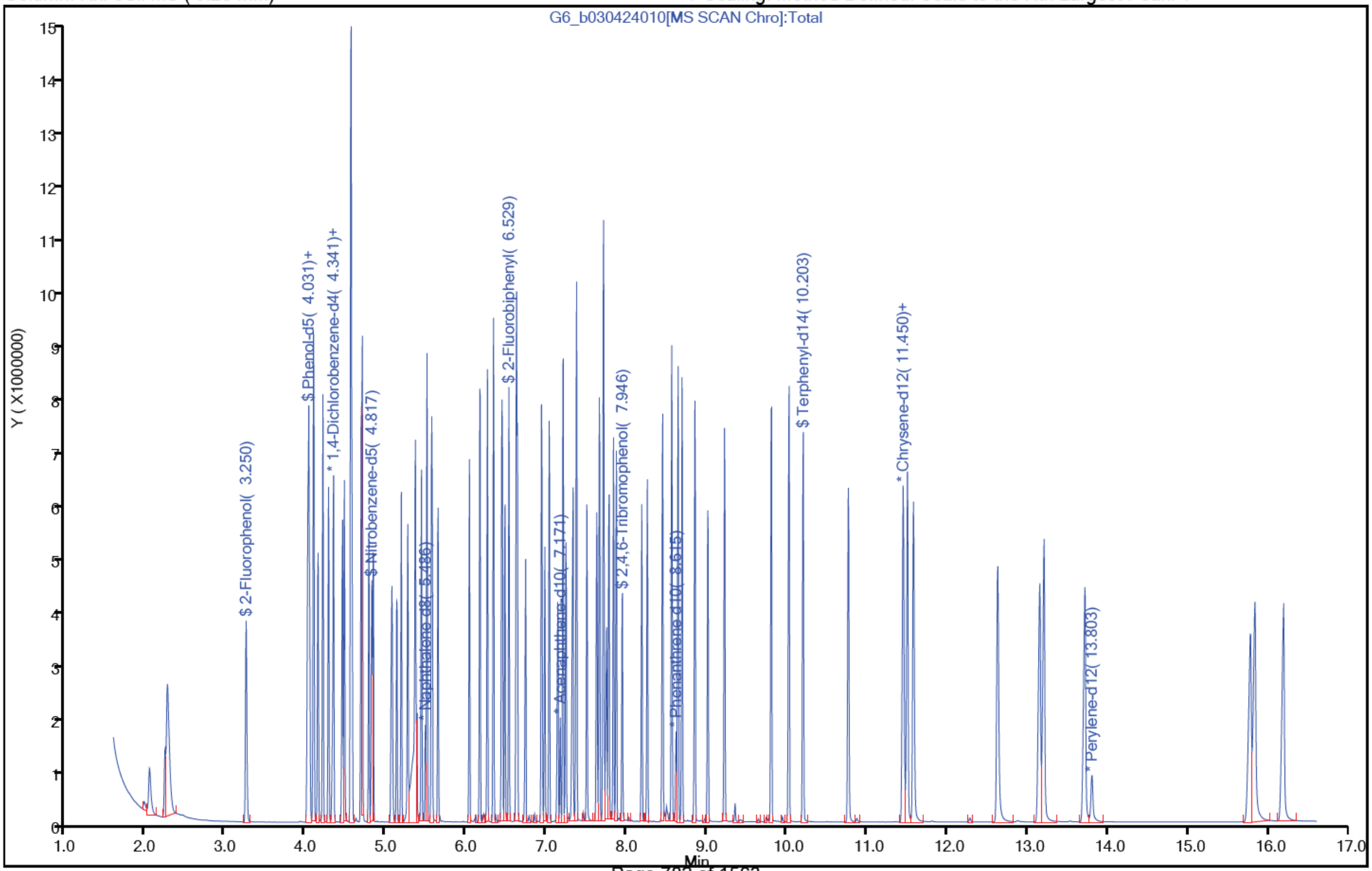
MS-HSL-WS_00010	Amount Added: 500.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

Report Date: 04-Mar-2024 15:40:18 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D				
Injection Date:	04-Mar-2024 12:47:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	STD200 HSL			Worklist Smp#:	10
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

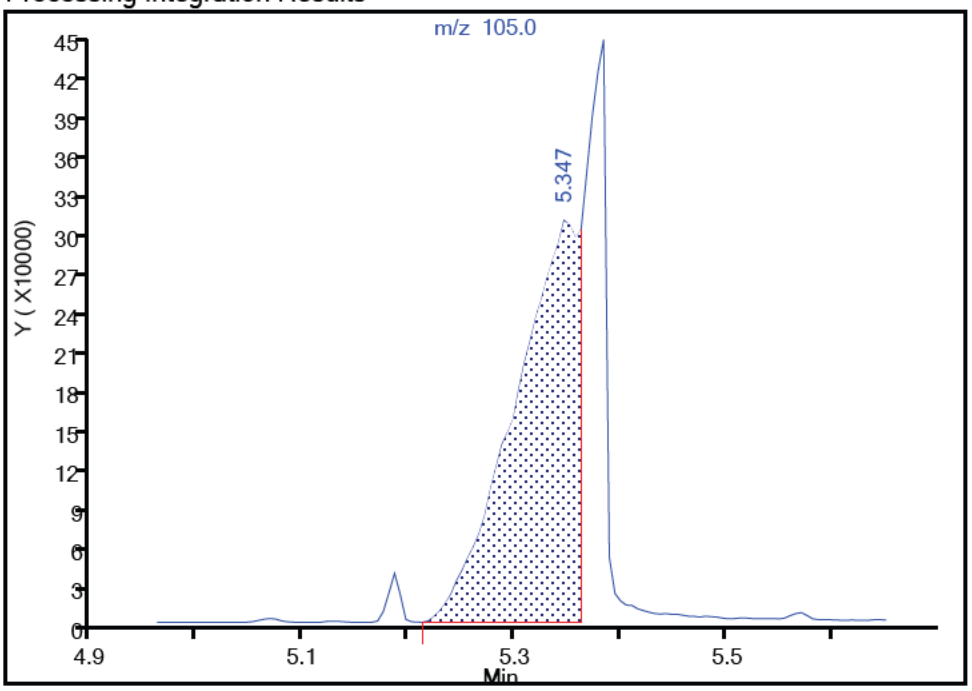
Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D				
Injection Date:	04-Mar-2024 12:47:30	Instrument ID:	SMS_G6		
Lims ID:	STD200 HSL				
Client ID:					
Operator ID:	RC	ALS Bottle#:	9	Worklist Smp#:	10
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		
Column:	Rxi-5Sil MS (0.25 mm)	Detector	MS SCAN		

63 Benzoic acid, CAS: 65-85-0

Signal: 1

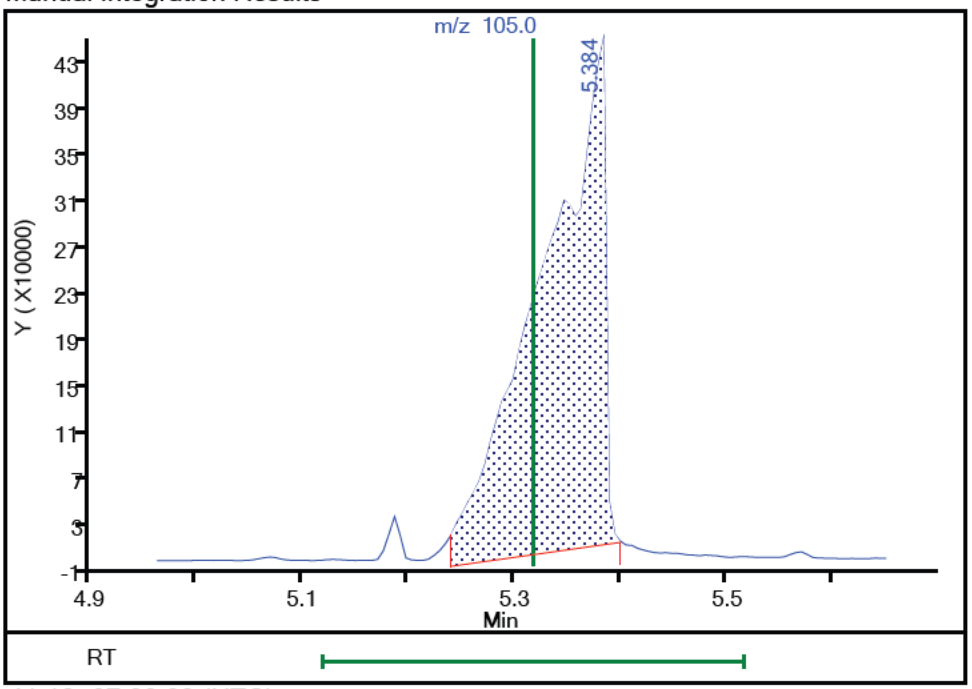
Processing Integration Results

RT: 5.35
Area: 1331793
Amount: 350.6987
Amount Units: ug/ml



Manual Integration Results

RT: 5.38
Area: 1804158
Amount: 420.3243
Amount Units: ug/ml



Reviewer: HPV7, 04-Mar-2024 14:41:16 -07:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Calibration / N-Nitrosodimethylamine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

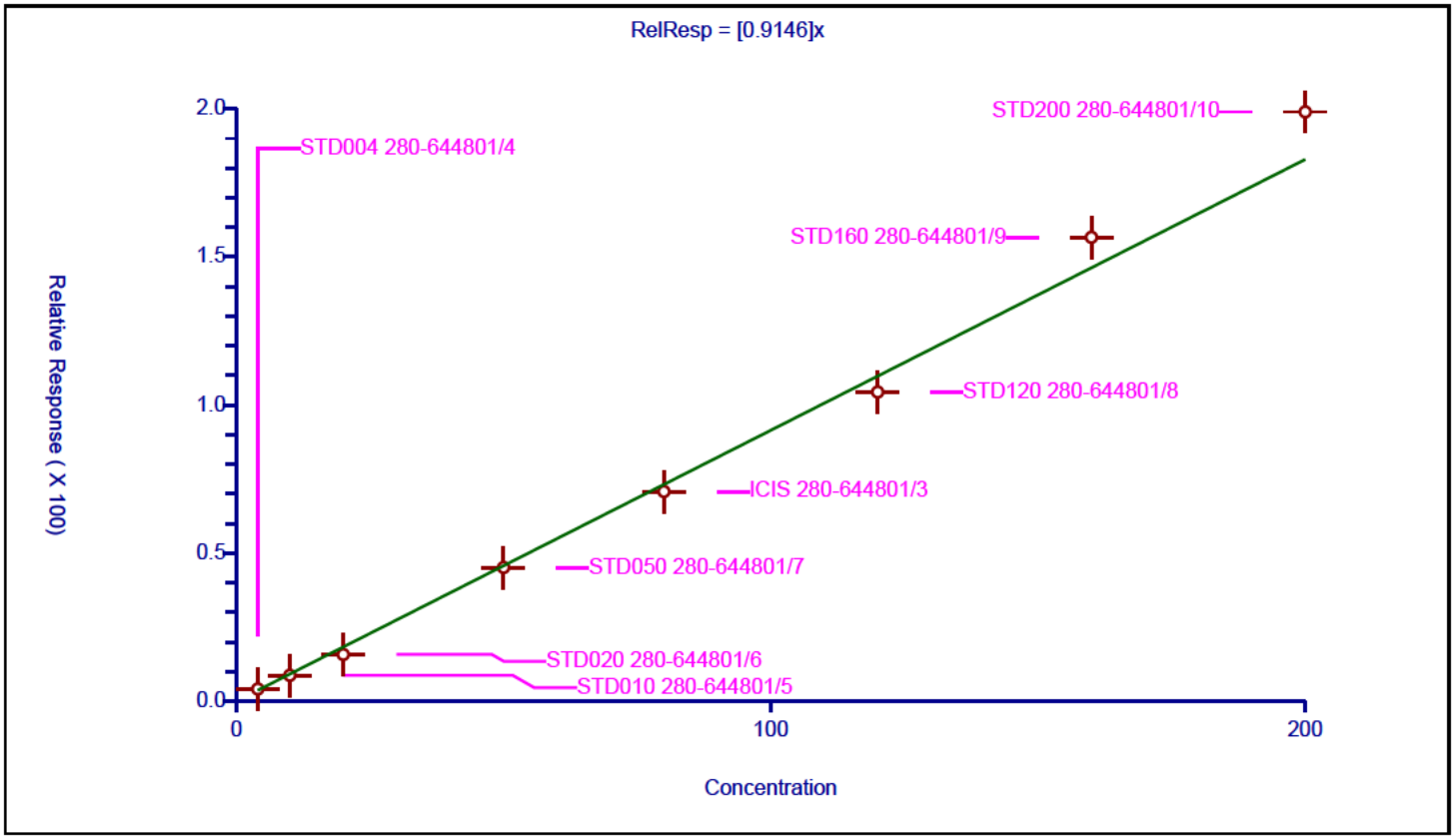
Curve Coefficients

Intercept:	0
Slope:	0.9146

Error Coefficients

Relative Standard Deviation:	8.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	4.107118	40.0	148435.0	1.026779	Y
2	STD010 280-644801/5	10.0	8.708171	40.0	166841.0	0.870817	Y
3	STD020 280-644801/6	20.0	15.757192	40.0	180159.0	0.78786	Y
4	STD050 280-644801/7	50.0	45.143313	40.0	156615.0	0.902866	Y
5	ICIS 280-644801/3	80.0	70.794741	40.0	173327.0	0.884934	Y
6	STD120 280-644801/8	120.0	104.375127	40.0	157664.0	0.869793	Y
7	STD160 280-644801/9	160.0	156.629618	40.0	172384.0	0.978935	Y
8	STD200 280-644801/10	200.0	198.988856	40.0	174258.0	0.994944	Y



Calibration / Pyridine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

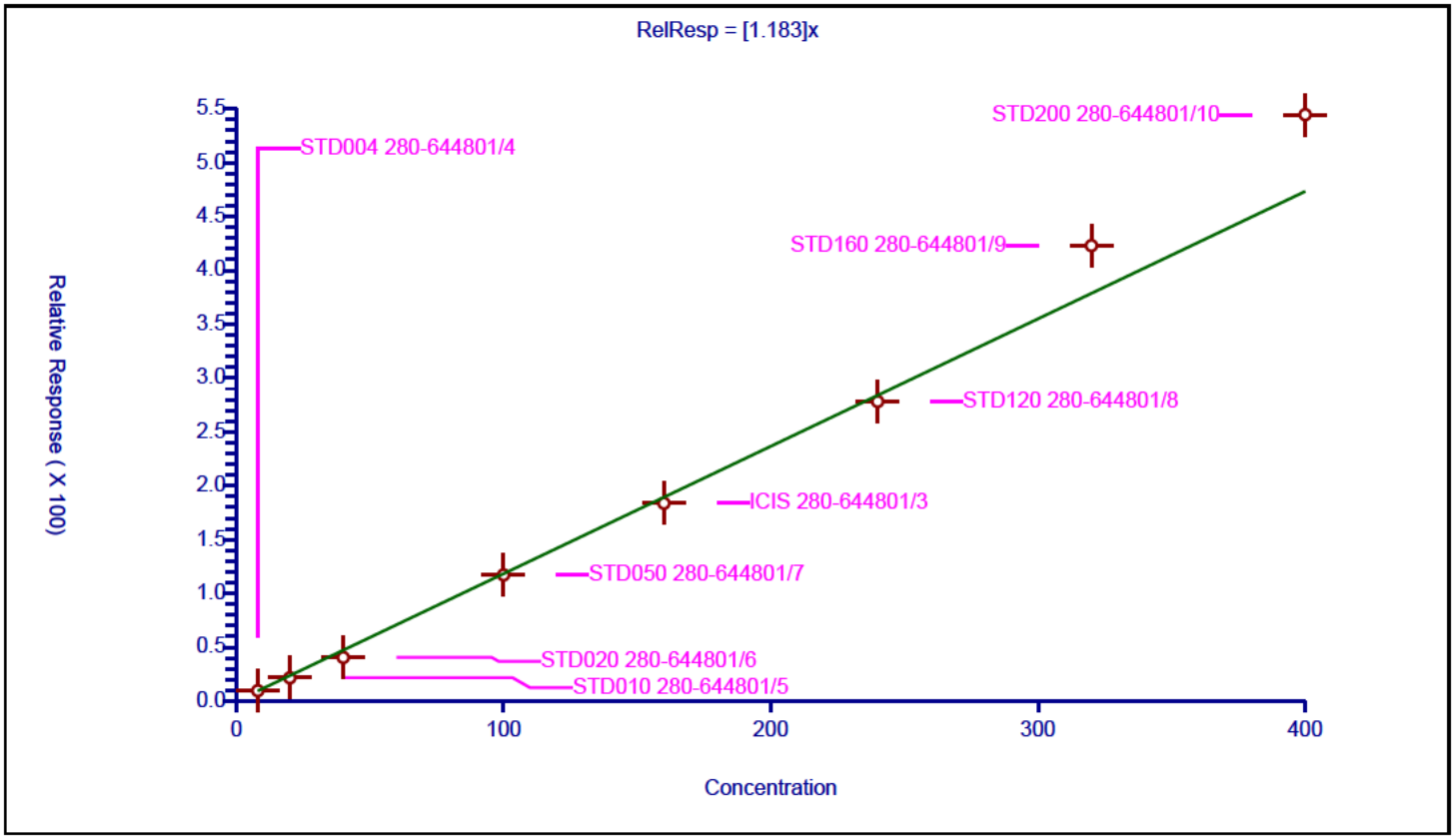
Curve Coefficients

Intercept:	0
Slope:	1.183

Error Coefficients

Relative Standard Deviation:	9.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	8.0	9.664028	40.0	148435.0	1.208004	Y
2	STD010 280-644801/5	20.0	21.655588	40.0	166841.0	1.082779	Y
3	STD020 280-644801/6	40.0	40.529976	40.0	180159.0	1.013249	Y
4	STD050 280-644801/7	100.0	117.217891	40.0	156615.0	1.172179	Y
5	ICIS 280-644801/3	160.0	183.729482	40.0	173327.0	1.148309	Y
6	STD120 280-644801/8	240.0	278.232444	40.0	157664.0	1.159302	Y
7	STD160 280-644801/9	320.0	423.003295	40.0	172384.0	1.321885	Y
8	STD200 280-644801/10	400.0	544.637951	40.0	174258.0	1.361595	Y



Calibration / 2-Fluorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

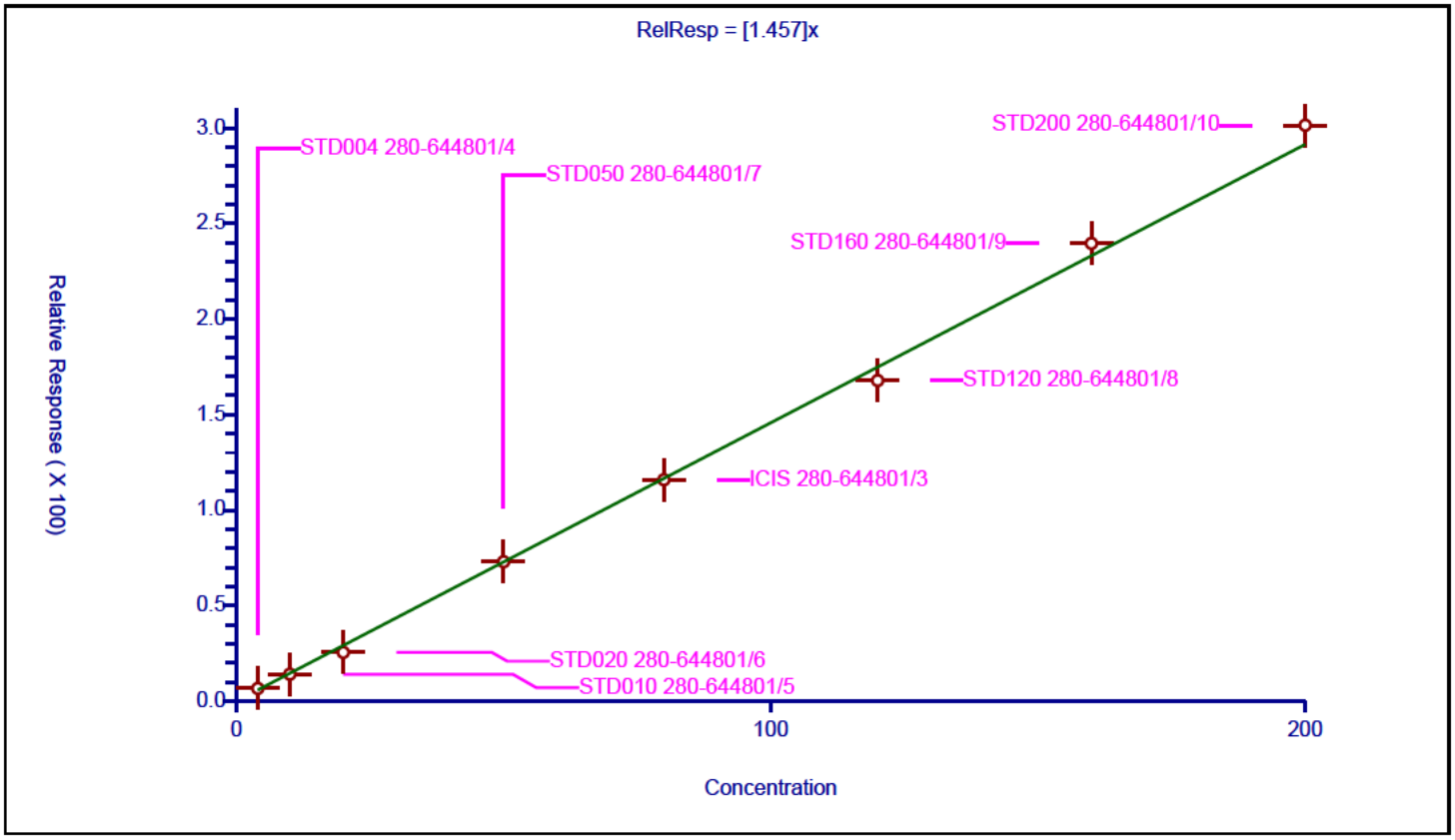
Curve Coefficients

Intercept:	0
Slope:	1.457

Error Coefficients

Relative Standard Deviation:	7.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	6.639943	40.0	148435.0	1.659986	Y
2	STD010 280-644801/5	10.0	14.104686	40.0	166841.0	1.410469	Y
3	STD020 280-644801/6	20.0	25.511909	40.0	180159.0	1.275595	Y
4	STD050 280-644801/7	50.0	72.961338	40.0	156615.0	1.459227	Y
5	ICIS 280-644801/3	80.0	115.888696	40.0	173327.0	1.448609	Y
6	STD120 280-644801/8	120.0	167.813071	40.0	157664.0	1.398442	Y
7	STD160 280-644801/9	160.0	239.587433	40.0	172384.0	1.497421	Y
8	STD200 280-644801/10	200.0	301.445443	40.0	174258.0	1.507227	Y



Calibration / Phenol-d5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

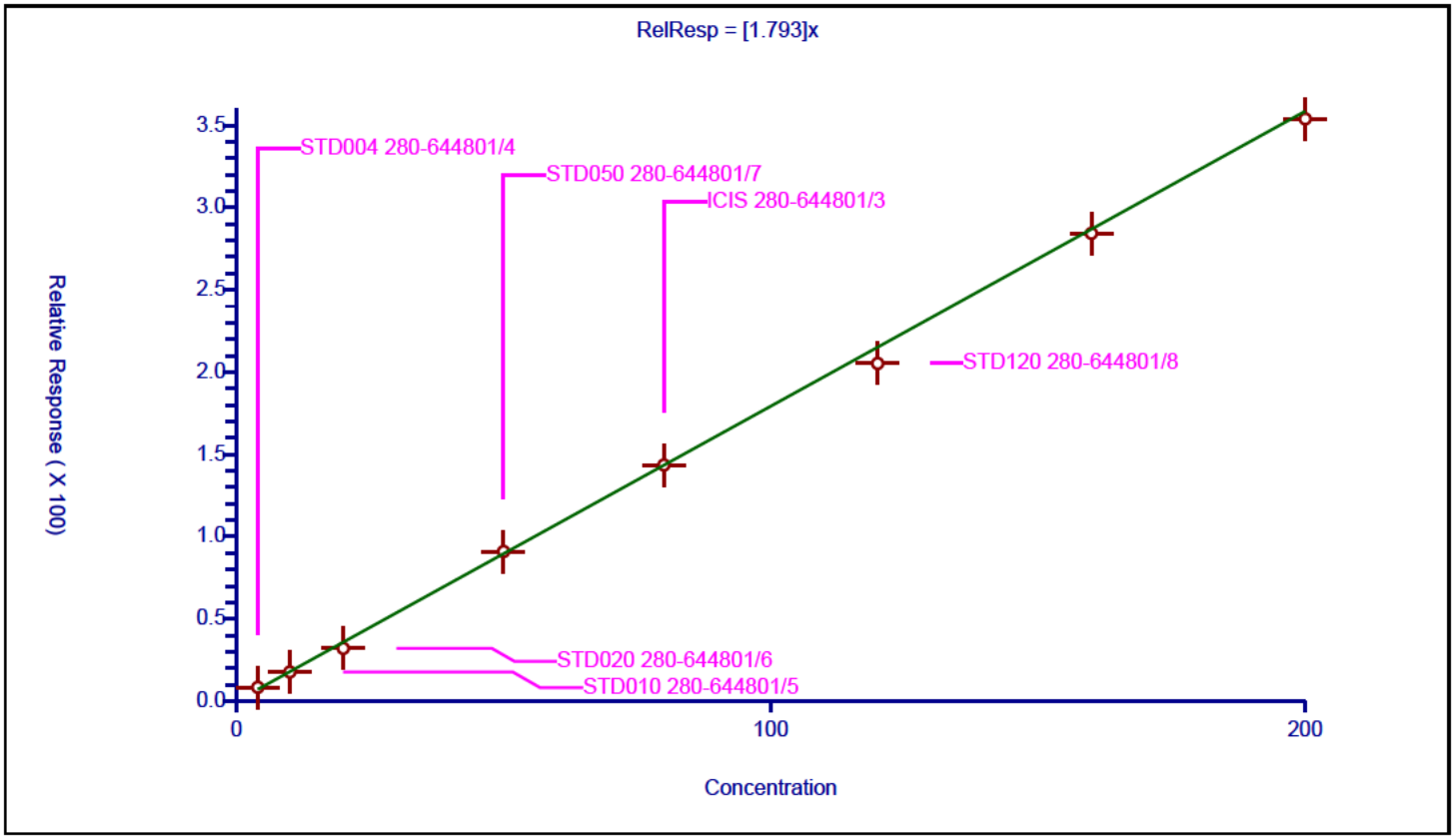
Curve Coefficients

Intercept:	0
Slope:	1.793

Error Coefficients

Relative Standard Deviation:	7.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	8.393977	40.0	148435.0	2.098494	Y
2	STD010 280-644801/5	10.0	17.714351	40.0	166841.0	1.771435	Y
3	STD020 280-644801/6	20.0	32.05857	40.0	180159.0	1.602929	Y
4	STD050 280-644801/7	50.0	90.971618	40.0	156615.0	1.819432	Y
5	ICIS 280-644801/3	80.0	143.529167	40.0	173327.0	1.794115	Y
6	STD120 280-644801/8	120.0	205.250152	40.0	157664.0	1.710418	Y
7	STD160 280-644801/9	160.0	284.329404	40.0	172384.0	1.777059	Y
8	STD200 280-644801/10	200.0	353.925788	40.0	174258.0	1.769629	Y



Calibration / Phenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

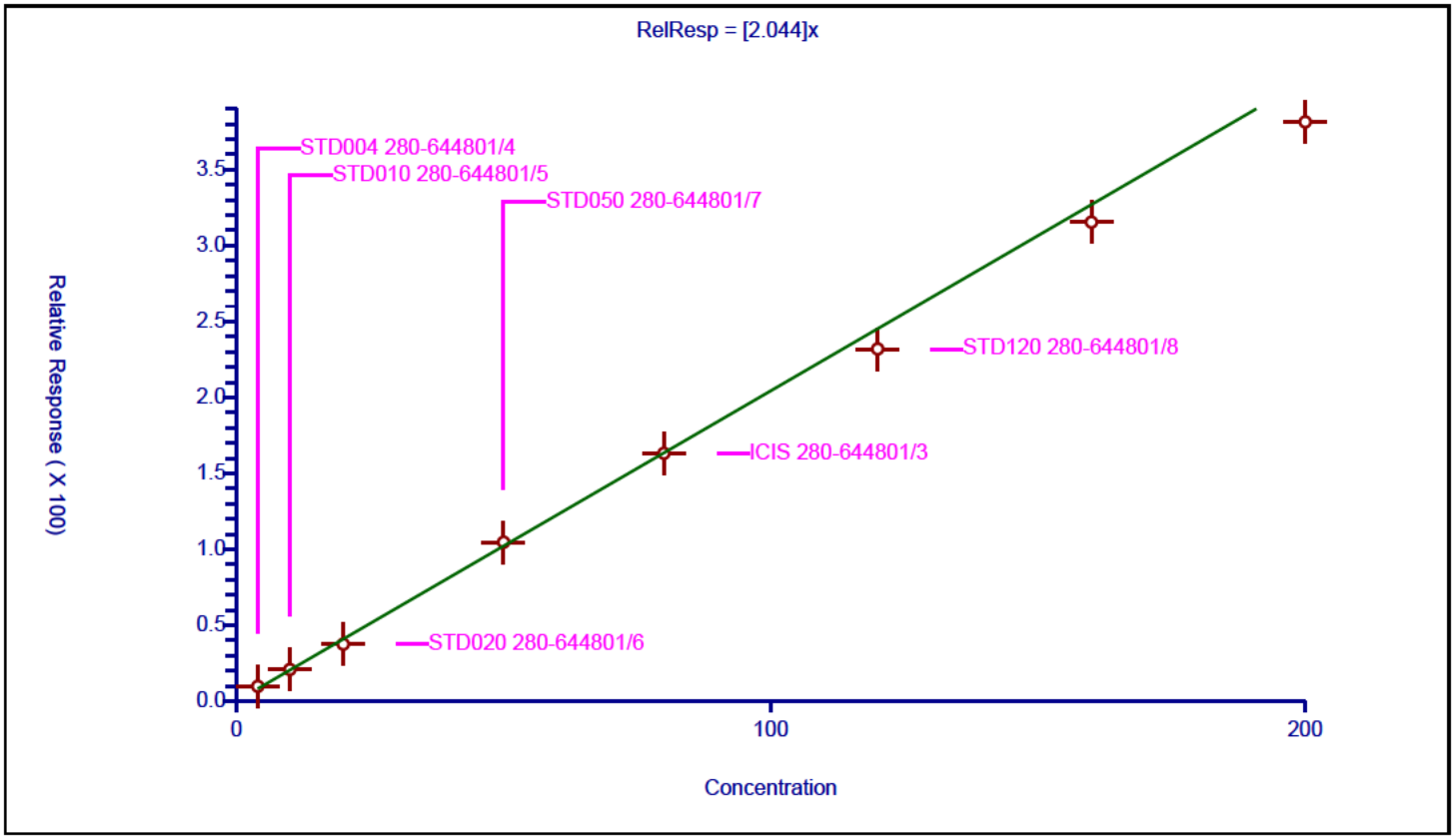
Curve Coefficients

Intercept:	0
Slope:	2.044

Error Coefficients

Relative Standard Deviation:	8.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	9.783137	40.0	148435.0	2.445784	Y
2	STD010 280-644801/5	10.0	20.83133	40.0	166841.0	2.083133	Y
3	STD020 280-644801/6	20.0	37.502428	40.0	180159.0	1.875121	Y
4	STD050 280-644801/7	50.0	104.675797	40.0	156615.0	2.093516	Y
5	ICIS 280-644801/3	80.0	163.18704	40.0	173327.0	2.039838	Y
6	STD120 280-644801/8	120.0	231.926629	40.0	157664.0	1.932722	Y
7	STD160 280-644801/9	160.0	315.420921	40.0	172384.0	1.971381	Y
8	STD200 280-644801/10	200.0	381.424554	40.0	174258.0	1.907123	Y



Calibration / Aniline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

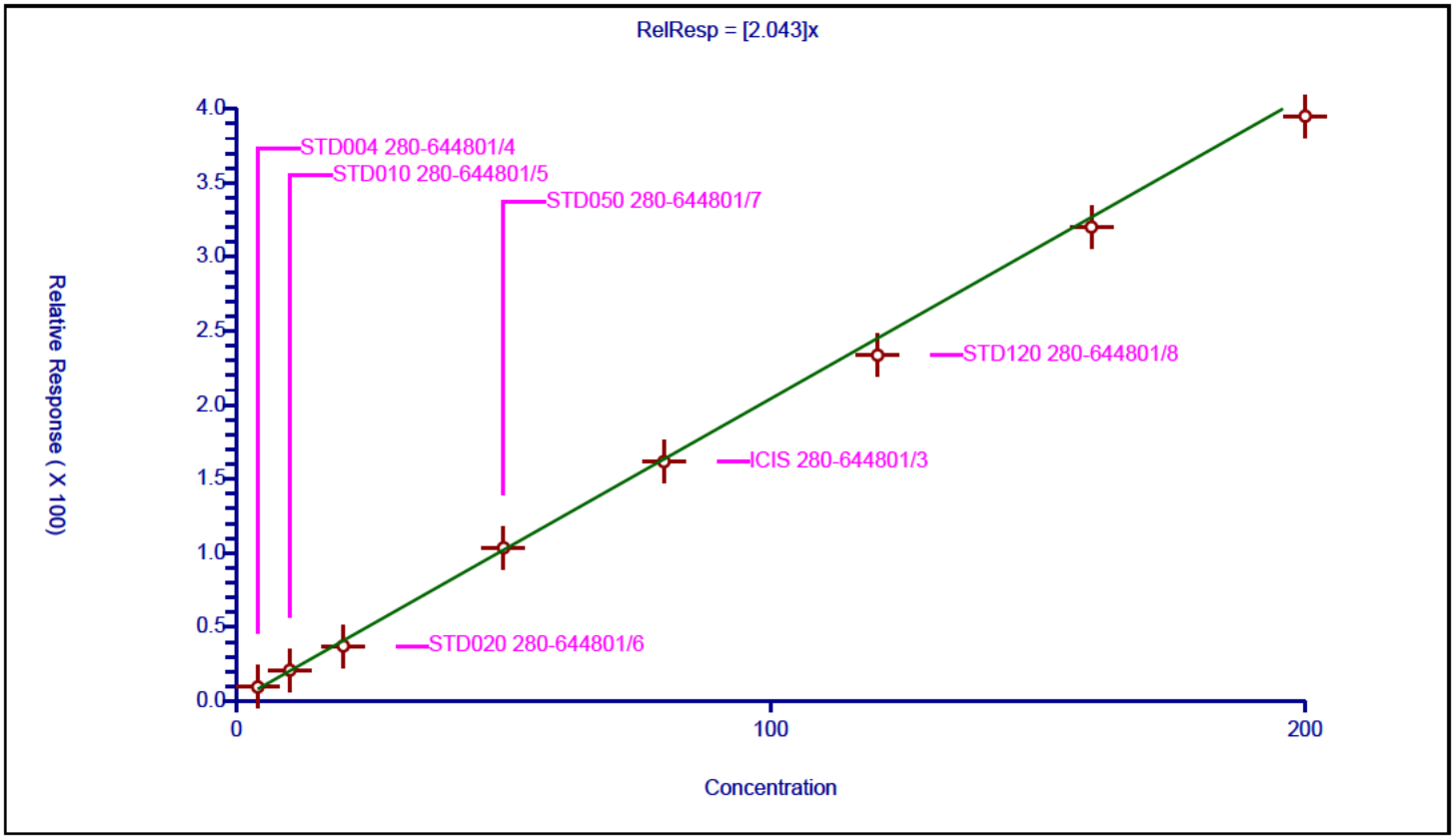
Curve Coefficients

Intercept:	0
Slope:	2.043

Error Coefficients

Relative Standard Deviation:	7.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	9.502611	40.0	148435.0	2.375653	Y
2	STD010 280-644801/5	10.0	20.880479	40.0	166841.0	2.088048	Y
3	STD020 280-644801/6	20.0	37.249541	40.0	180159.0	1.862477	Y
4	STD050 280-644801/7	50.0	103.54436	40.0	156615.0	2.070887	Y
5	ICIS 280-644801/3	80.0	161.745833	40.0	173327.0	2.021823	Y
6	STD120 280-644801/8	120.0	233.619089	40.0	157664.0	1.946826	Y
7	STD160 280-644801/9	160.0	320.178903	40.0	172384.0	2.001118	Y
8	STD200 280-644801/10	200.0	395.063182	40.0	174258.0	1.975316	Y



Calibration / Bis(2-chloroethyl)ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

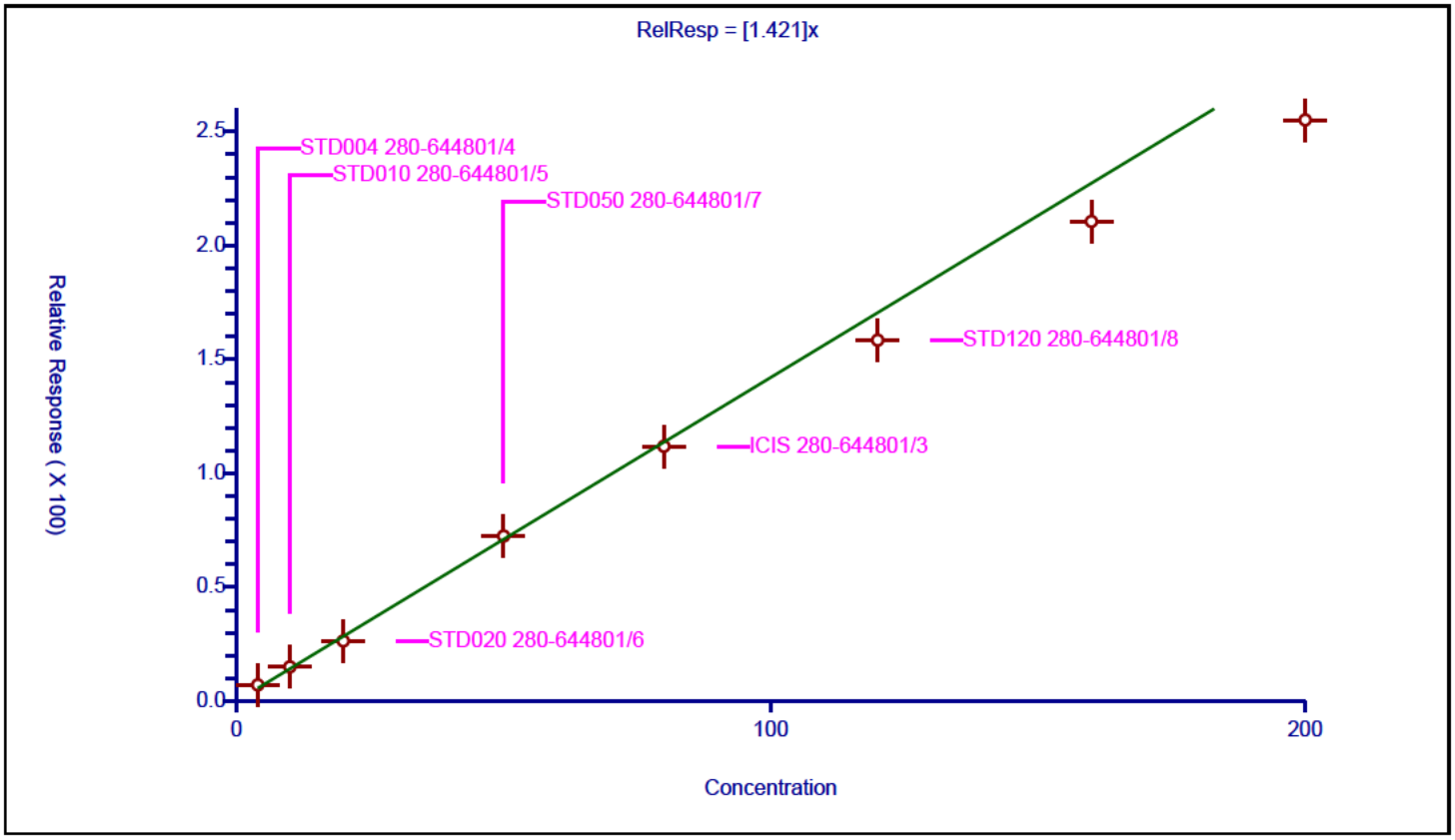
Curve Coefficients

Intercept:	0
Slope:	1.421

Error Coefficients

Relative Standard Deviation:	11.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	7.131741	40.0	148435.0	1.782935	Y
2	STD010 280-644801/5	10.0	15.045462	40.0	166841.0	1.504546	Y
3	STD020 280-644801/6	20.0	26.420884	40.0	180159.0	1.321044	Y
4	STD050 280-644801/7	50.0	72.472241	40.0	156615.0	1.449445	Y
5	ICIS 280-644801/3	80.0	111.873626	40.0	173327.0	1.39842	Y
6	STD120 280-644801/8	120.0	158.459001	40.0	157664.0	1.320492	Y
7	STD160 280-644801/9	160.0	210.592166	40.0	172384.0	1.316201	Y
8	STD200 280-644801/10	200.0	255.144671	40.0	174258.0	1.275723	Y



Calibration / 2-Chlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

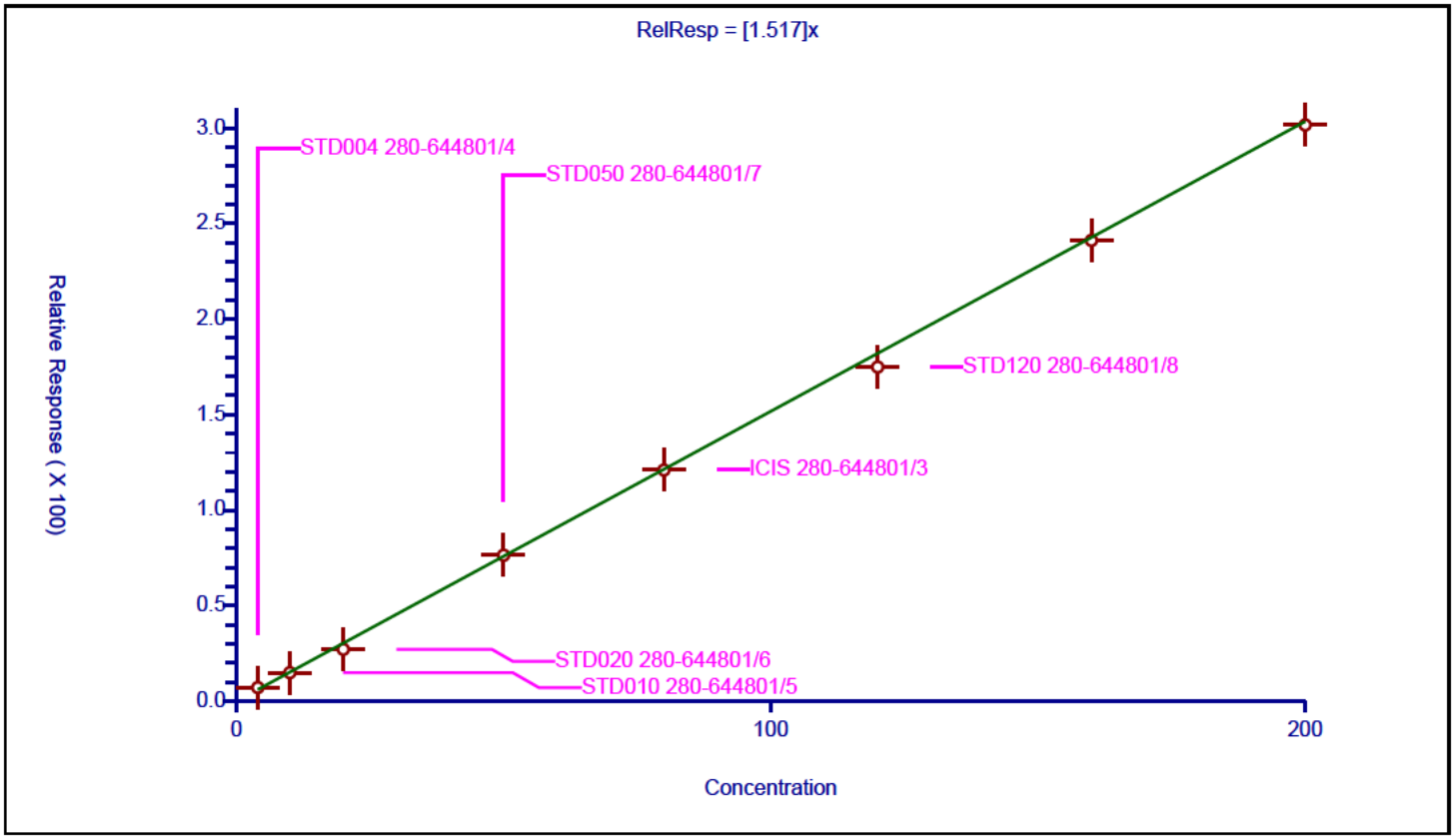
Curve Coefficients

Intercept:	0
Slope:	1.517

Error Coefficients

Relative Standard Deviation:	7.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	7.115572	40.0	148435.0	1.778893	Y
2	STD010 280-644801/5	10.0	14.908326	40.0	166841.0	1.490833	Y
3	STD020 280-644801/6	20.0	27.101394	40.0	180159.0	1.35507	Y
4	STD050 280-644801/7	50.0	76.357437	40.0	156615.0	1.527149	Y
5	ICIS 280-644801/3	80.0	120.957266	40.0	173327.0	1.511966	Y
6	STD120 280-644801/8	120.0	174.880252	40.0	157664.0	1.457335	Y
7	STD160 280-644801/9	160.0	241.150687	40.0	172384.0	1.507192	Y
8	STD200 280-644801/10	200.0	301.560674	40.0	174258.0	1.507803	Y



Calibration / 1,3-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

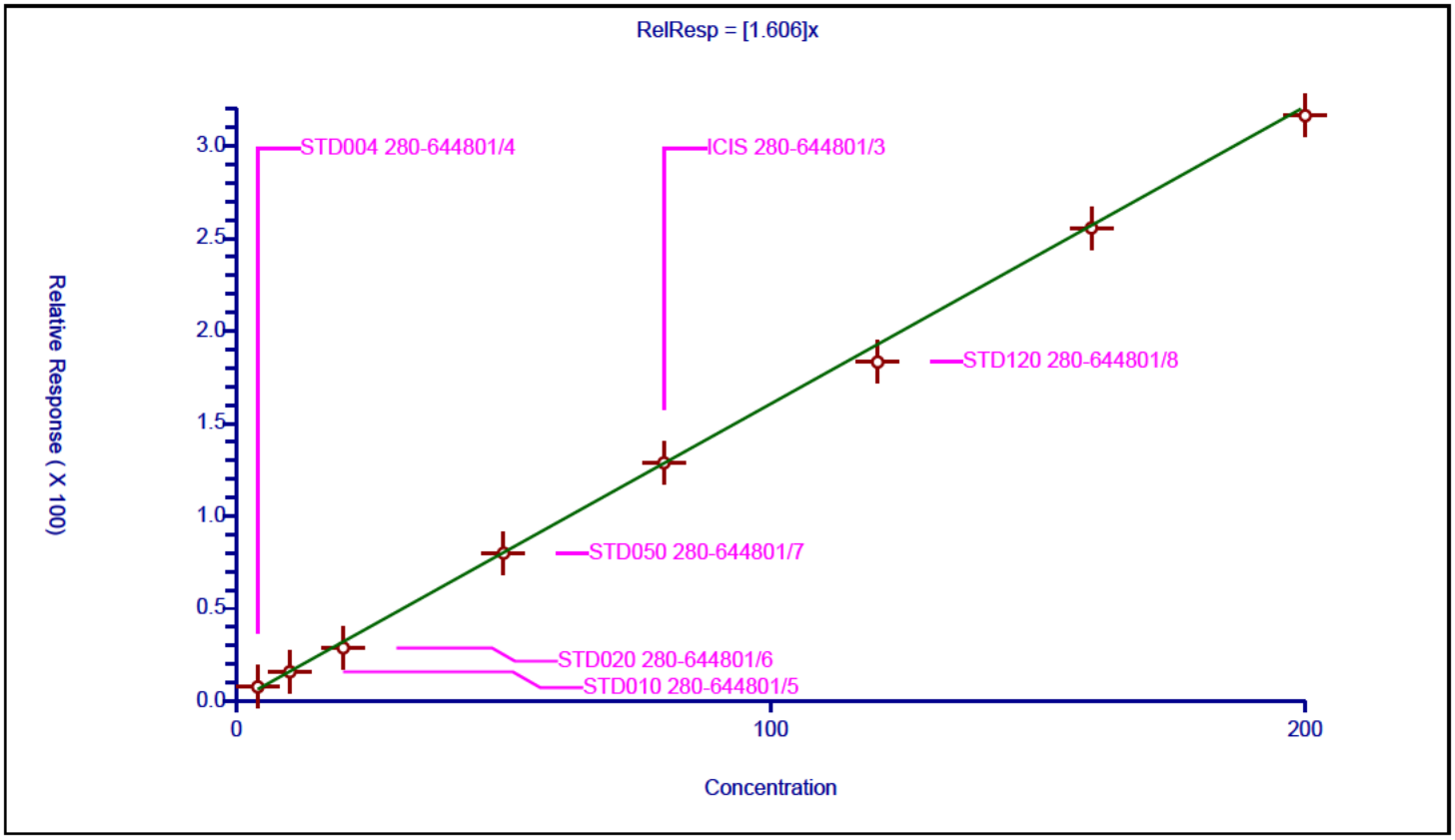
Curve Coefficients

Intercept:	0
Slope:	1.606

Error Coefficients

Relative Standard Deviation:	8.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	7.675548	40.0	148435.0	1.918887	Y
2	STD010 280-644801/5	10.0	15.82201	40.0	166841.0	1.582201	Y
3	STD020 280-644801/6	20.0	28.741501	40.0	180159.0	1.437075	Y
4	STD050 280-644801/7	50.0	79.936405	40.0	156615.0	1.598728	Y
5	ICIS 280-644801/3	80.0	128.737935	40.0	173327.0	1.609224	Y
6	STD120 280-644801/8	120.0	183.171555	40.0	157664.0	1.52643	Y
7	STD160 280-644801/9	160.0	255.629757	40.0	172384.0	1.597686	Y
8	STD200 280-644801/10	200.0	316.318103	40.0	174258.0	1.581591	Y



Calibration / 1,4-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

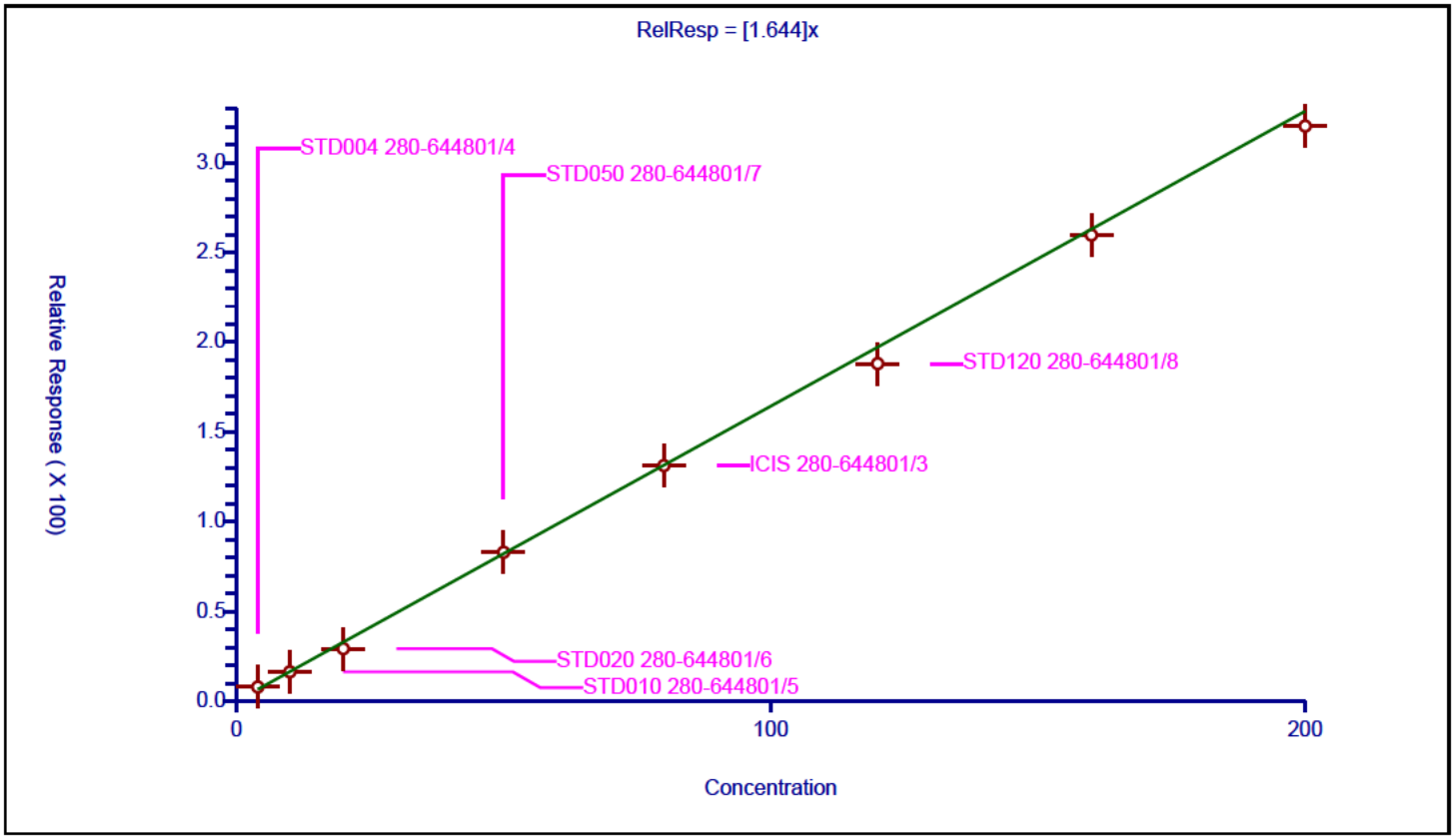
Curve Coefficients

Intercept:	0
Slope:	1.644

Error Coefficients

Relative Standard Deviation:	8.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	7.857446	40.0	148435.0	1.964362	Y
2	STD010 280-644801/5	10.0	16.31949	40.0	166841.0	1.631949	Y
3	STD020 280-644801/6	20.0	29.226628	40.0	180159.0	1.461331	Y
4	STD050 280-644801/7	50.0	82.943013	40.0	156615.0	1.65886	Y
5	ICIS 280-644801/3	80.0	131.233795	40.0	173327.0	1.640422	Y
6	STD120 280-644801/8	120.0	188.059925	40.0	157664.0	1.567166	Y
7	STD160 280-644801/9	160.0	259.681873	40.0	172384.0	1.623012	Y
8	STD200 280-644801/10	200.0	320.427183	40.0	174258.0	1.602136	Y



Calibration / Benzyl alcohol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

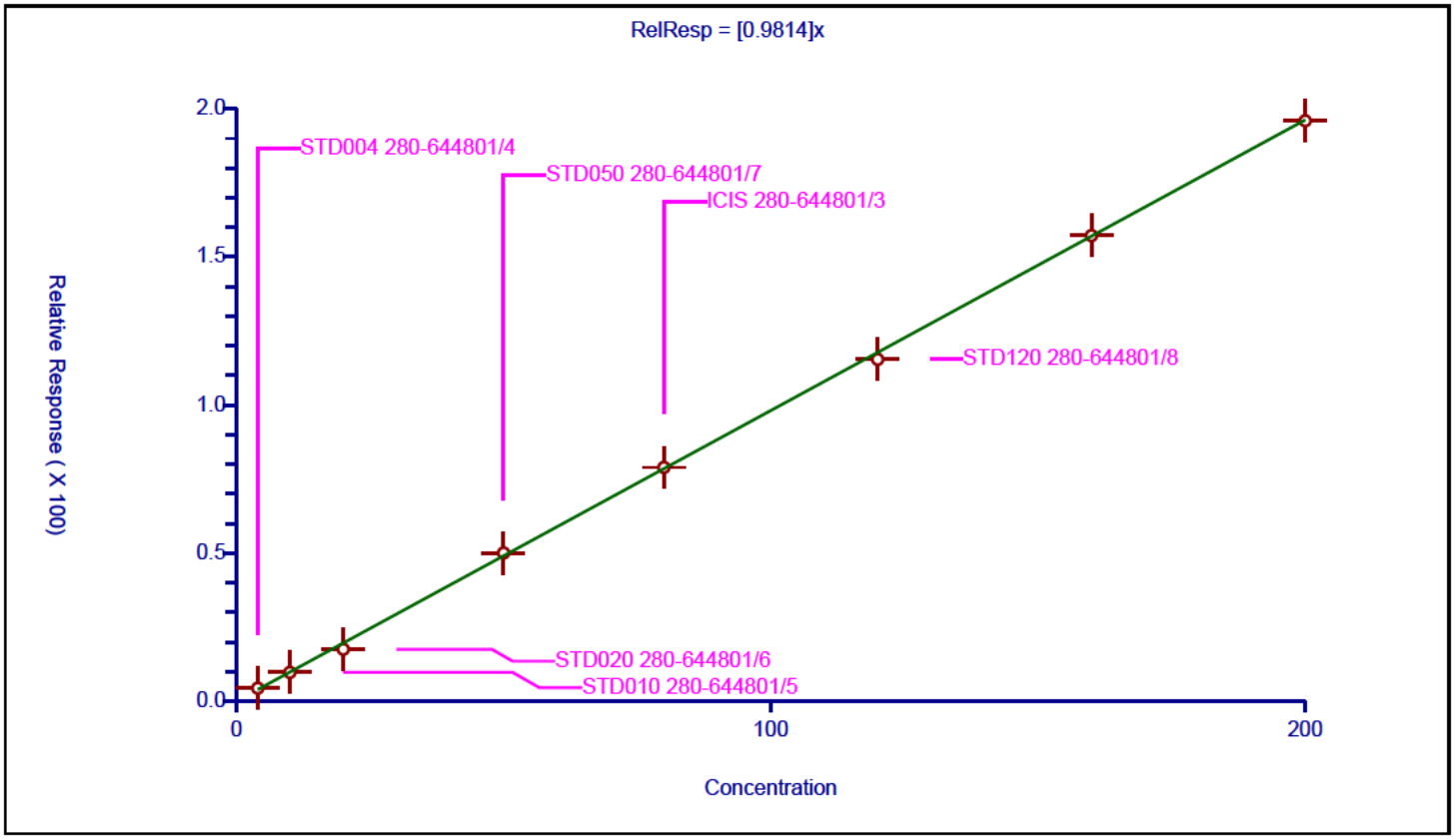
Curve Coefficients

Intercept:	0
Slope:	0.9814

Error Coefficients

Relative Standard Deviation:	6.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	4.378752	40.0	148435.0	1.094688	Y
2	STD010 280-644801/5	10.0	9.695698	40.0	166841.0	0.96957	Y
3	STD020 280-644801/6	20.0	17.504538	40.0	180159.0	0.875227	Y
4	STD050 280-644801/7	50.0	50.035565	40.0	156615.0	1.000711	Y
5	ICIS 280-644801/3	80.0	78.916499	40.0	173327.0	0.986456	Y
6	STD120 280-644801/8	120.0	115.406941	40.0	157664.0	0.961725	Y
7	STD160 280-644801/9	160.0	157.213895	40.0	172384.0	0.982587	Y
8	STD200 280-644801/10	200.0	195.975163	40.0	174258.0	0.979876	Y



Calibration / 1,2-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

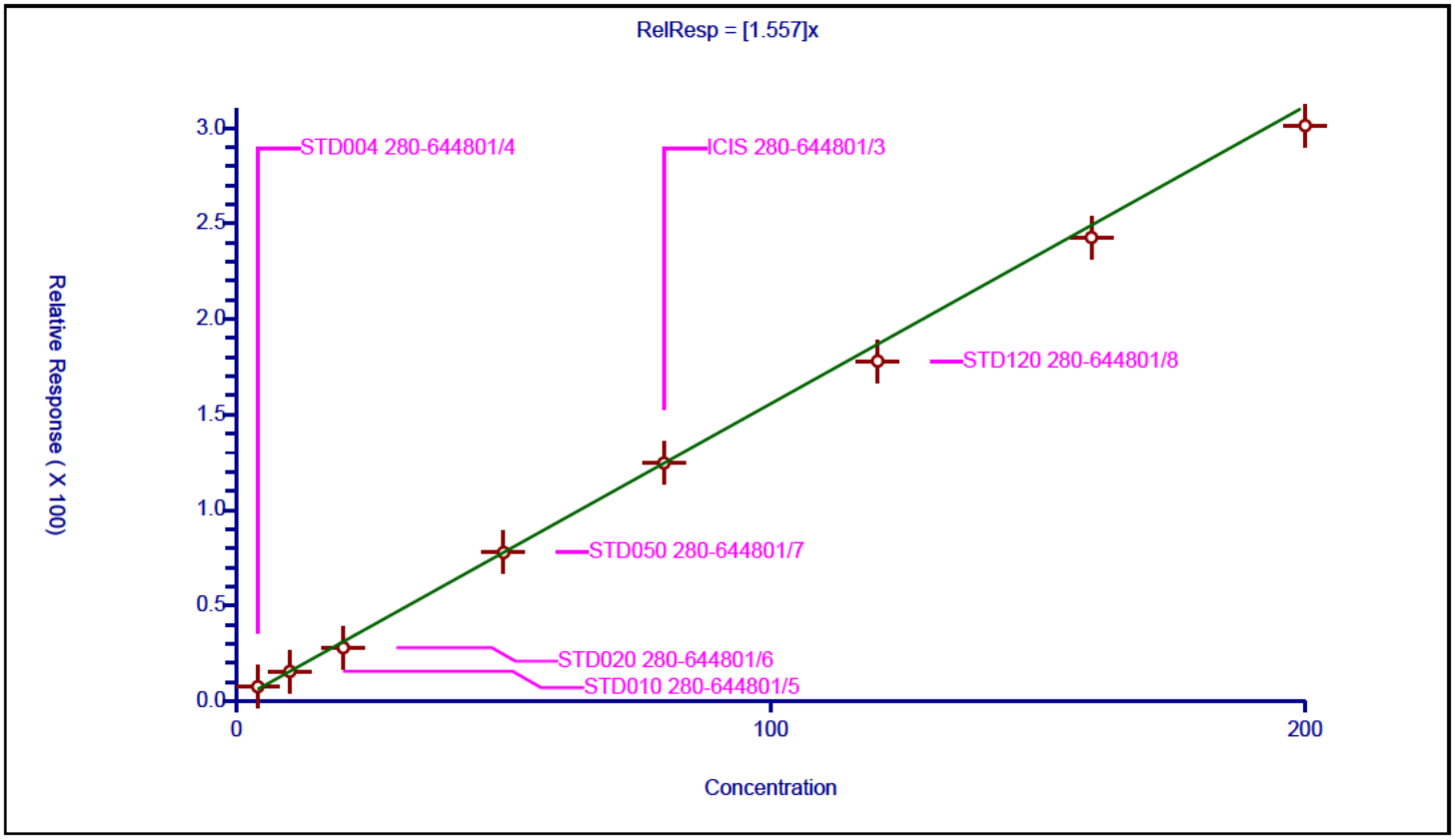
Curve Coefficients

Intercept:	0
Slope:	1.557

Error Coefficients

Relative Standard Deviation:	9.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	7.538653	40.0	148435.0	1.884663	Y
2	STD010 280-644801/5	10.0	15.536948	40.0	166841.0	1.553695	Y
3	STD020 280-644801/6	20.0	27.945315	40.0	180159.0	1.397266	Y
4	STD050 280-644801/7	50.0	77.771606	40.0	156615.0	1.555432	Y
5	ICIS 280-644801/3	80.0	124.616707	40.0	173327.0	1.557709	Y
6	STD120 280-644801/8	120.0	177.978486	40.0	157664.0	1.483154	Y
7	STD160 280-644801/9	160.0	242.662196	40.0	172384.0	1.516639	Y
8	STD200 280-644801/10	200.0	301.237705	40.0	174258.0	1.506189	Y



Calibration / 2-Methylphenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

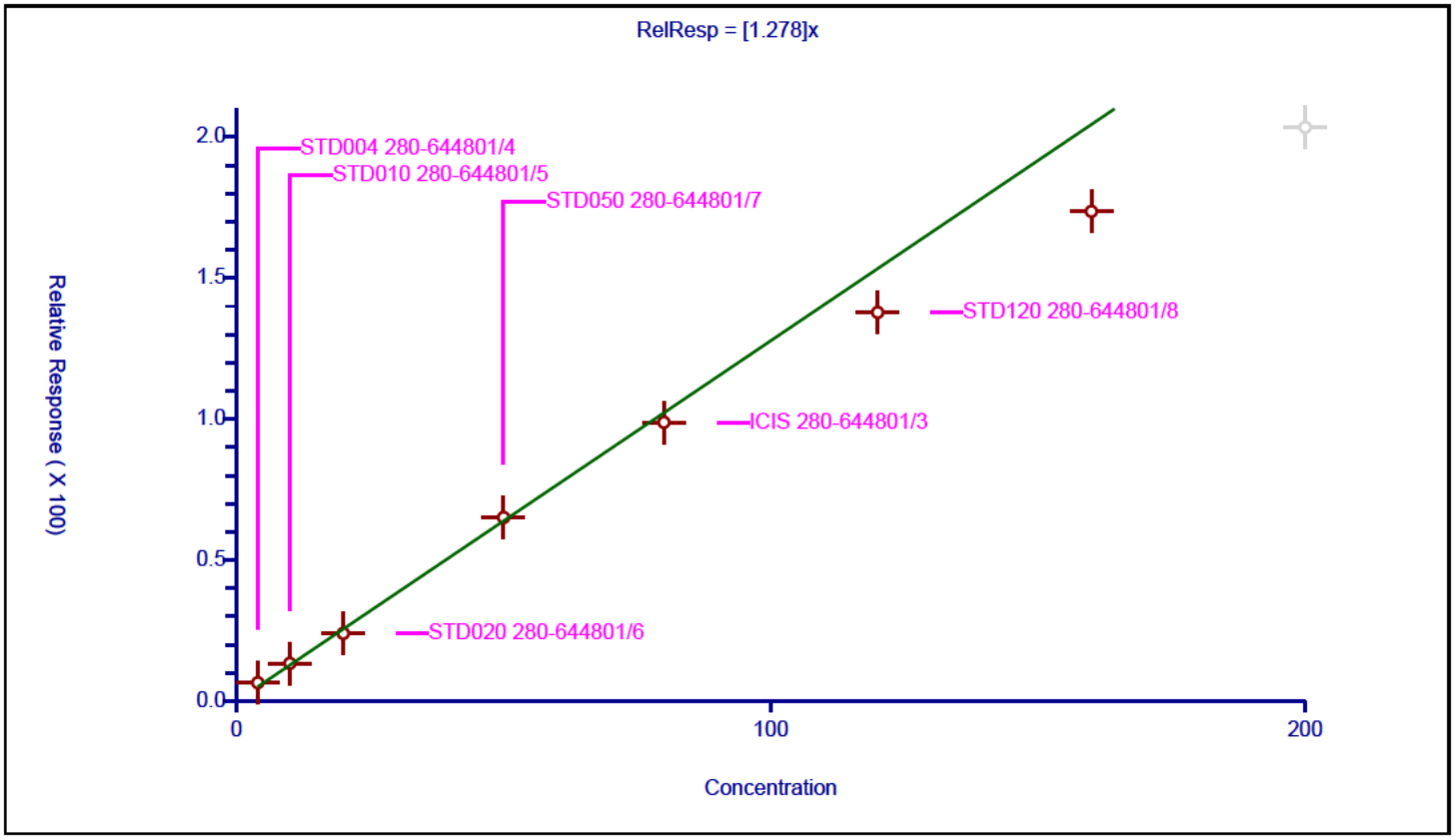
Curve Coefficients

Intercept:	0
Slope:	1.278

Error Coefficients

Relative Standard Deviation:	14.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	6.534847	40.0	148435.0	1.633712	Y
2	STD010 280-644801/5	10.0	13.389994	40.0	166841.0	1.338999	Y
3	STD020 280-644801/6	20.0	24.019894	40.0	180159.0	1.200995	Y
4	STD050 280-644801/7	50.0	65.118411	40.0	156615.0	1.302368	Y
5	ICIS 280-644801/3	80.0	98.871613	40.0	173327.0	1.235895	Y
6	STD120 280-644801/8	120.0	137.83971	40.0	157664.0	1.148664	Y
7	STD160 280-644801/9	160.0	173.650455	40.0	172384.0	1.085315	Y
8	STD200 280-644801/10	200.0	203.469339	40.0	174258.0	1.017347	N



Calibration / 2,2'-oxybis[1-chloropropane]

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

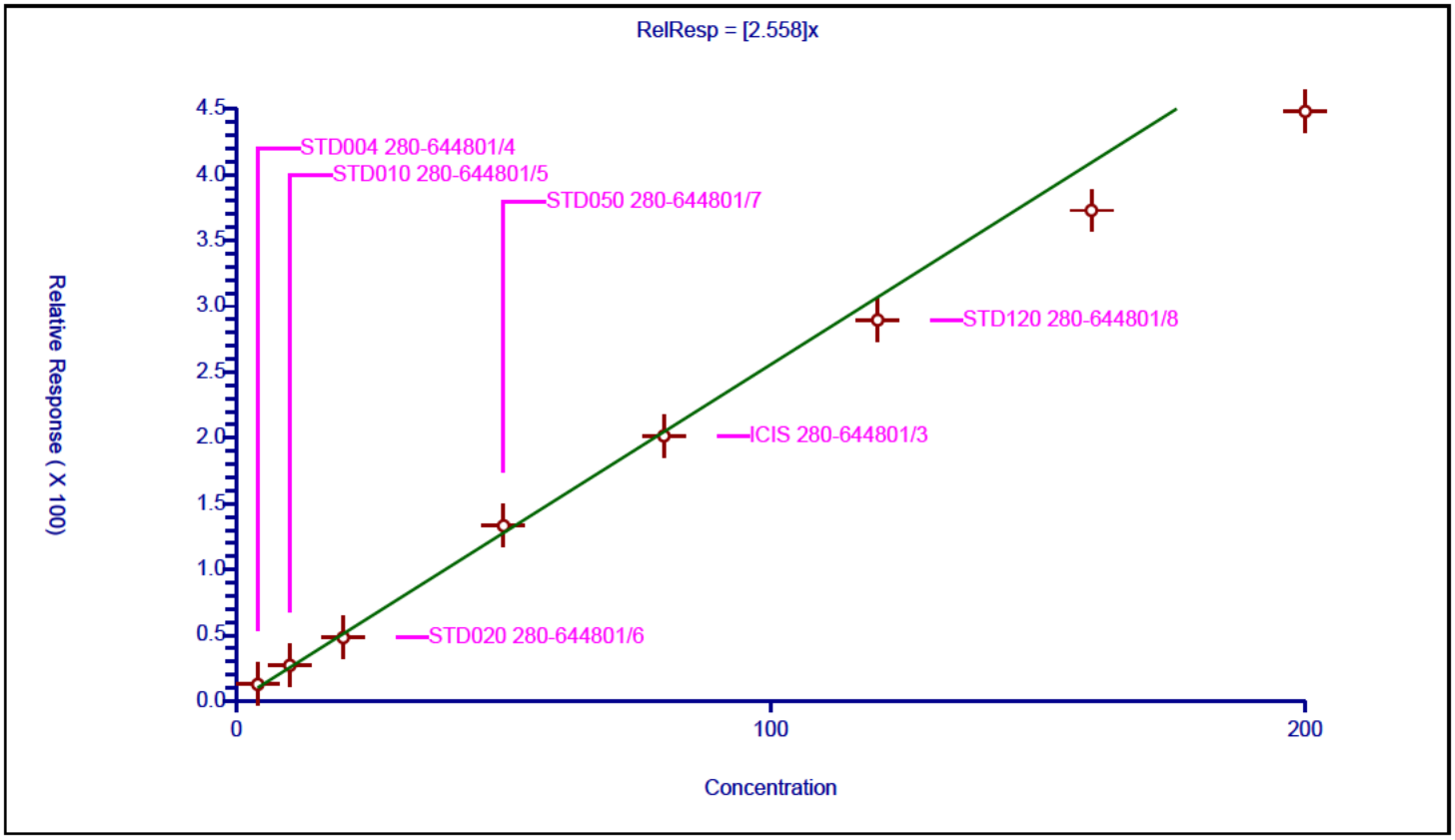
Curve Coefficients

Intercept:	0
Slope:	2.558

Error Coefficients

Relative Standard Deviation:	11.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	12.670866	40.0	148435.0	3.167717	Y
2	STD010 280-644801/5	10.0	27.142009	40.0	166841.0	2.714201	Y
3	STD020 280-644801/6	20.0	48.280685	40.0	180159.0	2.414034	Y
4	STD050 280-644801/7	50.0	133.177282	40.0	156615.0	2.663546	Y
5	ICIS 280-644801/3	80.0	201.517594	40.0	173327.0	2.51897	Y
6	STD120 280-644801/8	120.0	289.557794	40.0	157664.0	2.412982	Y
7	STD160 280-644801/9	160.0	372.858502	40.0	172384.0	2.330366	Y
8	STD200 280-644801/10	200.0	448.030162	40.0	174258.0	2.240151	Y



Calibration / Acetophenone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

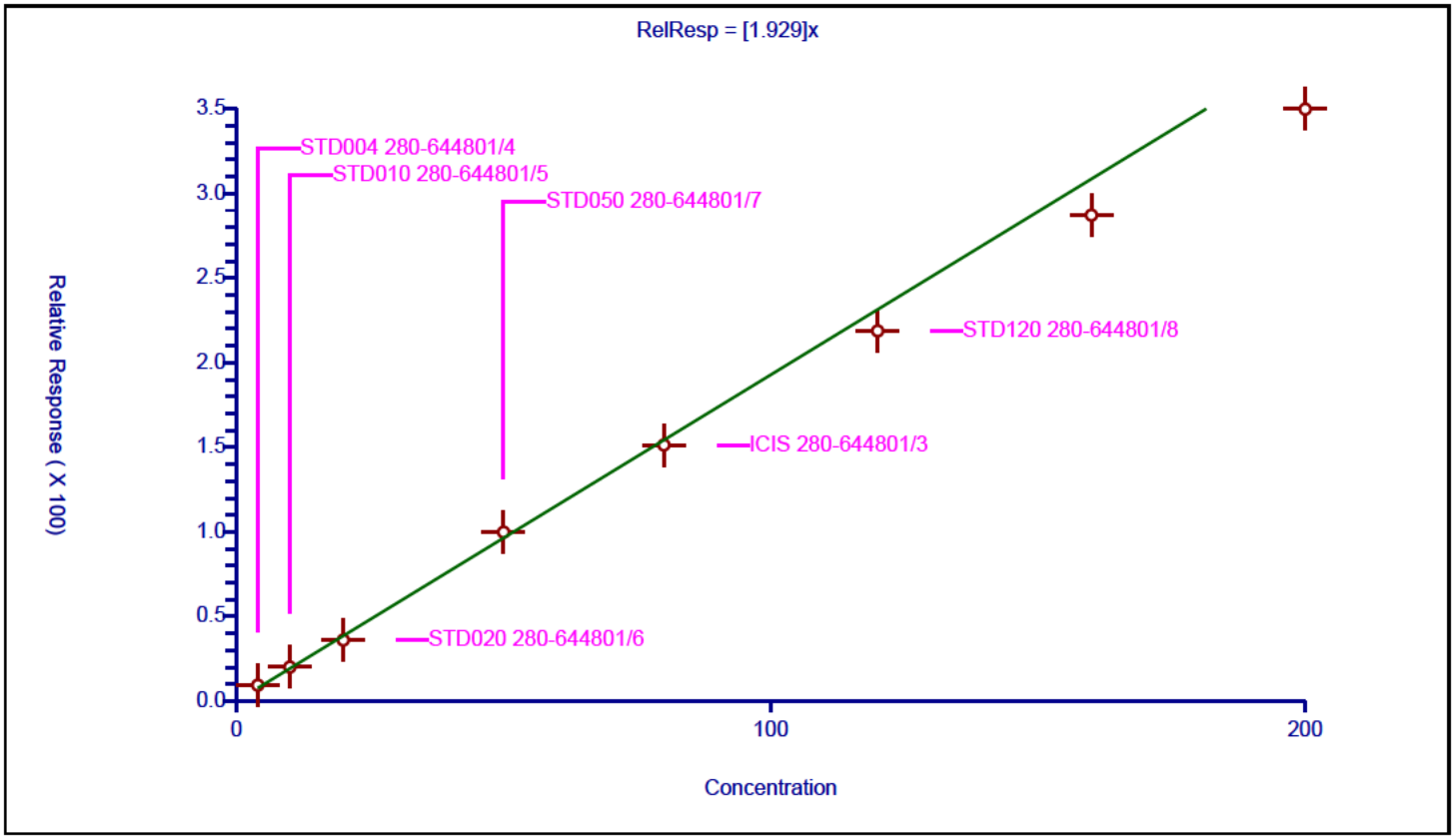
Curve Coefficients

Intercept:	0
Slope:	1.929

Error Coefficients

Relative Standard Deviation:	10.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	9.421228	40.0	148435.0	2.355307	Y
2	STD010 280-644801/5	10.0	20.127906	40.0	166841.0	2.012791	Y
3	STD020 280-644801/6	20.0	36.082127	40.0	180159.0	1.804106	Y
4	STD050 280-644801/7	50.0	99.868595	40.0	156615.0	1.997372	Y
5	ICIS 280-644801/3	80.0	151.396147	40.0	173327.0	1.892452	Y
6	STD120 280-644801/8	120.0	218.796682	40.0	157664.0	1.823306	Y
7	STD160 280-644801/9	160.0	287.19742	40.0	172384.0	1.794984	Y
8	STD200 280-644801/10	200.0	349.833465	40.0	174258.0	1.749167	Y



Calibration / N-Nitrosodi-n-propylamine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

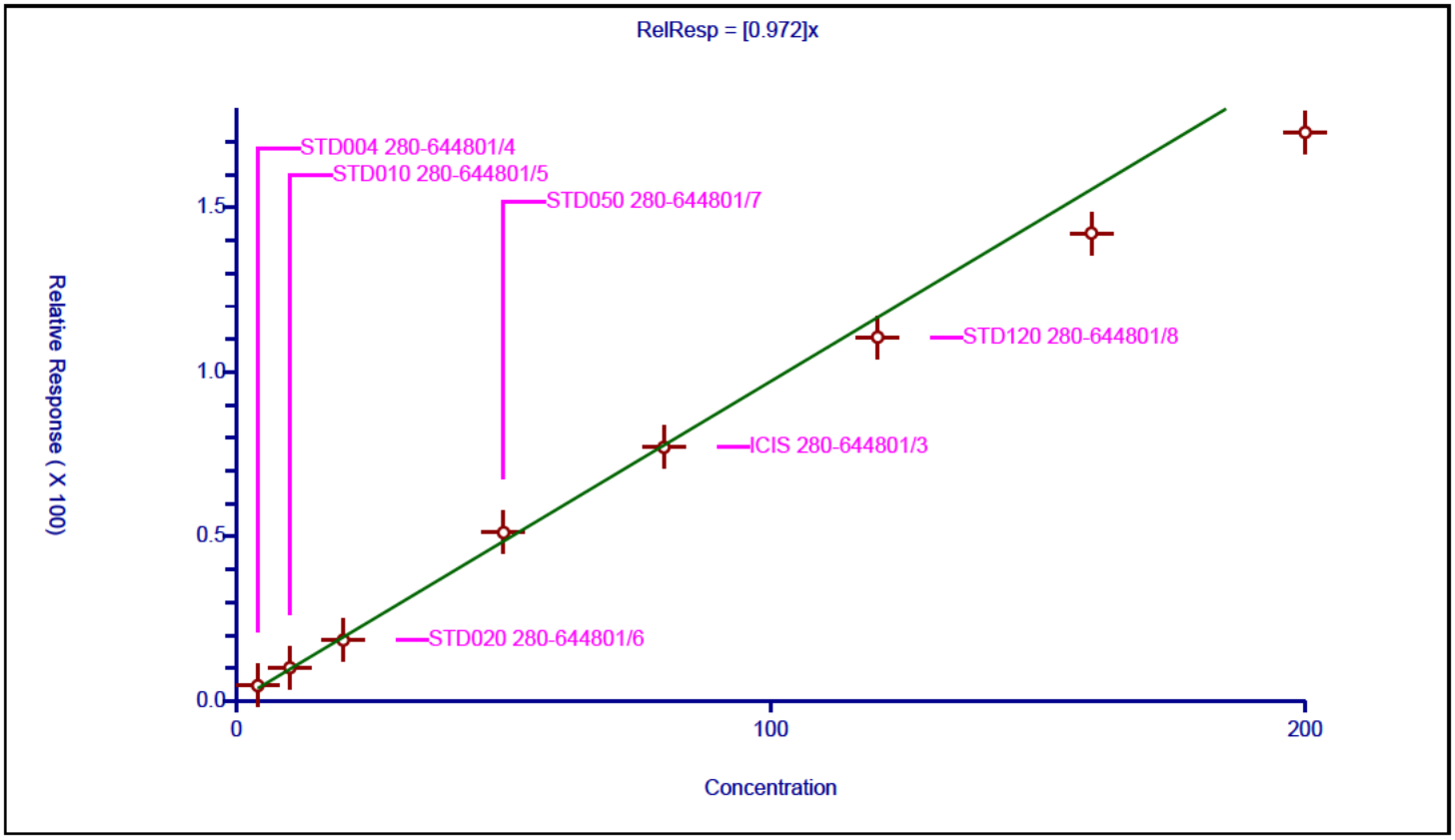
Curve Coefficients

Intercept:	0
Slope:	0.972

Error Coefficients

Relative Standard Deviation:	10.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	4.691885	40.0	148435.0	1.172971	Y
2	STD010 280-644801/5	10.0	10.131802	40.0	166841.0	1.01318	Y
3	STD020 280-644801/6	20.0	18.537847	40.0	180159.0	0.926892	Y
4	STD050 280-644801/7	50.0	51.216295	40.0	156615.0	1.024326	Y
5	ICIS 280-644801/3	80.0	77.131203	40.0	173327.0	0.96414	Y
6	STD120 280-644801/8	120.0	110.60686	40.0	157664.0	0.921724	Y
7	STD160 280-644801/9	160.0	142.227585	40.0	172384.0	0.888922	Y
8	STD200 280-644801/10	200.0	172.845551	40.0	174258.0	0.864228	Y



Calibration

/ 3 & 4 Methylphenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

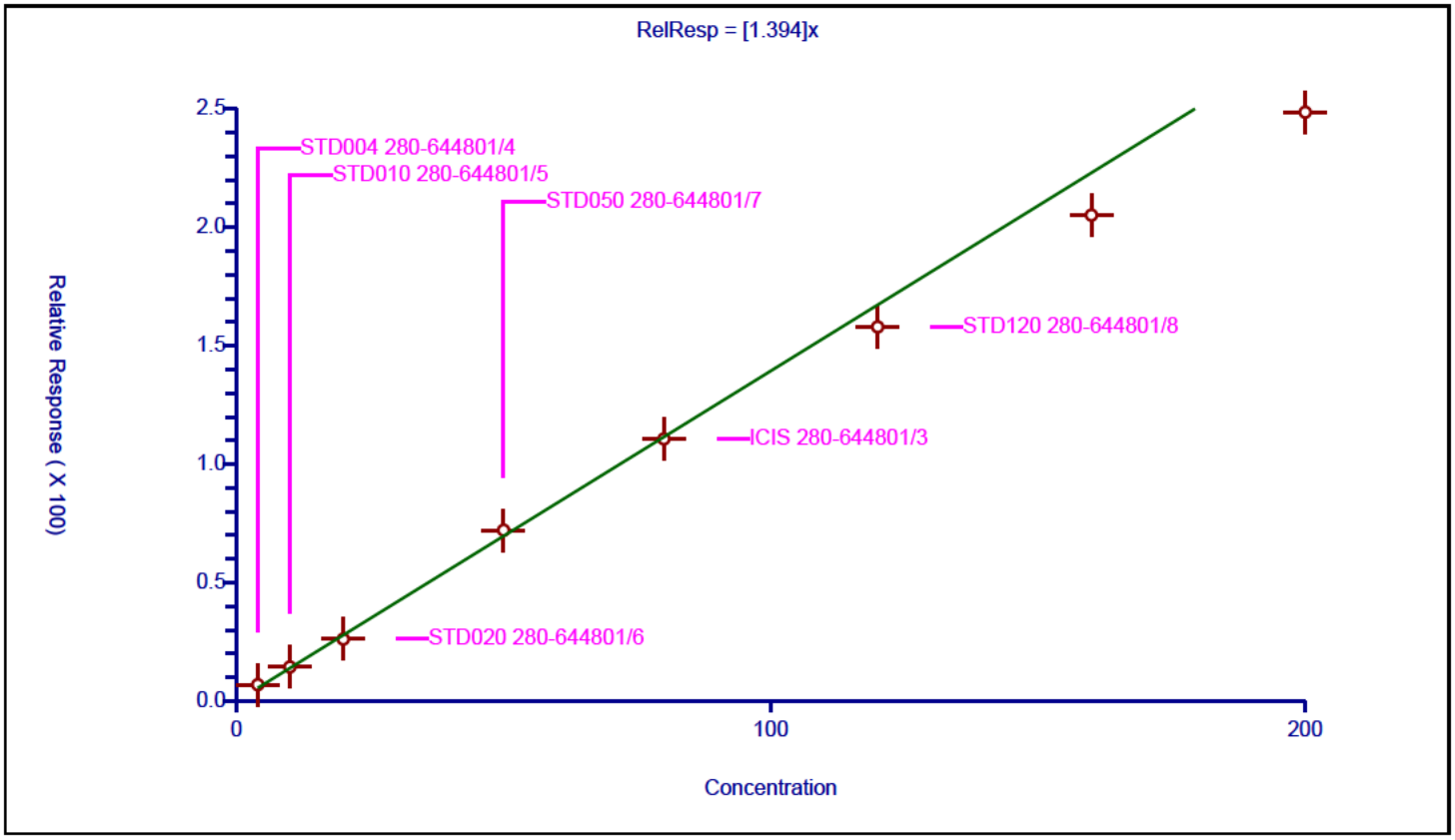
Curve Coefficients

Intercept:	0
Slope:	1.394

Error Coefficients

Relative Standard Deviation:	11.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	6.927746	40.0	148435.0	1.731937	Y
2	STD010 280-644801/5	10.0	14.420196	40.0	166841.0	1.44202	Y
3	STD020 280-644801/6	20.0	26.181318	40.0	180159.0	1.309066	Y
4	STD050 280-644801/7	50.0	72.146091	40.0	156615.0	1.442922	Y
5	ICIS 280-644801/3	80.0	110.694352	40.0	173327.0	1.383679	Y
6	STD120 280-644801/8	120.0	157.961741	40.0	157664.0	1.316348	Y
7	STD160 280-644801/9	160.0	205.153611	40.0	172384.0	1.28221	Y
8	STD200 280-644801/10	200.0	248.598515	40.0	174258.0	1.242993	Y



Calibration / Hexachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

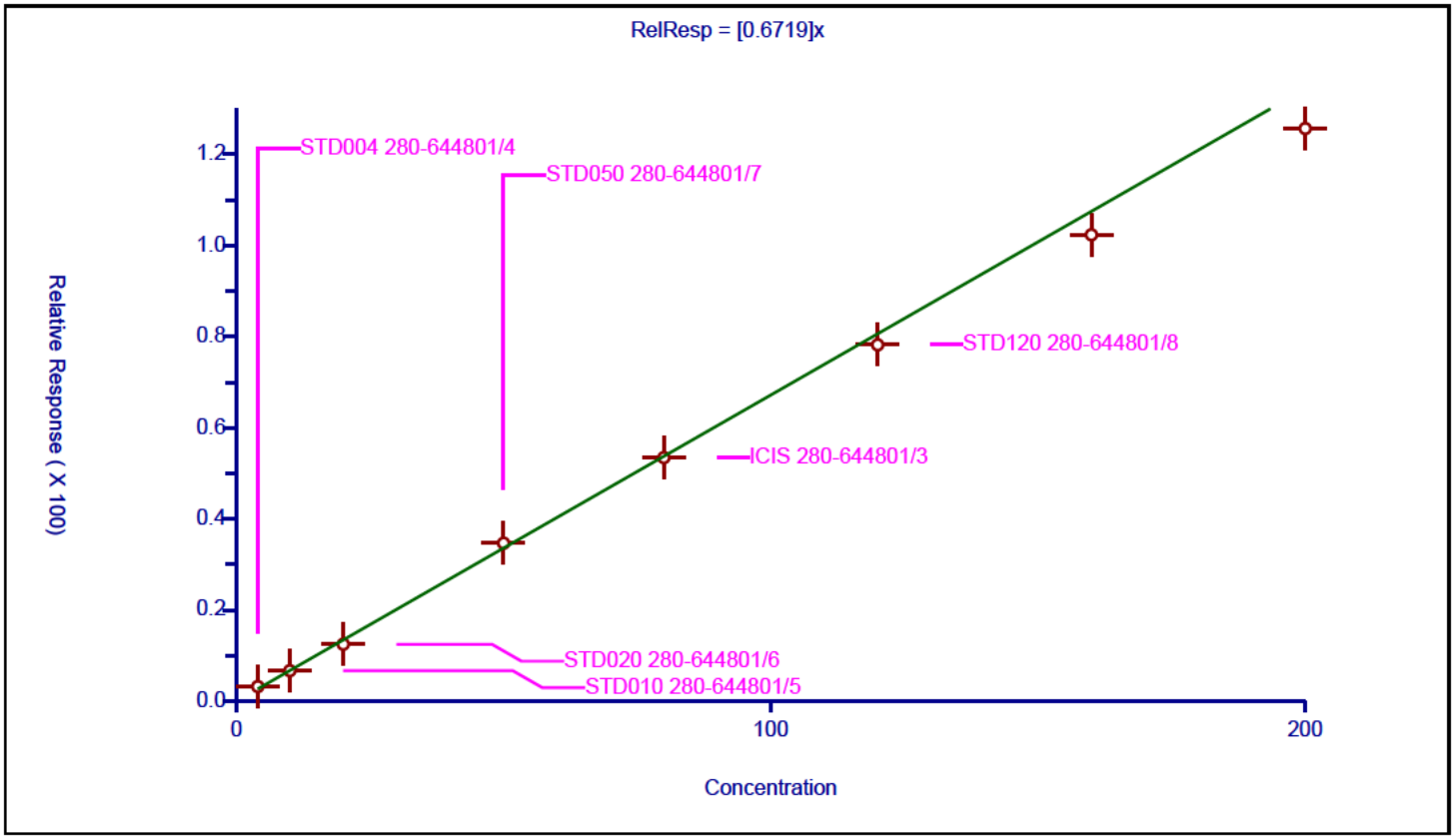
Curve Coefficients

Intercept:	0
Slope:	0.6719

Error Coefficients

Relative Standard Deviation:	8.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	3.205982	40.0	148435.0	0.801496	Y
2	STD010 280-644801/5	10.0	6.681331	40.0	166841.0	0.668133	Y
3	STD020 280-644801/6	20.0	12.488524	40.0	180159.0	0.624426	Y
4	STD050 280-644801/7	50.0	34.665134	40.0	156615.0	0.693303	Y
5	ICIS 280-644801/3	80.0	53.451799	40.0	173327.0	0.668147	Y
6	STD120 280-644801/8	120.0	78.200731	40.0	157664.0	0.651673	Y
7	STD160 280-644801/9	160.0	102.364489	40.0	172384.0	0.639778	Y
8	STD200 280-644801/10	200.0	125.687199	40.0	174258.0	0.628436	Y



Calibration / Nitrobenzene-d5

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

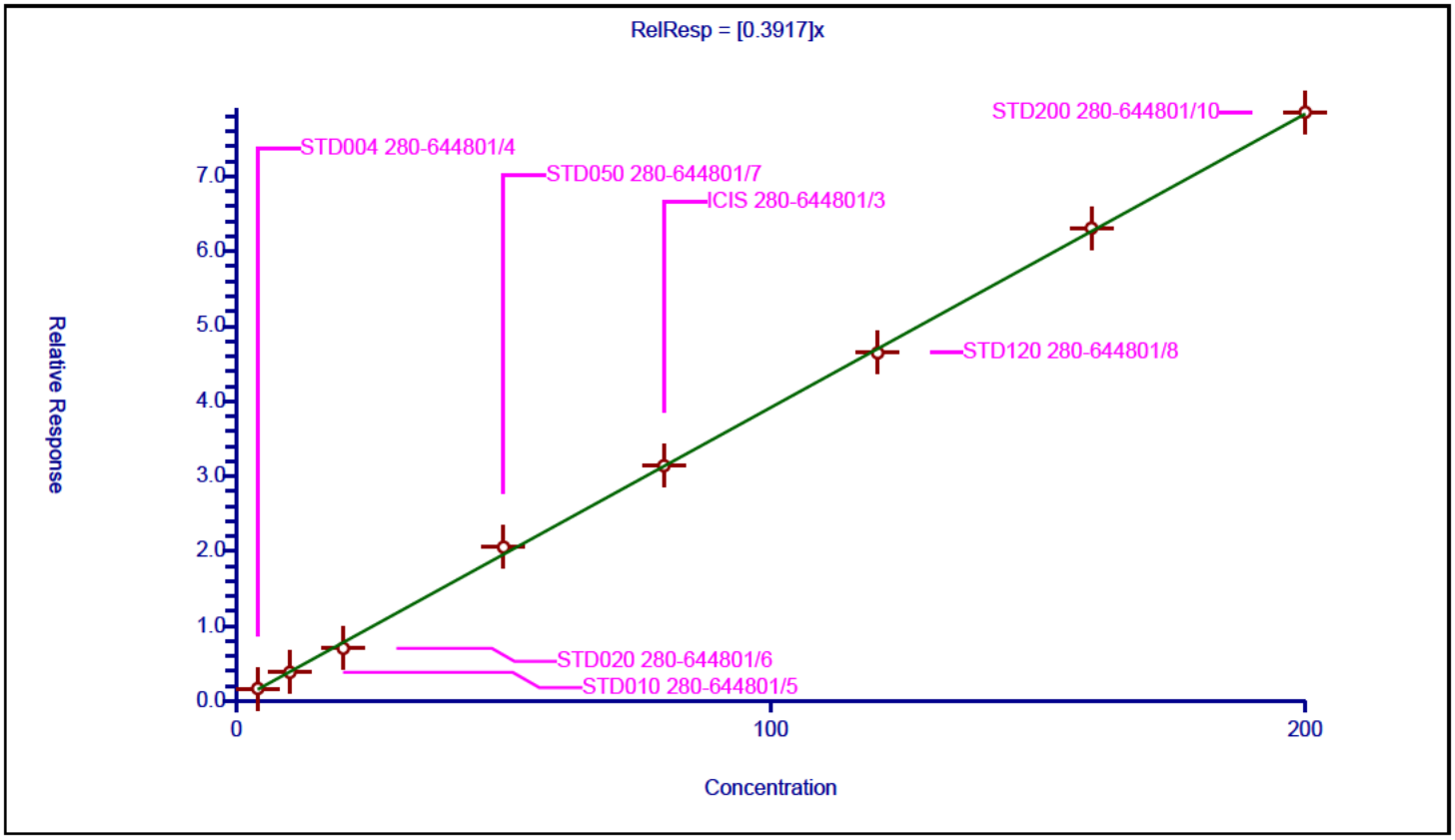
Curve Coefficients

Intercept:	0
Slope:	0.3917

Error Coefficients

Relative Standard Deviation:	5.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.682999	40.0	587784.0	0.42075	Y
2	STD010 280-644801/5	10.0	3.835297	40.0	654051.0	0.38353	Y
3	STD020 280-644801/6	20.0	7.038846	40.0	713168.0	0.351942	Y
4	STD050 280-644801/7	50.0	20.527886	40.0	602365.0	0.410558	Y
5	ICIS 280-644801/3	80.0	31.395284	40.0	664524.0	0.392441	Y
6	STD120 280-644801/8	120.0	46.451744	40.0	608685.0	0.387098	Y
7	STD160 280-644801/9	160.0	63.084104	40.0	645698.0	0.394276	Y
8	STD200 280-644801/10	200.0	78.542098	40.0	655133.0	0.39271	Y



Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

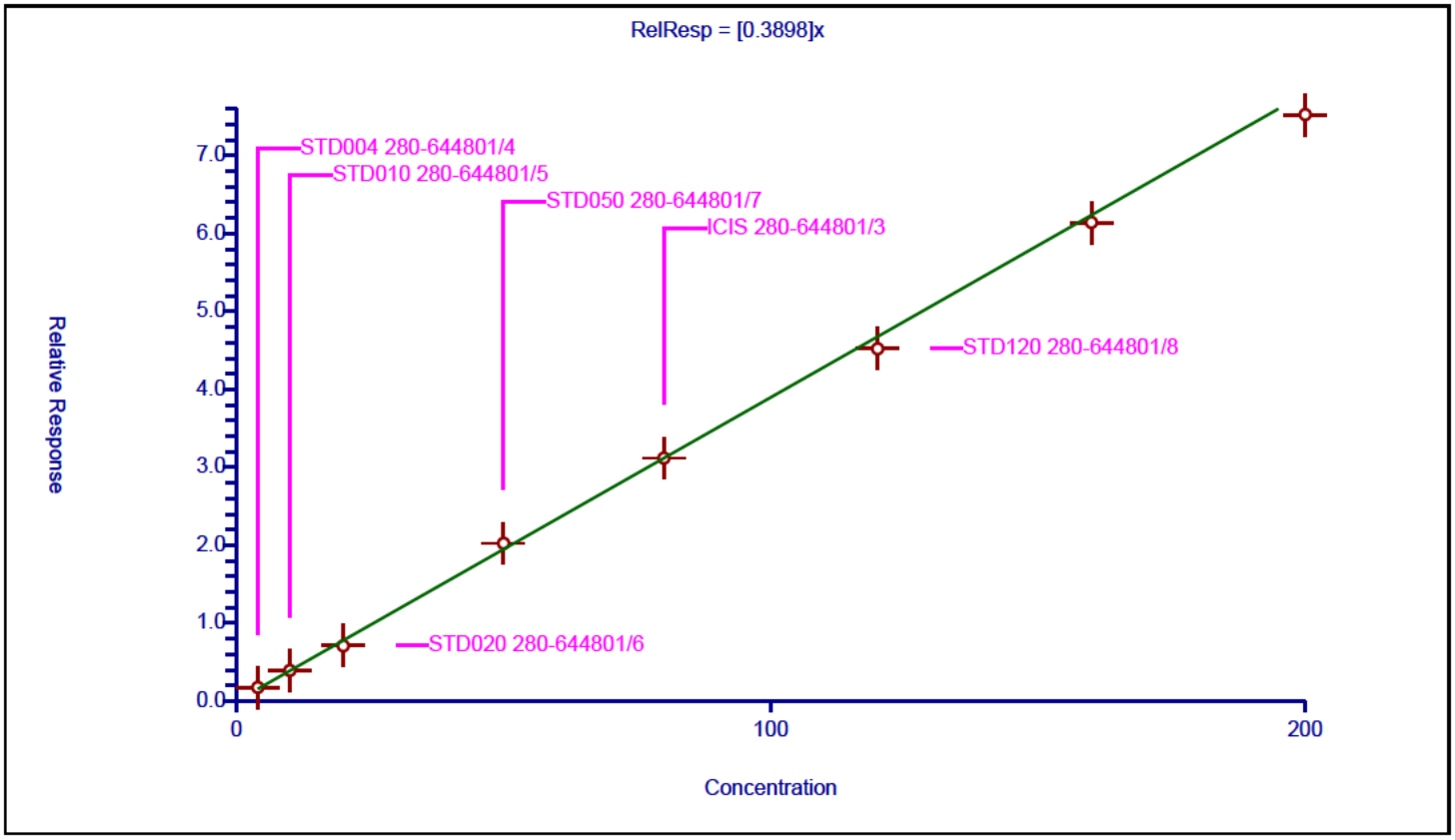
Curve Coefficients

Intercept:	0
Slope:	0.3898

Error Coefficients

Relative Standard Deviation:	6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.753978	40.0	587784.0	0.438494	Y
2	STD010 280-644801/5	10.0	3.934861	40.0	654051.0	0.393486	Y
3	STD020 280-644801/6	20.0	7.092186	40.0	713168.0	0.354609	Y
4	STD050 280-644801/7	50.0	20.248188	40.0	602365.0	0.404964	Y
5	ICIS 280-644801/3	80.0	31.185871	40.0	664524.0	0.389823	Y
6	STD120 280-644801/8	120.0	45.213731	40.0	608685.0	0.376781	Y
7	STD160 280-644801/9	160.0	61.427726	40.0	645698.0	0.383923	Y
8	STD200 280-644801/10	200.0	75.271311	40.0	655133.0	0.376357	Y



Calibration / Isophorone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

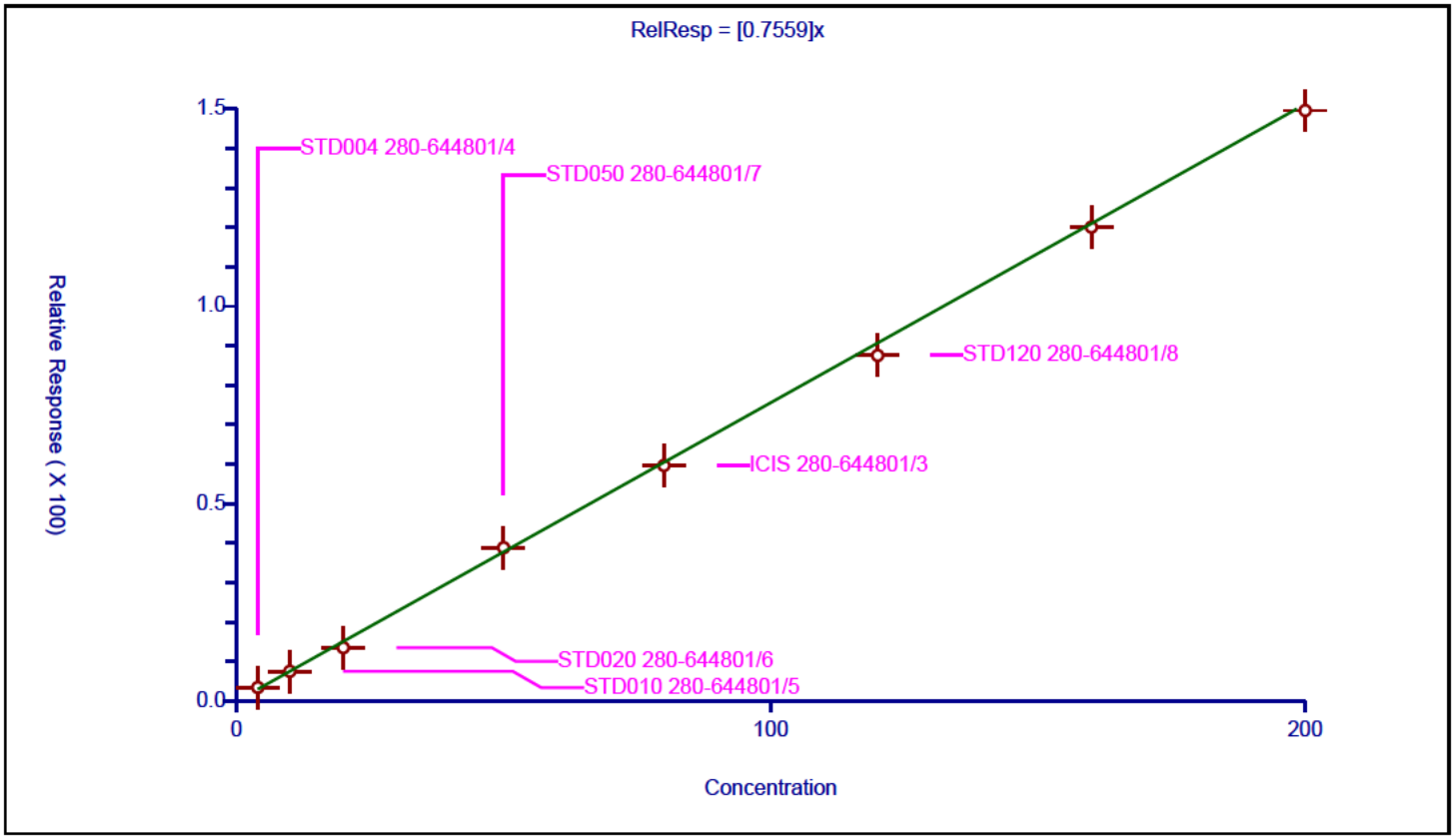
Curve Coefficients

Intercept:	0
Slope:	0.7559

Error Coefficients

Relative Standard Deviation:	7.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	3.458549	40.0	587784.0	0.864637	Y
2	STD010 280-644801/5	10.0	7.553478	40.0	654051.0	0.755348	Y
3	STD020 280-644801/6	20.0	13.532408	40.0	713168.0	0.67662	Y
4	STD050 280-644801/7	50.0	38.859429	40.0	602365.0	0.777189	Y
5	ICIS 280-644801/3	80.0	59.685429	40.0	664524.0	0.746068	Y
6	STD120 280-644801/8	120.0	87.536509	40.0	608685.0	0.729471	Y
7	STD160 280-644801/9	160.0	120.054453	40.0	645698.0	0.75034	Y
8	STD200 280-644801/10	200.0	149.584466	40.0	655133.0	0.747922	Y



Calibration / 2-Nitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

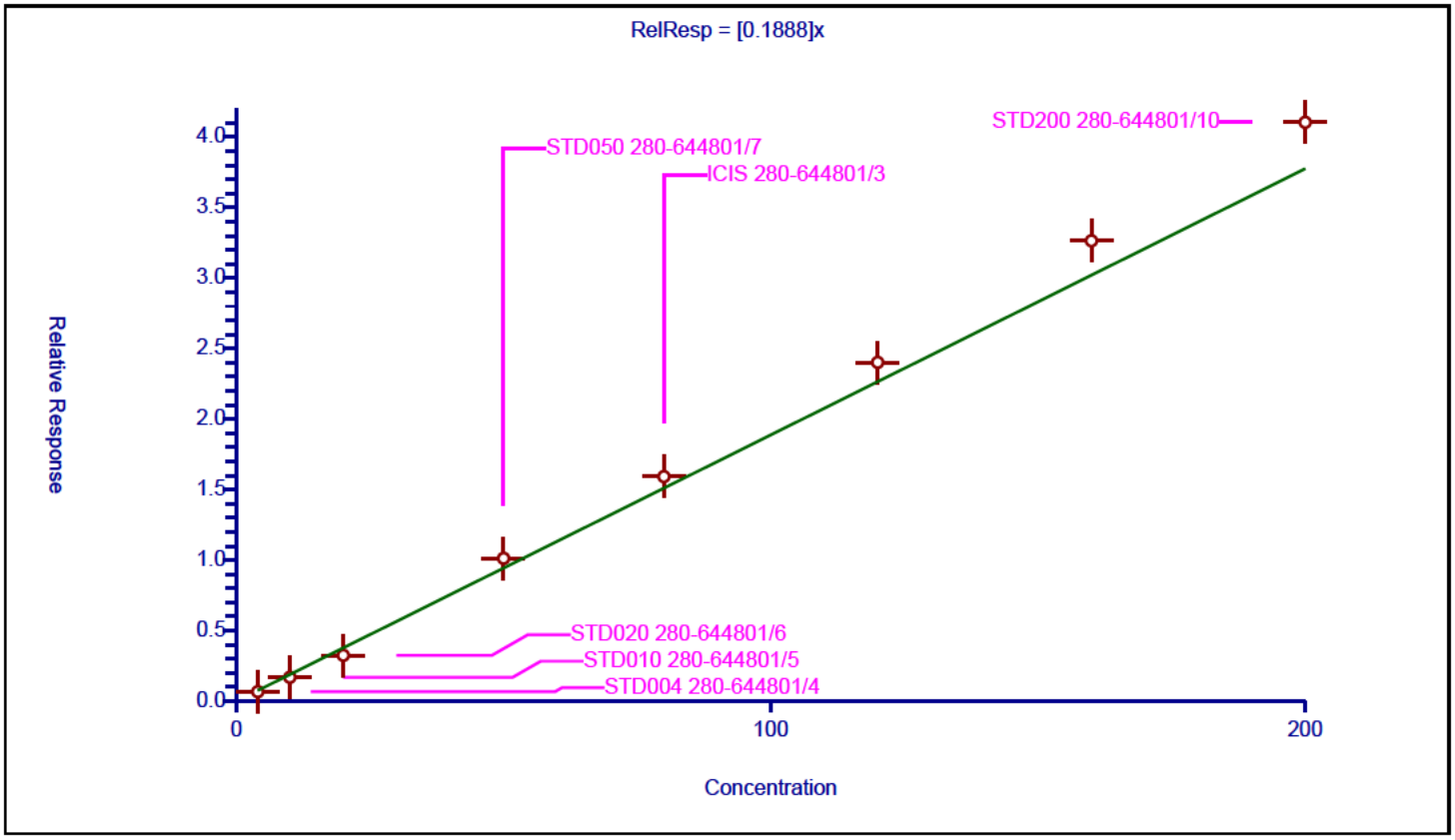
Curve Coefficients

Intercept:	0
Slope:	0.1888

Error Coefficients

Relative Standard Deviation:	9.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	0.669838	40.0	587784.0	0.167459	Y
2	STD010 280-644801/5	10.0	1.693996	40.0	654051.0	0.1694	Y
3	STD020 280-644801/6	20.0	3.248155	40.0	713168.0	0.162408	Y
4	STD050 280-644801/7	50.0	10.126684	40.0	602365.0	0.202534	Y
5	ICIS 280-644801/3	80.0	15.924722	40.0	664524.0	0.199059	Y
6	STD120 280-644801/8	120.0	24.024578	40.0	608685.0	0.200205	Y
7	STD160 280-644801/9	160.0	32.644983	40.0	645698.0	0.204031	Y
8	STD200 280-644801/10	200.0	41.046322	40.0	655133.0	0.205232	Y



Calibration / 2,4-Dimethylphenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

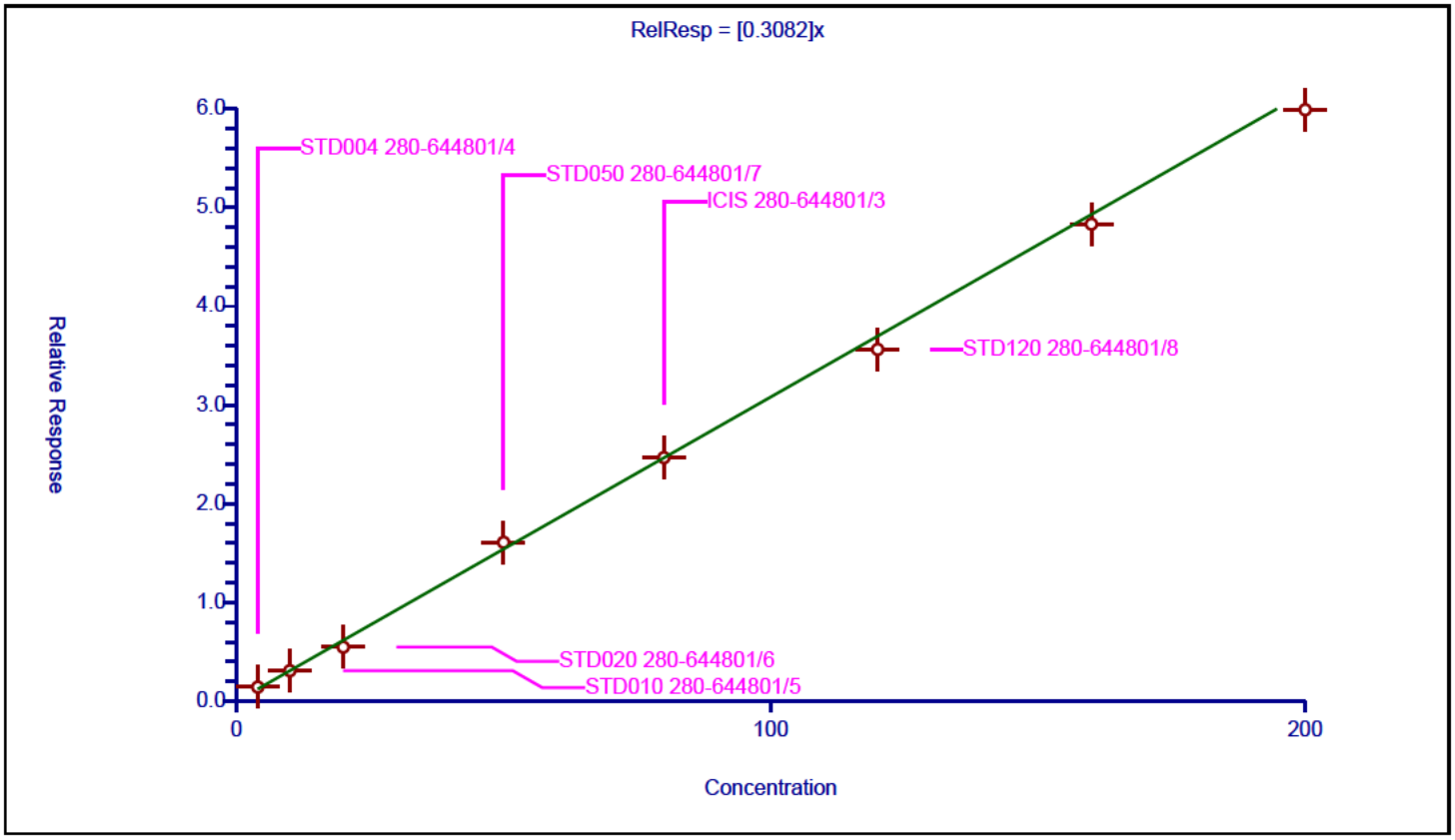
Curve Coefficients

Intercept:	0
Slope:	0.3082

Error Coefficients

Relative Standard Deviation:	7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.420658	40.0	587784.0	0.355164	Y
2	STD010 280-644801/5	10.0	3.080188	40.0	654051.0	0.308019	Y
3	STD020 280-644801/6	20.0	5.469847	40.0	713168.0	0.273492	Y
4	STD050 280-644801/7	50.0	16.085662	40.0	602365.0	0.321713	Y
5	ICIS 280-644801/3	80.0	24.666498	40.0	664524.0	0.308331	Y
6	STD120 280-644801/8	120.0	35.630778	40.0	608685.0	0.296923	Y
7	STD160 280-644801/9	160.0	48.326617	40.0	645698.0	0.302041	Y
8	STD200 280-644801/10	200.0	59.914124	40.0	655133.0	0.299571	Y



Calibration / Benzoic acid

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

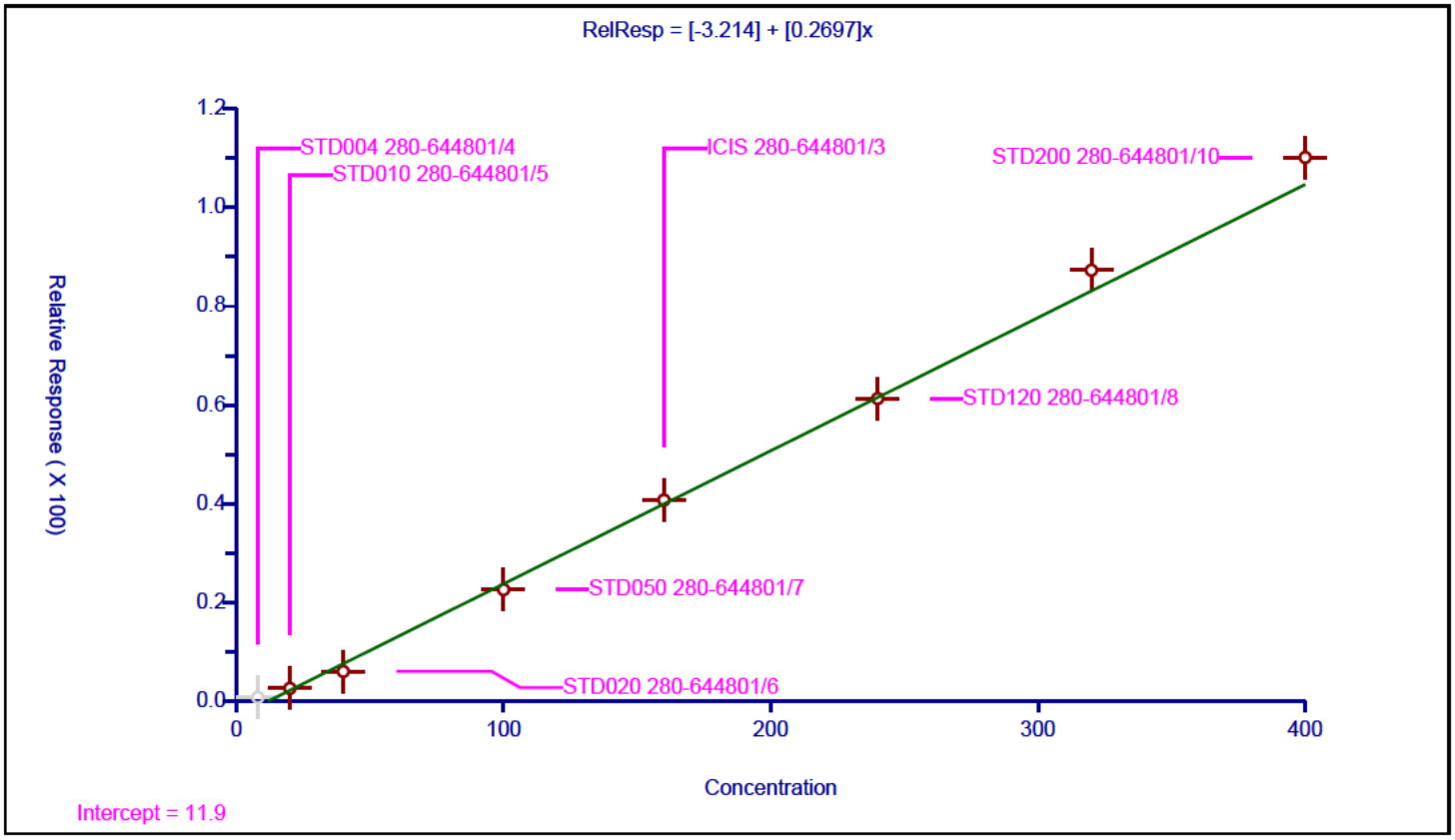
Curve Coefficients

Intercept:	-3.214
Slope:	0.2697

Error Coefficients

Relative Standard Deviation:	8.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	8.0	0.762661	40.0	587784.0	0.095333	N
2	STD010 280-644801/5	20.0	2.577353	40.0	654051.0	0.128868	Y
3	STD020 280-644801/6	40.0	6.010477	40.0	713168.0	0.150262	Y
4	STD050 280-644801/7	100.0	22.589294	40.0	602365.0	0.225893	Y
5	ICIS 280-644801/3	160.0	40.740259	40.0	664524.0	0.254627	Y
6	STD120 280-644801/8	240.0	61.306193	40.0	608685.0	0.255442	Y
7	STD160 280-644801/9	320.0	87.30391	40.0	645698.0	0.272825	Y
8	STD200 280-644801/10	400.0	110.15522	40.0	655133.0	0.275388	Y



Calibration / Bis(2-chloroethoxy)methane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

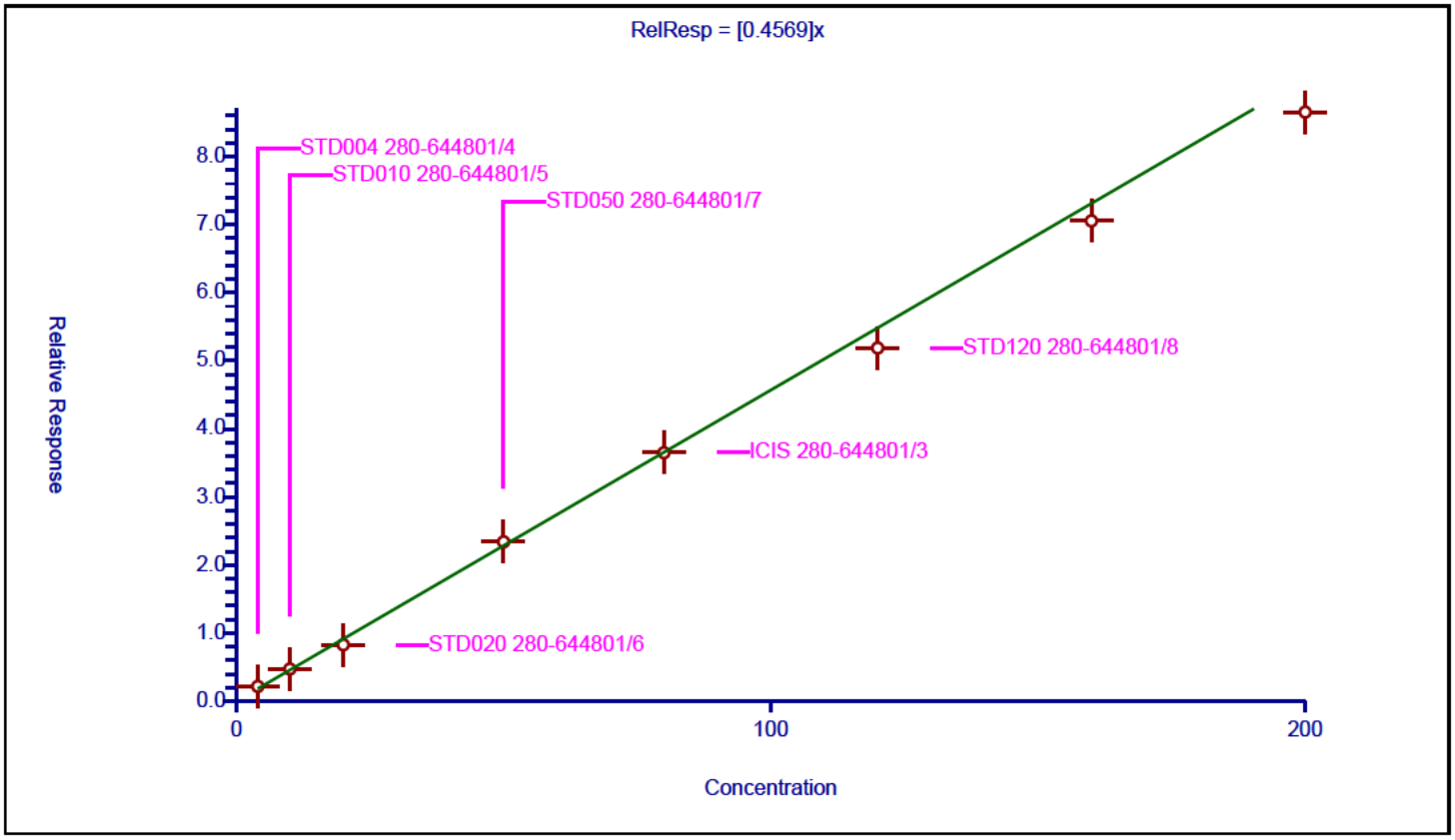
Curve Coefficients

Intercept:	0
Slope:	0.4569

Error Coefficients

Relative Standard Deviation:	8.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	2.163108	40.0	587784.0	0.540777	Y
2	STD010 280-644801/5	10.0	4.710642	40.0	654051.0	0.471064	Y
3	STD020 280-644801/6	20.0	8.275021	40.0	713168.0	0.413751	Y
4	STD050 280-644801/7	50.0	23.397243	40.0	602365.0	0.467945	Y
5	ICIS 280-644801/3	80.0	36.486568	40.0	664524.0	0.456082	Y
6	STD120 280-644801/8	120.0	51.876094	40.0	608685.0	0.432301	Y
7	STD160 280-644801/9	160.0	70.544558	40.0	645698.0	0.440903	Y
8	STD200 280-644801/10	200.0	86.525759	40.0	655133.0	0.432629	Y



Calibration / 2,4-Dichlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

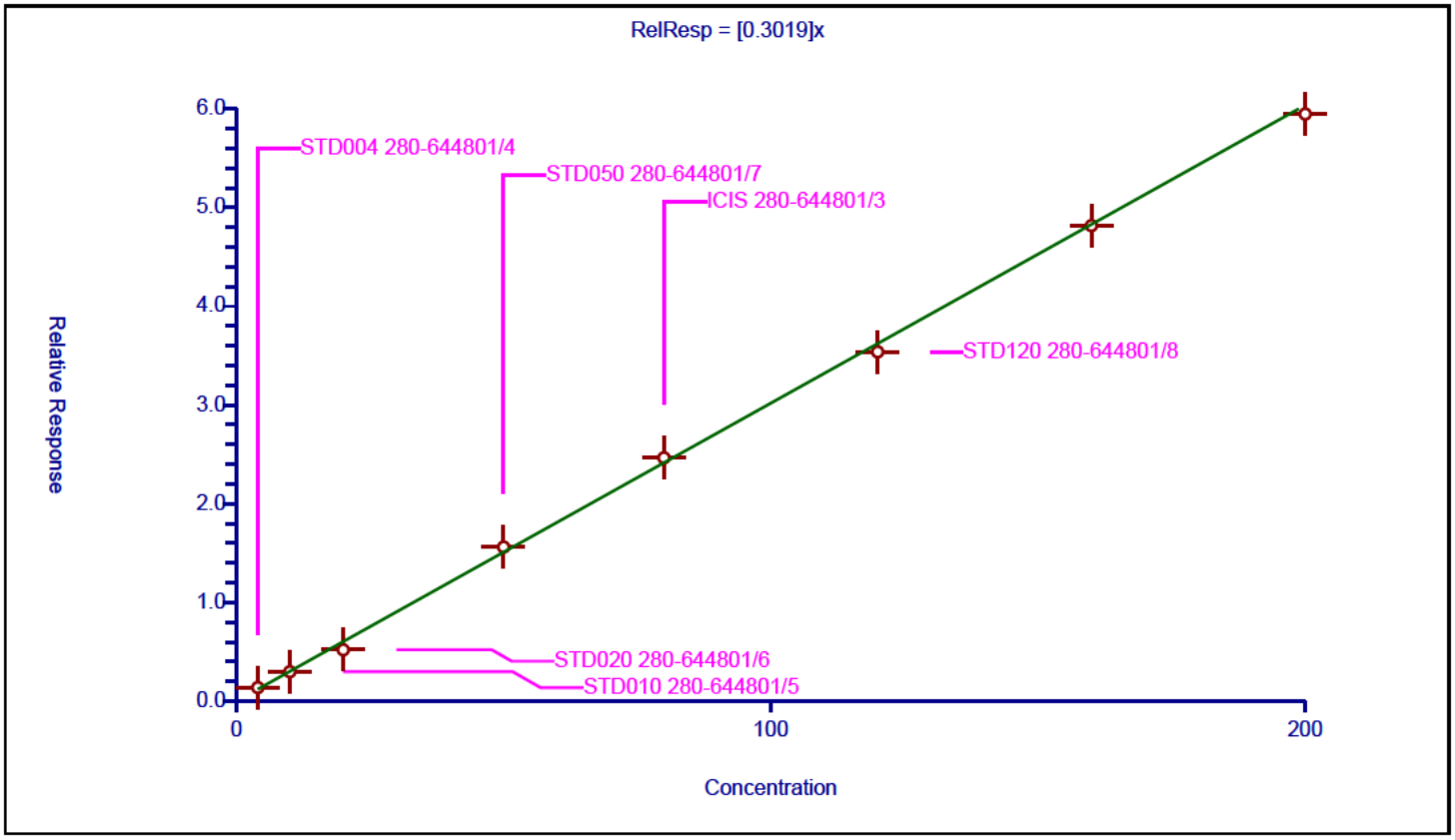
Curve Coefficients

Intercept:	0
Slope:	0.3019

Error Coefficients

Relative Standard Deviation:	7.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.374042	40.0	587784.0	0.343511	Y
2	STD010 280-644801/5	10.0	2.978483	40.0	654051.0	0.297848	Y
3	STD020 280-644801/6	20.0	5.196644	40.0	713168.0	0.259832	Y
4	STD050 280-644801/7	50.0	15.610203	40.0	602365.0	0.312204	Y
5	ICIS 280-644801/3	80.0	24.651149	40.0	664524.0	0.308139	Y
6	STD120 280-644801/8	120.0	35.383819	40.0	608685.0	0.294865	Y
7	STD160 280-644801/9	160.0	48.169454	40.0	645698.0	0.301059	Y
8	STD200 280-644801/10	200.0	59.479037	40.0	655133.0	0.297395	Y



Calibration / 1,2,4-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

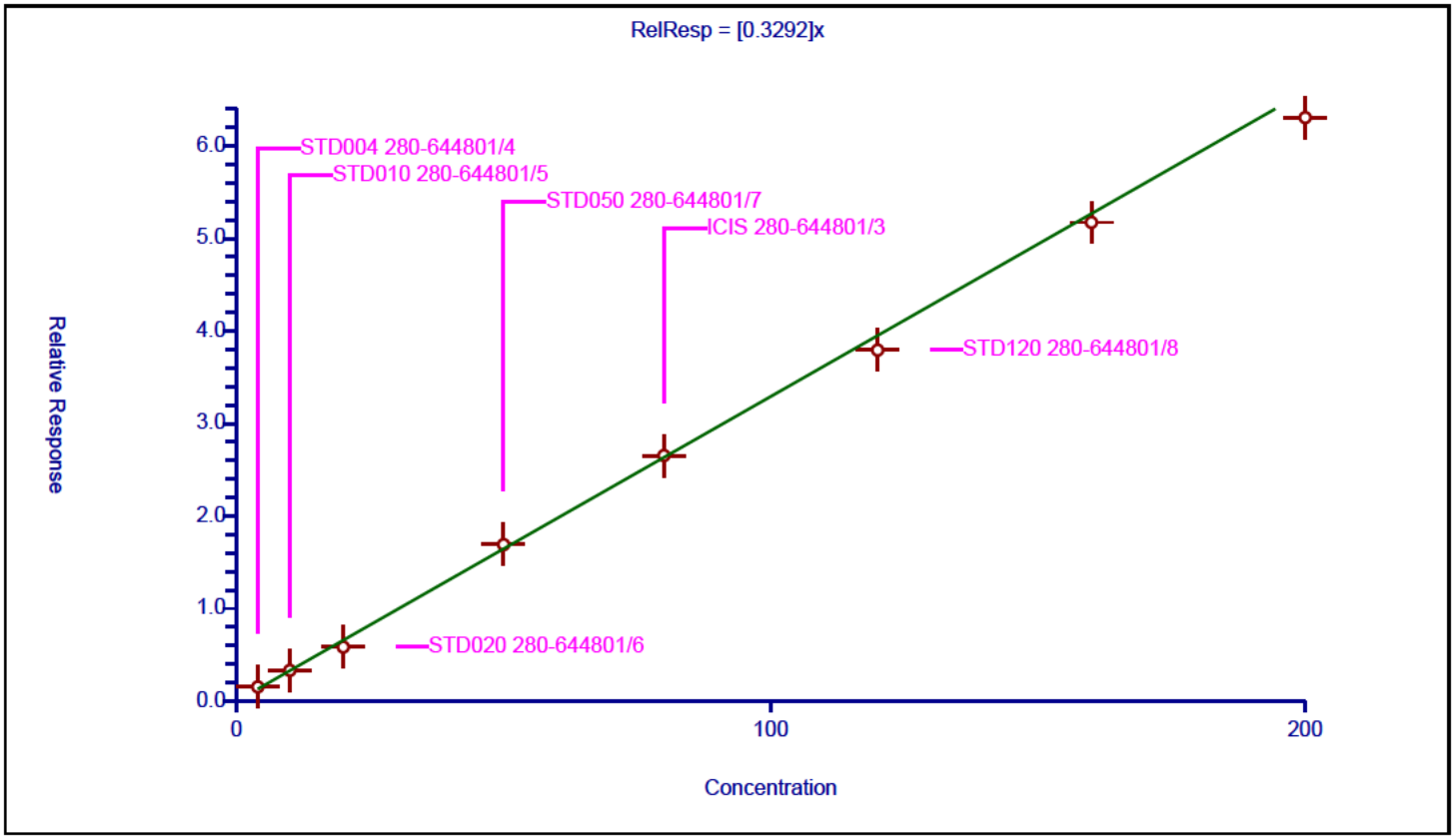
Curve Coefficients

Intercept:	0
Slope:	0.3292

Error Coefficients

Relative Standard Deviation:	8.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.54009	40.0	587784.0	0.385022	Y
2	STD010 280-644801/5	10.0	3.319558	40.0	654051.0	0.331956	Y
3	STD020 280-644801/6	20.0	5.843336	40.0	713168.0	0.292167	Y
4	STD050 280-644801/7	50.0	16.913466	40.0	602365.0	0.338269	Y
5	ICIS 280-644801/3	80.0	26.54026	40.0	664524.0	0.331753	Y
6	STD120 280-644801/8	120.0	37.928847	40.0	608685.0	0.316074	Y
7	STD160 280-644801/9	160.0	51.733907	40.0	645698.0	0.323337	Y
8	STD200 280-644801/10	200.0	63.057425	40.0	655133.0	0.315287	Y



Calibration / Naphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

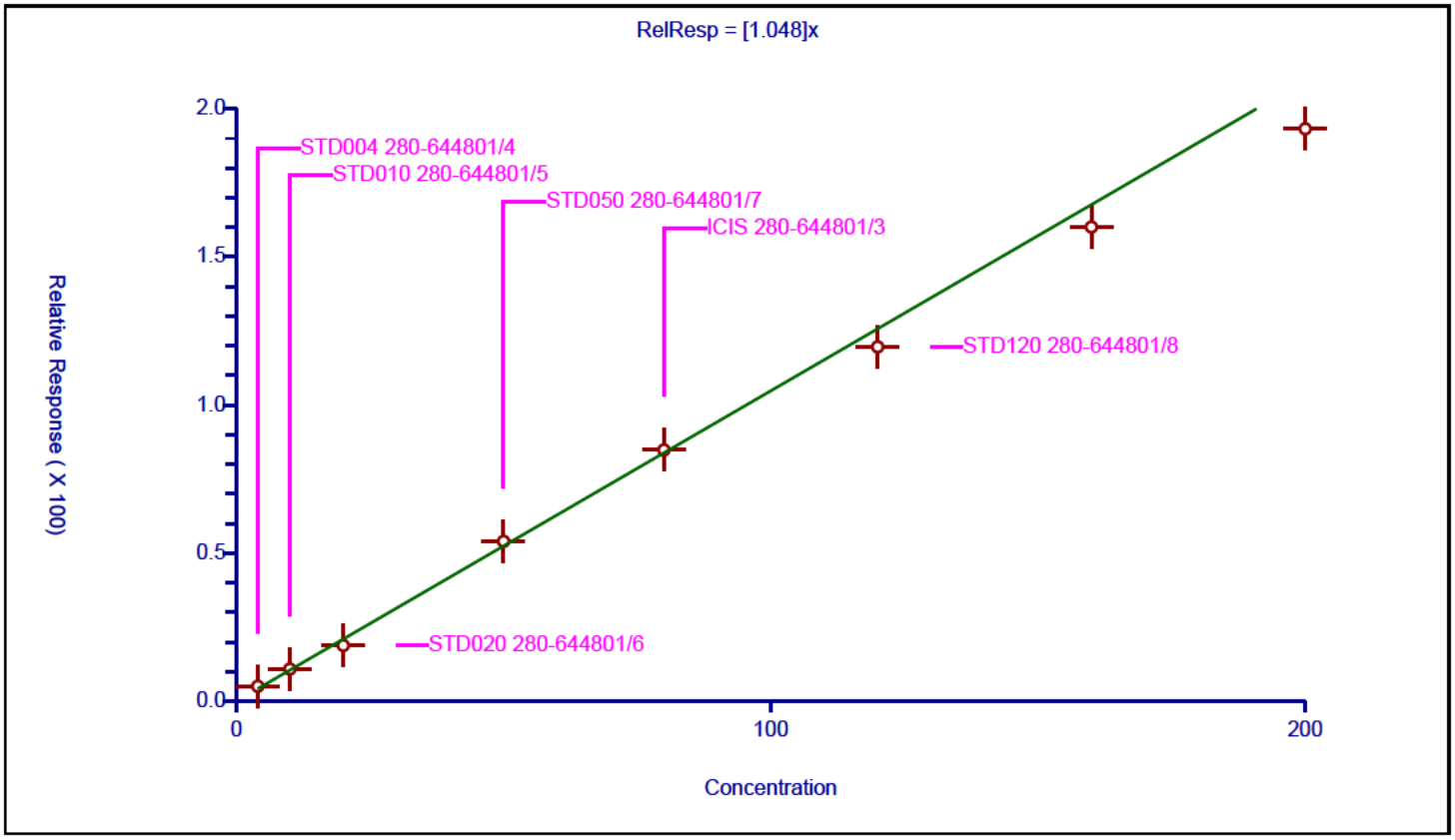
Curve Coefficients

Intercept:	0
Slope:	1.048

Error Coefficients

Relative Standard Deviation:	9.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	5.023002	40.0	587784.0	1.25575	Y
2	STD010 280-644801/5	10.0	10.835424	40.0	654051.0	1.083542	Y
3	STD020 280-644801/6	20.0	18.797478	40.0	713168.0	0.939874	Y
4	STD050 280-644801/7	50.0	53.965486	40.0	602365.0	1.07931	Y
5	ICIS 280-644801/3	80.0	84.836966	40.0	664524.0	1.060462	Y
6	STD120 280-644801/8	120.0	119.623648	40.0	608685.0	0.996864	Y
7	STD160 280-644801/9	160.0	160.09664	40.0	645698.0	1.000604	Y
8	STD200 280-644801/10	200.0	193.262376	40.0	655133.0	0.966312	Y



Calibration / 4-Chloroaniline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

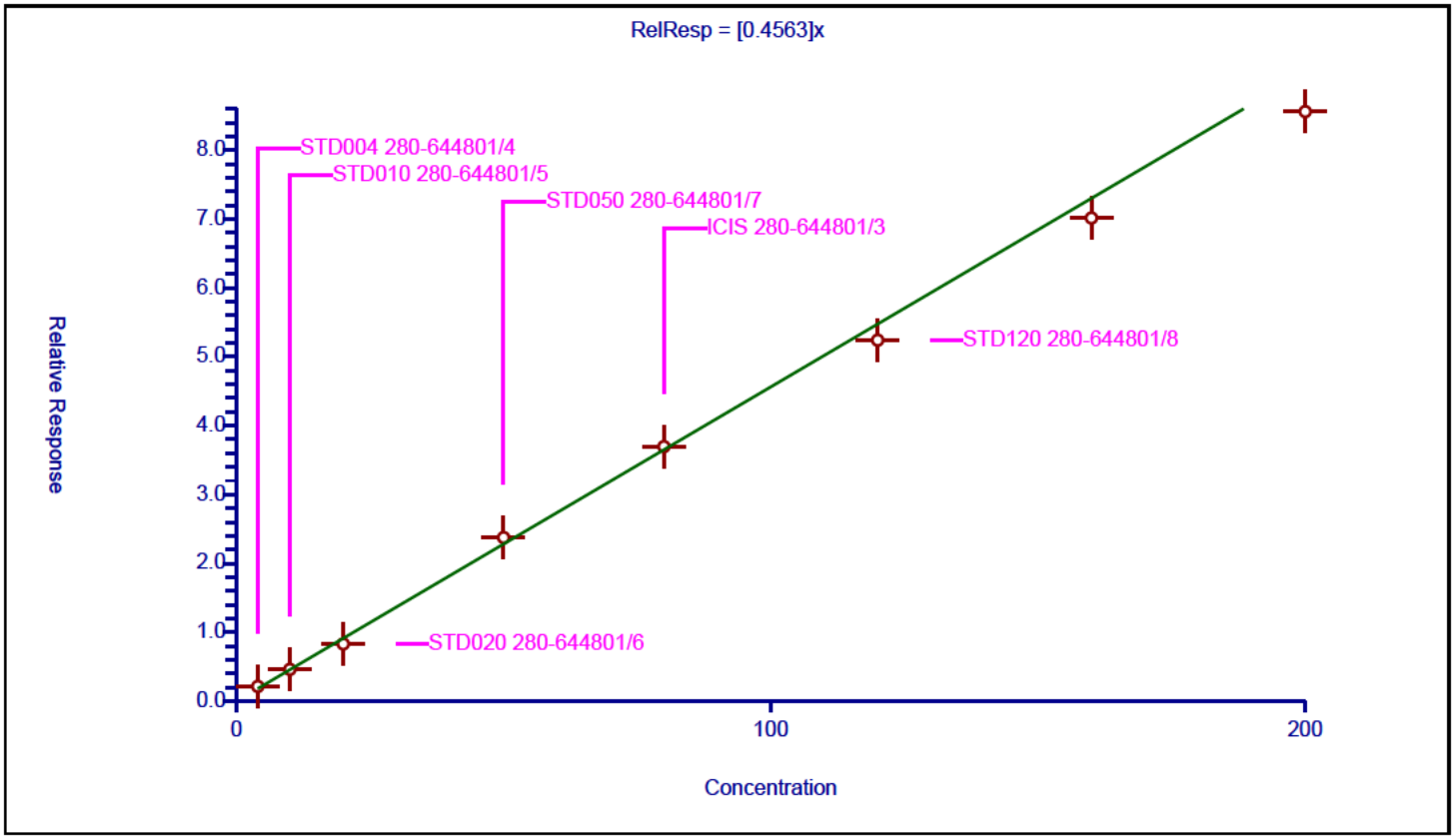
Curve Coefficients

Intercept:	0
Slope:	0.4563

Error Coefficients

Relative Standard Deviation:	8.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	2.136295	40.0	587784.0	0.534074	Y
2	STD010 280-644801/5	10.0	4.609793	40.0	654051.0	0.460979	Y
3	STD020 280-644801/6	20.0	8.303626	40.0	713168.0	0.415181	Y
4	STD050 280-644801/7	50.0	23.748458	40.0	602365.0	0.474969	Y
5	ICIS 280-644801/3	80.0	36.958906	40.0	664524.0	0.461986	Y
6	STD120 280-644801/8	120.0	52.416209	40.0	608685.0	0.436802	Y
7	STD160 280-644801/9	160.0	70.158371	40.0	645698.0	0.43849	Y
8	STD200 280-644801/10	200.0	85.61083	40.0	655133.0	0.428054	Y



Calibration / 2,6-Dichlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

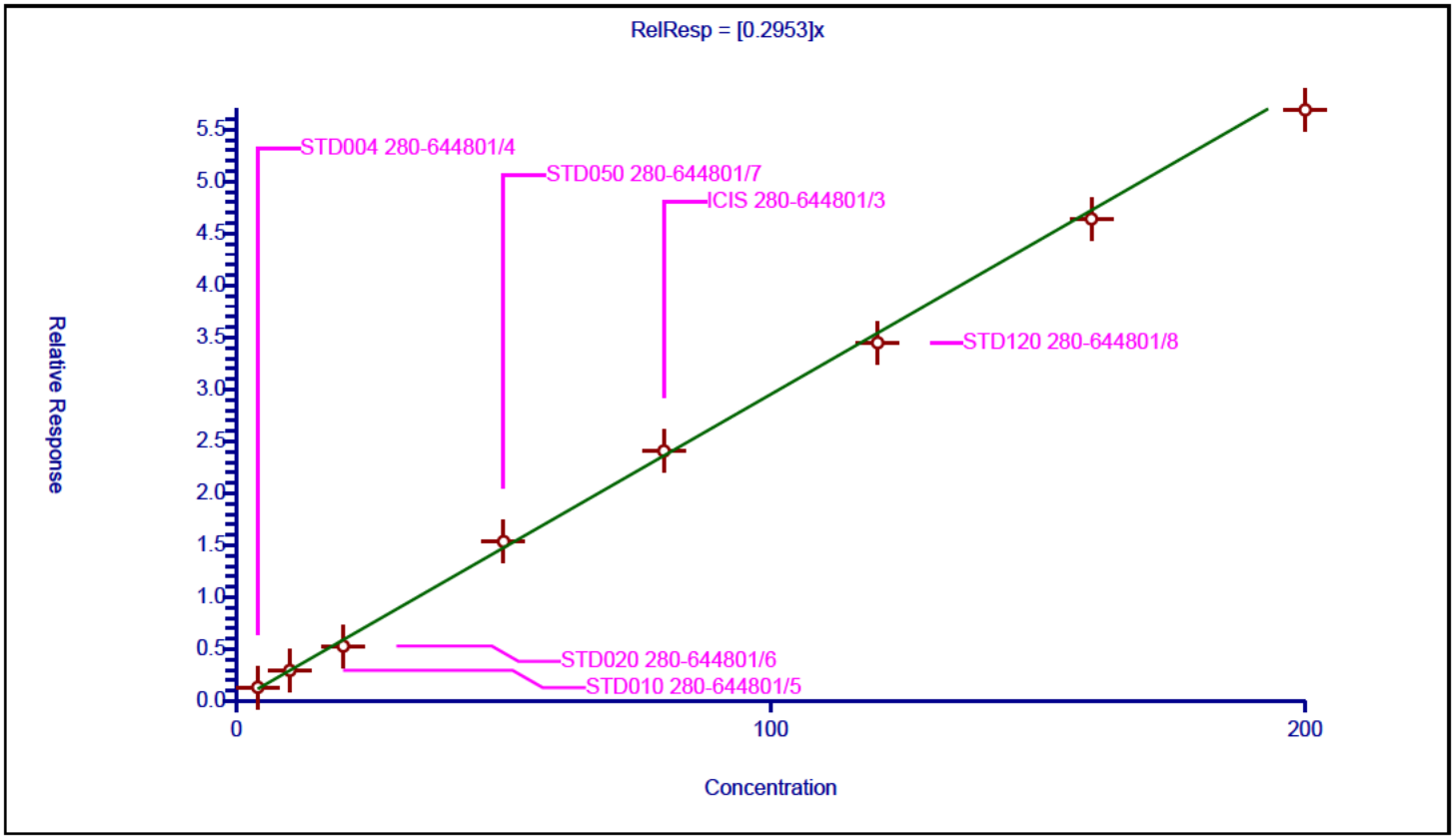
Curve Coefficients

Intercept:	0
Slope:	0.2953

Error Coefficients

Relative Standard Deviation:	6.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.328039	40.0	587784.0	0.33201	Y
2	STD010 280-644801/5	10.0	2.952553	40.0	654051.0	0.295255	Y
3	STD020 280-644801/6	20.0	5.296424	40.0	713168.0	0.264821	Y
4	STD050 280-644801/7	50.0	15.355009	40.0	602365.0	0.3071	Y
5	ICIS 280-644801/3	80.0	24.076361	40.0	664524.0	0.300955	Y
6	STD120 280-644801/8	120.0	34.488775	40.0	608685.0	0.287406	Y
7	STD160 280-644801/9	160.0	46.409622	40.0	645698.0	0.29006	Y
8	STD200 280-644801/10	200.0	56.904659	40.0	655133.0	0.284523	Y



Calibration / Hexachlorobutadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

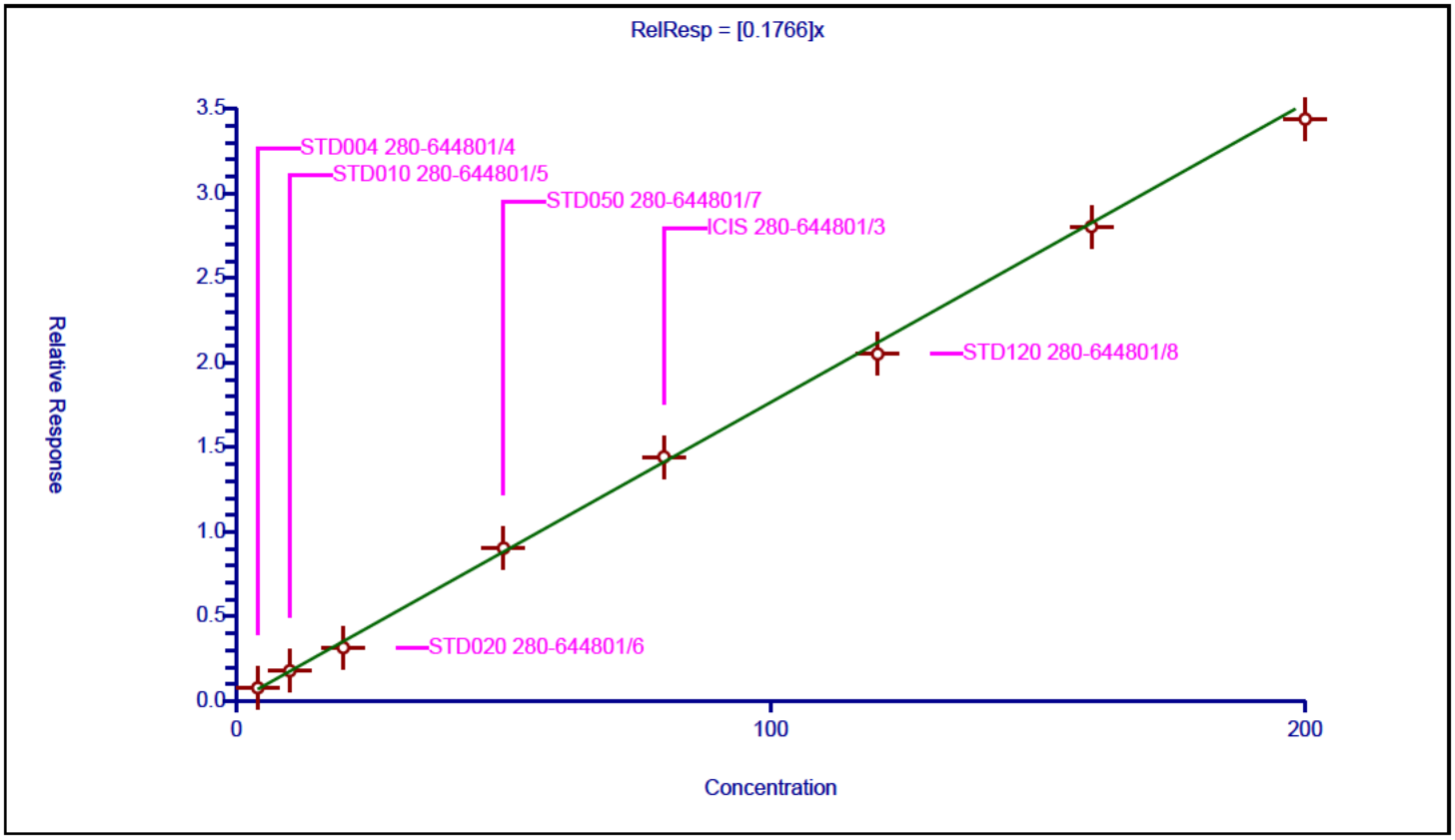
Curve Coefficients

Intercept:	0
Slope:	0.1766

Error Coefficients

Relative Standard Deviation:	6.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	0.785186	40.0	587784.0	0.196297	Y
2	STD010 280-644801/5	10.0	1.79301	40.0	654051.0	0.179301	Y
3	STD020 280-644801/6	20.0	3.158975	40.0	713168.0	0.157949	Y
4	STD050 280-644801/7	50.0	9.037444	40.0	602365.0	0.180749	Y
5	ICIS 280-644801/3	80.0	14.430419	40.0	664524.0	0.18038	Y
6	STD120 280-644801/8	120.0	20.514913	40.0	608685.0	0.170958	Y
7	STD160 280-644801/9	160.0	28.044504	40.0	645698.0	0.175278	Y
8	STD200 280-644801/10	200.0	34.394787	40.0	655133.0	0.171974	Y



Calibration / 4-Chloro-3-methylphenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

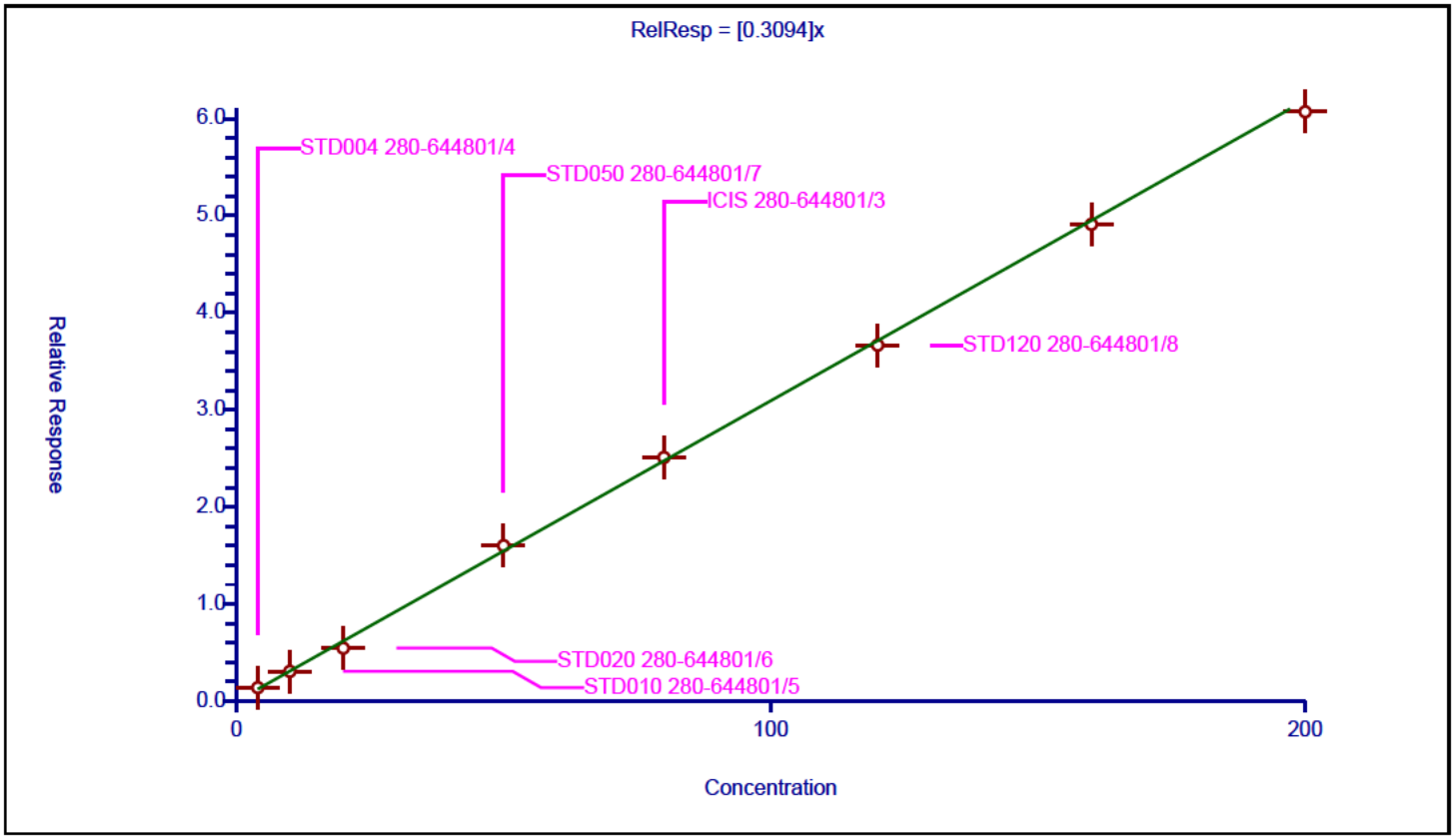
Curve Coefficients

Intercept:	0
Slope:	0.3094

Error Coefficients

Relative Standard Deviation:	6.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.385339	40.0	587784.0	0.346335	Y
2	STD010 280-644801/5	10.0	3.062269	40.0	654051.0	0.306227	Y
3	STD020 280-644801/6	20.0	5.45375	40.0	713168.0	0.272688	Y
4	STD050 280-644801/7	50.0	16.010293	40.0	602365.0	0.320206	Y
5	ICIS 280-644801/3	80.0	25.097002	40.0	664524.0	0.313713	Y
6	STD120 280-644801/8	120.0	36.662642	40.0	608685.0	0.305522	Y
7	STD160 280-644801/9	160.0	49.108407	40.0	645698.0	0.306928	Y
8	STD200 280-644801/10	200.0	60.701323	40.0	655133.0	0.303507	Y



Calibration / 2-Methylnaphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

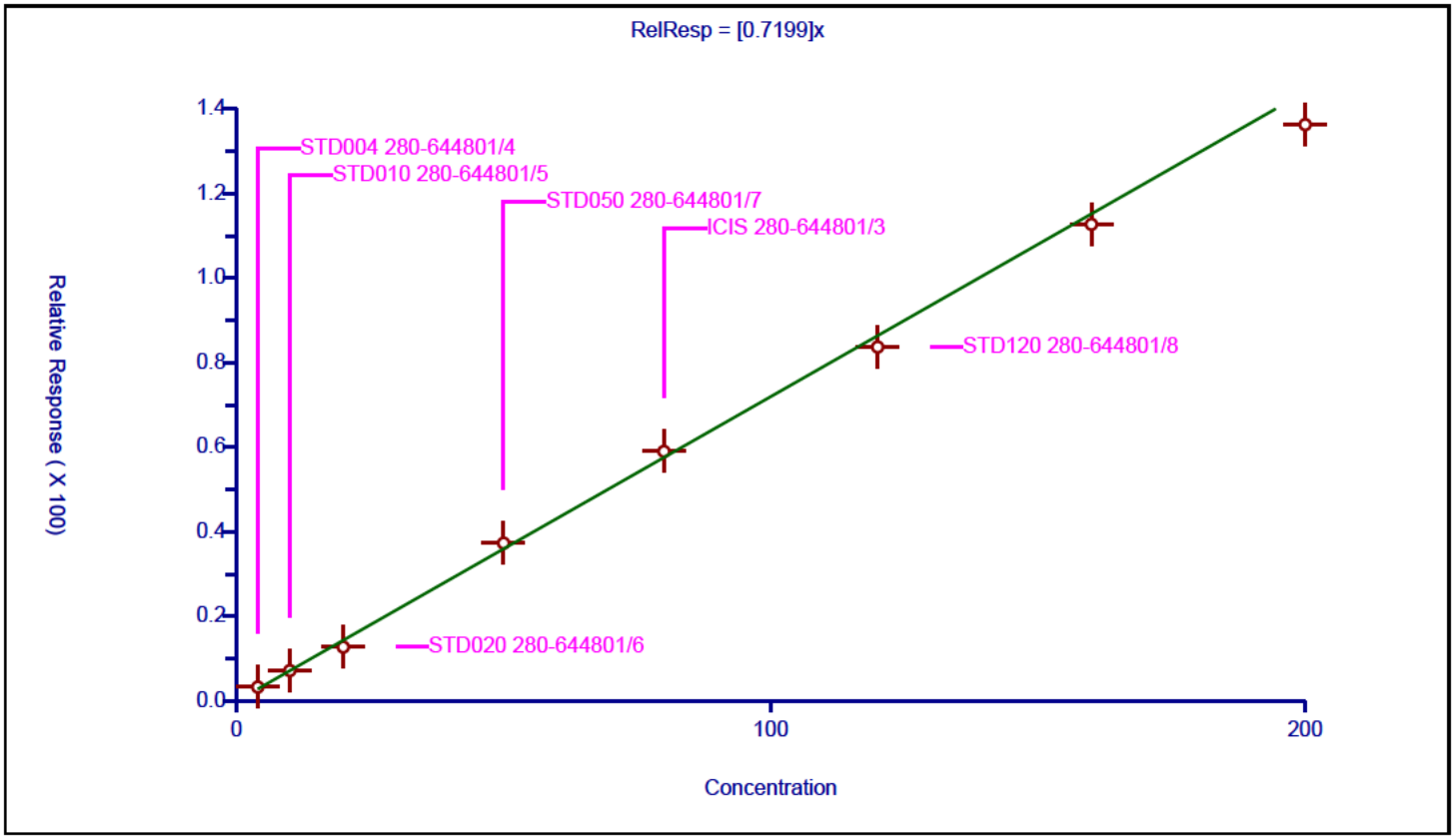
Curve Coefficients

Intercept:	0
Slope:	0.7199

Error Coefficients

Relative Standard Deviation:	7.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	3.319723	40.0	587784.0	0.829931	Y
2	STD010 280-644801/5	10.0	7.223412	40.0	654051.0	0.722341	Y
3	STD020 280-644801/6	20.0	12.777915	40.0	713168.0	0.638896	Y
4	STD050 280-644801/7	50.0	37.345131	40.0	602365.0	0.746903	Y
5	ICIS 280-644801/3	80.0	59.02938	40.0	664524.0	0.737867	Y
6	STD120 280-644801/8	120.0	83.705299	40.0	608685.0	0.697544	Y
7	STD160 280-644801/9	160.0	112.703958	40.0	645698.0	0.7044	Y
8	STD200 280-644801/10	200.0	136.275169	40.0	655133.0	0.681376	Y



Calibration / 1-Methylnaphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

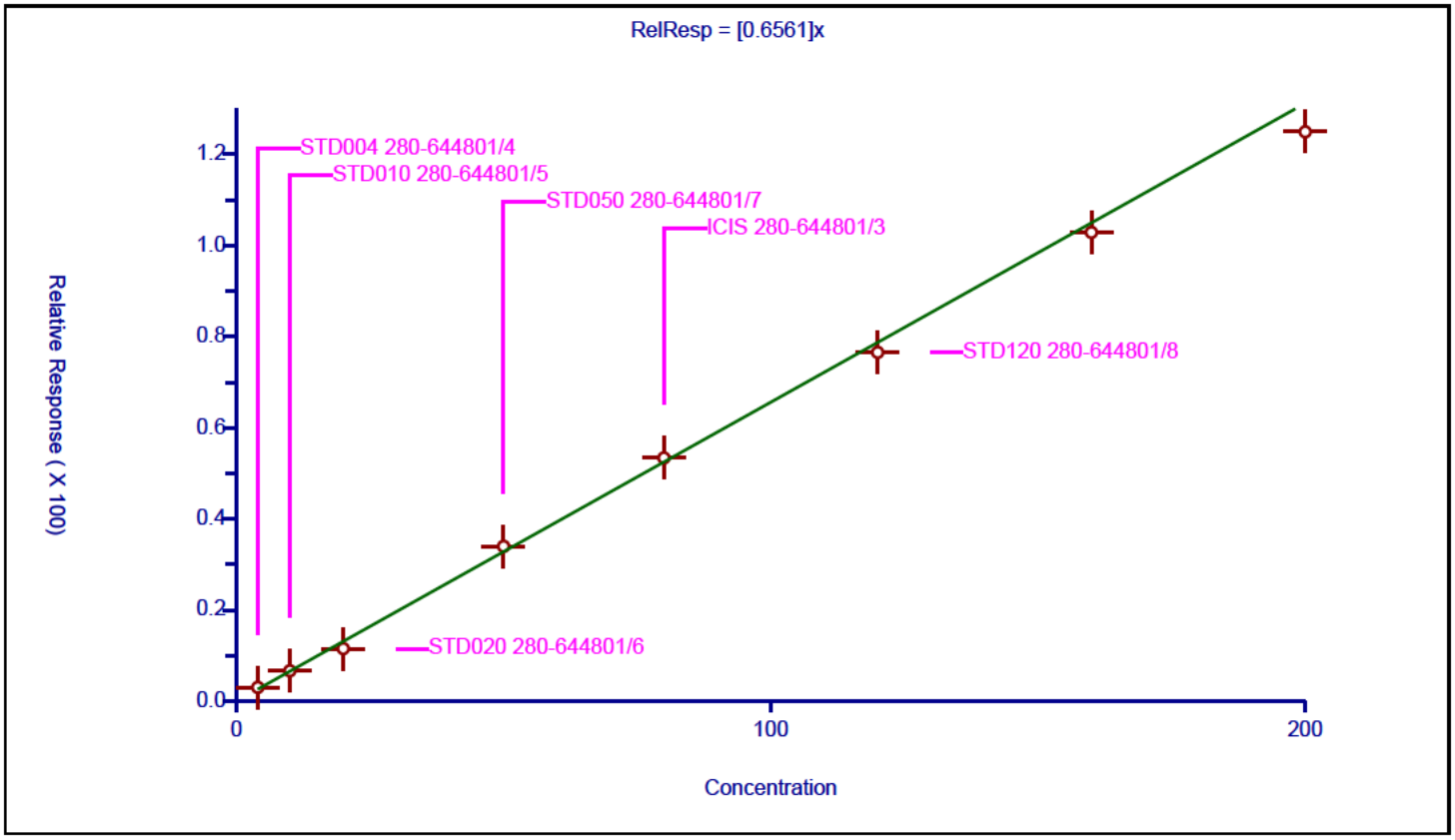
Curve Coefficients

Intercept:	0
Slope:	0.6561

Error Coefficients

Relative Standard Deviation:	7.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	3.014781	40.0	587784.0	0.753695	Y
2	STD010 280-644801/5	10.0	6.661805	40.0	654051.0	0.66618	Y
3	STD020 280-644801/6	20.0	11.534337	40.0	713168.0	0.576717	Y
4	STD050 280-644801/7	50.0	33.977539	40.0	602365.0	0.679551	Y
5	ICIS 280-644801/3	80.0	53.383113	40.0	664524.0	0.667289	Y
6	STD120 280-644801/8	120.0	76.542711	40.0	608685.0	0.637856	Y
7	STD160 280-644801/9	160.0	102.887666	40.0	645698.0	0.643048	Y
8	STD200 280-644801/10	200.0	124.969189	40.0	655133.0	0.624846	Y



Calibration / 1,2,4,5-Tetrachlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

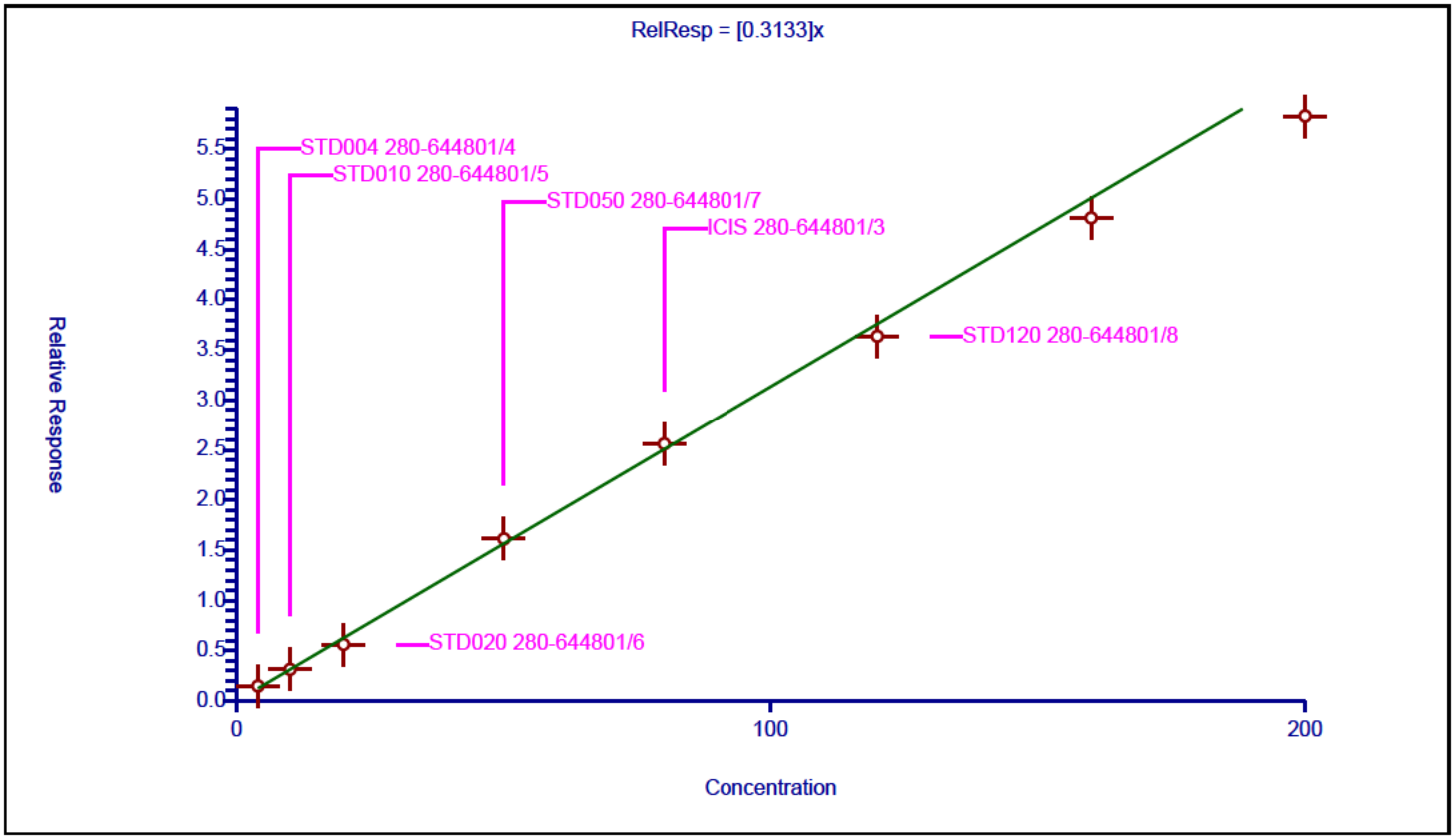
Curve Coefficients

Intercept:	0
Slope:	0.3133

Error Coefficients

Relative Standard Deviation:	8.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.490548	40.0	587784.0	0.372637	Y
2	STD010 280-644801/5	10.0	3.142813	40.0	654051.0	0.314281	Y
3	STD020 280-644801/6	20.0	5.626388	40.0	713168.0	0.281319	Y
4	STD050 280-644801/7	50.0	16.134868	40.0	602365.0	0.322697	Y
5	ICIS 280-644801/3	80.0	25.607563	40.0	664524.0	0.320095	Y
6	STD120 280-644801/8	120.0	36.379868	40.0	608685.0	0.303166	Y
7	STD160 280-644801/9	160.0	48.163631	40.0	645698.0	0.301023	Y
8	STD200 280-644801/10	200.0	58.302787	40.0	655133.0	0.291514	Y



Calibration / Hexachlorocyclopentadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

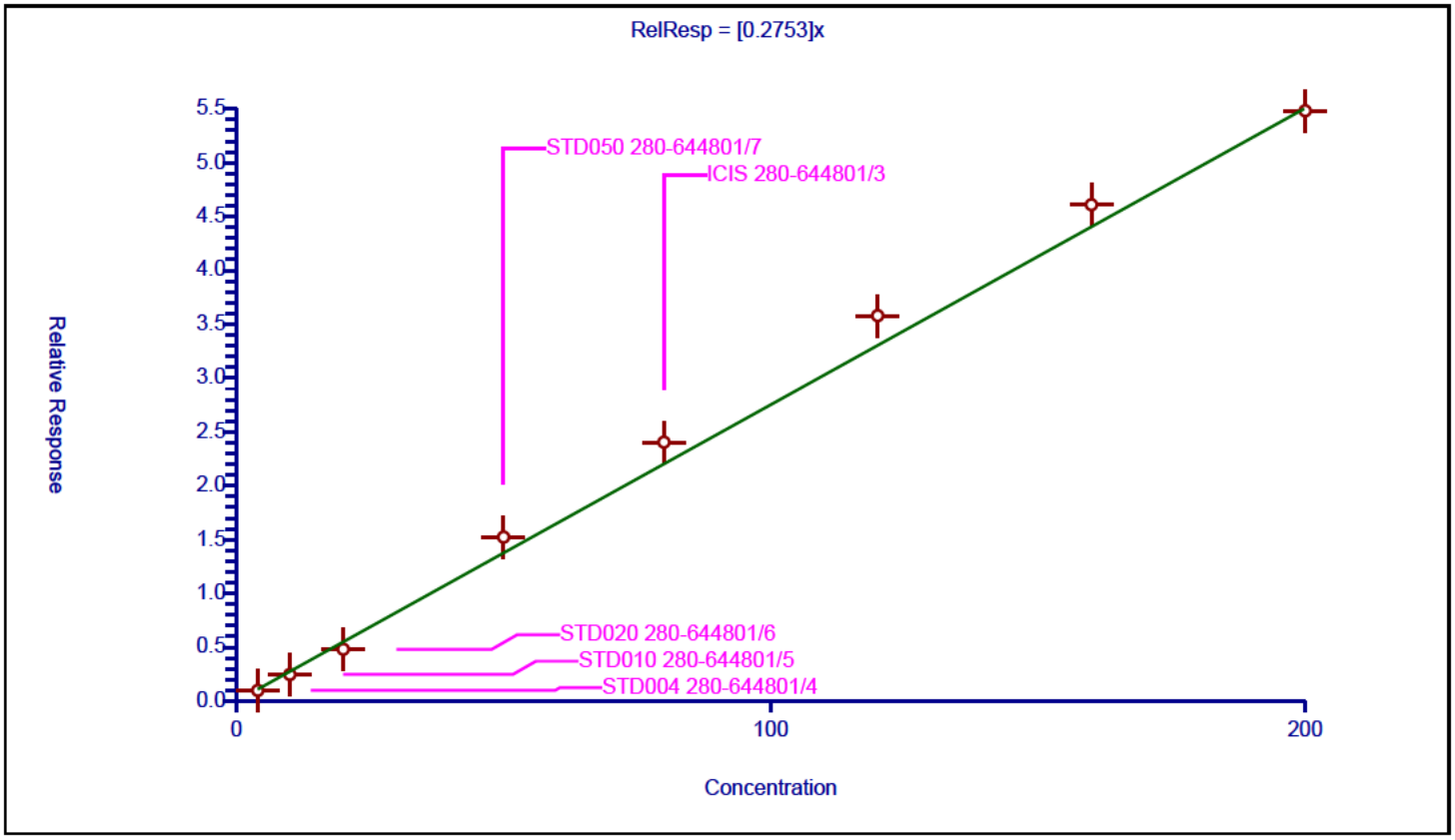
Curve Coefficients

Intercept:	0
Slope:	0.2753

Error Coefficients

Relative Standard Deviation:	9.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	0.992169	40.0	332766.0	0.248042	Y
2	STD010 280-644801/5	10.0	2.475255	40.0	373715.0	0.247526	Y
3	STD020 280-644801/6	20.0	4.82063	40.0	400736.0	0.241032	Y
4	STD050 280-644801/7	50.0	15.232788	40.0	343853.0	0.304656	Y
5	ICIS 280-644801/3	80.0	24.050463	40.0	376194.0	0.300631	Y
6	STD120 280-644801/8	120.0	35.79713	40.0	344793.0	0.298309	Y
7	STD160 280-644801/9	160.0	46.097576	40.0	359310.0	0.28811	Y
8	STD200 280-644801/10	200.0	54.824749	40.0	366873.0	0.274124	Y



Calibration / 2,4,6-Trichlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

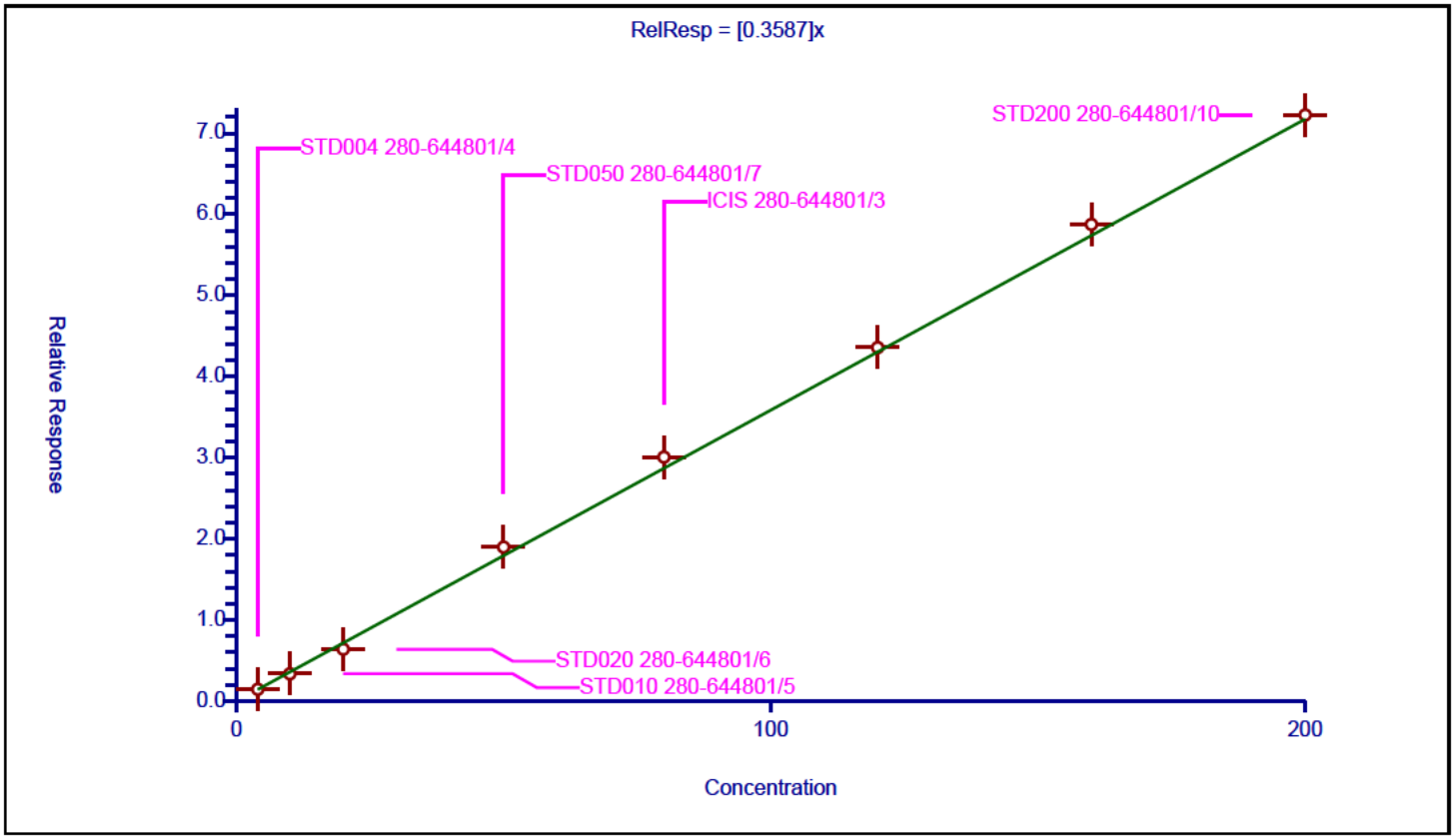
Curve Coefficients

Intercept:	0
Slope:	0.3587

Error Coefficients

Relative Standard Deviation:	5.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.462169	40.0	332766.0	0.365542	Y
2	STD010 280-644801/5	10.0	3.367272	40.0	373715.0	0.336727	Y
3	STD020 280-644801/6	20.0	6.399325	40.0	400736.0	0.319966	Y
4	STD050 280-644801/7	50.0	18.983694	40.0	343853.0	0.379674	Y
5	ICIS 280-644801/3	80.0	30.078204	40.0	376194.0	0.375978	Y
6	STD120 280-644801/8	120.0	43.580351	40.0	344793.0	0.36317	Y
7	STD160 280-644801/9	160.0	58.759957	40.0	359310.0	0.36725	Y
8	STD200 280-644801/10	200.0	72.252251	40.0	366873.0	0.361261	Y



Calibration / 2,4,5-Trichlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

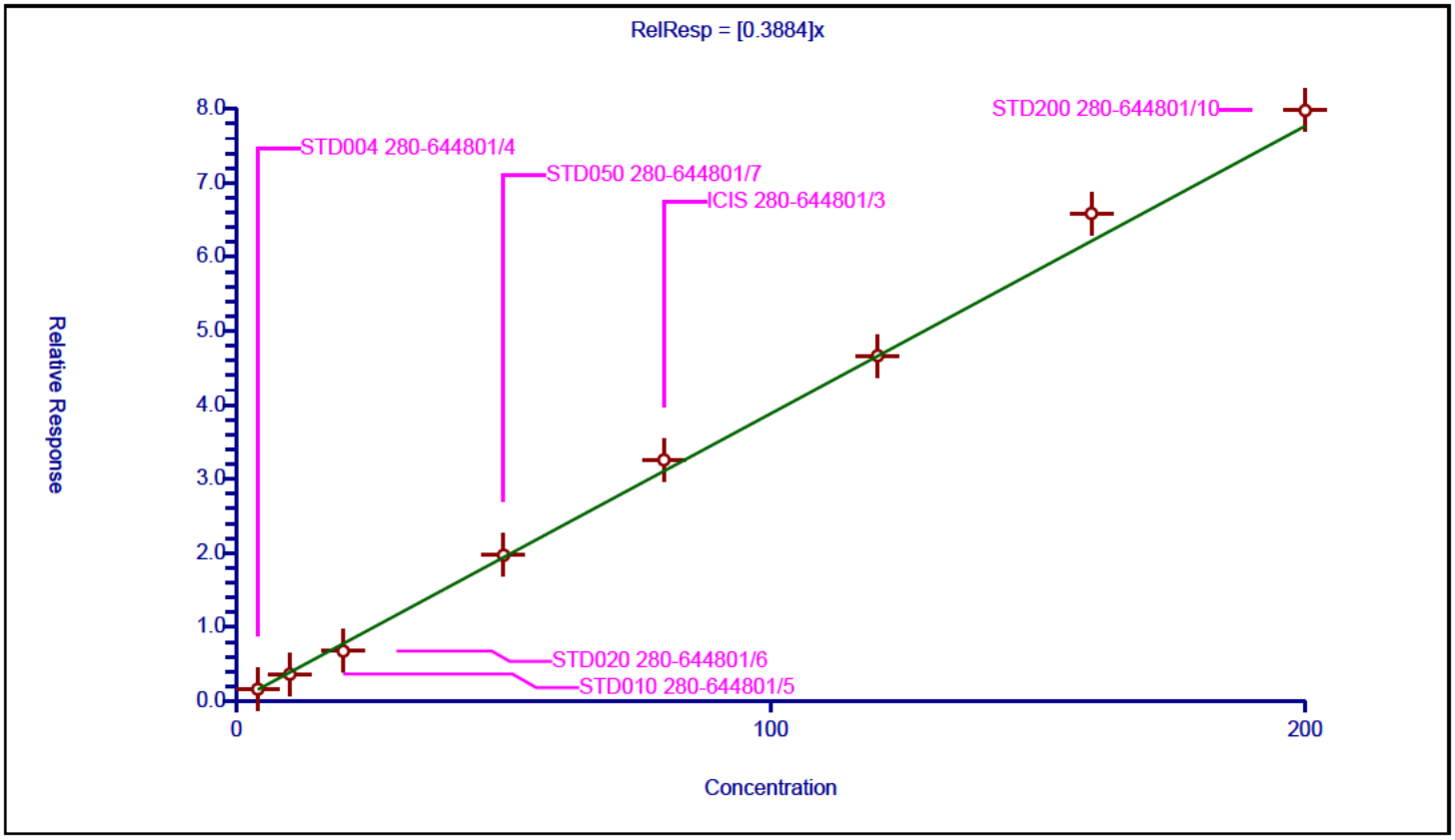
Curve Coefficients

Intercept:	0
Slope:	0.3884

Error Coefficients

Relative Standard Deviation:	6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.618555	40.0	332766.0	0.404639	Y
2	STD010 280-644801/5	10.0	3.641277	40.0	373715.0	0.364128	Y
3	STD020 280-644801/6	20.0	6.752875	40.0	400736.0	0.337644	Y
4	STD050 280-644801/7	50.0	19.708073	40.0	343853.0	0.394161	Y
5	ICIS 280-644801/3	80.0	32.58255	40.0	376194.0	0.407282	Y
6	STD120 280-644801/8	120.0	46.65698	40.0	344793.0	0.388808	Y
7	STD160 280-644801/9	160.0	65.871476	40.0	359310.0	0.411697	Y
8	STD200 280-644801/10	200.0	79.779215	40.0	366873.0	0.398896	Y



Calibration / 2-Fluorobiphenyl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

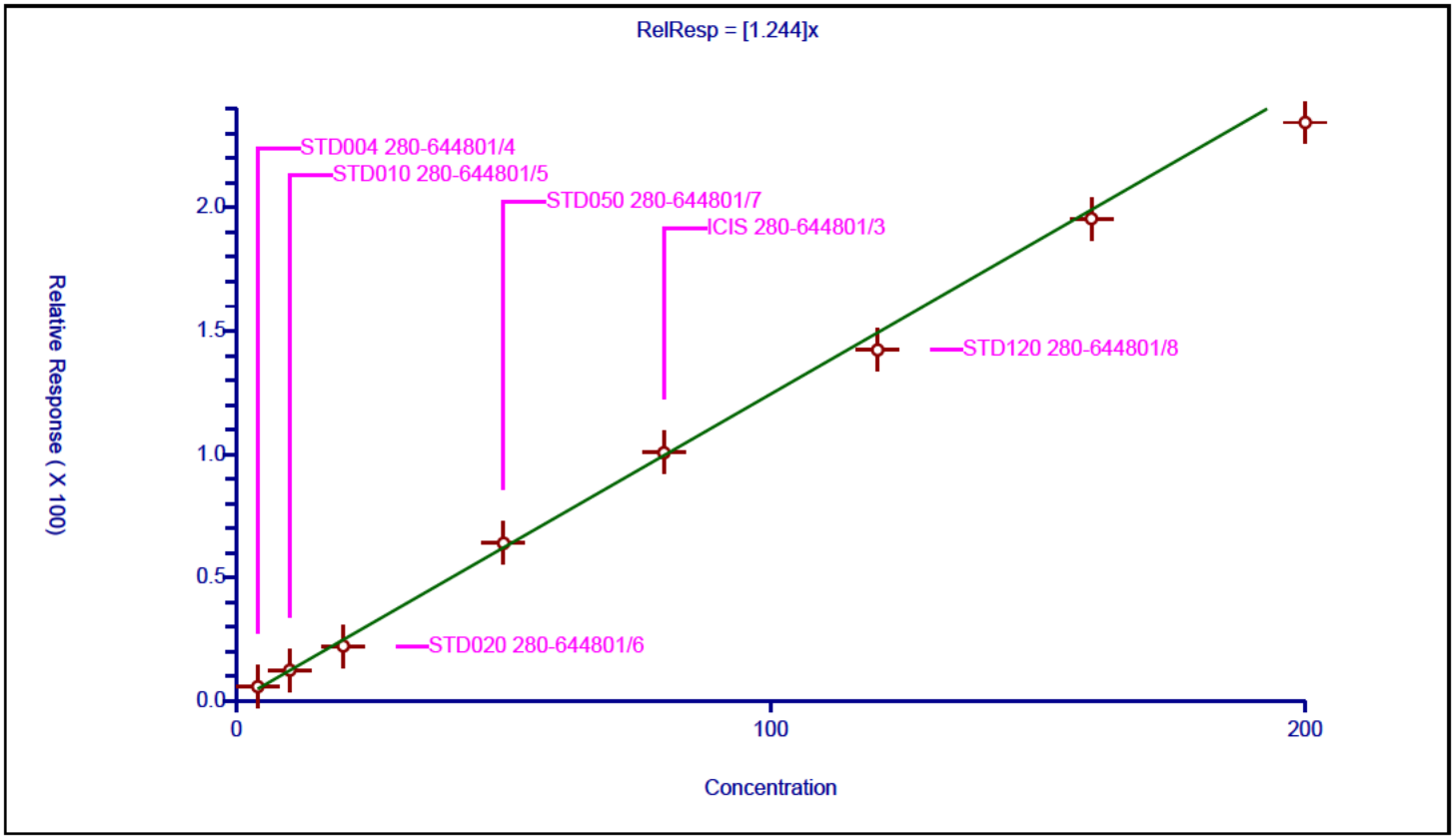
Curve Coefficients

Intercept:	0
Slope:	1.244

Error Coefficients

Relative Standard Deviation:	8.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	5.871273	40.0	332766.0	1.467818	Y
2	STD010 280-644801/5	10.0	12.528049	40.0	373715.0	1.252805	Y
3	STD020 280-644801/6	20.0	22.337299	40.0	400736.0	1.116865	Y
4	STD050 280-644801/7	50.0	63.975594	40.0	343853.0	1.279512	Y
5	ICIS 280-644801/3	80.0	100.65445	40.0	376194.0	1.258181	Y
6	STD120 280-644801/8	120.0	142.317158	40.0	344793.0	1.185976	Y
7	STD160 280-644801/9	160.0	195.515516	40.0	359310.0	1.221972	Y
8	STD200 280-644801/10	200.0	234.478743	40.0	366873.0	1.172394	Y



Calibration / 1,1'-Biphenyl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

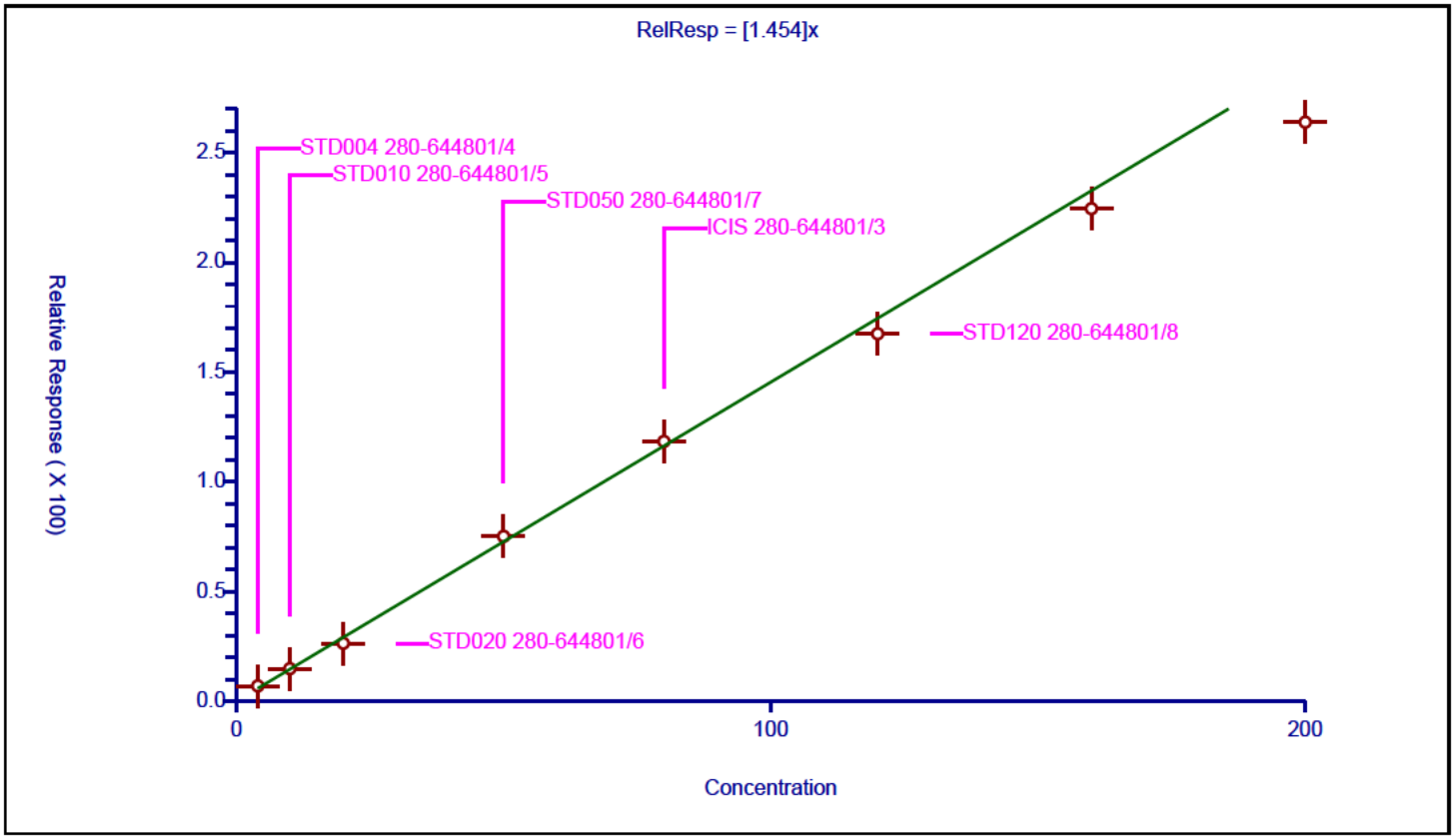
Curve Coefficients

Intercept:	0
Slope:	1.454

Error Coefficients

Relative Standard Deviation:	9.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	6.937608	40.0	332766.0	1.734402	Y
2	STD010 280-644801/5	10.0	14.810216	40.0	373715.0	1.481022	Y
3	STD020 280-644801/6	20.0	26.362792	40.0	400736.0	1.31814	Y
4	STD050 280-644801/7	50.0	75.118495	40.0	343853.0	1.50237	Y
5	ICIS 280-644801/3	80.0	118.405291	40.0	376194.0	1.480066	Y
6	STD120 280-644801/8	120.0	167.466973	40.0	344793.0	1.395558	Y
7	STD160 280-644801/9	160.0	224.518215	40.0	359310.0	1.403239	Y
8	STD200 280-644801/10	200.0	263.944308	40.0	366873.0	1.319722	Y



Calibration / 2-Chloronaphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

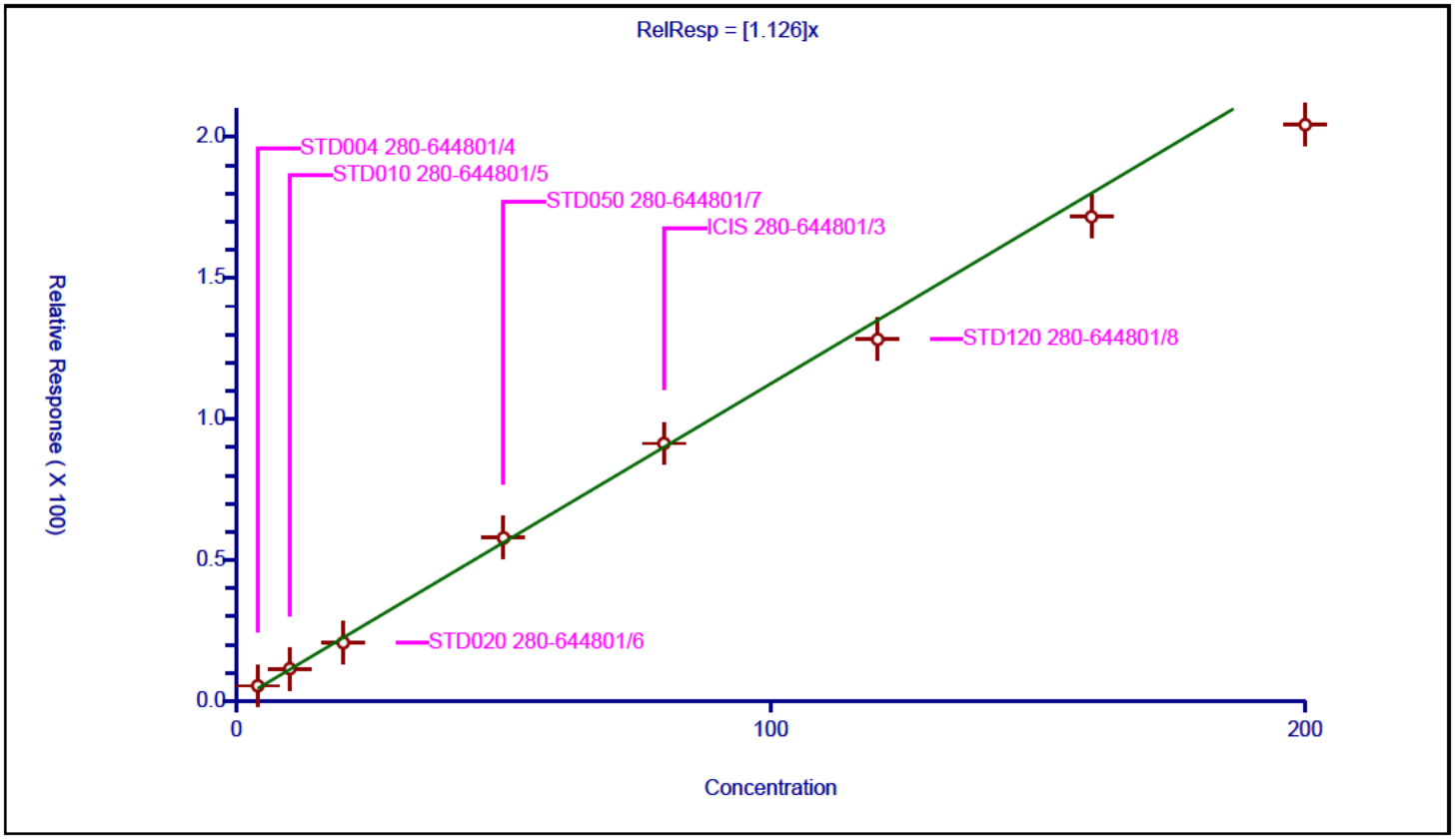
Curve Coefficients

Intercept:	0
Slope:	1.126

Error Coefficients

Relative Standard Deviation:	9.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	5.42892	40.0	332766.0	1.35723	Y
2	STD010 280-644801/5	10.0	11.489611	40.0	373715.0	1.148961	Y
3	STD020 280-644801/6	20.0	20.707798	40.0	400736.0	1.03539	Y
4	STD050 280-644801/7	50.0	57.869148	40.0	343853.0	1.157383	Y
5	ICIS 280-644801/3	80.0	91.361266	40.0	376194.0	1.142016	Y
6	STD120 280-644801/8	120.0	128.259332	40.0	344793.0	1.068828	Y
7	STD160 280-644801/9	160.0	171.72013	40.0	359310.0	1.073251	Y
8	STD200 280-644801/10	200.0	204.356821	40.0	366873.0	1.021784	Y



Calibration / 2-Nitroaniline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

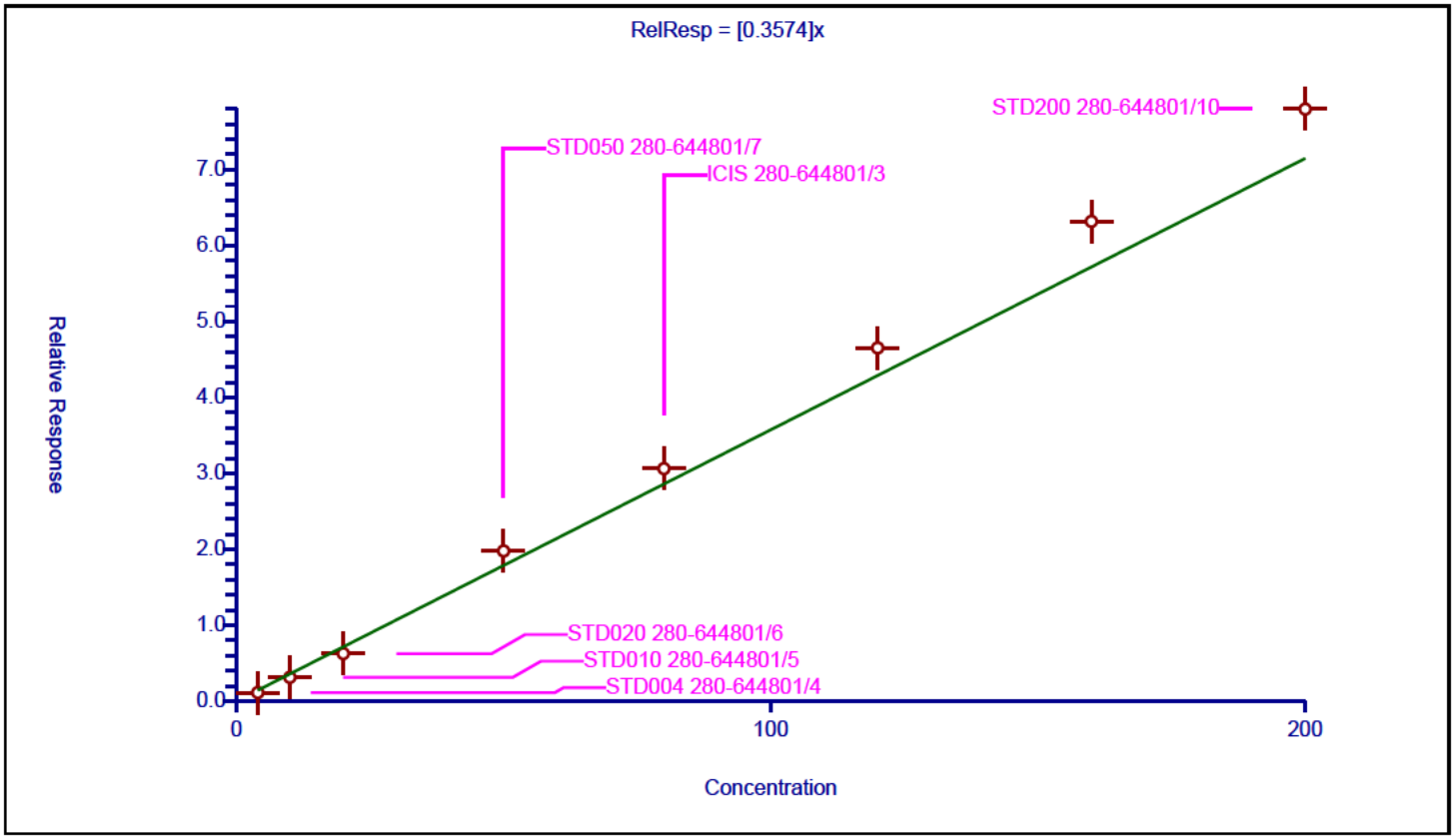
Curve Coefficients

Intercept:	0
Slope:	0.3574

Error Coefficients

Relative Standard Deviation:	13.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.129202	40.0	332766.0	0.2823	Y
2	STD010 280-644801/5	10.0	3.131049	40.0	373715.0	0.313105	Y
3	STD020 280-644801/6	20.0	6.261679	40.0	400736.0	0.313084	Y
4	STD050 280-644801/7	50.0	19.77566	40.0	343853.0	0.395513	Y
5	ICIS 280-644801/3	80.0	30.619095	40.0	376194.0	0.382739	Y
6	STD120 280-644801/8	120.0	46.51823	40.0	344793.0	0.387652	Y
7	STD160 280-644801/9	160.0	63.179873	40.0	359310.0	0.394874	Y
8	STD200 280-644801/10	200.0	77.966817	40.0	366873.0	0.389834	Y



Calibration / Dimethyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

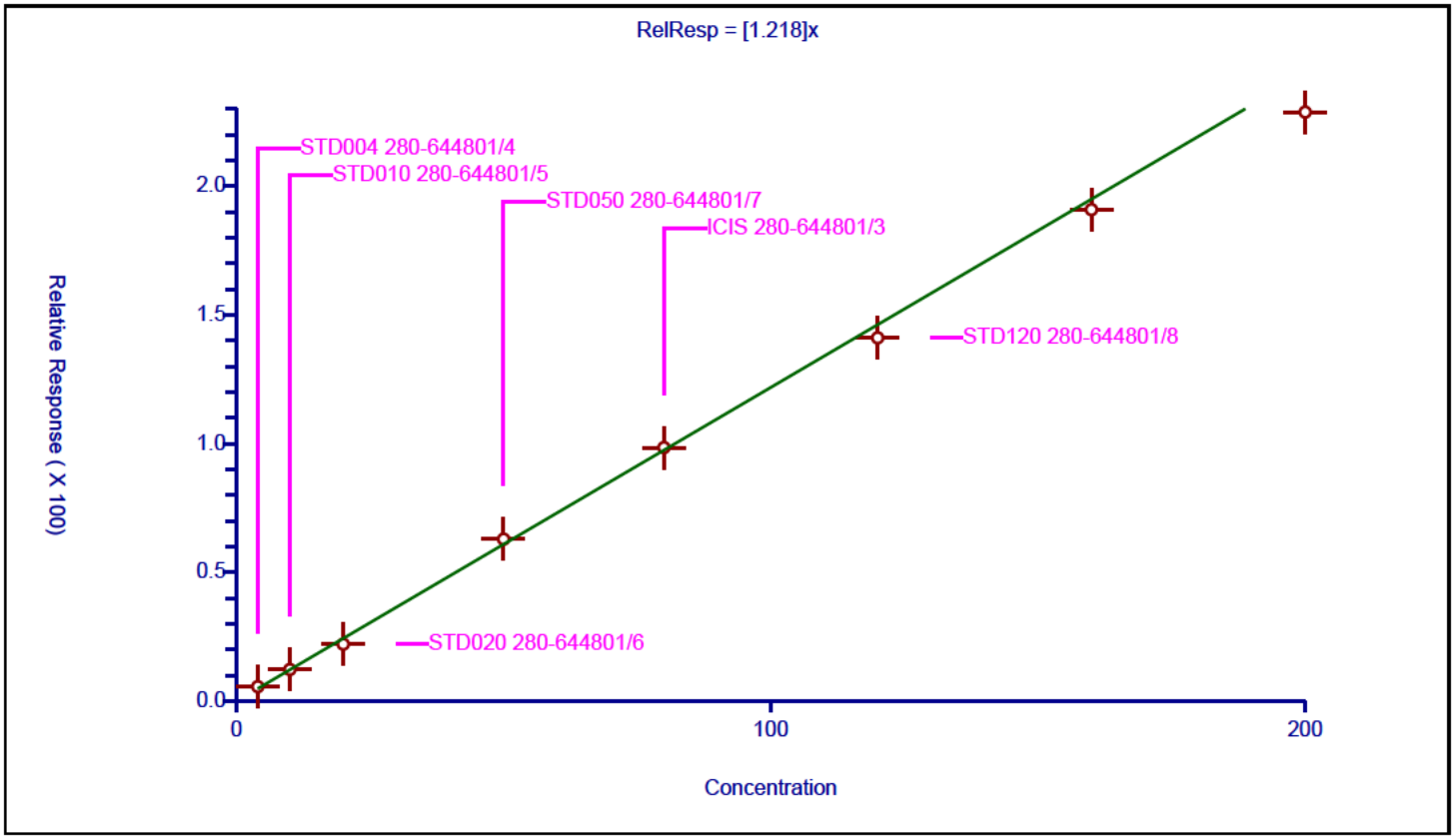
Curve Coefficients

Intercept:	0
Slope:	1.218

Error Coefficients

Relative Standard Deviation:	7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	5.643125	40.0	332766.0	1.410781	Y
2	STD010 280-644801/5	10.0	12.27909	40.0	373715.0	1.227909	Y
3	STD020 280-644801/6	20.0	22.12479	40.0	400736.0	1.10624	Y
4	STD050 280-644801/7	50.0	62.910139	40.0	343853.0	1.258203	Y
5	ICIS 280-644801/3	80.0	98.474298	40.0	376194.0	1.230929	Y
6	STD120 280-644801/8	120.0	141.088015	40.0	344793.0	1.175733	Y
7	STD160 280-644801/9	160.0	190.879964	40.0	359310.0	1.193	Y
8	STD200 280-644801/10	200.0	228.758944	40.0	366873.0	1.143795	Y



Calibration / 1,3-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

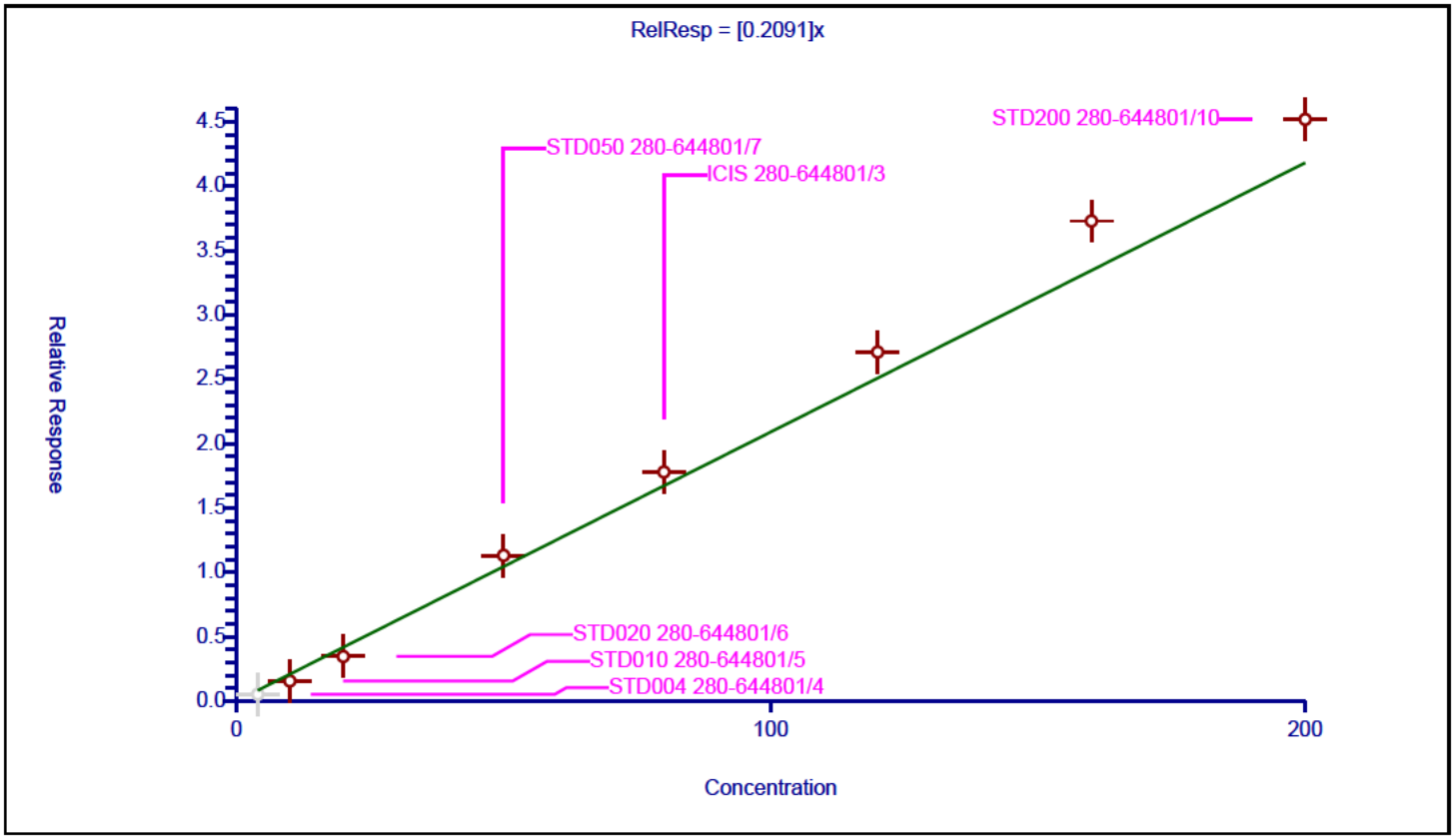
Curve Coefficients

Intercept:	0
Slope:	0.2091

Error Coefficients

Relative Standard Deviation:	14.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	0.538396	40.0	332766.0	0.134599	N
2	STD010 280-644801/5	10.0	1.564187	40.0	373715.0	0.156419	Y
3	STD020 280-644801/6	20.0	3.466222	40.0	400736.0	0.173311	Y
4	STD050 280-644801/7	50.0	11.319256	40.0	343853.0	0.226385	Y
5	ICIS 280-644801/3	80.0	17.796456	40.0	376194.0	0.222456	Y
6	STD120 280-644801/8	120.0	27.110411	40.0	344793.0	0.22592	Y
7	STD160 280-644801/9	160.0	37.287245	40.0	359310.0	0.233045	Y
8	STD200 280-644801/10	200.0	45.185119	40.0	366873.0	0.225926	Y



Calibration / 2,6-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

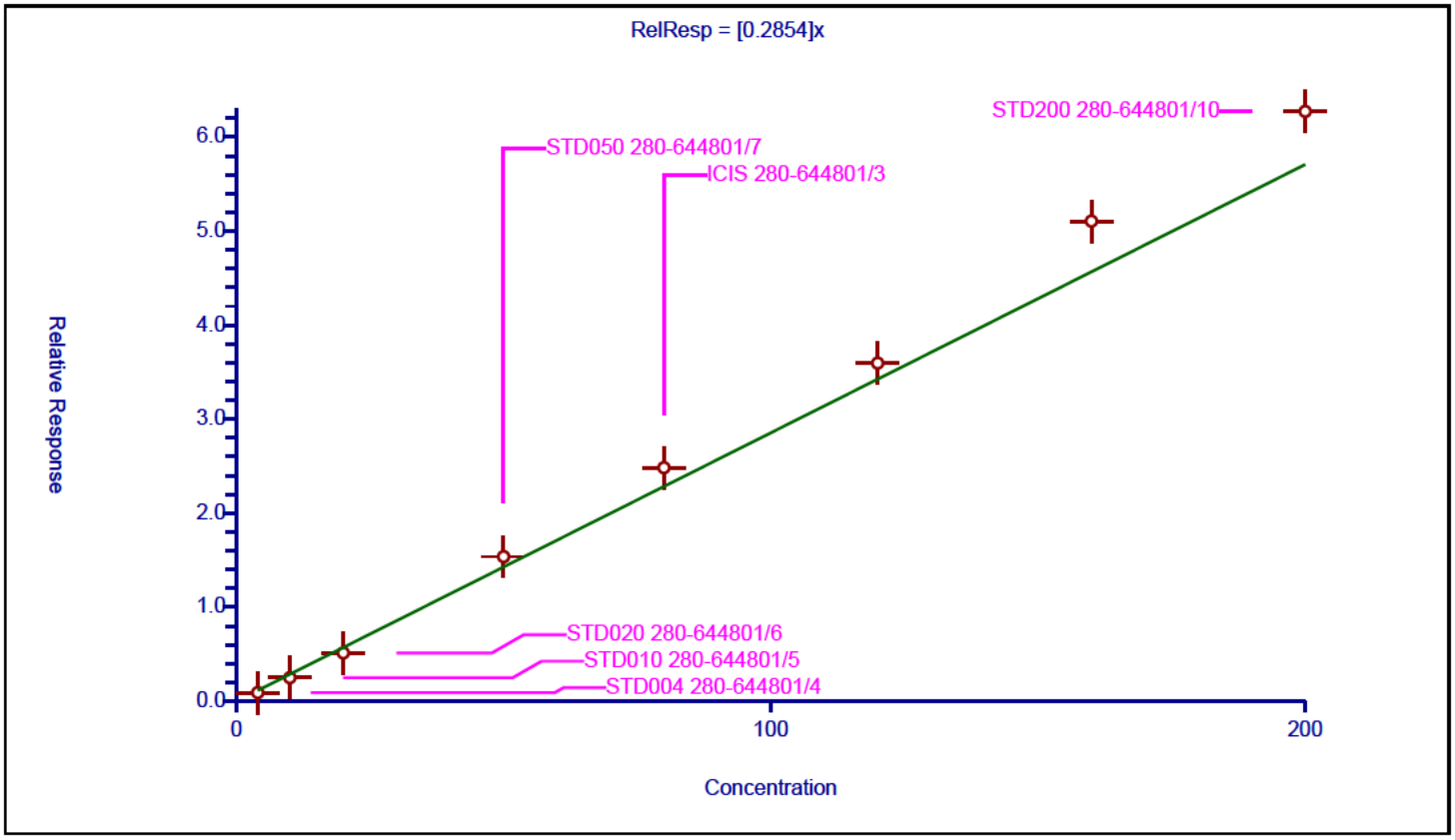
Curve Coefficients

Intercept:	0
Slope:	0.2854

Error Coefficients

Relative Standard Deviation:	12.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	0.91055	40.0	332766.0	0.227637	Y
2	STD010 280-644801/5	10.0	2.492809	40.0	373715.0	0.249281	Y
3	STD020 280-644801/6	20.0	5.123173	40.0	400736.0	0.256159	Y
4	STD050 280-644801/7	50.0	15.36994	40.0	343853.0	0.307399	Y
5	ICIS 280-644801/3	80.0	24.8324	40.0	376194.0	0.310405	Y
6	STD120 280-644801/8	120.0	35.953398	40.0	344793.0	0.299612	Y
7	STD160 280-644801/9	160.0	51.05864	40.0	359310.0	0.319117	Y
8	STD200 280-644801/10	200.0	62.73288	40.0	366873.0	0.313664	Y



Calibration / Acenaphthylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

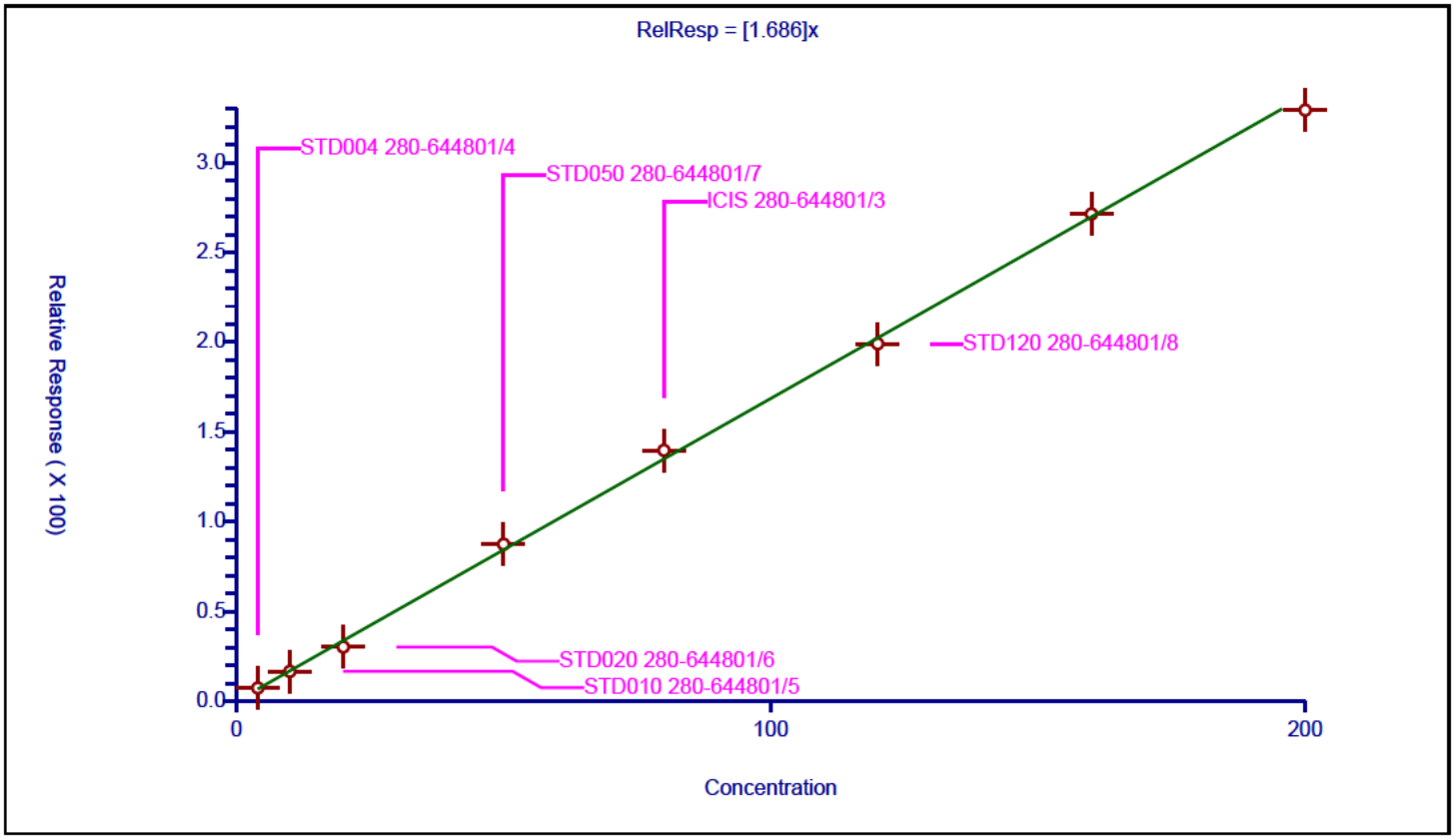
Curve Coefficients

Intercept:	0
Slope:	1.686

Error Coefficients

Relative Standard Deviation:	5.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	7.322142	40.0	332766.0	1.830536	Y
2	STD010 280-644801/5	10.0	16.556788	40.0	373715.0	1.655679	Y
3	STD020 280-644801/6	20.0	30.166593	40.0	400736.0	1.50833	Y
4	STD050 280-644801/7	50.0	87.412237	40.0	343853.0	1.748245	Y
5	ICIS 280-644801/3	80.0	139.738539	40.0	376194.0	1.746732	Y
6	STD120 280-644801/8	120.0	199.125968	40.0	344793.0	1.659383	Y
7	STD160 280-644801/9	160.0	271.426345	40.0	359310.0	1.696415	Y
8	STD200 280-644801/10	200.0	329.295533	40.0	366873.0	1.646478	Y



Calibration / 3-Nitroaniline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

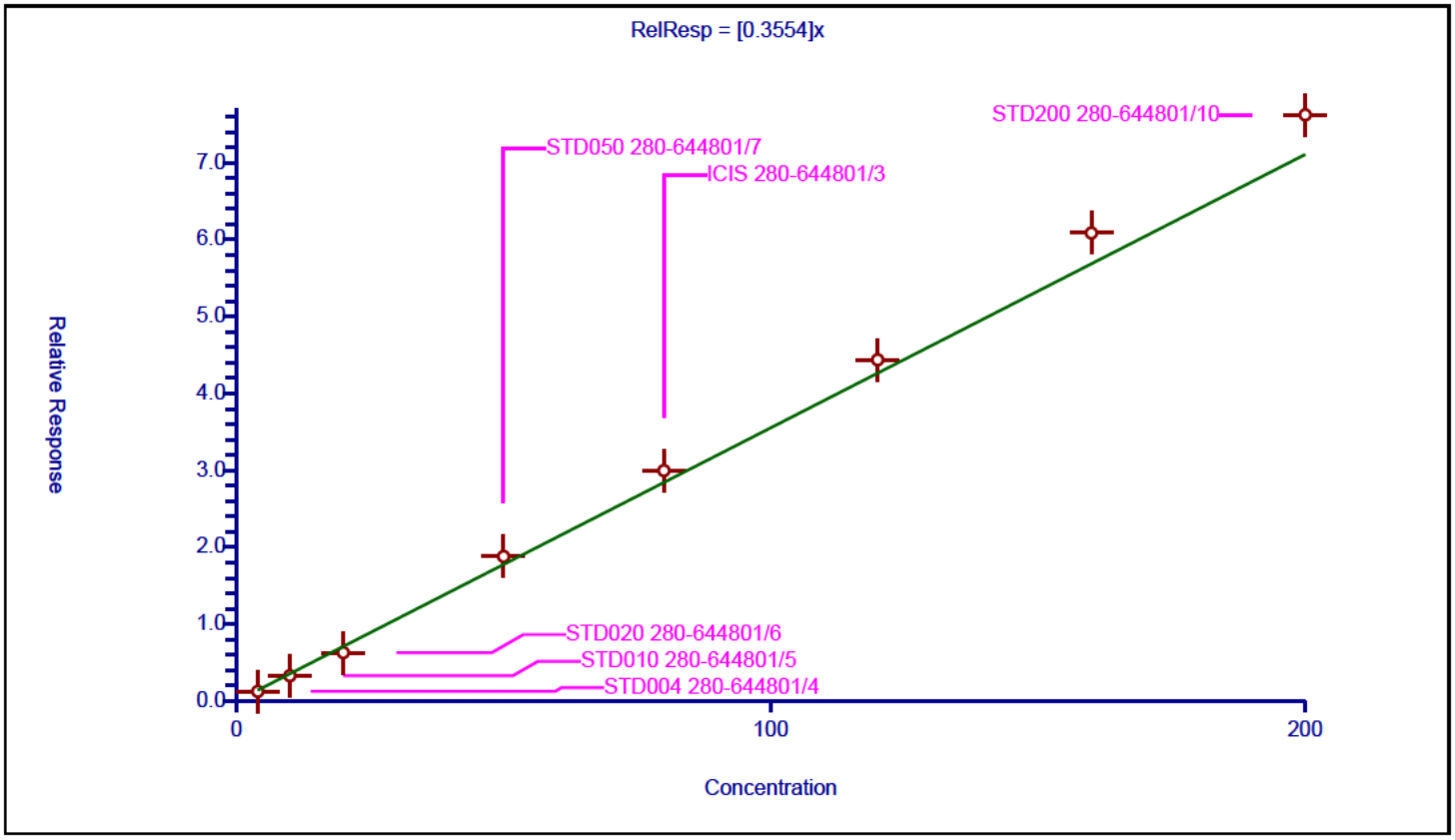
Curve Coefficients

Intercept:	0
Slope:	0.3554

Error Coefficients

Relative Standard Deviation:	8.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.263711	40.0	332766.0	0.315928	Y
2	STD010 280-644801/5	10.0	3.296951	40.0	373715.0	0.329695	Y
3	STD020 280-644801/6	20.0	6.308492	40.0	400736.0	0.315425	Y
4	STD050 280-644801/7	50.0	18.801872	40.0	343853.0	0.376037	Y
5	ICIS 280-644801/3	80.0	29.975385	40.0	376194.0	0.374692	Y
6	STD120 280-644801/8	120.0	44.377583	40.0	344793.0	0.369813	Y
7	STD160 280-644801/9	160.0	60.85898	40.0	359310.0	0.380369	Y
8	STD200 280-644801/10	200.0	76.226269	40.0	366873.0	0.381131	Y



Calibration / Acenaphthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

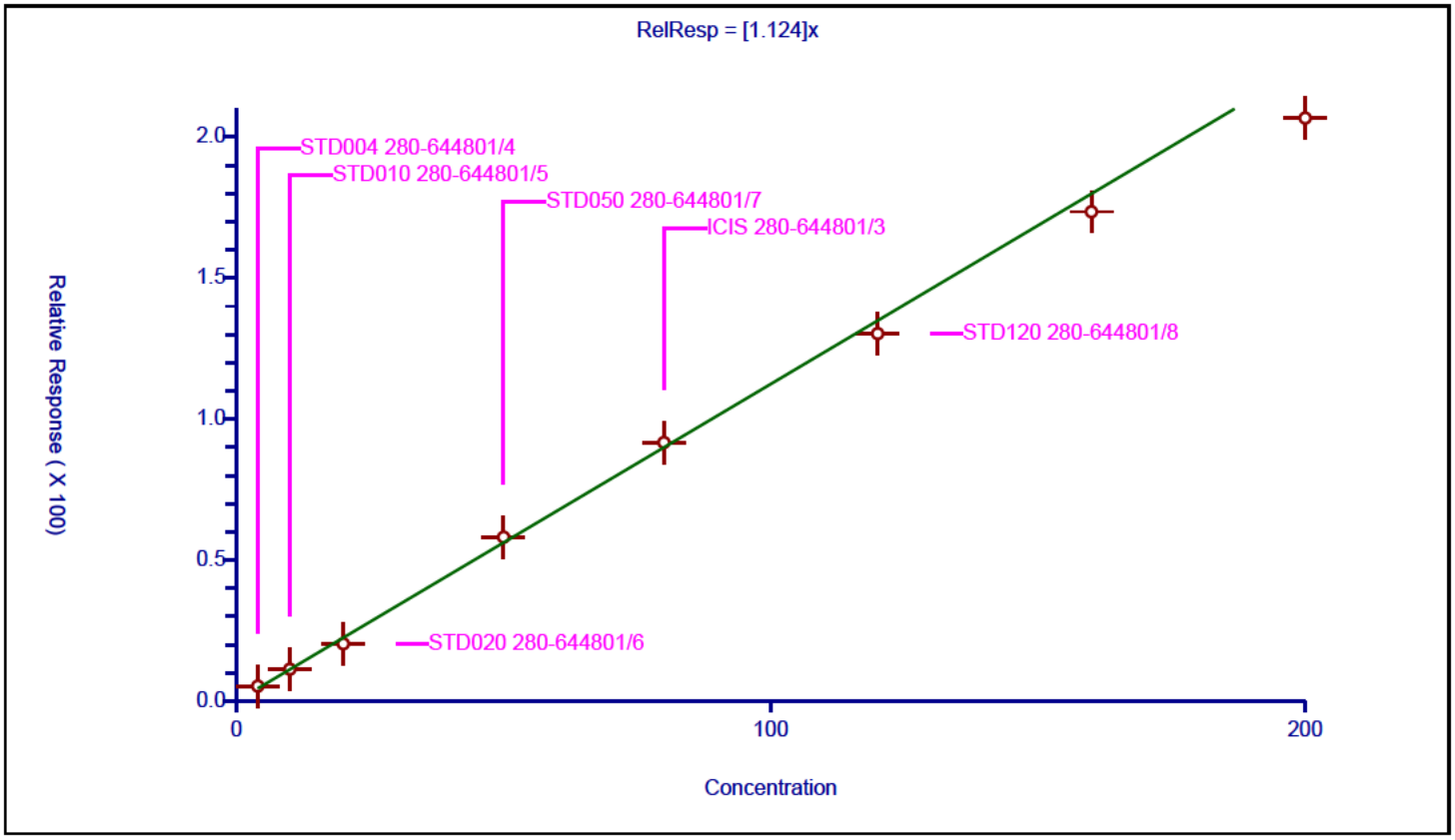
Curve Coefficients

Intercept:	0
Slope:	1.124

Error Coefficients

Relative Standard Deviation:	8.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	5.32879	40.0	332766.0	1.332197	Y
2	STD010 280-644801/5	10.0	11.331844	40.0	373715.0	1.133184	Y
3	STD020 280-644801/6	20.0	20.333486	40.0	400736.0	1.016674	Y
4	STD050 280-644801/7	50.0	58.135657	40.0	343853.0	1.162713	Y
5	ICIS 280-644801/3	80.0	91.712786	40.0	376194.0	1.14641	Y
6	STD120 280-644801/8	120.0	130.318423	40.0	344793.0	1.085987	Y
7	STD160 280-644801/9	160.0	173.525479	40.0	359310.0	1.084534	Y
8	STD200 280-644801/10	200.0	206.749475	40.0	366873.0	1.033747	Y



Calibration / 2,4-Dinitrophenol

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

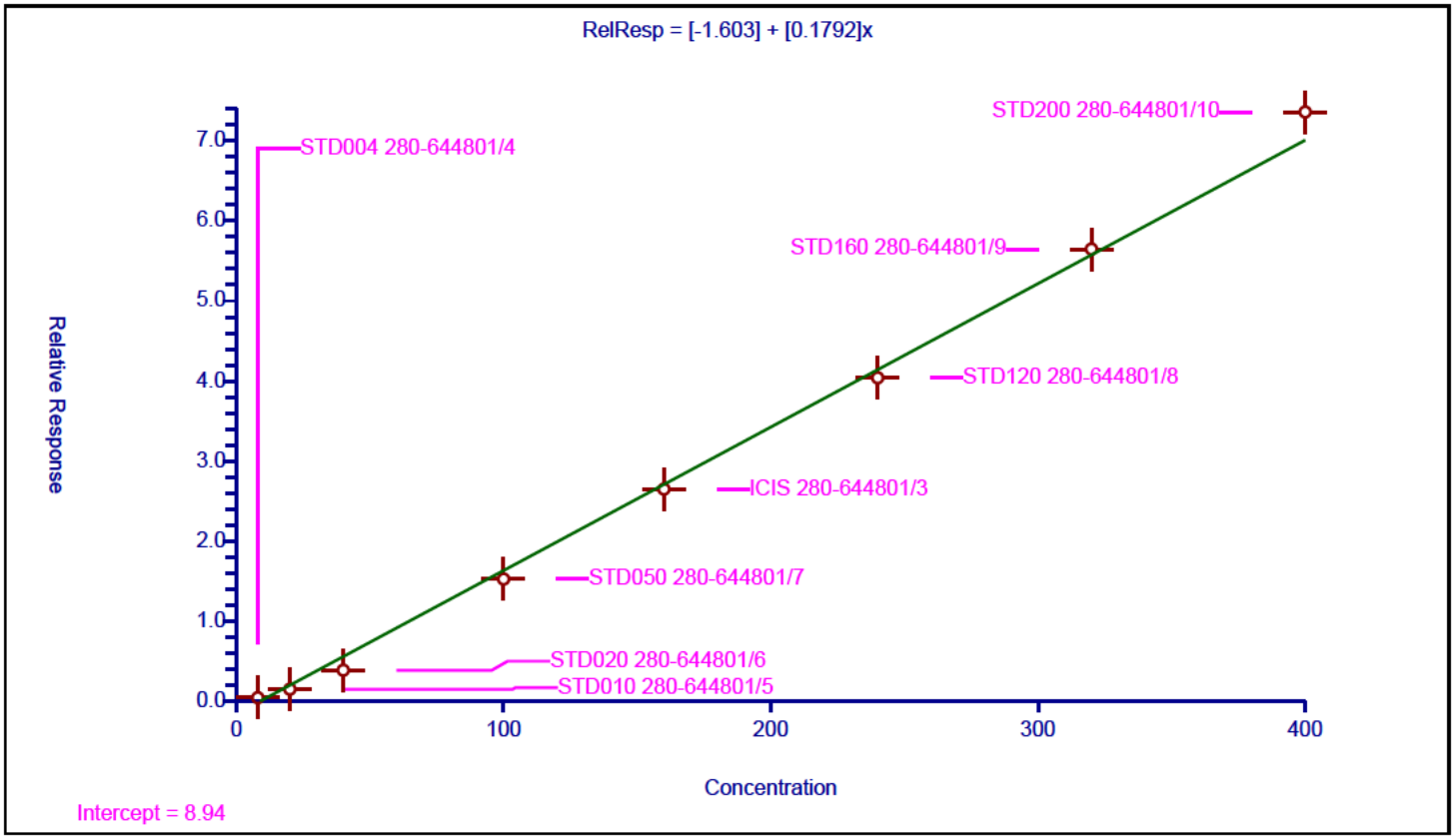
Curve Coefficients

Intercept:	-1.603
Slope:	0.1792

Error Coefficients

Relative Standard Deviation:	20.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	8.0	0.426005	40.0	332766.0	0.053251	Y
2	STD010 280-644801/5	20.0	1.493438	40.0	373715.0	0.074672	Y
3	STD020 280-644801/6	40.0	3.864988	40.0	400736.0	0.096625	Y
4	STD050 280-644801/7	100.0	15.252564	40.0	343853.0	0.152526	Y
5	ICIS 280-644801/3	160.0	26.491757	40.0	376194.0	0.165573	Y
6	STD120 280-644801/8	240.0	40.396992	40.0	344793.0	0.168321	Y
7	STD160 280-644801/9	320.0	56.484262	40.0	359310.0	0.176513	Y
8	STD200 280-644801/10	400.0	73.612394	40.0	366873.0	0.184031	Y



Calibration / 4-Nitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

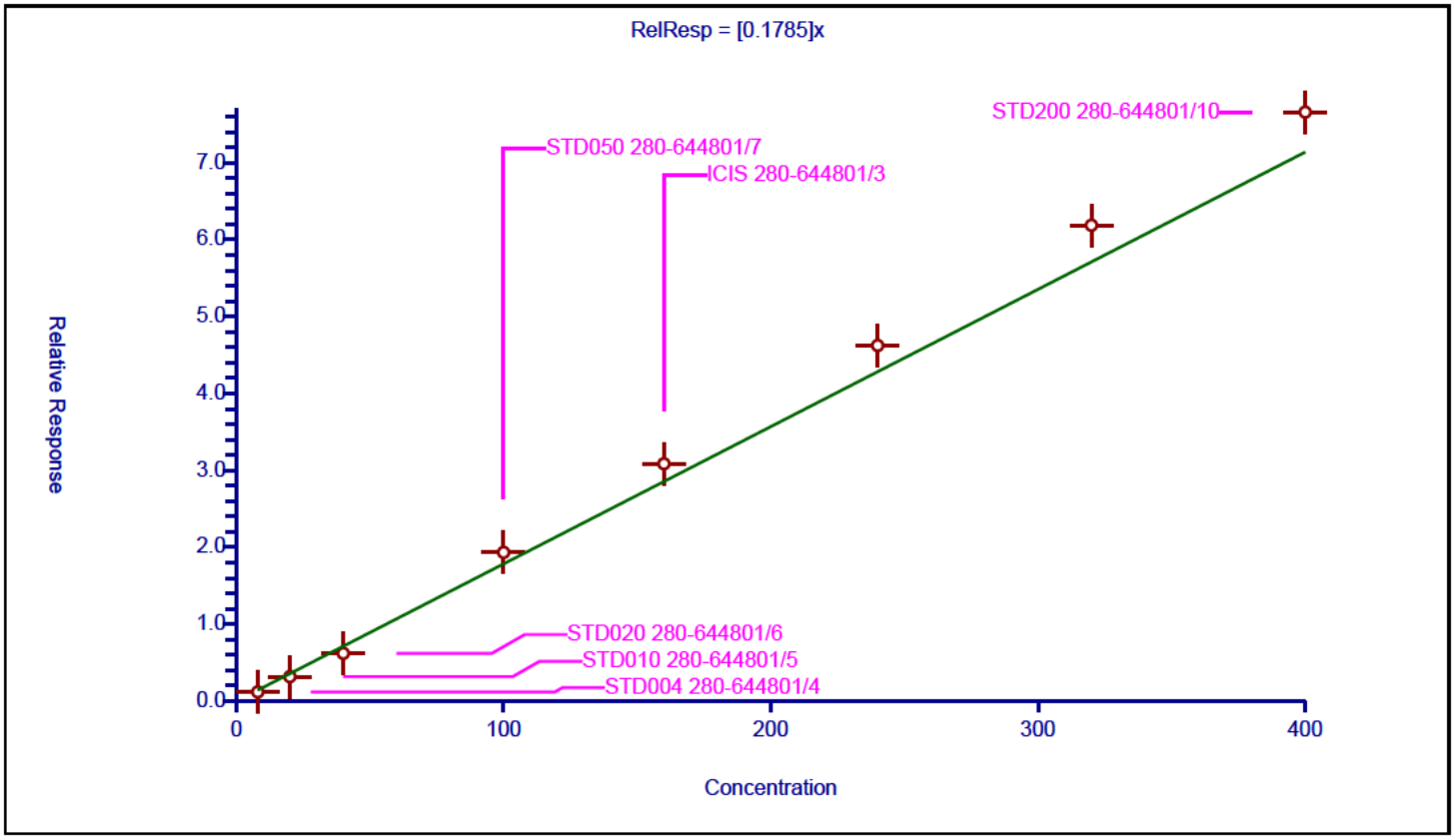
Curve Coefficients

Intercept:	0
Slope:	0.1785

Error Coefficients

Relative Standard Deviation:	11.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	8.0	1.195795	40.0	332766.0	0.149474	Y
2	STD010 280-644801/5	20.0	3.184138	40.0	373715.0	0.159207	Y
3	STD020 280-644801/6	40.0	6.210273	40.0	400736.0	0.155257	Y
4	STD050 280-644801/7	100.0	19.337449	40.0	343853.0	0.193374	Y
5	ICIS 280-644801/3	160.0	30.861311	40.0	376194.0	0.192883	Y
6	STD120 280-644801/8	240.0	46.232145	40.0	344793.0	0.192634	Y
7	STD160 280-644801/9	320.0	61.871031	40.0	359310.0	0.193347	Y
8	STD200 280-644801/10	400.0	76.57778	40.0	366873.0	0.191444	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

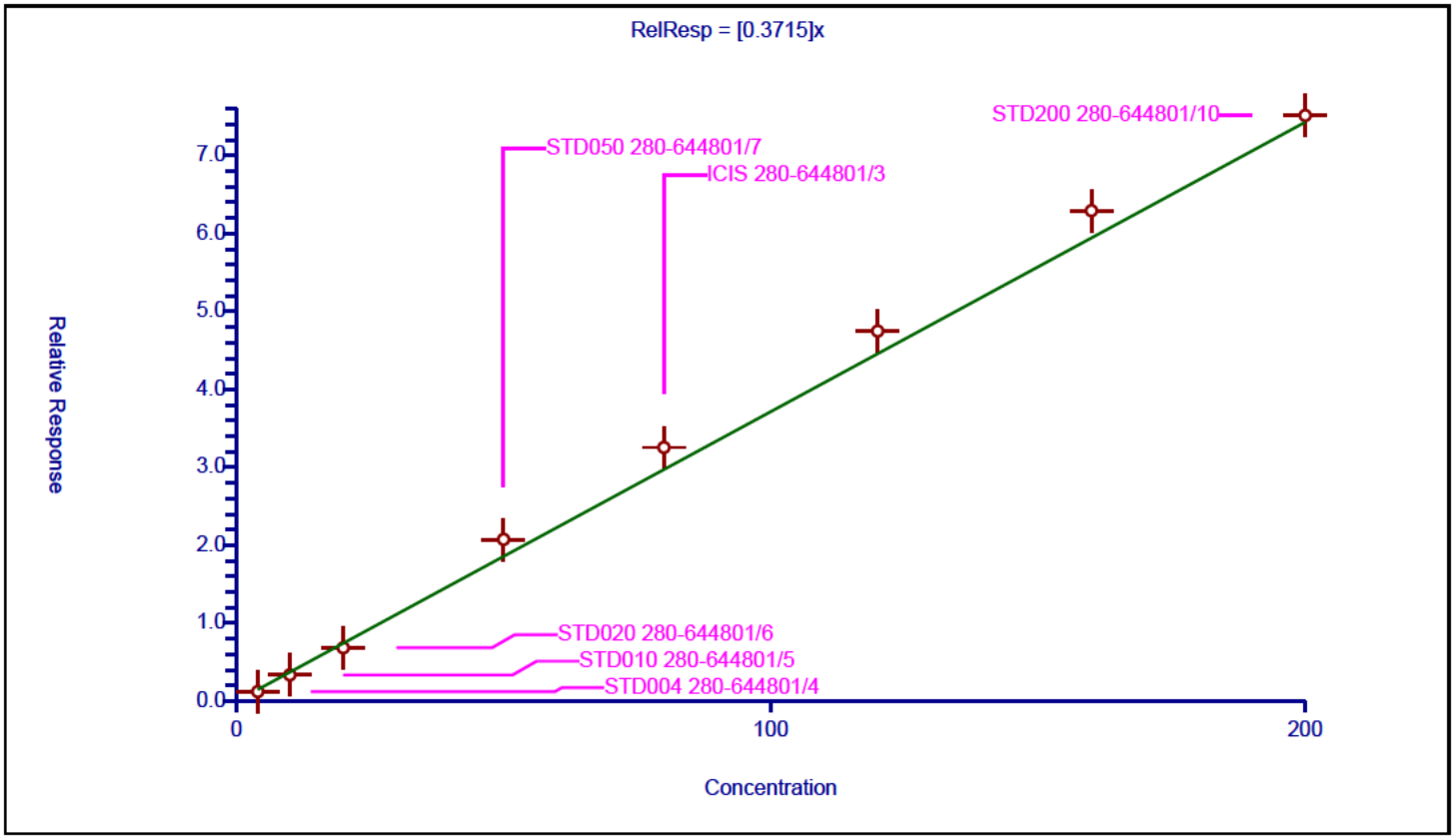
Curve Coefficients

Intercept:	0
Slope:	0.3715

Error Coefficients

Relative Standard Deviation:	10.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.224043	40.0	332766.0	0.306011	Y
2	STD010 280-644801/5	10.0	3.369413	40.0	373715.0	0.336941	Y
3	STD020 280-644801/6	20.0	6.841611	40.0	400736.0	0.342081	Y
4	STD050 280-644801/7	50.0	20.754916	40.0	343853.0	0.415098	Y
5	ICIS 280-644801/3	80.0	32.552991	40.0	376194.0	0.406912	Y
6	STD120 280-644801/8	120.0	47.489479	40.0	344793.0	0.395746	Y
7	STD160 280-644801/9	160.0	62.937519	40.0	359310.0	0.393359	Y
8	STD200 280-644801/10	200.0	75.159633	40.0	366873.0	0.375798	Y



Calibration / Dibenzofuran

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

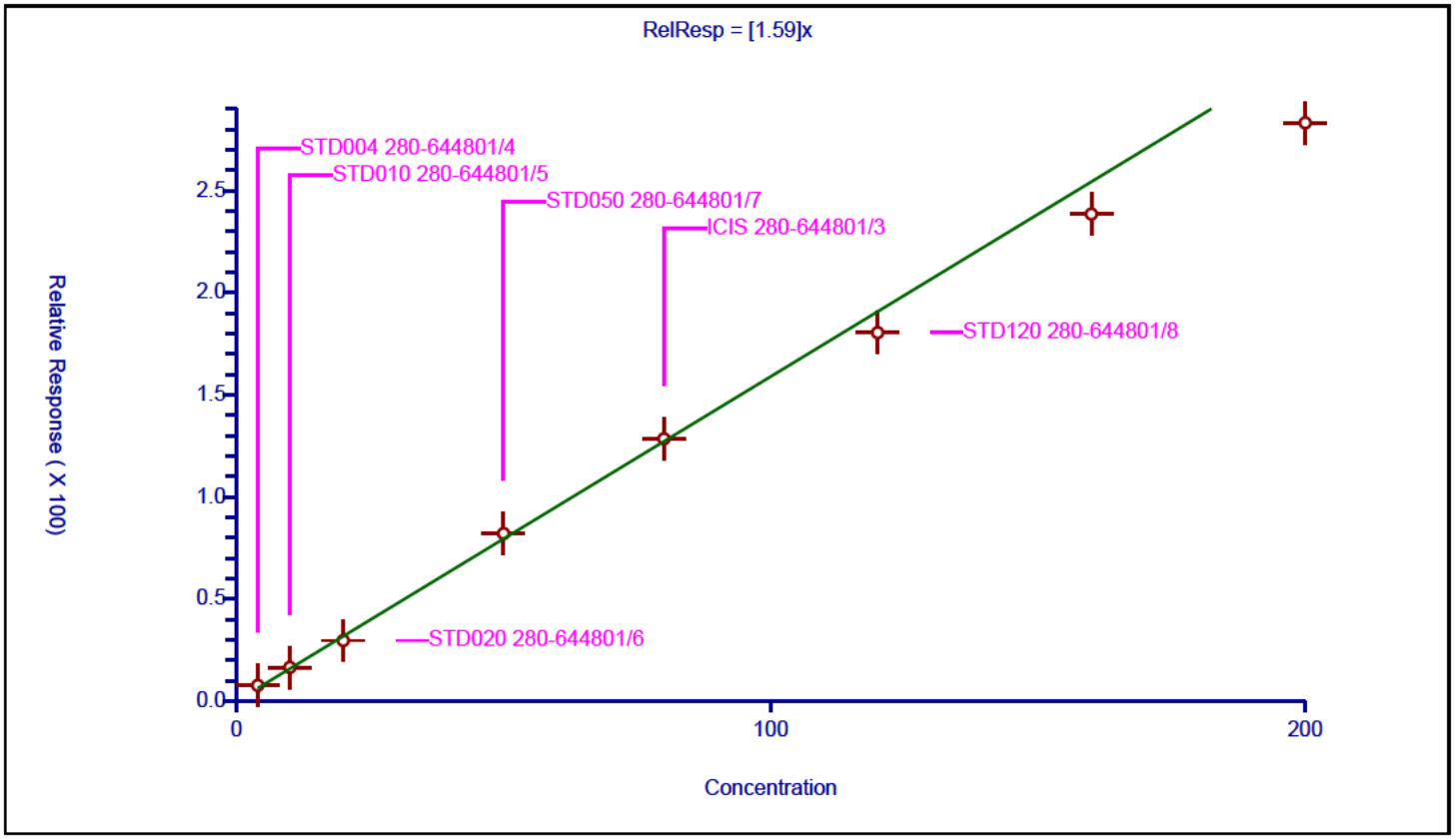
Curve Coefficients

Intercept:	0
Slope:	1.59

Error Coefficients

Relative Standard Deviation:	10.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	7.697181	40.0	332766.0	1.924295	Y
2	STD010 280-644801/5	10.0	16.523072	40.0	373715.0	1.652307	Y
3	STD020 280-644801/6	20.0	29.659127	40.0	400736.0	1.482956	Y
4	STD050 280-644801/7	50.0	82.057158	40.0	343853.0	1.641143	Y
5	ICIS 280-644801/3	80.0	128.450746	40.0	376194.0	1.605634	Y
6	STD120 280-644801/8	120.0	180.438234	40.0	344793.0	1.503652	Y
7	STD160 280-644801/9	160.0	238.499123	40.0	359310.0	1.49062	Y
8	STD200 280-644801/10	200.0	283.163929	40.0	366873.0	1.41582	Y



Calibration / 2,3,4,6-Tetrachlorophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

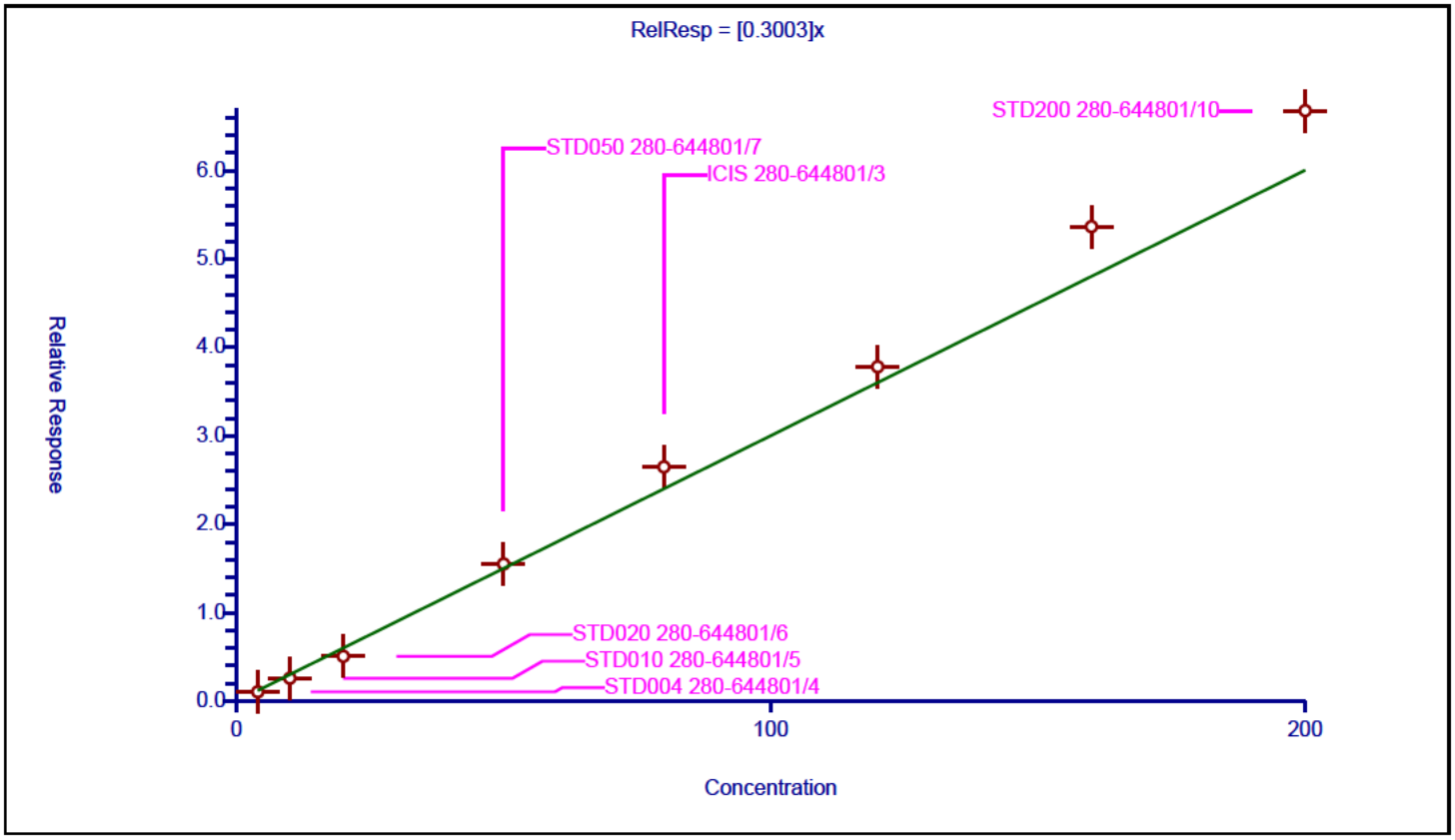
Curve Coefficients

Intercept:	0
Slope:	0.3003

Error Coefficients

Relative Standard Deviation:	11.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.053834	40.0	332766.0	0.263458	Y
2	STD010 280-644801/5	10.0	2.59342	40.0	373715.0	0.259342	Y
3	STD020 280-644801/6	20.0	5.068773	40.0	400736.0	0.253439	Y
4	STD050 280-644801/7	50.0	15.518492	40.0	343853.0	0.31037	Y
5	ICIS 280-644801/3	80.0	26.497605	40.0	376194.0	0.33122	Y
6	STD120 280-644801/8	120.0	37.820721	40.0	344793.0	0.315173	Y
7	STD160 280-644801/9	160.0	53.681668	40.0	359310.0	0.33551	Y
8	STD200 280-644801/10	200.0	66.799356	40.0	366873.0	0.333997	Y



Calibration / Diethyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

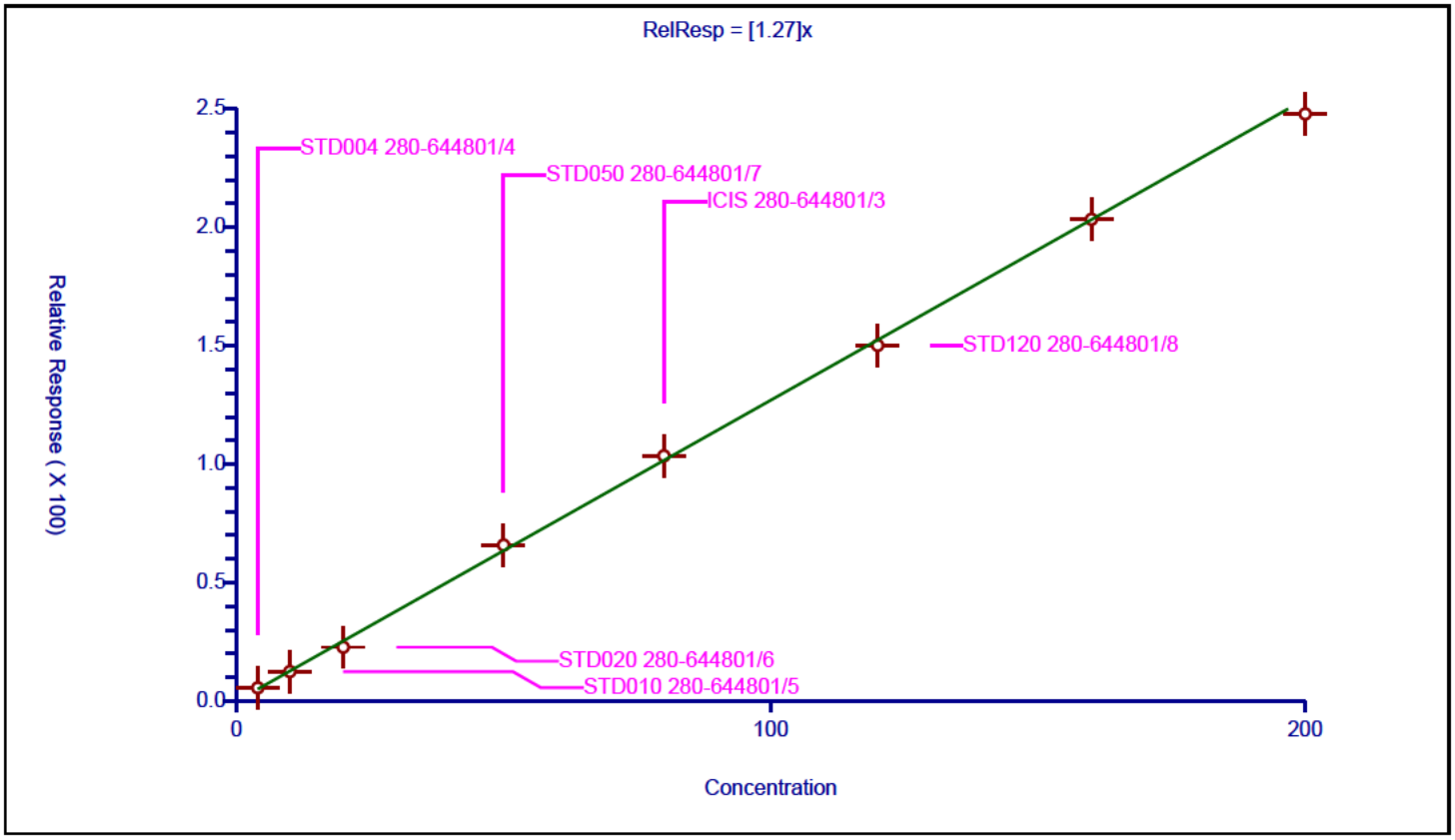
Curve Coefficients

Intercept:	0
Slope:	1.27

Error Coefficients

Relative Standard Deviation:	5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	5.614877	40.0	332766.0	1.403719	Y
2	STD010 280-644801/5	10.0	12.476566	40.0	373715.0	1.247657	Y
3	STD020 280-644801/6	20.0	22.757426	40.0	400736.0	1.137871	Y
4	STD050 280-644801/7	50.0	65.880827	40.0	343853.0	1.317617	Y
5	ICIS 280-644801/3	80.0	103.541683	40.0	376194.0	1.294271	Y
6	STD120 280-644801/8	120.0	150.143651	40.0	344793.0	1.251197	Y
7	STD160 280-644801/9	160.0	203.403078	40.0	359310.0	1.271269	Y
8	STD200 280-644801/10	200.0	247.869753	40.0	366873.0	1.239349	Y



Calibration / Fluorene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

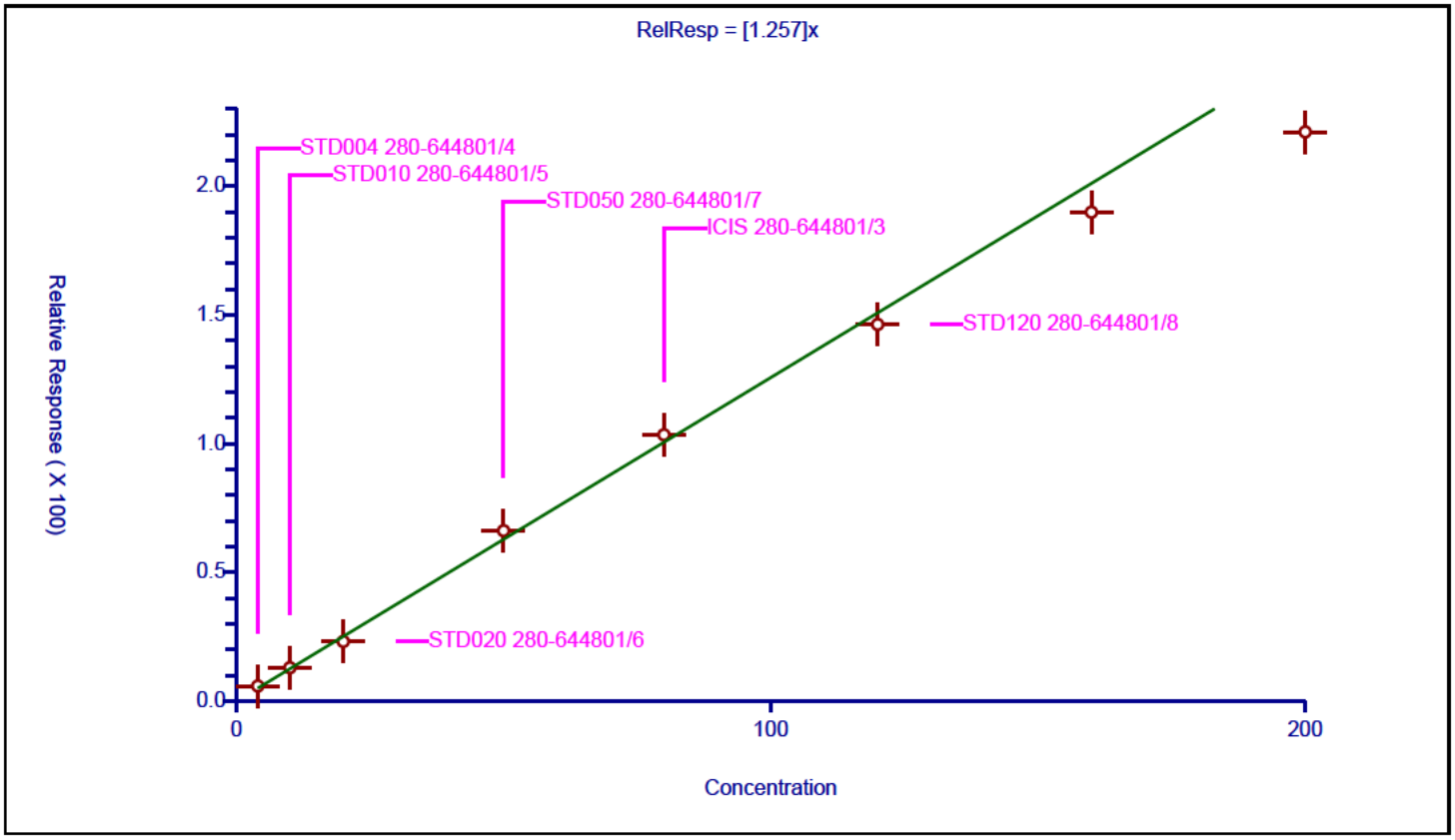
Curve Coefficients

Intercept:	0
Slope:	1.257

Error Coefficients

Relative Standard Deviation:	9.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	5.88137	40.0	332766.0	1.470343	Y
2	STD010 280-644801/5	10.0	12.961214	40.0	373715.0	1.296121	Y
3	STD020 280-644801/6	20.0	23.176755	40.0	400736.0	1.158838	Y
4	STD050 280-644801/7	50.0	66.178512	40.0	343853.0	1.32357	Y
5	ICIS 280-644801/3	80.0	103.445882	40.0	376194.0	1.293074	Y
6	STD120 280-644801/8	120.0	146.273735	40.0	344793.0	1.218948	Y
7	STD160 280-644801/9	160.0	189.880716	40.0	359310.0	1.186754	Y
8	STD200 280-644801/10	200.0	221.060803	40.0	366873.0	1.105304	Y



Calibration / 4-Chlorophenyl phenyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

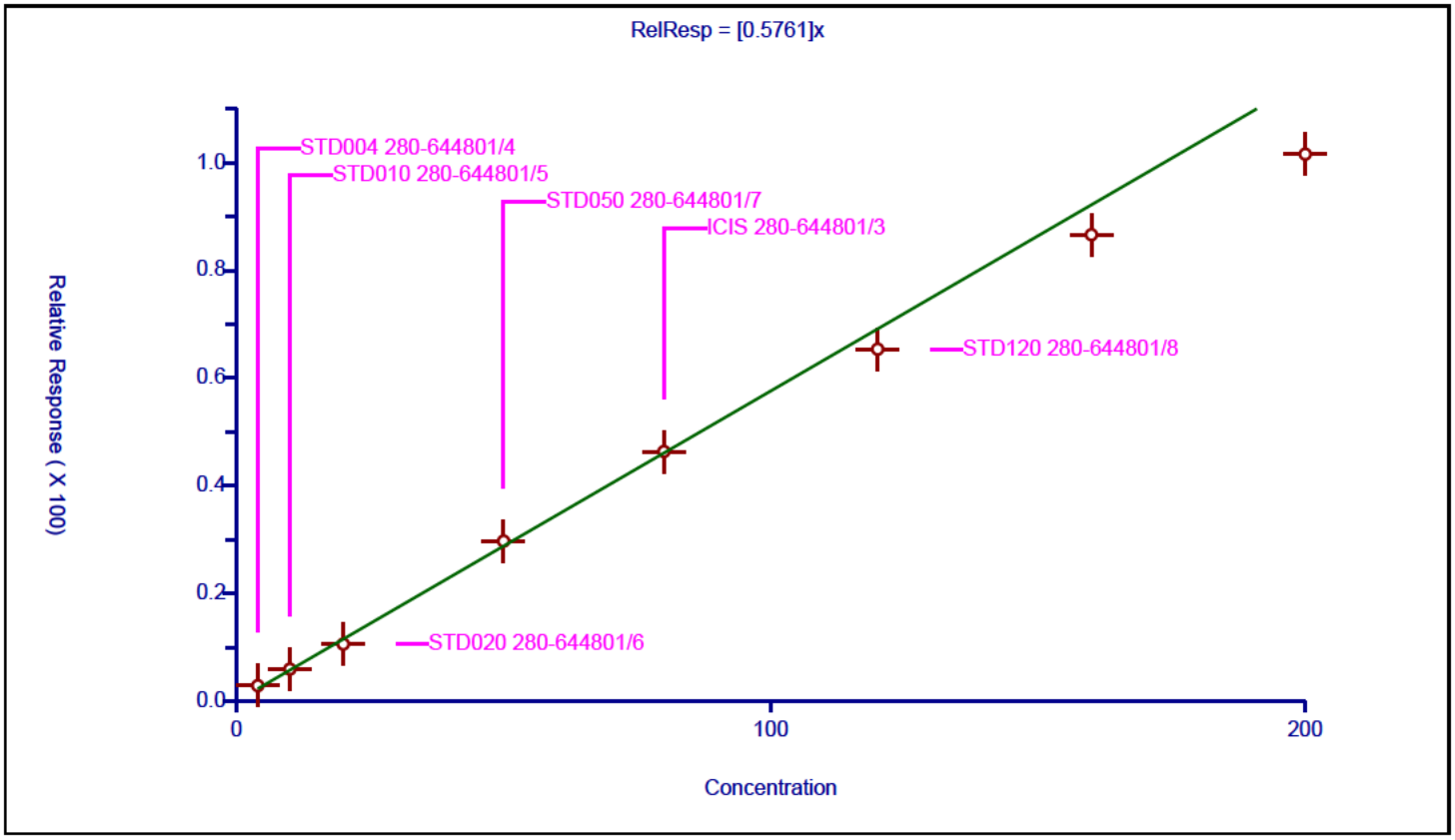
Curve Coefficients

Intercept:	0
Slope:	0.5761

Error Coefficients

Relative Standard Deviation:	11.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	2.866158	40.0	332766.0	0.71654	Y
2	STD010 280-644801/5	10.0	5.94346	40.0	373715.0	0.594346	Y
3	STD020 280-644801/6	20.0	10.596902	40.0	400736.0	0.529845	Y
4	STD050 280-644801/7	50.0	29.723516	40.0	343853.0	0.59447	Y
5	ICIS 280-644801/3	80.0	46.366821	40.0	376194.0	0.579585	Y
6	STD120 280-644801/8	120.0	65.371281	40.0	344793.0	0.544761	Y
7	STD160 280-644801/9	160.0	86.631711	40.0	359310.0	0.541448	Y
8	STD200 280-644801/10	200.0	101.594612	40.0	366873.0	0.507973	Y



Calibration / 4-Nitroaniline

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

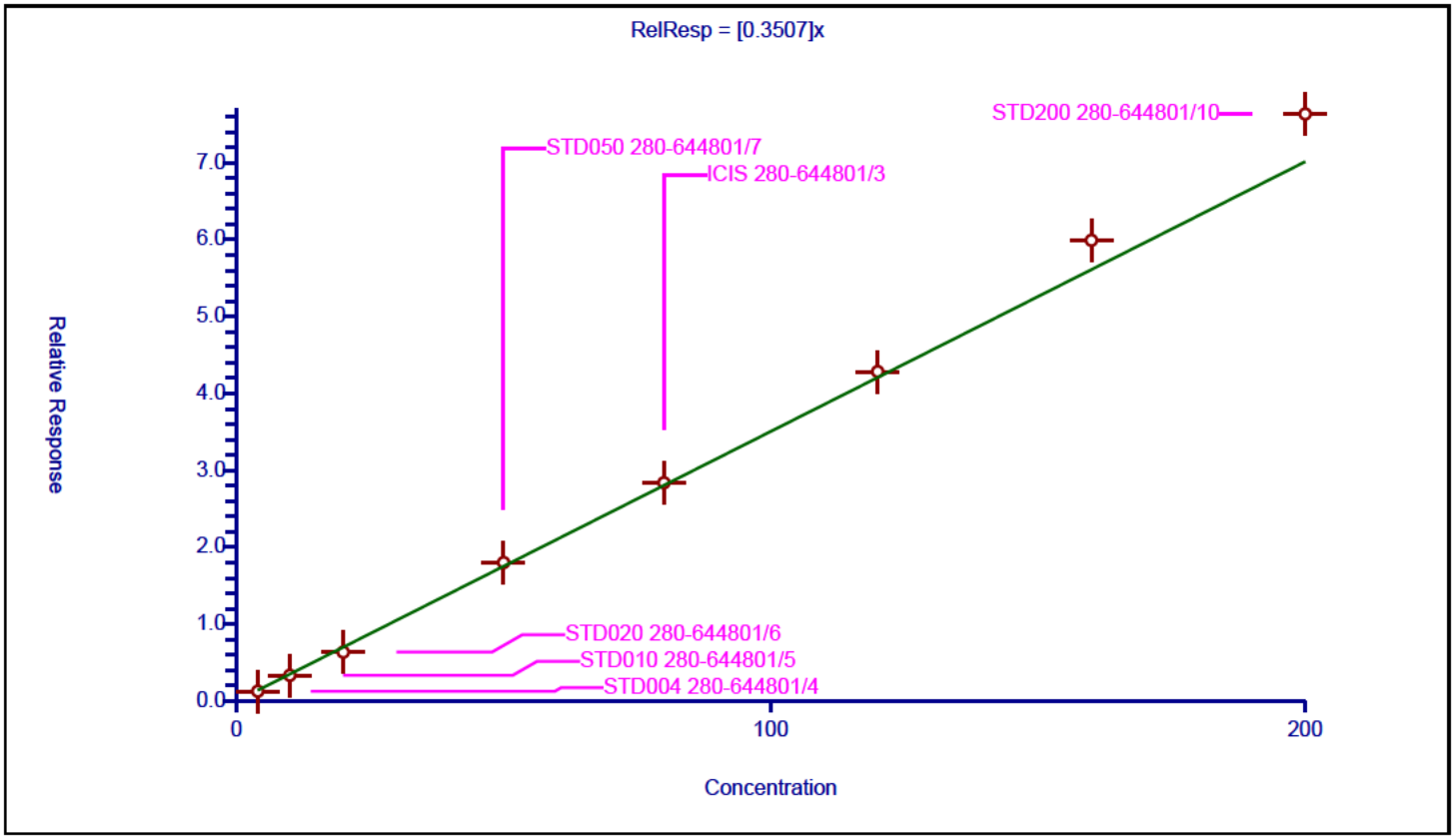
Curve Coefficients

Intercept:	0
Slope:	0.3507

Error Coefficients

Relative Standard Deviation:	6.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.290637	40.0	332766.0	0.322659	Y
2	STD010 280-644801/5	10.0	3.358816	40.0	373715.0	0.335882	Y
3	STD020 280-644801/6	20.0	6.365787	40.0	400736.0	0.318289	Y
4	STD050 280-644801/7	50.0	18.017932	40.0	343853.0	0.360359	Y
5	ICIS 280-644801/3	80.0	28.394073	40.0	376194.0	0.354926	Y
6	STD120 280-644801/8	120.0	42.845649	40.0	344793.0	0.357047	Y
7	STD160 280-644801/9	160.0	59.910718	40.0	359310.0	0.374442	Y
8	STD200 280-644801/10	200.0	76.338242	40.0	366873.0	0.381691	Y



Calibration / 4,6-Dinitro-2-methylphenol

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

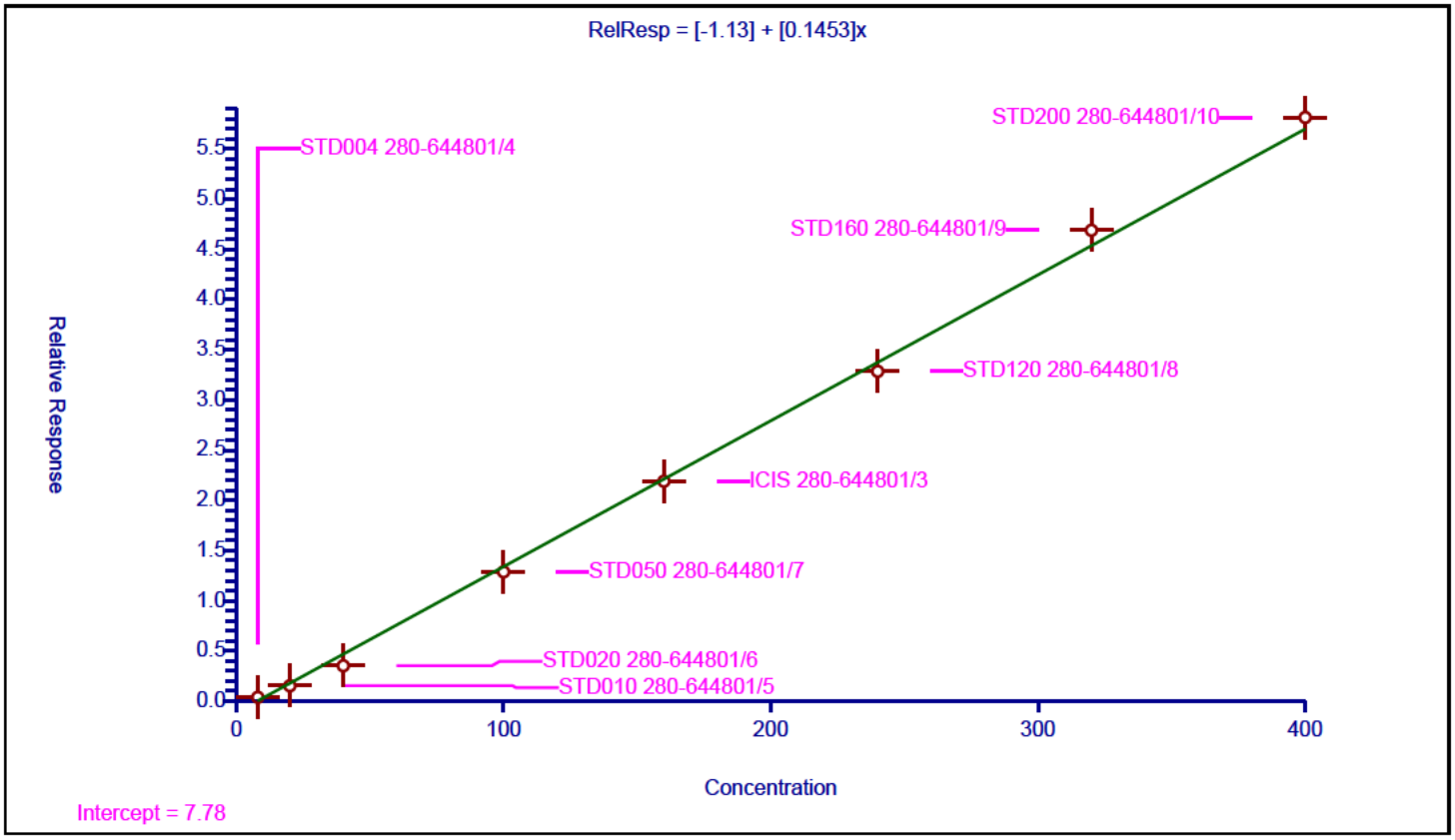
Curve Coefficients

Intercept:	-1.13
Slope:	0.1453

Error Coefficients

Relative Standard Deviation:	15.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	8.0	0.384576	40.0	571123.0	0.048072	Y
2	STD010 280-644801/5	20.0	1.52616	40.0	627326.0	0.076308	Y
3	STD020 280-644801/6	40.0	3.52343	40.0	680110.0	0.088086	Y
4	STD050 280-644801/7	100.0	12.878156	40.0	574809.0	0.128782	Y
5	ICIS 280-644801/3	160.0	21.907578	40.0	638181.0	0.136922	Y
6	STD120 280-644801/8	240.0	32.851638	40.0	582595.0	0.136882	Y
7	STD160 280-644801/9	320.0	46.904592	40.0	593240.0	0.146577	Y
8	STD200 280-644801/10	400.0	58.146269	40.0	609139.0	0.145366	Y



Calibration / Diphenylamine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

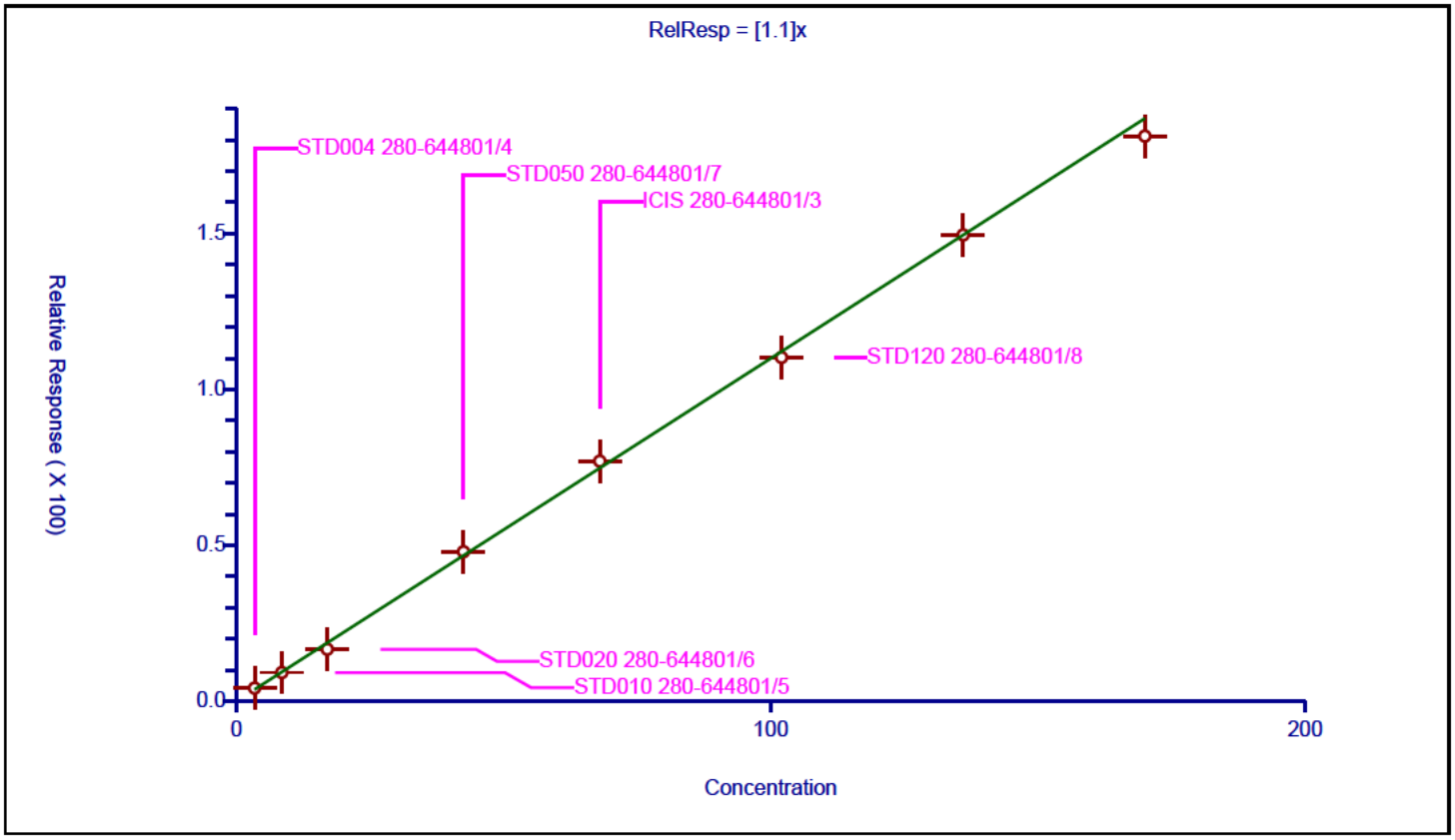
Curve Coefficients

Intercept:	0
Slope:	1.1

Error Coefficients

Relative Standard Deviation:	6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	3.4	4.184202	40.0	332766.0	1.230648	Y
2	STD010 280-644801/5	8.5	9.177582	40.0	373715.0	1.079716	Y
3	STD020 280-644801/6	17.0	16.651761	40.0	400736.0	0.979515	Y
4	STD050 280-644801/7	42.5	47.926294	40.0	343853.0	1.127678	Y
5	ICIS 280-644801/3	68.0	76.999421	40.0	376194.0	1.132344	Y
6	STD120 280-644801/8	102.0	110.257691	40.0	344793.0	1.080958	Y
7	STD160 280-644801/9	136.0	149.563775	40.0	359310.0	1.099734	Y
8	STD200 280-644801/10	170.0	181.264252	40.0	366873.0	1.06626	Y



Calibration / N-Nitrosodiphenylamine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

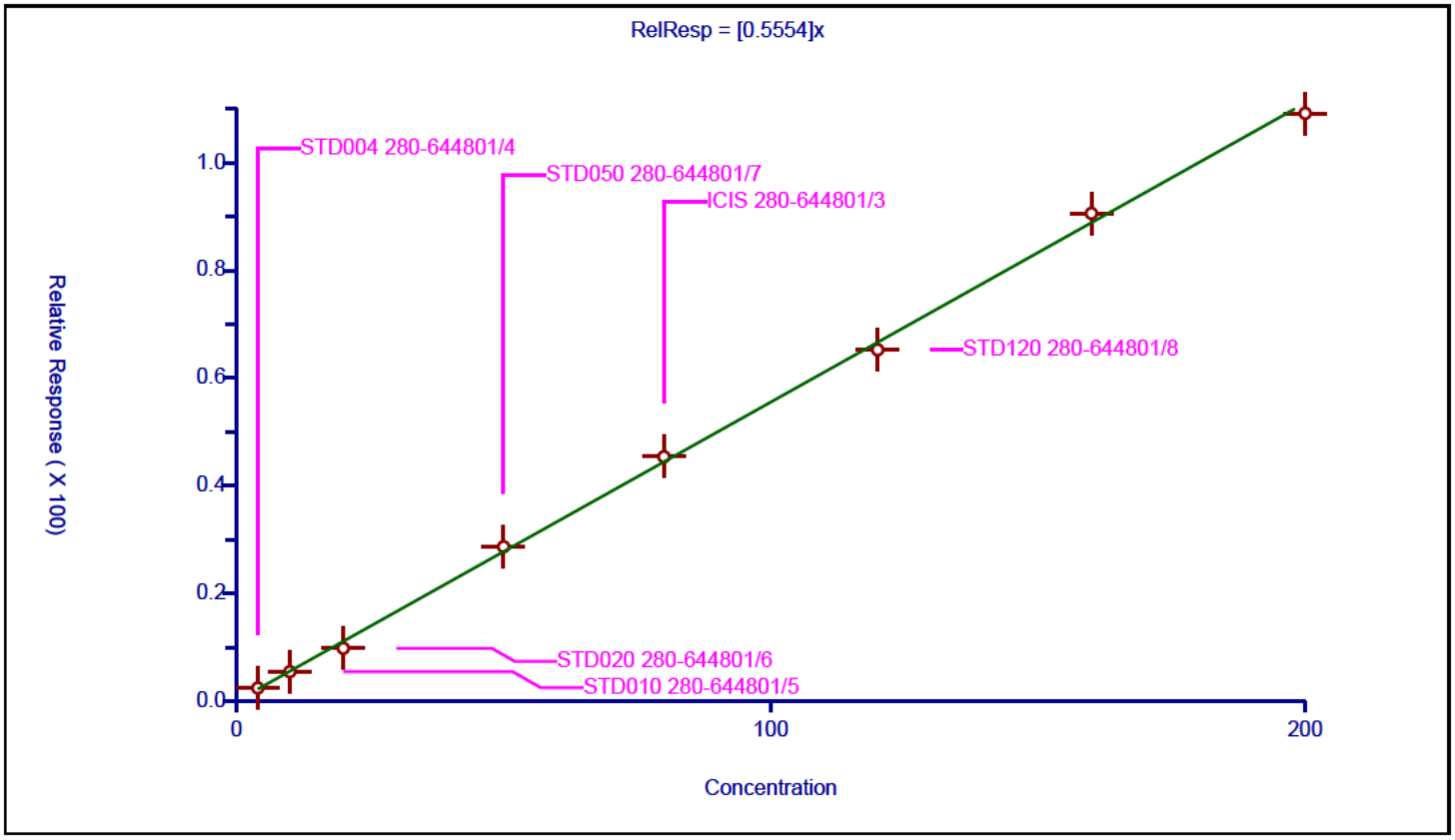
Curve Coefficients

Intercept:	0
Slope:	0.5554

Error Coefficients

Relative Standard Deviation:	6.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	2.437934	40.0	571123.0	0.609483	Y
2	STD010 280-644801/5	10.0	5.467333	40.0	627326.0	0.546733	Y
3	STD020 280-644801/6	20.0	9.811589	40.0	680110.0	0.490579	Y
4	STD050 280-644801/7	50.0	28.669697	40.0	574809.0	0.573394	Y
5	ICIS 280-644801/3	80.0	45.389505	40.0	638181.0	0.567369	Y
6	STD120 280-644801/8	120.0	65.253015	40.0	582595.0	0.543775	Y
7	STD160 280-644801/9	160.0	90.586879	40.0	593240.0	0.566168	Y
8	STD200 280-644801/10	200.0	109.172061	40.0	609139.0	0.54586	Y



Calibration / 1,2-Diphenylhydrazine

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

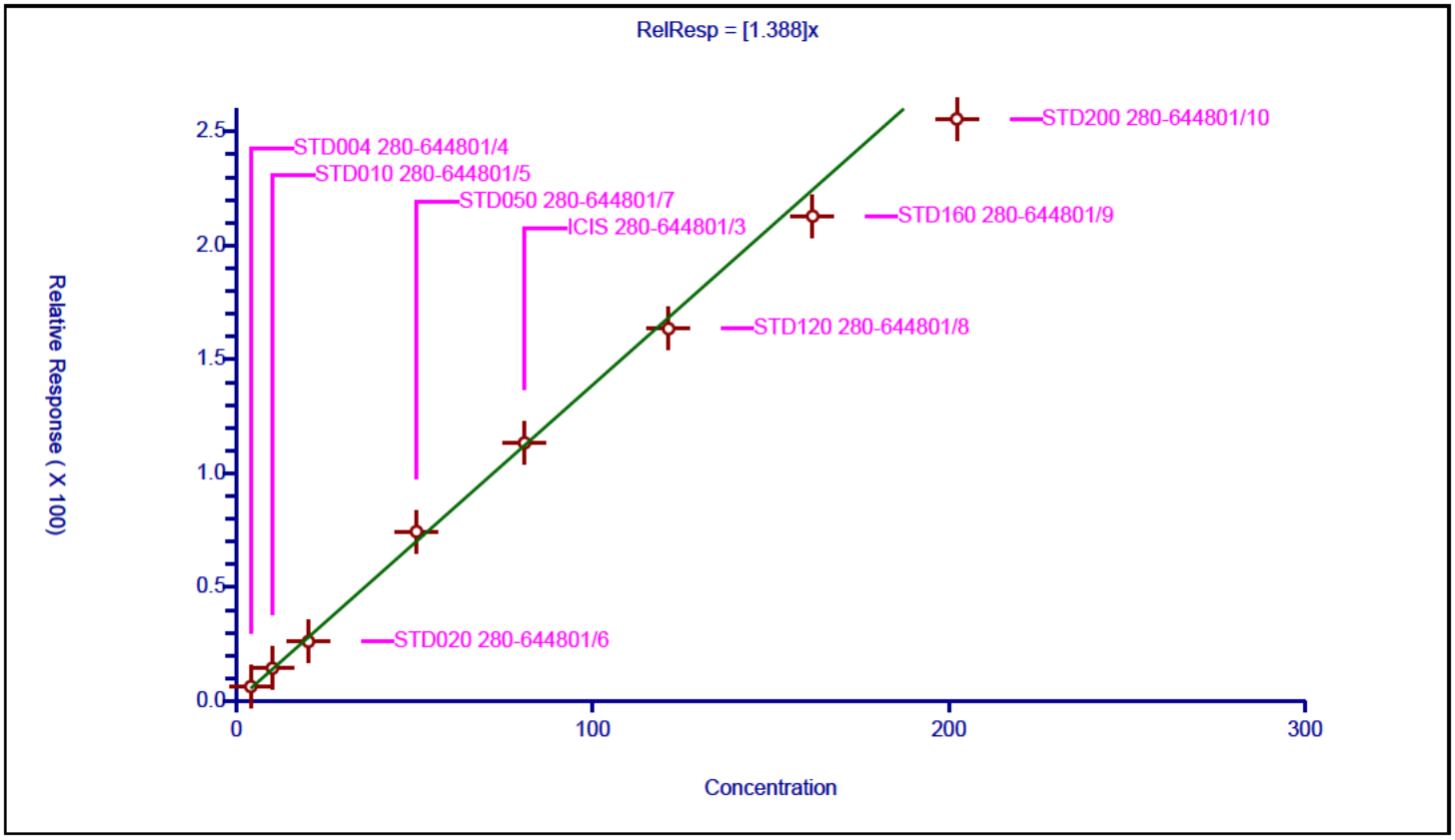
Curve Coefficients

Intercept:	0
Slope:	1.388

Error Coefficients

Relative Standard Deviation:	7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.043898	6.394764	40.0	332766.0	1.581337	Y
2	STD010 280-644801/5	10.109745	14.435171	40.0	373715.0	1.427847	Y
3	STD020 280-644801/6	20.219491	26.160065	40.0	400736.0	1.293804	Y
4	STD050 280-644801/7	50.548727	74.421919	40.0	343853.0	1.472281	Y
5	ICIS 280-644801/3	80.877963	113.38554	40.0	376194.0	1.401934	Y
6	STD120 280-644801/8	121.316945	163.478841	40.0	344793.0	1.347535	Y
7	STD160 280-644801/9	161.755926	212.877014	40.0	359310.0	1.316038	Y
8	STD200 280-644801/10	202.194908	255.557318	40.0	366873.0	1.263916	Y



Calibration / Azobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

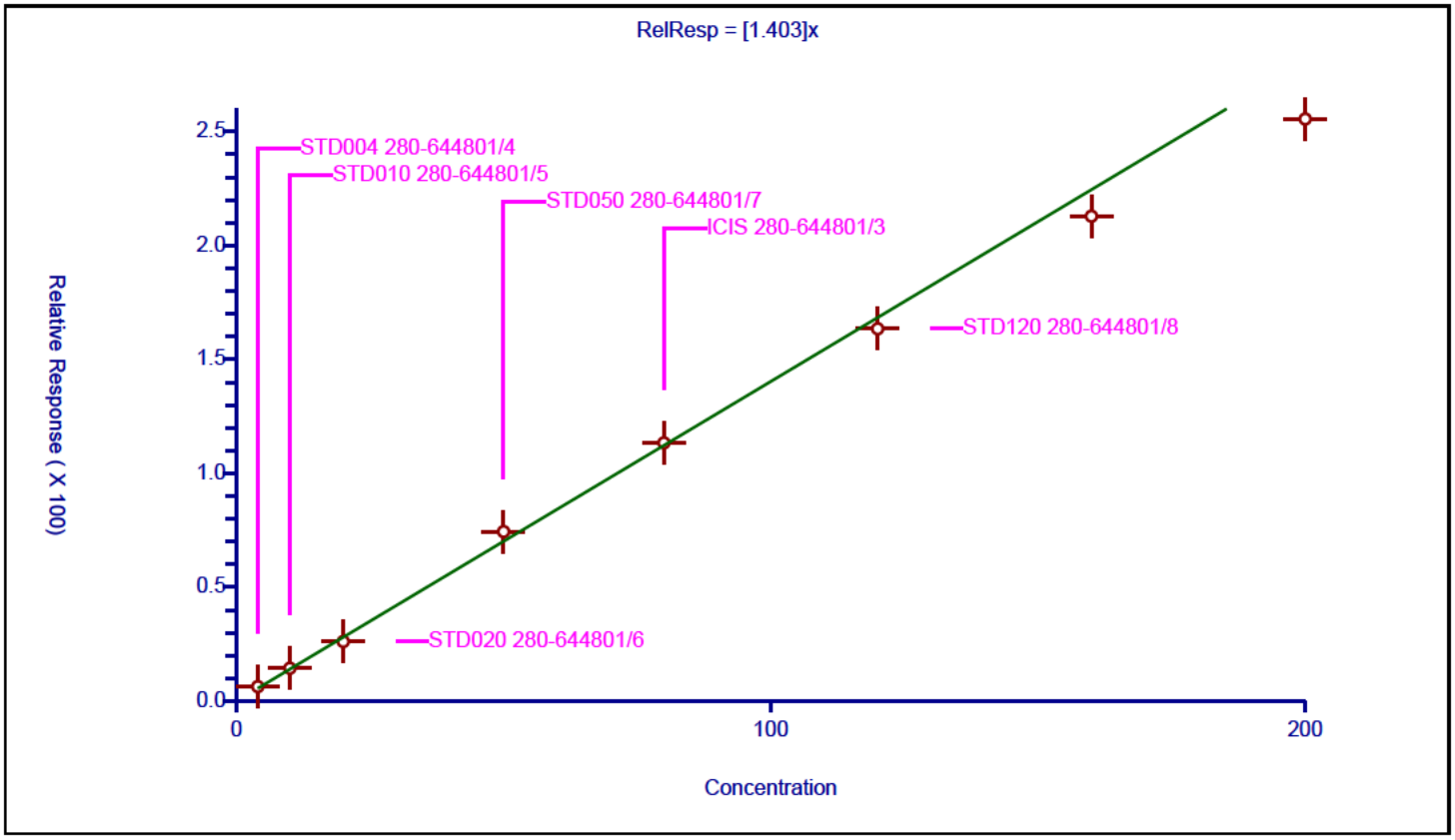
Curve Coefficients

Intercept:	0
Slope:	1.403

Error Coefficients

Relative Standard Deviation:	7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	6.394764	40.0	332766.0	1.598691	Y
2	STD010 280-644801/5	10.0	14.435171	40.0	373715.0	1.443517	Y
3	STD020 280-644801/6	20.0	26.160065	40.0	400736.0	1.308003	Y
4	STD050 280-644801/7	50.0	74.421919	40.0	343853.0	1.488438	Y
5	ICIS 280-644801/3	80.0	113.385753	40.0	376194.0	1.417322	Y
6	STD120 280-644801/8	120.0	163.478841	40.0	344793.0	1.362324	Y
7	STD160 280-644801/9	160.0	212.877014	40.0	359310.0	1.330481	Y
8	STD200 280-644801/10	200.0	255.557318	40.0	366873.0	1.277787	Y



Calibration / 2,4,6-Tribromophenol

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

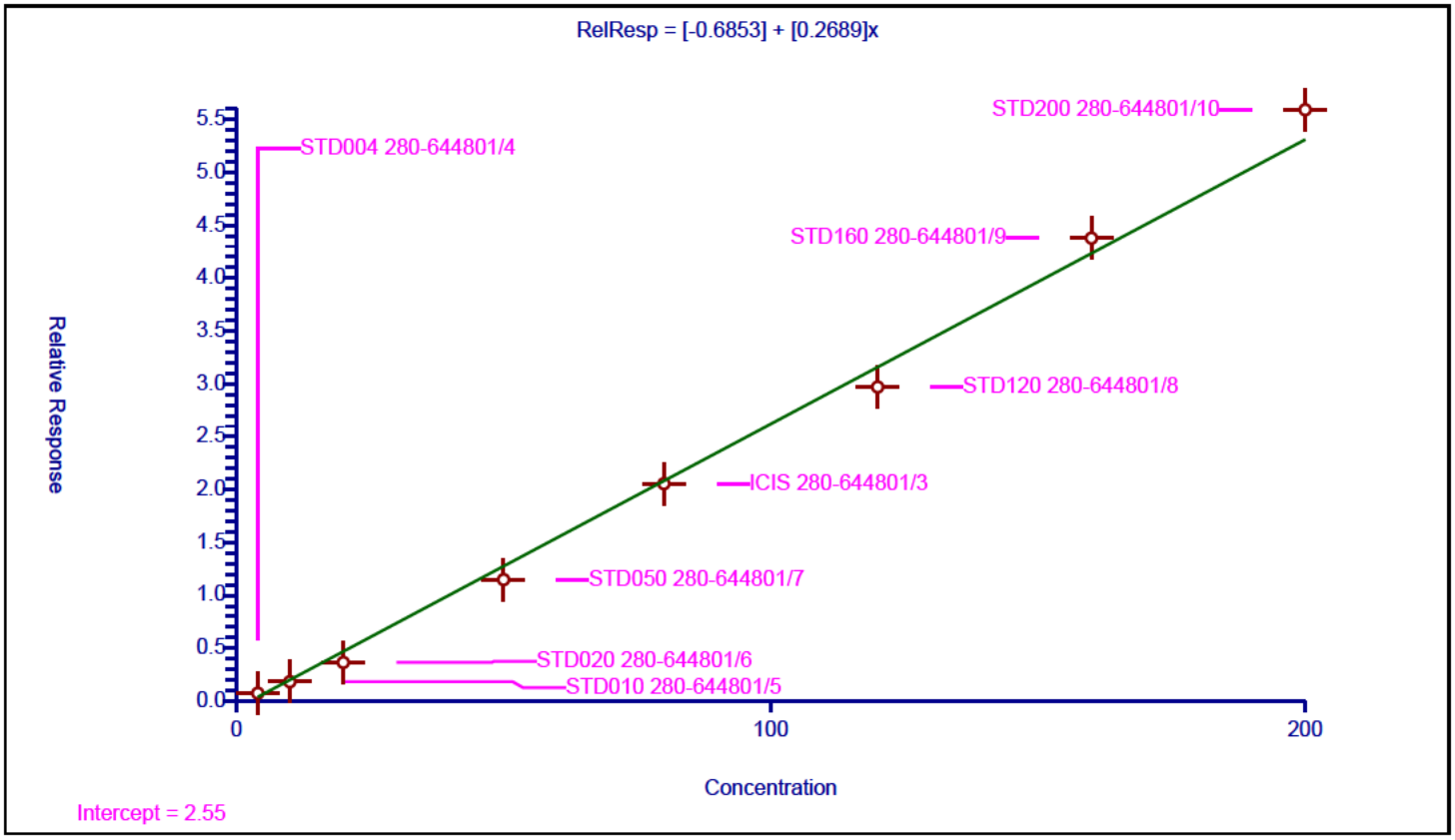
Curve Coefficients

Intercept:	-0.6853
Slope:	0.2689

Error Coefficients

Relative Standard Deviation:	16.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	0.751279	40.0	332766.0	0.18782	Y
2	STD010 280-644801/5	10.0	1.831128	40.0	373715.0	0.183113	Y
3	STD020 280-644801/6	20.0	3.659067	40.0	400736.0	0.182953	Y
4	STD050 280-644801/7	50.0	11.488398	40.0	343853.0	0.229768	Y
5	ICIS 280-644801/3	80.0	20.559711	40.0	376194.0	0.256996	Y
6	STD120 280-644801/8	120.0	29.702807	40.0	344793.0	0.247523	Y
7	STD160 280-644801/9	160.0	43.776238	40.0	359310.0	0.273601	Y
8	STD200 280-644801/10	200.0	55.918533	40.0	366873.0	0.279593	Y



Calibration / 4-Bromophenyl phenyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

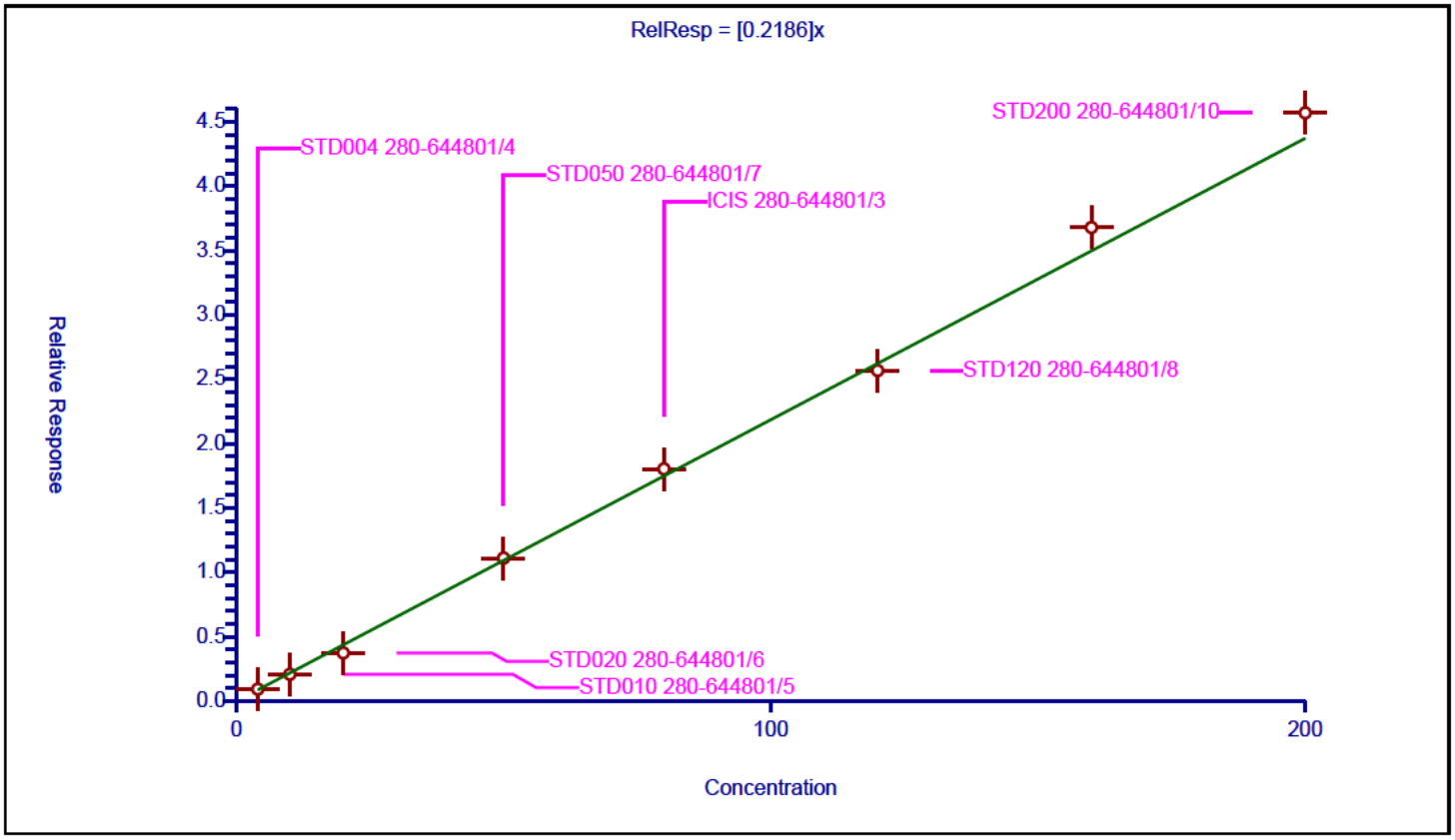
Curve Coefficients

Intercept:	0
Slope:	0.2186

Error Coefficients

Relative Standard Deviation:	6.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	0.930938	40.0	571123.0	0.232734	Y
2	STD010 280-644801/5	10.0	2.085997	40.0	627326.0	0.2086	Y
3	STD020 280-644801/6	20.0	3.742571	40.0	680110.0	0.187129	Y
4	STD050 280-644801/7	50.0	11.111378	40.0	574809.0	0.222228	Y
5	ICIS 280-644801/3	80.0	18.040399	40.0	638181.0	0.225505	Y
6	STD120 280-644801/8	120.0	25.676293	40.0	582595.0	0.213969	Y
7	STD160 280-644801/9	160.0	36.786124	40.0	593240.0	0.229913	Y
8	STD200 280-644801/10	200.0	45.689145	40.0	609139.0	0.228446	Y



Calibration / Hexachlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

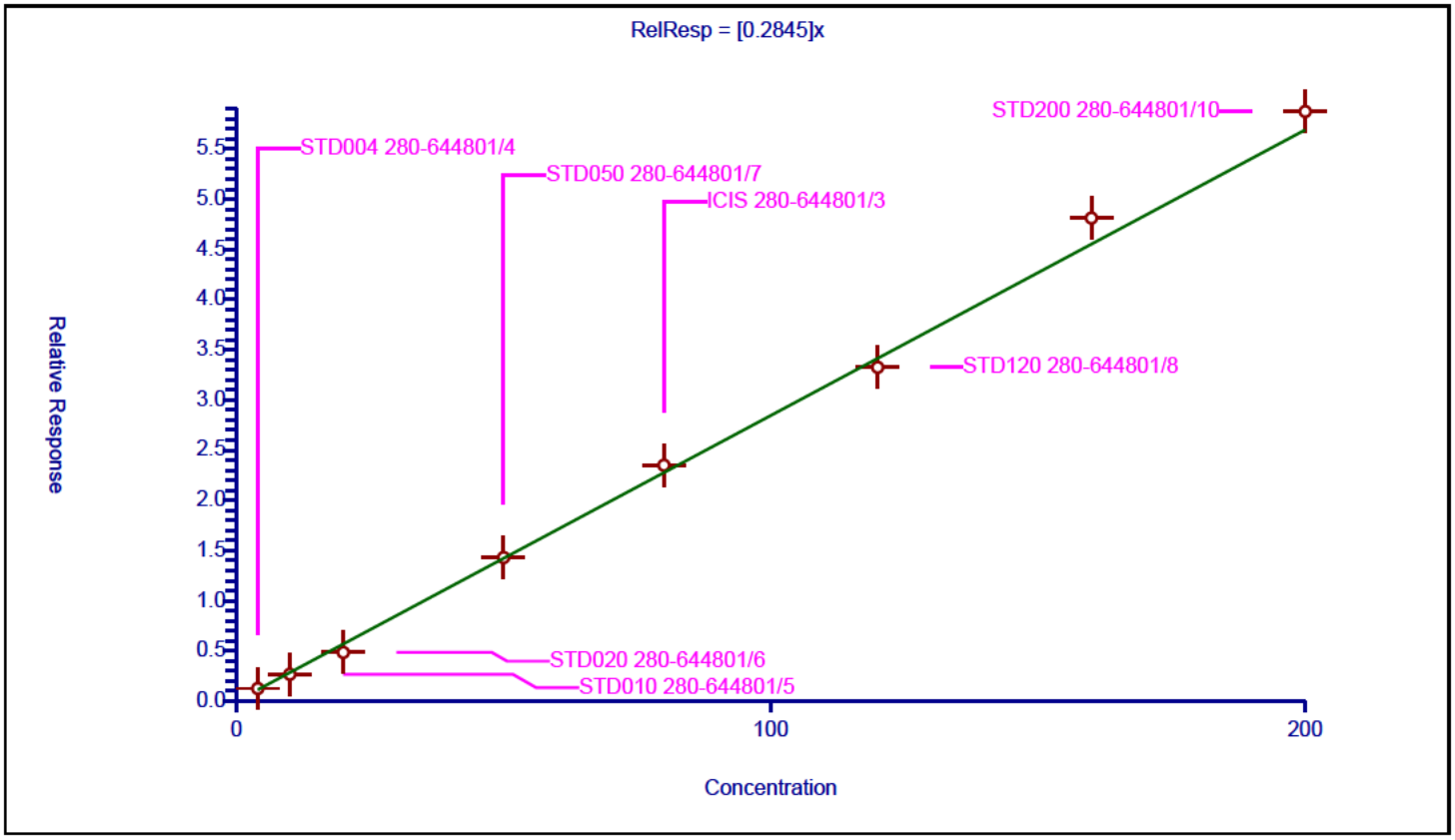
Curve Coefficients

Intercept:	0
Slope:	0.2845

Error Coefficients

Relative Standard Deviation:	7.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.258013	40.0	571123.0	0.314503	Y
2	STD010 280-644801/5	10.0	2.679436	40.0	627326.0	0.267944	Y
3	STD020 280-644801/6	20.0	4.850568	40.0	680110.0	0.242528	Y
4	STD050 280-644801/7	50.0	14.302003	40.0	574809.0	0.28604	Y
5	ICIS 280-644801/3	80.0	23.501922	40.0	638181.0	0.293774	Y
6	STD120 280-644801/8	120.0	33.251435	40.0	582595.0	0.277095	Y
7	STD160 280-644801/9	160.0	48.123458	40.0	593240.0	0.300772	Y
8	STD200 280-644801/10	200.0	58.739894	40.0	609139.0	0.293699	Y



Calibration / Pentachlorophenol

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

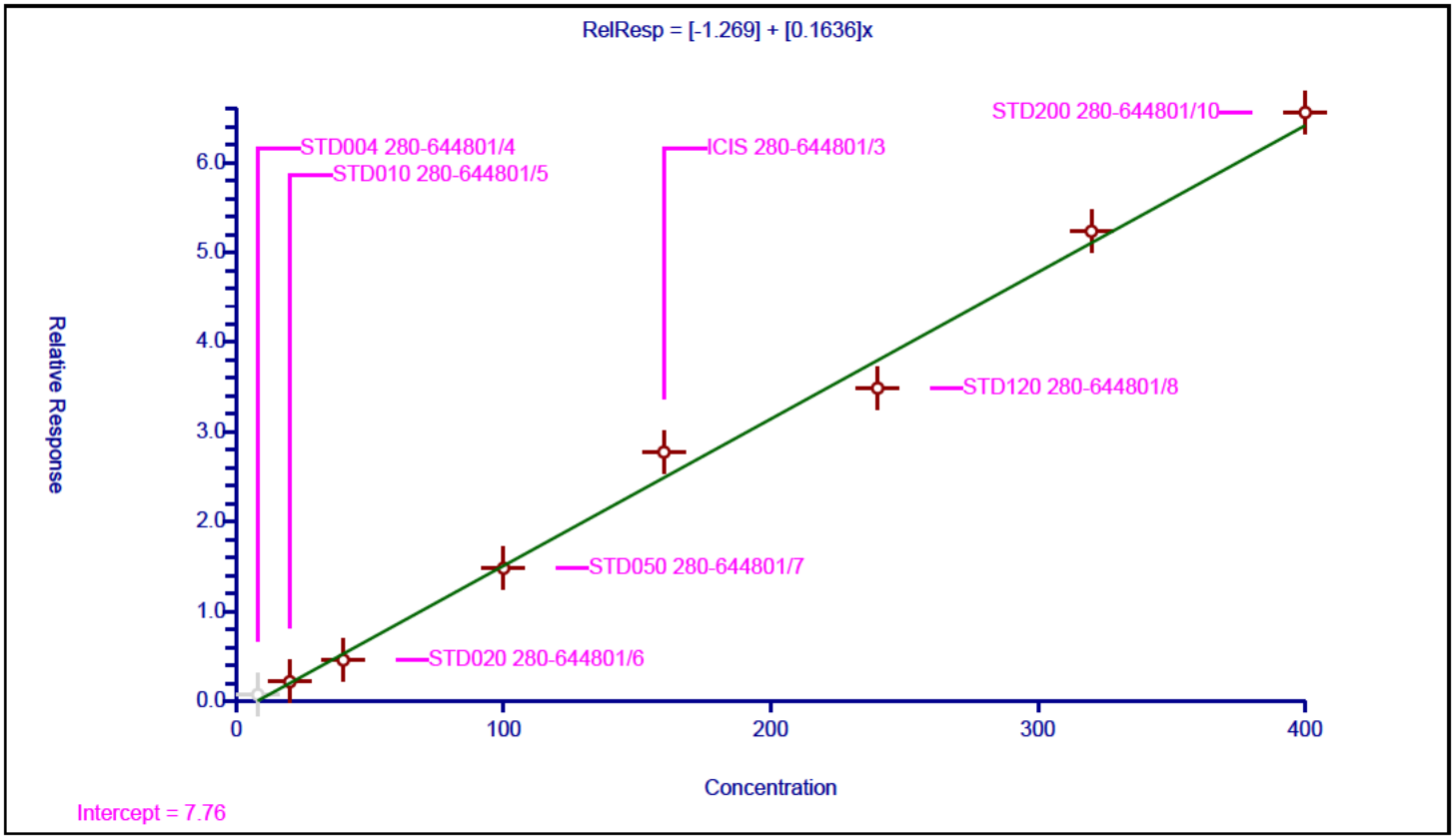
Curve Coefficients

Intercept:	-1.269
Slope:	0.1636

Error Coefficients

Relative Standard Deviation:	8.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	8.0	0.730281	40.0	571123.0	0.091285	N
2	STD010 280-644801/5	20.0	2.155243	40.0	627326.0	0.107762	Y
3	STD020 280-644801/6	40.0	4.57526	40.0	680110.0	0.114381	Y
4	STD050 280-644801/7	100.0	14.810067	40.0	574809.0	0.148101	Y
5	ICIS 280-644801/3	160.0	27.749745	40.0	638181.0	0.173436	Y
6	STD120 280-644801/8	240.0	34.873832	40.0	582595.0	0.145308	Y
7	STD160 280-644801/9	320.0	52.354528	40.0	593240.0	0.163608	Y
8	STD200 280-644801/10	400.0	65.593896	40.0	609139.0	0.163985	Y



Calibration / Phenanthrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

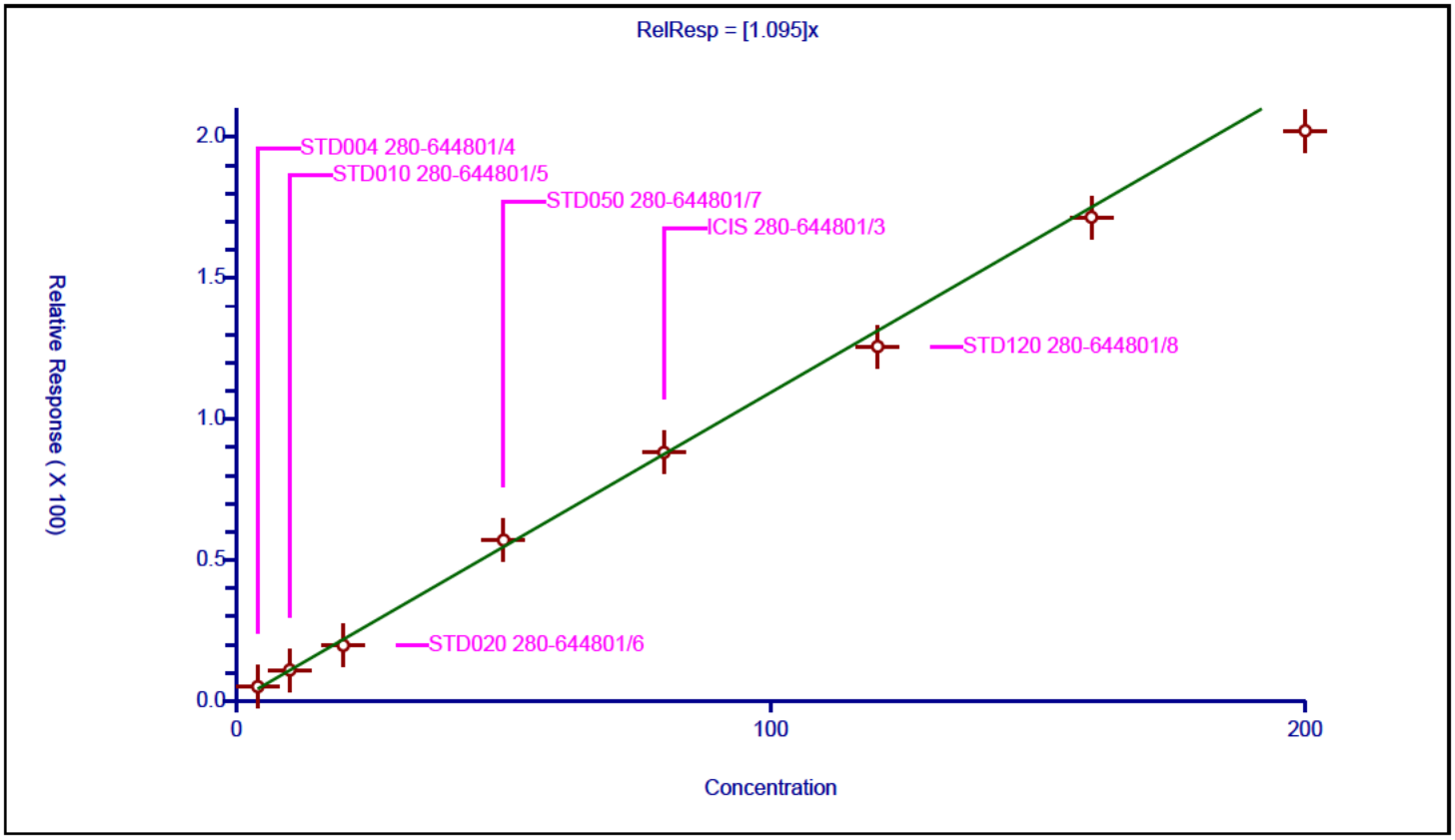
Curve Coefficients

Intercept:	0
Slope:	1.095

Error Coefficients

Relative Standard Deviation:	8.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	5.151605	40.0	571123.0	1.287901	Y
2	STD010 280-644801/5	10.0	11.044465	40.0	627326.0	1.104446	Y
3	STD020 280-644801/6	20.0	19.774389	40.0	680110.0	0.988719	Y
4	STD050 280-644801/7	50.0	57.08665	40.0	574809.0	1.141733	Y
5	ICIS 280-644801/3	80.0	88.175674	40.0	638181.0	1.102196	Y
6	STD120 280-644801/8	120.0	125.729057	40.0	582595.0	1.047742	Y
7	STD160 280-644801/9	160.0	171.594431	40.0	593240.0	1.072465	Y
8	STD200 280-644801/10	200.0	202.246646	40.0	609139.0	1.011233	Y



Calibration / Anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

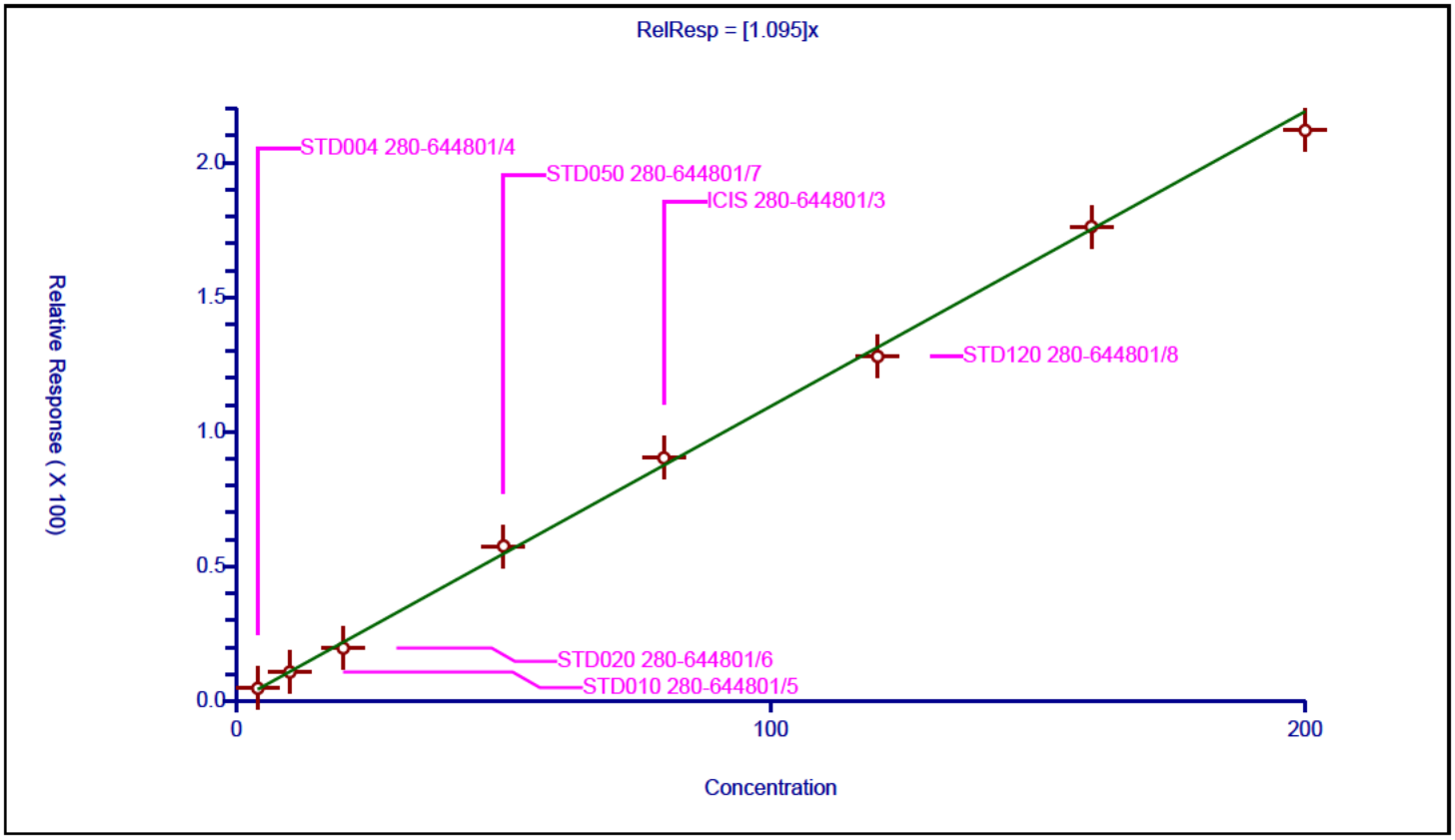
Curve Coefficients

Intercept:	0
Slope:	1.095

Error Coefficients

Relative Standard Deviation:	5.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	4.761076	40.0	571123.0	1.190269	Y
2	STD010 280-644801/5	10.0	10.789797	40.0	627326.0	1.07898	Y
3	STD020 280-644801/6	20.0	19.673817	40.0	680110.0	0.983691	Y
4	STD050 280-644801/7	50.0	57.601186	40.0	574809.0	1.152024	Y
5	ICIS 280-644801/3	80.0	90.339888	40.0	638181.0	1.129249	Y
6	STD120 280-644801/8	120.0	128.007415	40.0	582595.0	1.066728	Y
7	STD160 280-644801/9	160.0	176.238689	40.0	593240.0	1.101492	Y
8	STD200 280-644801/10	200.0	211.984851	40.0	609139.0	1.059924	Y



Calibration / Carbazole

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

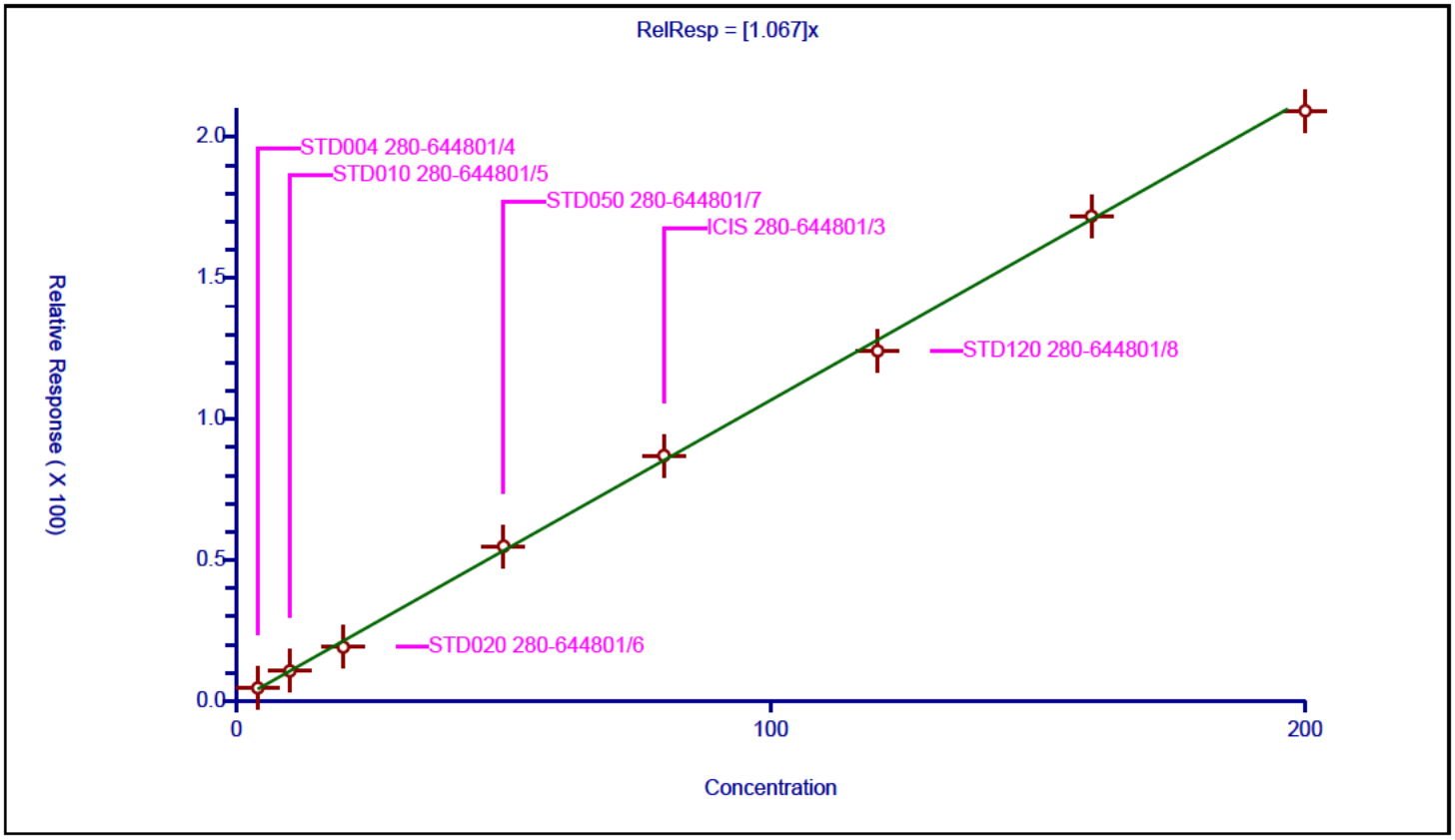
Curve Coefficients

Intercept:	0
Slope:	1.067

Error Coefficients

Relative Standard Deviation:	5.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	4.671638	40.0	571123.0	1.16791	Y
2	STD010 280-644801/5	10.0	10.702888	40.0	627326.0	1.070289	Y
3	STD020 280-644801/6	20.0	19.143609	40.0	680110.0	0.95718	Y
4	STD050 280-644801/7	50.0	54.952654	40.0	574809.0	1.099053	Y
5	ICIS 280-644801/3	80.0	87.077929	40.0	638181.0	1.088474	Y
6	STD120 280-644801/8	120.0	124.180468	40.0	582595.0	1.034837	Y
7	STD160 280-644801/9	160.0	171.956982	40.0	593240.0	1.074731	Y
8	STD200 280-644801/10	200.0	209.31807	40.0	609139.0	1.04659	Y



Calibration / Alachlor

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

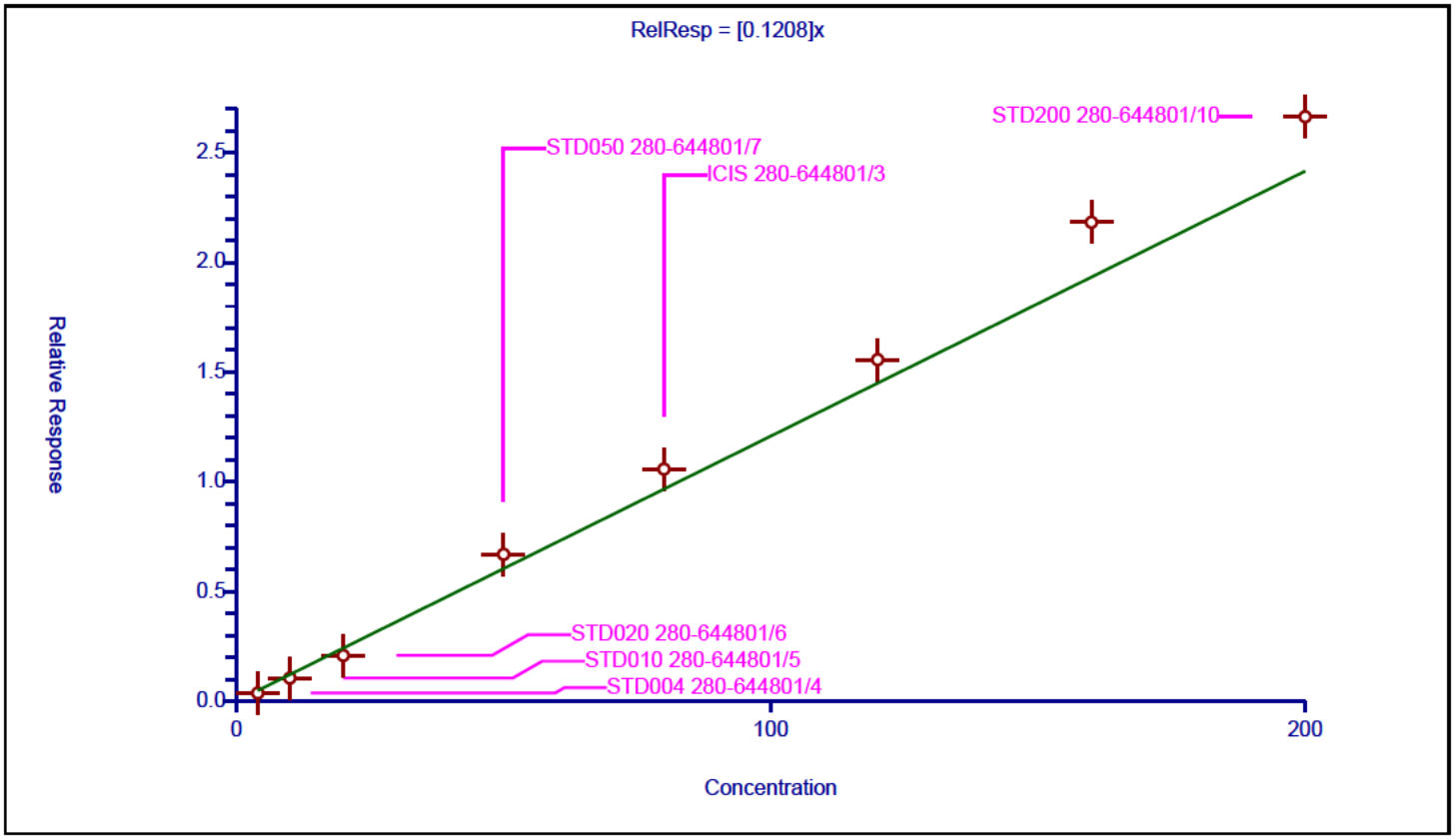
Curve Coefficients

Intercept:	0
Slope:	0.1208

Error Coefficients

Relative Standard Deviation:	14.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	0.367557	40.0	571123.0	0.091889	Y
2	STD010 280-644801/5	10.0	1.051319	40.0	627326.0	0.105132	Y
3	STD020 280-644801/6	20.0	2.081016	40.0	680110.0	0.104051	Y
4	STD050 280-644801/7	50.0	6.693563	40.0	574809.0	0.133871	Y
5	ICIS 280-644801/3	80.0	10.578065	40.0	638181.0	0.132226	Y
6	STD120 280-644801/8	120.0	15.569032	40.0	582595.0	0.129742	Y
7	STD160 280-644801/9	160.0	21.830018	40.0	593240.0	0.136438	Y
8	STD200 280-644801/10	200.0	26.642589	40.0	609139.0	0.133213	Y



Calibration / Di-n-butyl phthalate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

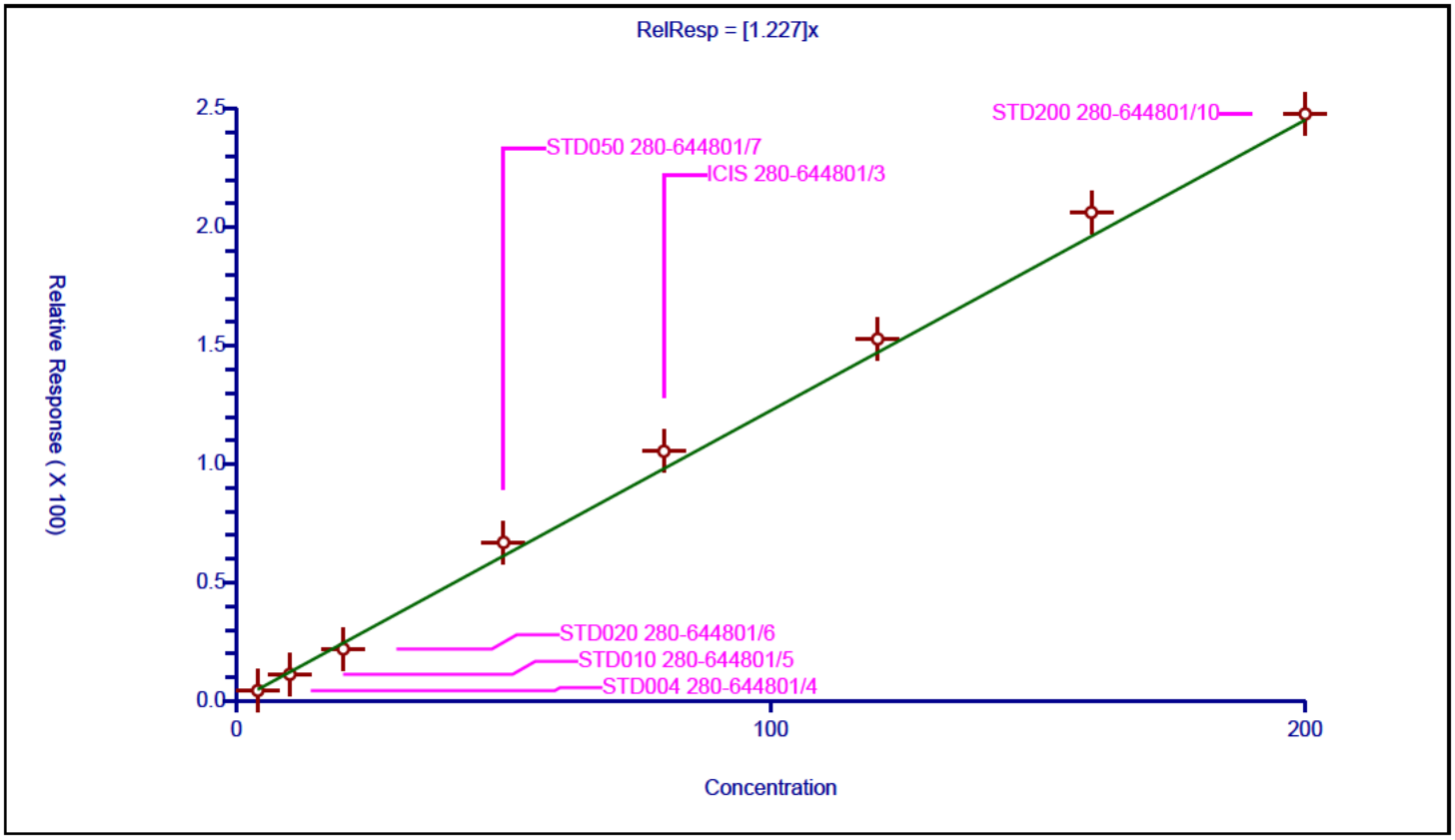
Curve Coefficients

Intercept:	0
Slope:	1.227

Error Coefficients

Relative Standard Deviation:	7.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	4.46909	40.0	571123.0	1.117272	Y
2	STD010 280-644801/5	10.0	11.343257	40.0	627326.0	1.134326	Y
3	STD020 280-644801/6	20.0	21.999735	40.0	680110.0	1.099987	Y
4	STD050 280-644801/7	50.0	67.003544	40.0	574809.0	1.340071	Y
5	ICIS 280-644801/3	80.0	105.471896	40.0	638181.0	1.318399	Y
6	STD120 280-644801/8	120.0	152.847038	40.0	582595.0	1.273725	Y
7	STD160 280-644801/9	160.0	206.291619	40.0	593240.0	1.289323	Y
8	STD200 280-644801/10	200.0	247.846354	40.0	609139.0	1.239232	Y



Calibration / Fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

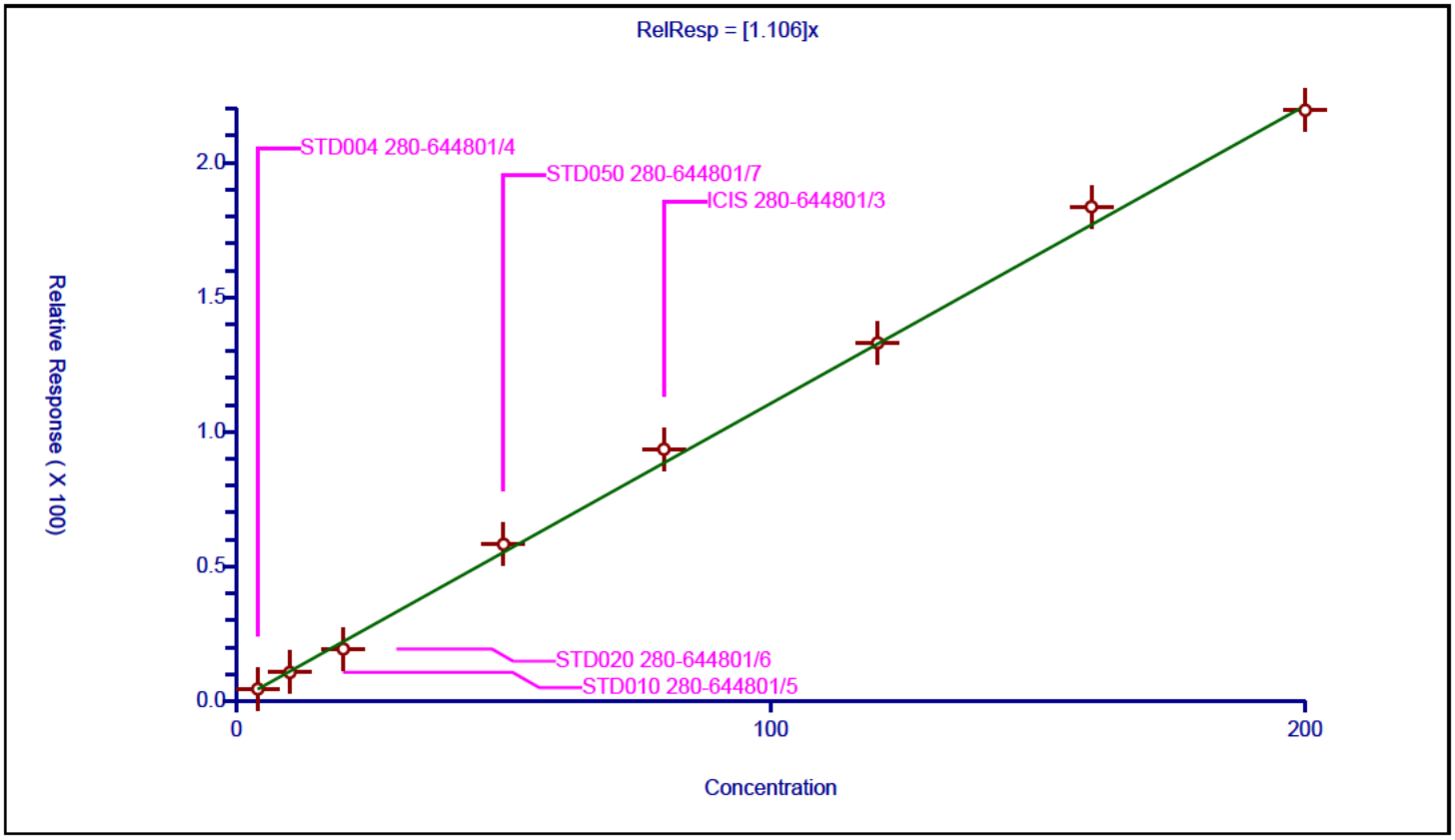
Curve Coefficients

Intercept:	0
Slope:	1.106

Error Coefficients

Relative Standard Deviation:	6.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	4.505719	40.0	571123.0	1.12643	Y
2	STD010 280-644801/5	10.0	10.645821	40.0	627326.0	1.064582	Y
3	STD020 280-644801/6	20.0	19.366632	40.0	680110.0	0.968332	Y
4	STD050 280-644801/7	50.0	58.240494	40.0	574809.0	1.16481	Y
5	ICIS 280-644801/3	80.0	93.575146	40.0	638181.0	1.169689	Y
6	STD120 280-644801/8	120.0	133.056274	40.0	582595.0	1.108802	Y
7	STD160 280-644801/9	160.0	183.635156	40.0	593240.0	1.14772	Y
8	STD200 280-644801/10	200.0	219.507075	40.0	609139.0	1.097535	Y



Calibration / Pyrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

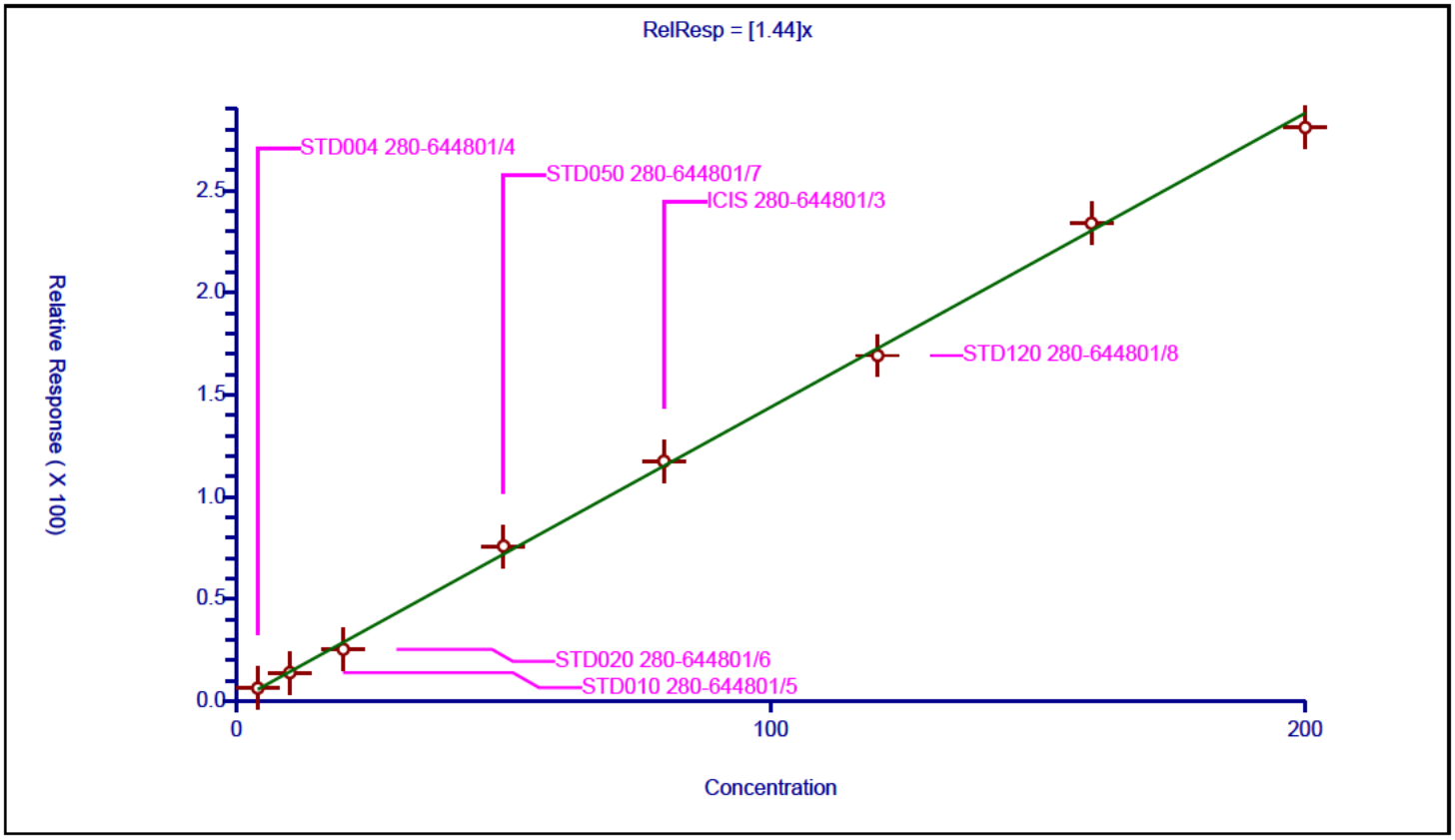
Curve Coefficients

Intercept:	0
Slope:	1.44

Error Coefficients

Relative Standard Deviation:	6.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	6.349392	40.0	444830.0	1.587348	Y
2	STD010 280-644801/5	10.0	13.972416	40.0	498256.0	1.397242	Y
3	STD020 280-644801/6	20.0	25.373945	40.0	545722.0	1.268697	Y
4	STD050 280-644801/7	50.0	75.914712	40.0	462998.0	1.518294	Y
5	ICIS 280-644801/3	80.0	117.507186	40.0	534352.0	1.46884	Y
6	STD120 280-644801/8	120.0	169.205523	40.0	479095.0	1.410046	Y
7	STD160 280-644801/9	160.0	233.987191	40.0	487140.0	1.46242	Y
8	STD200 280-644801/10	200.0	280.854683	40.0	497635.0	1.404273	Y



Calibration / Terphenyl-d14

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

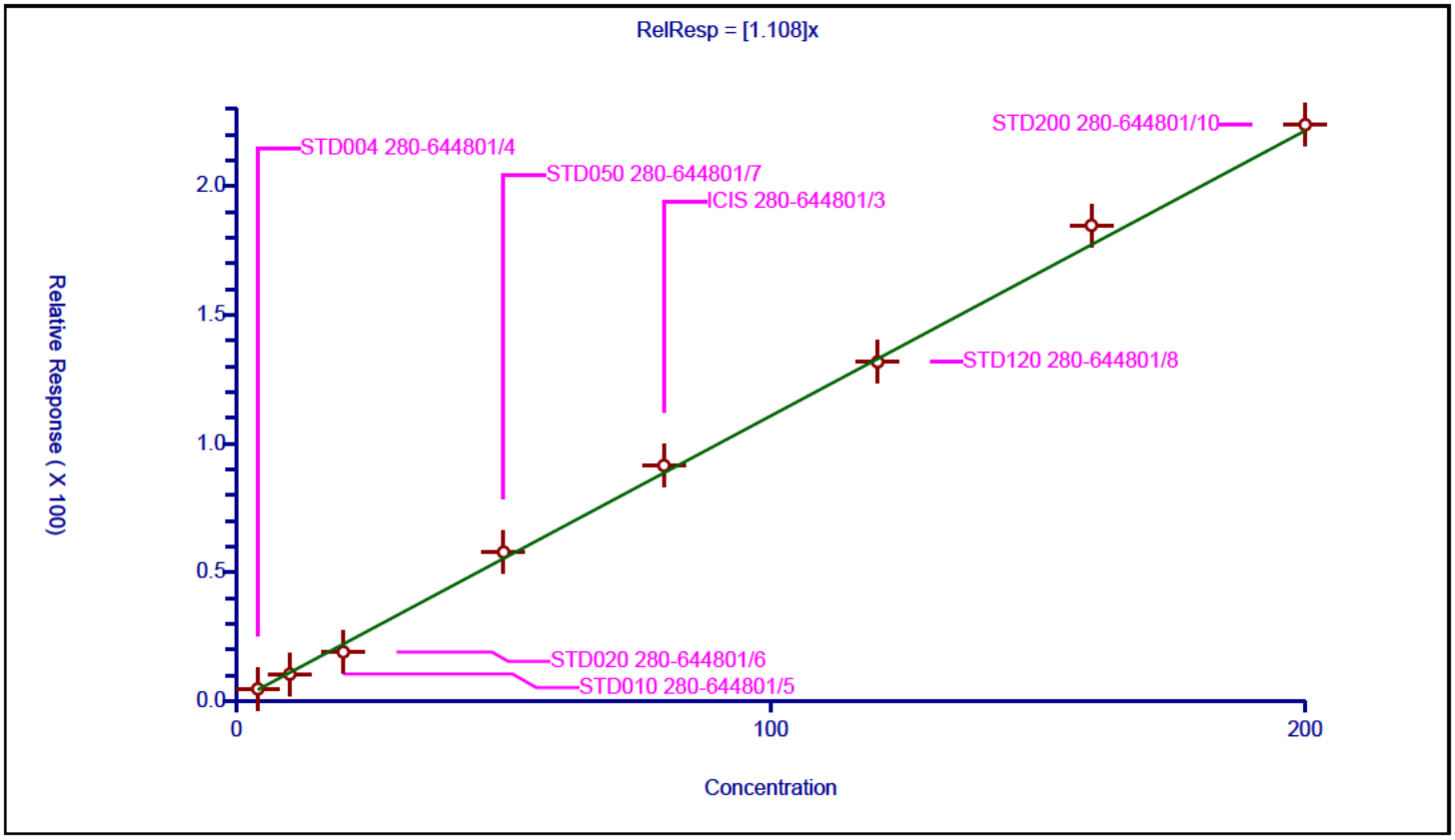
Curve Coefficients

Intercept:	0
Slope:	1.108

Error Coefficients

Relative Standard Deviation:	6.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	4.748691	40.0	444830.0	1.187173	Y
2	STD010 280-644801/5	10.0	10.489548	40.0	498256.0	1.048955	Y
3	STD020 280-644801/6	20.0	19.074107	40.0	545722.0	0.953705	Y
4	STD050 280-644801/7	50.0	57.841373	40.0	462998.0	1.156827	Y
5	ICIS 280-644801/3	80.0	91.511738	40.0	534352.0	1.143897	Y
6	STD120 280-644801/8	120.0	131.733122	40.0	479095.0	1.097776	Y
7	STD160 280-644801/9	160.0	184.76011	40.0	487140.0	1.154751	Y
8	STD200 280-644801/10	200.0	223.852583	40.0	497635.0	1.119263	Y



Calibration / Butyl benzyl phthalate

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

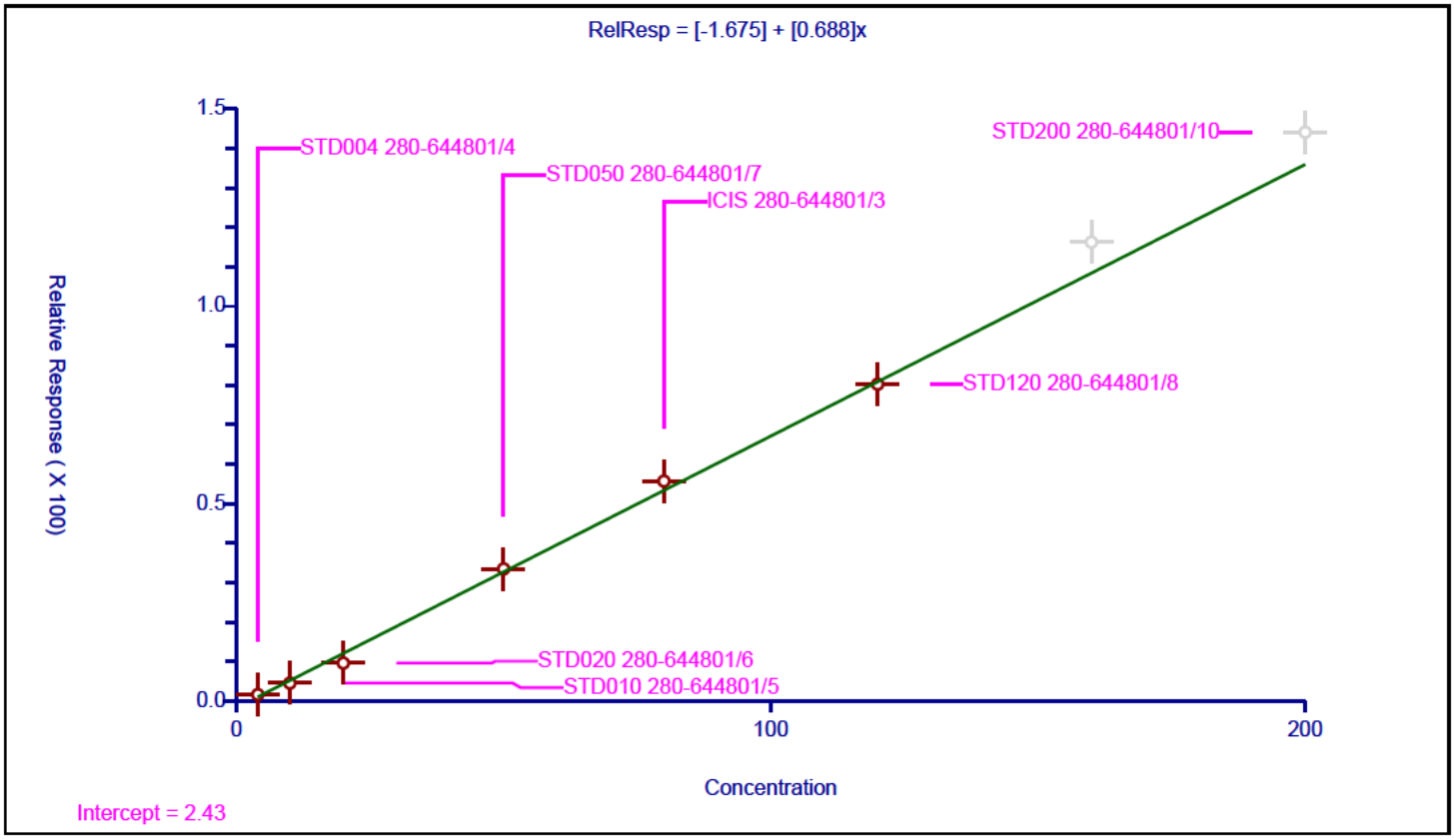
Curve Coefficients

Intercept:	-1.675
Slope:	0.688

Error Coefficients

Relative Standard Deviation:	14.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	1.668233	40.0	444830.0	0.417058	Y
2	STD010 280-644801/5	10.0	4.555168	40.0	498256.0	0.455517	Y
3	STD020 280-644801/6	20.0	9.638827	40.0	545722.0	0.481941	Y
4	STD050 280-644801/7	50.0	33.491721	40.0	462998.0	0.669834	Y
5	ICIS 280-644801/3	80.0	55.728583	40.0	534352.0	0.696607	Y
6	STD120 280-644801/8	120.0	80.263998	40.0	479095.0	0.668867	Y
7	STD160 280-644801/9	160.0	116.236975	40.0	487140.0	0.726481	N
8	STD200 280-644801/10	200.0	144.086007	40.0	497635.0	0.72043	N



Calibration / Benzo[a]anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

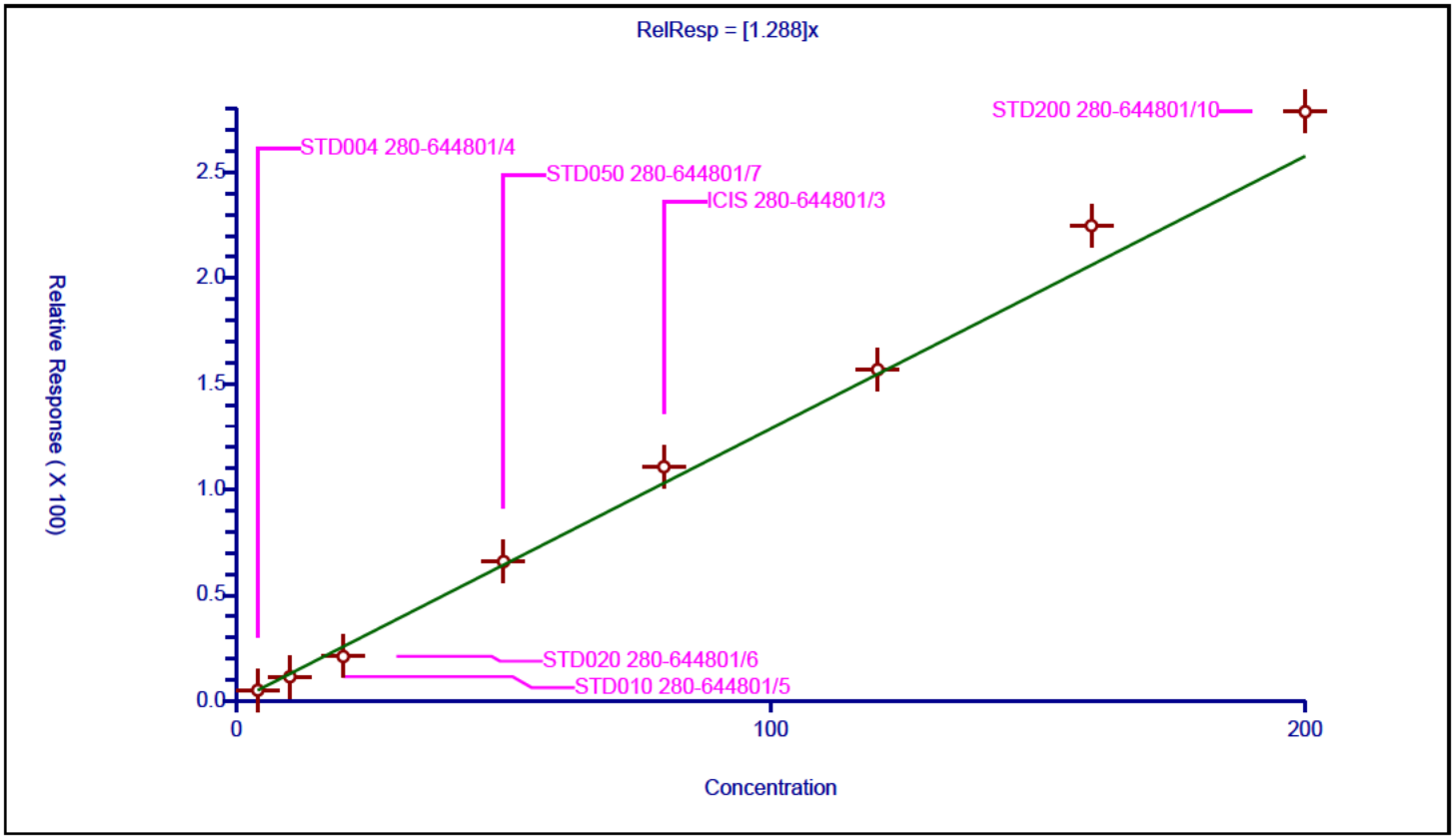
Curve Coefficients

Intercept:	0
Slope:	1.288

Error Coefficients

Relative Standard Deviation:	9.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	5.167907	40.0	444830.0	1.291977	Y
2	STD010 280-644801/5	10.0	11.509023	40.0	498256.0	1.150902	Y
3	STD020 280-644801/6	20.0	21.094843	40.0	545722.0	1.054742	Y
4	STD050 280-644801/7	50.0	65.991819	40.0	462998.0	1.319836	Y
5	ICIS 280-644801/3	80.0	110.780384	40.0	534352.0	1.384755	Y
6	STD120 280-644801/8	120.0	156.720901	40.0	479095.0	1.306008	Y
7	STD160 280-644801/9	160.0	224.775711	40.0	487140.0	1.404848	Y
8	STD200 280-644801/10	200.0	278.66593	40.0	497635.0	1.39333	Y



Calibration / Chrysene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

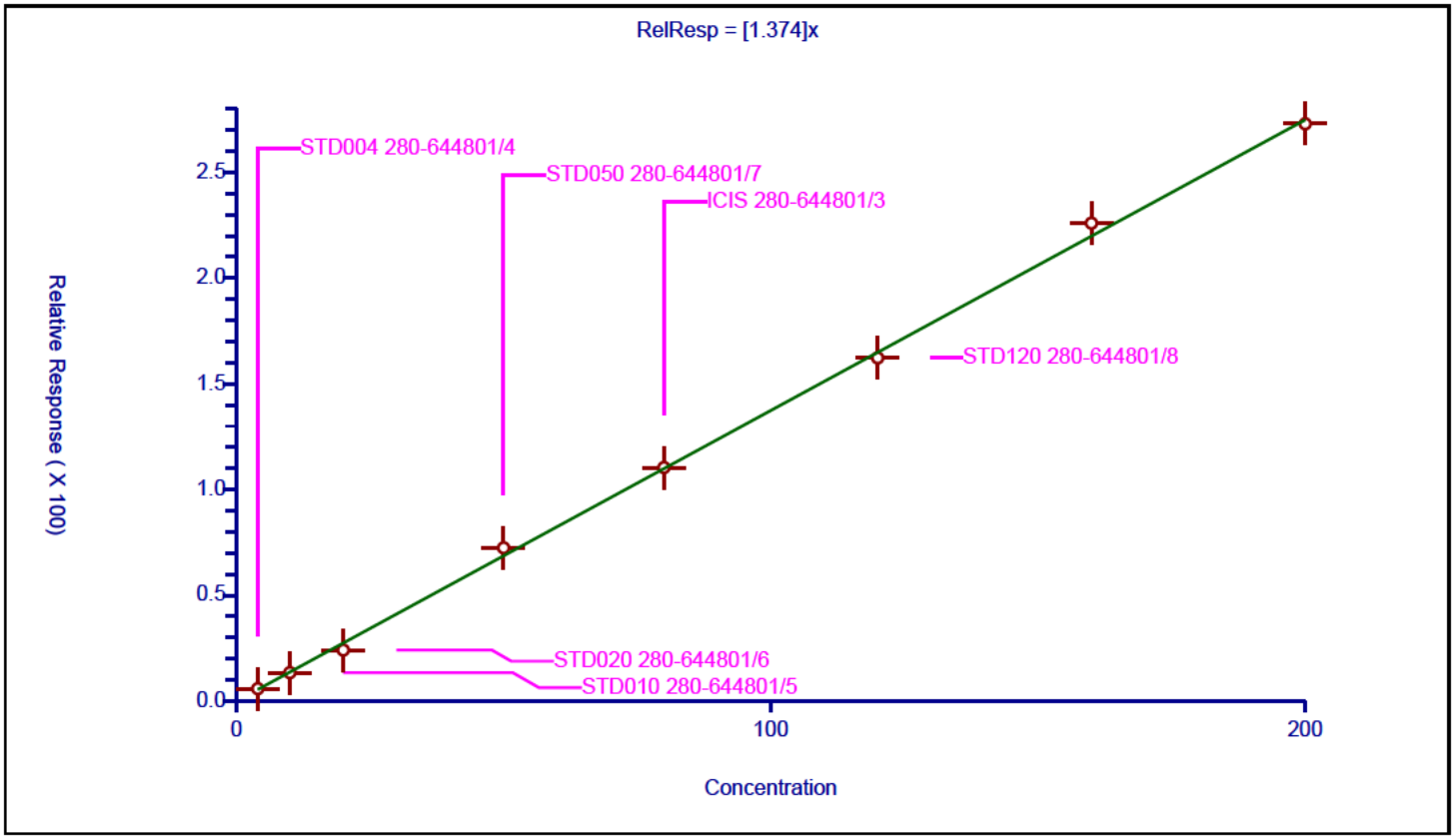
Curve Coefficients

Intercept:	0
Slope:	1.374

Error Coefficients

Relative Standard Deviation:	6.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	5.915069	40.0	444830.0	1.478767	Y
2	STD010 280-644801/5	10.0	13.469381	40.0	498256.0	1.346938	Y
3	STD020 280-644801/6	20.0	24.143062	40.0	545722.0	1.207153	Y
4	STD050 280-644801/7	50.0	72.467613	40.0	462998.0	1.449352	Y
5	ICIS 280-644801/3	80.0	110.436866	40.0	534352.0	1.380461	Y
6	STD120 280-644801/8	120.0	162.282303	40.0	479095.0	1.352353	Y
7	STD160 280-644801/9	160.0	225.971343	40.0	487140.0	1.412321	Y
8	STD200 280-644801/10	200.0	272.936027	40.0	497635.0	1.36468	Y



Calibration / Bis(2-ethylhexyl) phthalate

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

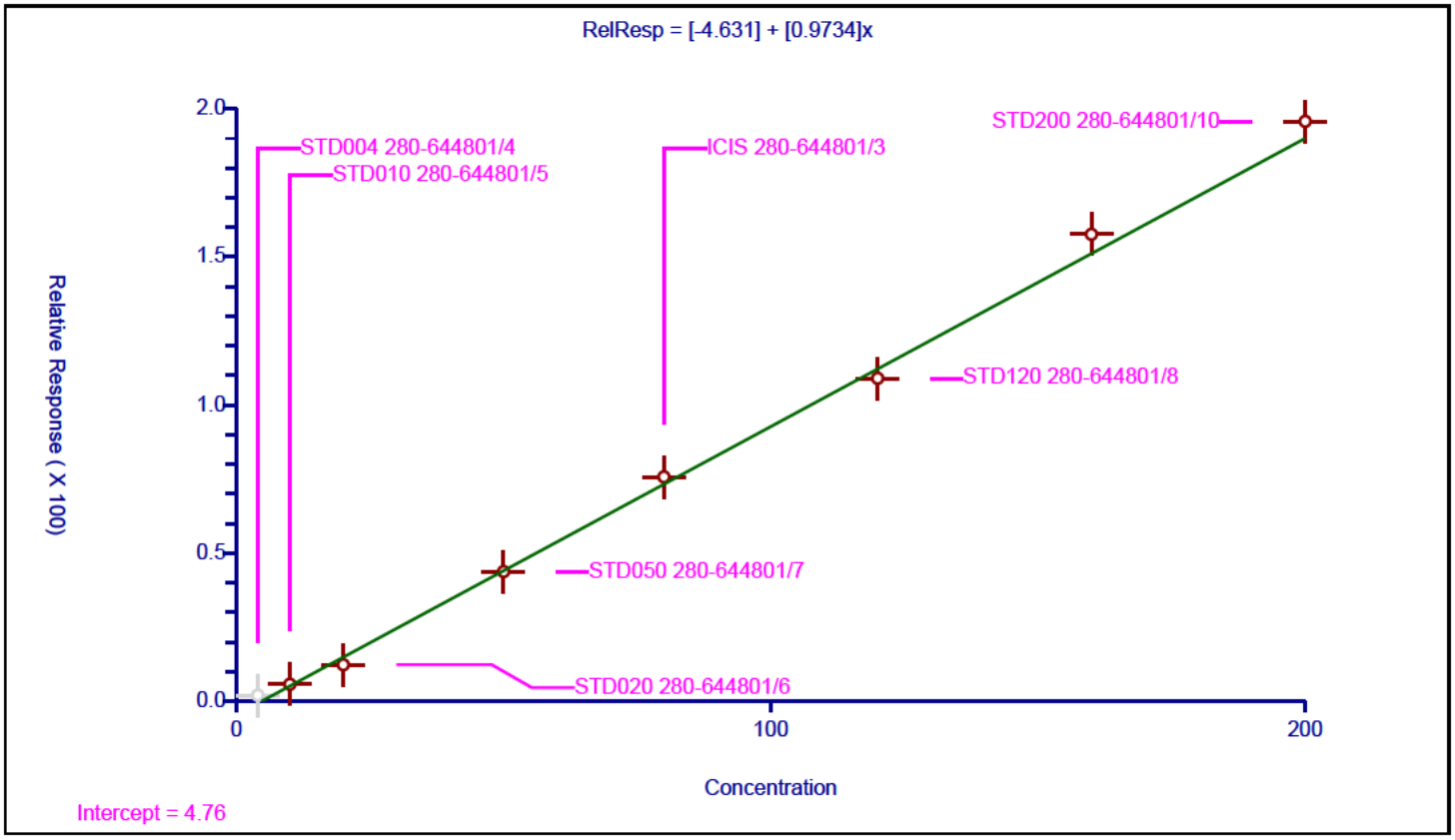
Curve Coefficients

Intercept:	-4.631
Slope:	0.9734

Error Coefficients

Relative Standard Deviation:	7.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	2.007598	40.0	444830.0	0.5019	N
2	STD010 280-644801/5	10.0	5.696028	40.0	498256.0	0.569603	Y
3	STD020 280-644801/6	20.0	12.287428	40.0	545722.0	0.614371	Y
4	STD050 280-644801/7	50.0	43.741182	40.0	462998.0	0.874824	Y
5	ICIS 280-644801/3	80.0	75.731802	40.0	534352.0	0.946648	Y
6	STD120 280-644801/8	120.0	109.026227	40.0	479095.0	0.908552	Y
7	STD160 280-644801/9	160.0	157.635259	40.0	487140.0	0.98522	Y
8	STD200 280-644801/10	200.0	195.788881	40.0	497635.0	0.978944	Y



Calibration / Di-n-octyl phthalate

Curve Type:	Quadratic
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

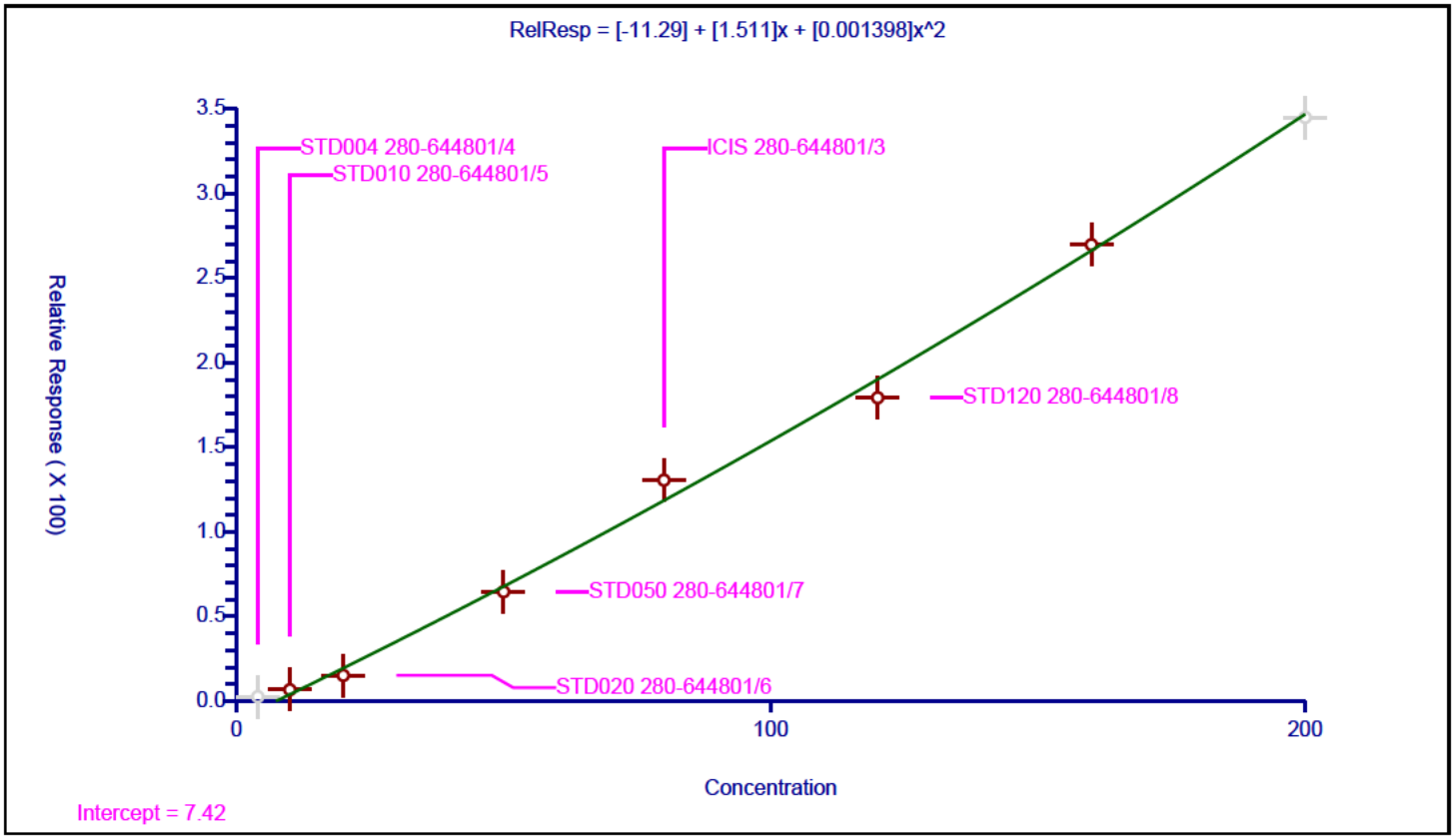
Curve Coefficients

Intercept:	-11.29
Slope:	1.511
Second Order:	0.001398

Error Coefficients

Relative Standard Deviation:	14.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	2.664928	40.0	444830.0	0.666232	N
2	STD010 280-644801/5	10.0	6.708519	40.0	498256.0	0.670852	Y
3	STD020 280-644801/6	20.0	15.199607	40.0	545722.0	0.75998	Y
4	STD050 280-644801/7	50.0	64.671813	40.0	462998.0	1.293436	Y
5	ICIS 280-644801/3	80.0	130.588376	40.0	534352.0	1.632355	Y
6	STD120 280-644801/8	120.0	179.27434	40.0	479095.0	1.493953	Y
7	STD160 280-644801/9	160.0	269.729113	40.0	487140.0	1.685807	Y
8	STD200 280-644801/10	200.0	344.950496	40.0	497635.0	1.724752	N



Calibration / Benzo[b]fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

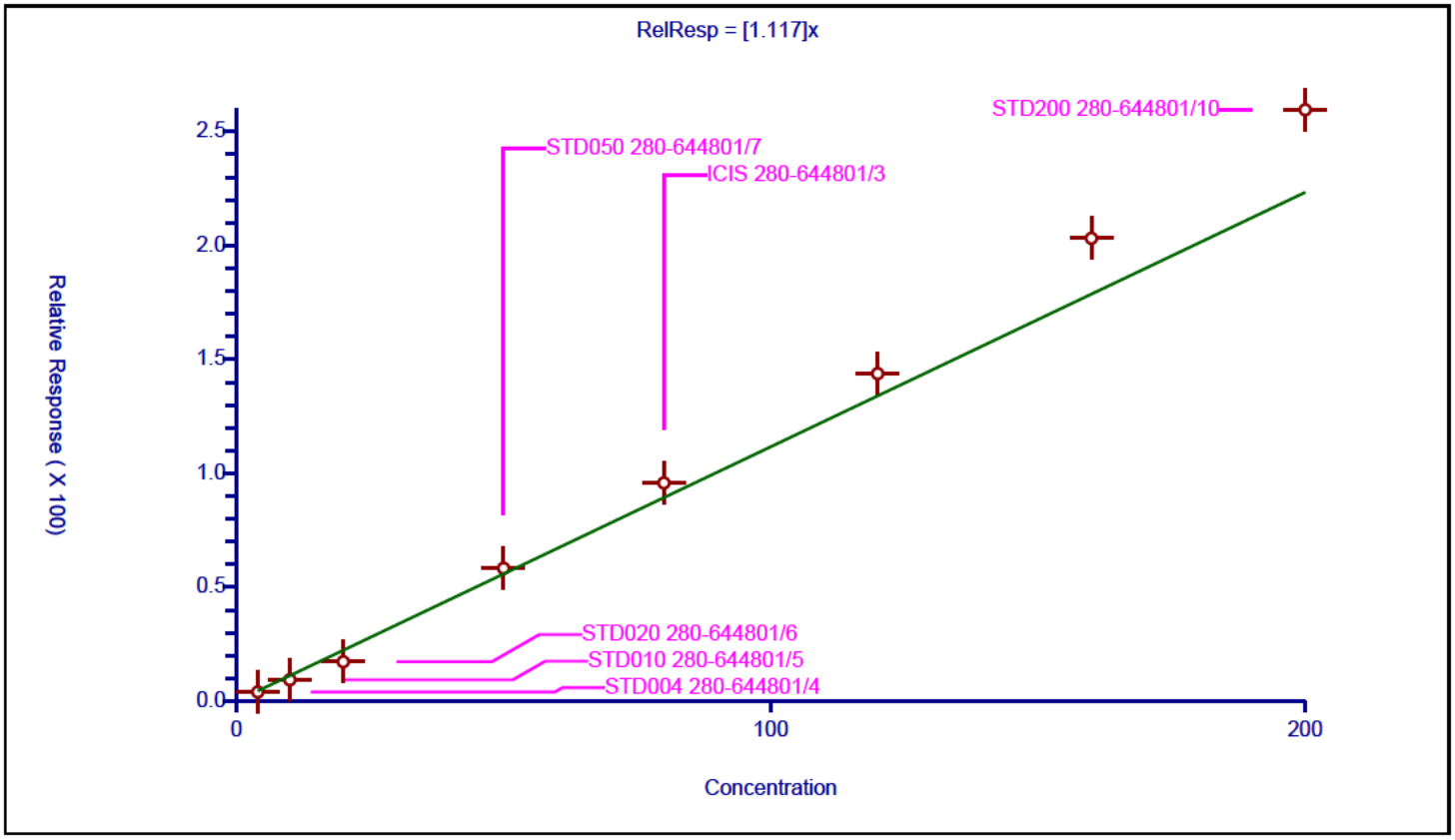
Curve Coefficients

Intercept:	0
Slope:	1.117

Error Coefficients

Relative Standard Deviation:	14.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	4.024475	40.0	509910.0	1.006119	Y
2	STD010 280-644801/5	10.0	9.344944	40.0	555479.0	0.934494	Y
3	STD020 280-644801/6	20.0	17.289248	40.0	599922.0	0.864462	Y
4	STD050 280-644801/7	50.0	58.308453	40.0	510243.0	1.166169	Y
5	ICIS 280-644801/3	80.0	95.778922	40.0	618785.0	1.197237	Y
6	STD120 280-644801/8	120.0	143.780973	40.0	526473.0	1.198175	Y
7	STD160 280-644801/9	160.0	203.175105	40.0	548089.0	1.269844	Y
8	STD200 280-644801/10	200.0	259.608273	40.0	563658.0	1.298041	Y



Calibration / Benzo[k]fluoranthene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

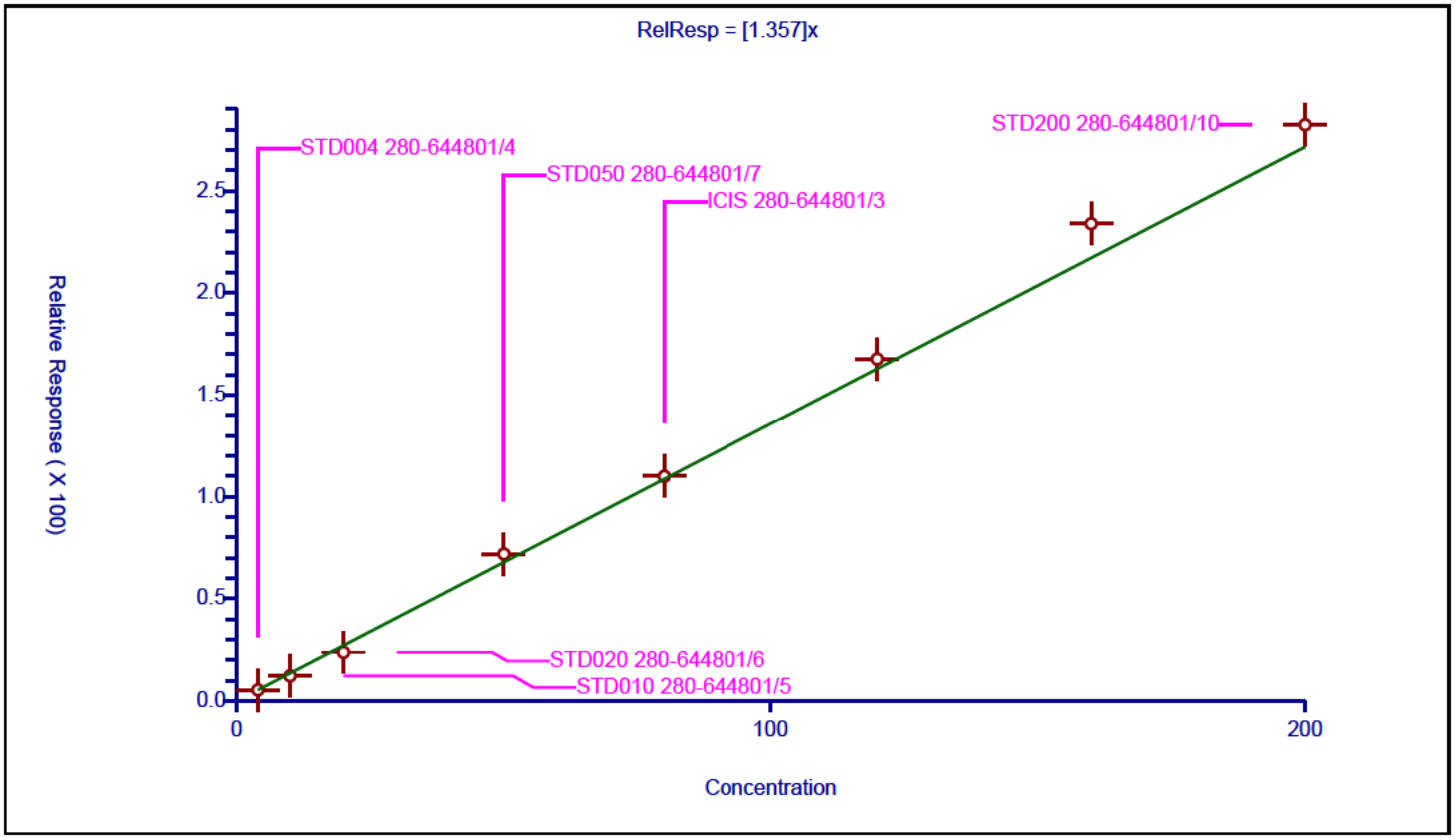
Curve Coefficients

Intercept:	0
Slope:	1.357

Error Coefficients

Relative Standard Deviation:	7.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	5.432645	40.0	509910.0	1.358161	Y
2	STD010 280-644801/5	10.0	12.28194	40.0	555479.0	1.228194	Y
3	STD020 280-644801/6	20.0	23.788759	40.0	599922.0	1.189438	Y
4	STD050 280-644801/7	50.0	71.892177	40.0	510243.0	1.437844	Y
5	ICIS 280-644801/3	80.0	109.903504	40.0	618785.0	1.373794	Y
6	STD120 280-644801/8	120.0	167.698704	40.0	526473.0	1.397489	Y
7	STD160 280-644801/9	160.0	233.912522	40.0	548089.0	1.461953	Y
8	STD200 280-644801/10	200.0	282.261868	40.0	563658.0	1.411309	Y



Calibration / Benzo[a]pyrene

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

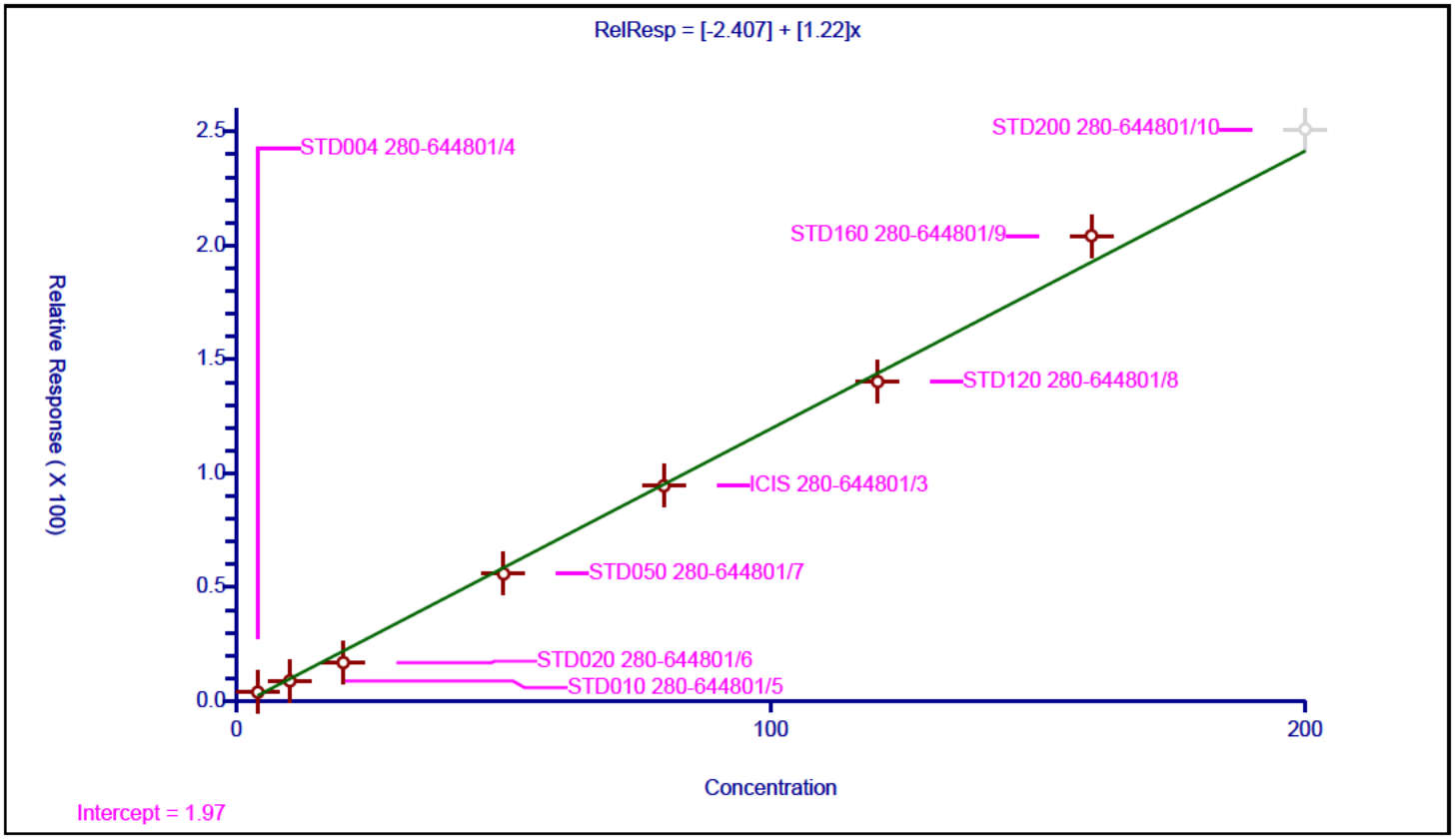
Curve Coefficients

Intercept:	-2.407
Slope:	1.22

Error Coefficients

Relative Standard Deviation:	16.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	3.924536	40.0	509910.0	0.981134	Y
2	STD010 280-644801/5	10.0	8.891713	40.0	555479.0	0.889171	Y
3	STD020 280-644801/6	20.0	16.925067	40.0	599922.0	0.846253	Y
4	STD050 280-644801/7	50.0	55.874867	40.0	510243.0	1.117497	Y
5	ICIS 280-644801/3	80.0	94.522201	40.0	618785.0	1.181528	Y
6	STD120 280-644801/8	120.0	140.238607	40.0	526473.0	1.168655	Y
7	STD160 280-644801/9	160.0	204.280546	40.0	548089.0	1.276753	Y
8	STD200 280-644801/10	200.0	251.066995	40.0	563658.0	1.255335	N



Calibration / Indeno[1,2,3-cd]pyrene

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

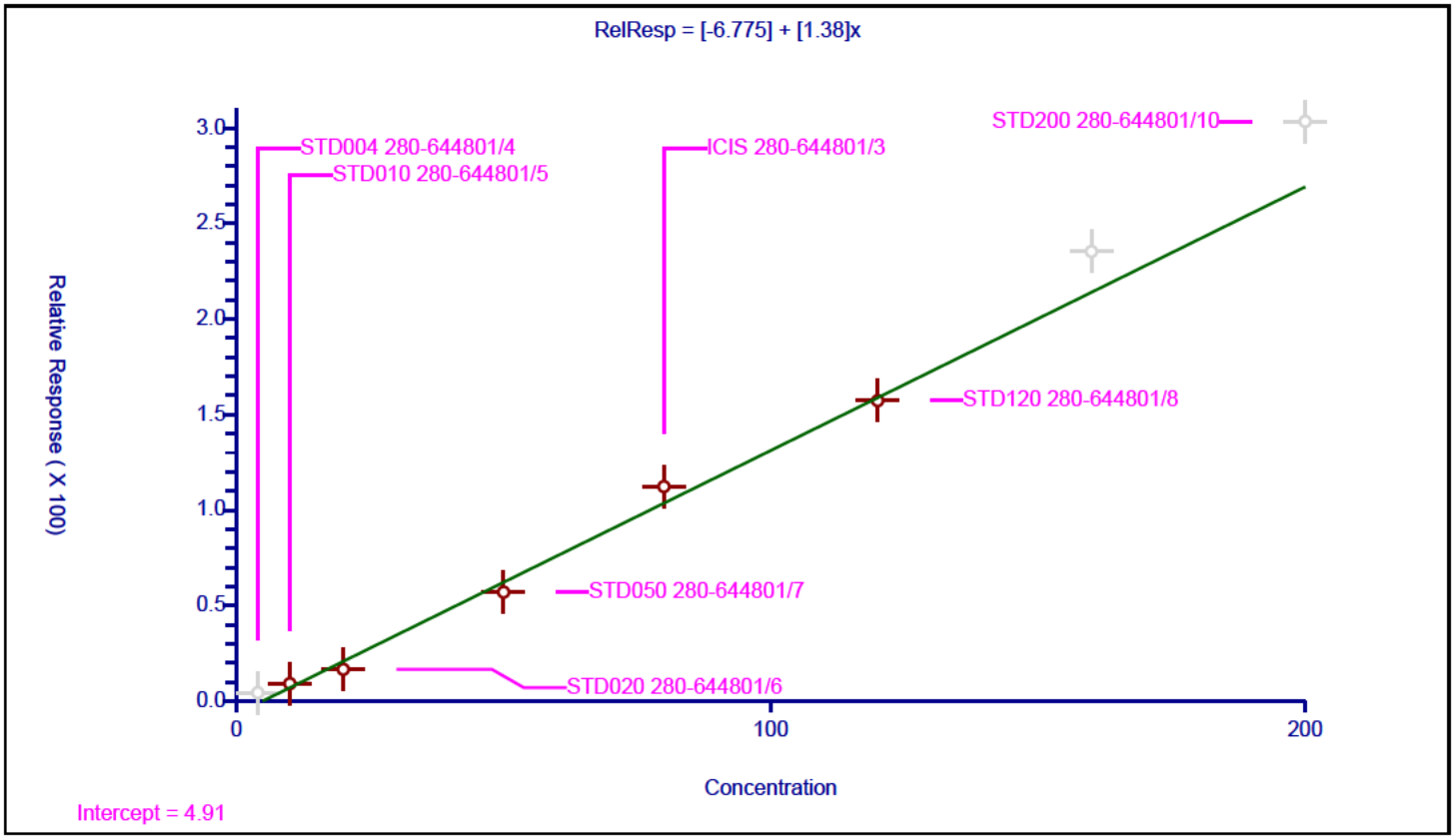
Curve Coefficients

Intercept:	-6.775
Slope:	1.38

Error Coefficients

Relative Standard Deviation:	14.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	4.425601	40.0	444830.0	1.1064	N
2	STD010 280-644801/5	10.0	9.183633	40.0	498256.0	0.918363	Y
3	STD020 280-644801/6	20.0	16.64078	40.0	545722.0	0.832039	Y
4	STD050 280-644801/7	50.0	57.045344	40.0	462998.0	1.140907	Y
5	ICIS 280-644801/3	80.0	112.298859	40.0	534352.0	1.403736	Y
6	STD120 280-644801/8	120.0	157.274194	40.0	479095.0	1.310618	Y
7	STD160 280-644801/9	160.0	235.349674	40.0	487140.0	1.470935	N
8	STD200 280-644801/10	200.0	303.453174	40.0	497635.0	1.517266	N



Calibration / Dibenz(a,h)anthracene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

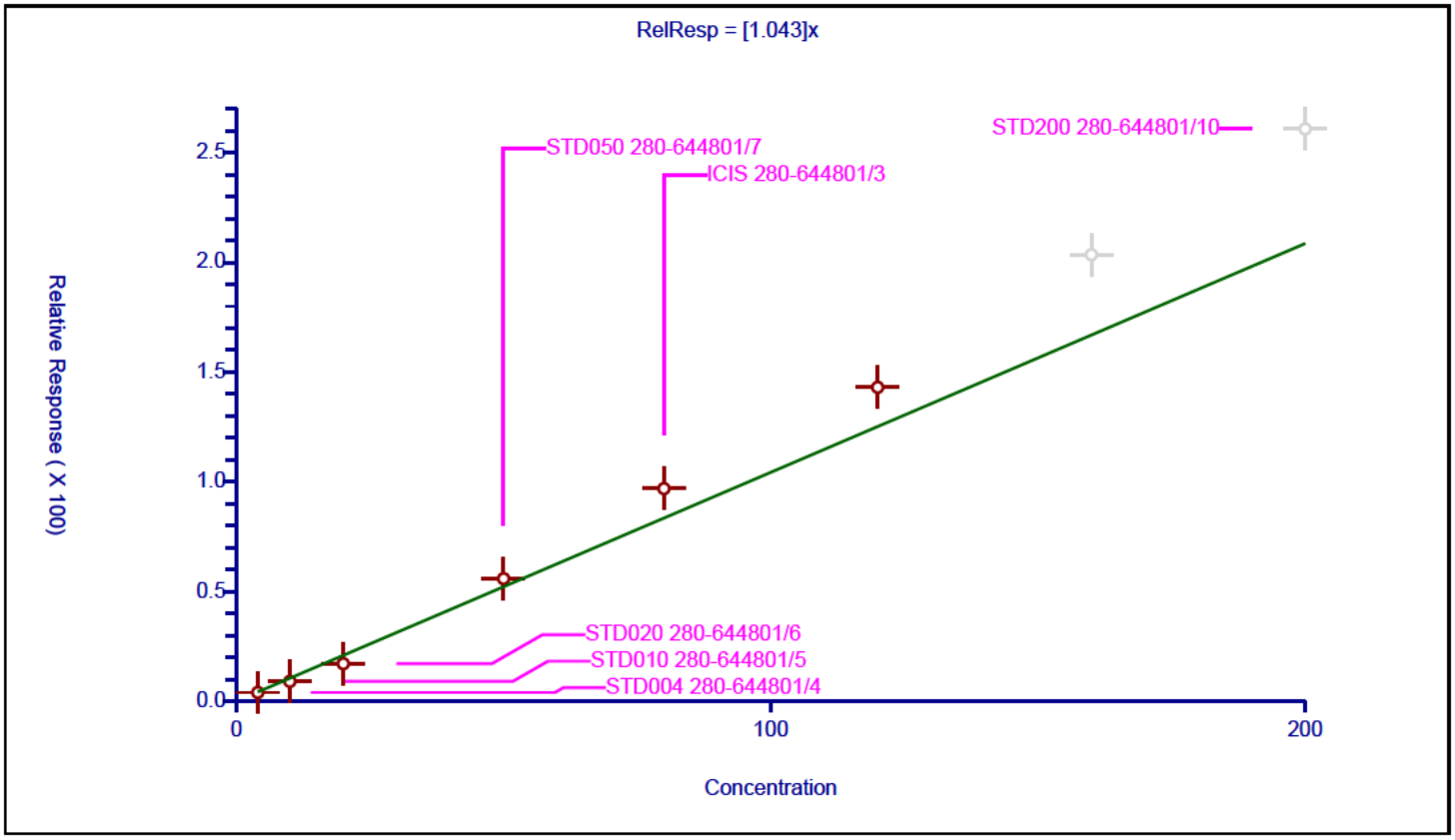
Curve Coefficients

Intercept:	0
Slope:	1.043

Error Coefficients

Relative Standard Deviation:	14.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	3.945559	40.0	509910.0	0.98639	Y
2	STD010 280-644801/5	10.0	8.995192	40.0	555479.0	0.899519	Y
3	STD020 280-644801/6	20.0	17.064352	40.0	599922.0	0.853218	Y
4	STD050 280-644801/7	50.0	55.837709	40.0	510243.0	1.116754	Y
5	ICIS 280-644801/3	80.0	96.87132	40.0	618785.0	1.210892	Y
6	STD120 280-644801/8	120.0	143.035103	40.0	526473.0	1.191959	Y
7	STD160 280-644801/9	160.0	203.531105	40.0	548089.0	1.272069	N
8	STD200 280-644801/10	200.0	260.829652	40.0	563658.0	1.304148	N



Calibration / Benzo[g,h,i]perylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

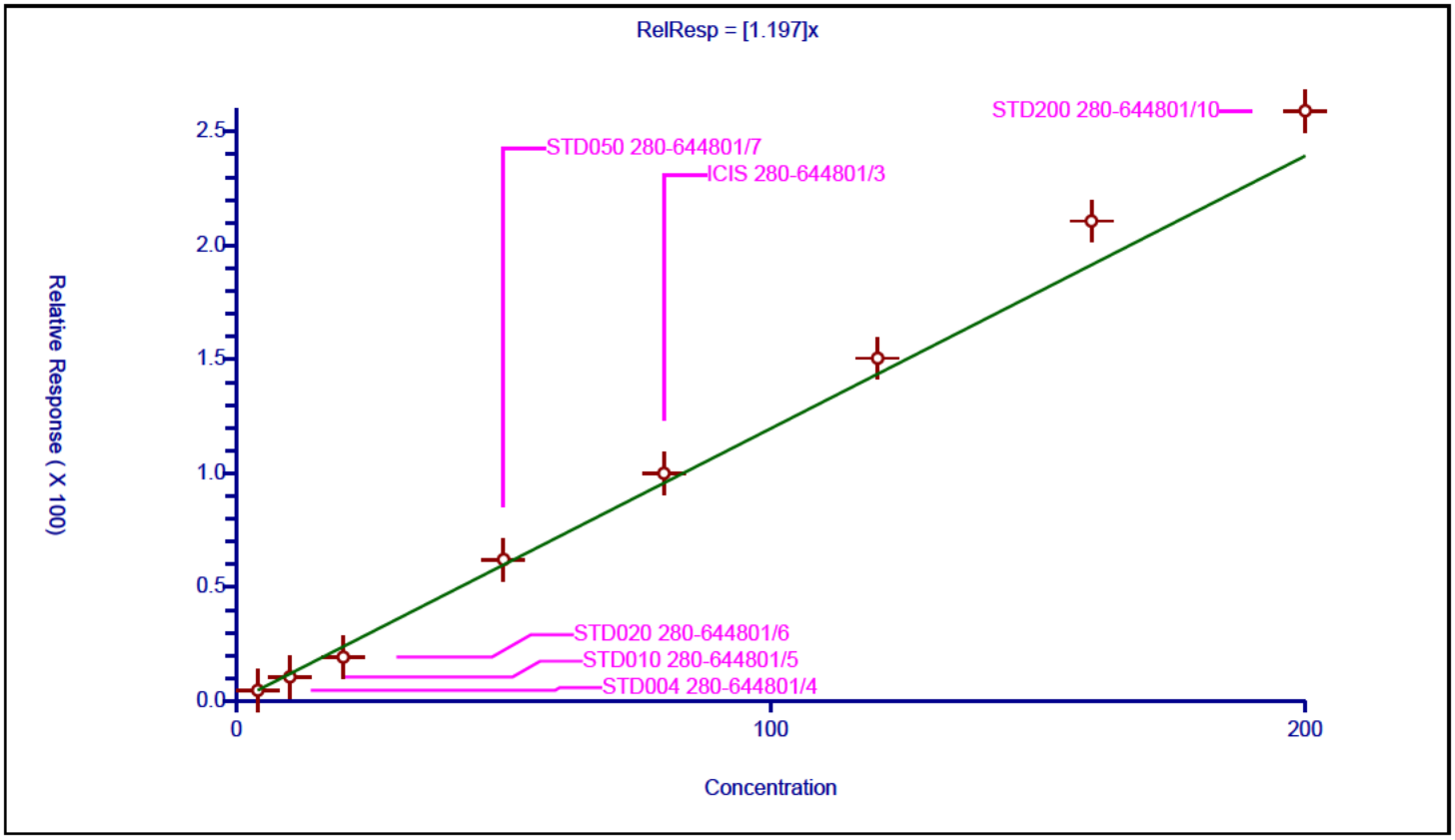
Curve Coefficients

Intercept:	0
Slope:	1.197

Error Coefficients

Relative Standard Deviation:	10.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD004 280-644801/4	4.0	4.730325	40.0	509910.0	1.182581	Y
2	STD010 280-644801/5	10.0	10.644291	40.0	555479.0	1.064429	Y
3	STD020 280-644801/6	20.0	19.326779	40.0	599922.0	0.966339	Y
4	STD050 280-644801/7	50.0	62.167085	40.0	510243.0	1.243342	Y
5	ICIS 280-644801/3	80.0	100.007208	40.0	618785.0	1.25009	Y
6	STD120 280-644801/8	120.0	150.538318	40.0	526473.0	1.254486	Y
7	STD160 280-644801/9	160.0	210.754531	40.0	548089.0	1.317216	Y
8	STD200 280-644801/10	200.0	259.185676	40.0	563658.0	1.295928	Y



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-644801/11 Calibration Date: 03/04/2024 13:09

Instrument ID: SMS_G6 Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) Calib End Date: 03/04/2024 12:47

Lab File ID: G6_b030424011.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7013	0.7051		101000	100000	0.6	20.0
N-Nitrosodimethylamine	Ave	0.9146	0.9324		102000	100000	1.9	20.0
Pyridine	Ave	1.183	1.301		220000	200000	10.0	20.0
Phenol	Ave	2.044	1.965	0.8000	96200	100000	-3.8	20.0
Aniline	Ave	2.043	1.931		94500	100000	-5.5	20.0
Bis(2-chloroethyl)ether	Ave	1.421	1.373	0.7000	96600	100000	-3.4	20.0
2-Chlorophenol	Ave	1.517	1.443	0.8000	95100	100000	-4.9	20.0
1,3-Dichlorobenzene	Ave	1.606	1.537		95700	100000	-4.3	20.0
1,4-Dichlorobenzene	Ave	1.644	1.559		94800	100000	-5.2	20.0
Benzyl alcohol	Ave	0.9814	0.9435		96100	100000	-3.9	20.0
1,2-Dichlorobenzene	Ave	1.557	1.481		95100	100000	-4.9	20.0
2-Methylphenol	Ave	1.278	1.155	0.7000	90400	100000	-9.6	20.0
2,2'-oxybis[1-chloropropane]	Ave	2.558	2.293	0.0100	89600	100000	-10.4	20.0
Acetophenone	Ave	1.929	1.755	0.0100	91000	100000	-9.0	20.0
N-Nitrosodi-n-propylamine	Ave	0.9720	0.8857	0.5000	91100	100000	-8.9	20.0
3 & 4 Methylphenol	Ave	1.394	1.296		93000	100000	-7.0	20.0
Hexachloroethane	Ave	0.6719	0.6097	0.3000	90700	100000	-9.3	20.0
Nitrobenzene	Ave	0.3898	0.3748	0.2000	96200	100000	-3.8	20.0
Isophorone	Ave	0.7559	0.7144	0.4000	94500	100000	-5.5	20.0
2-Nitrophenol	Ave	0.1888	0.1986	0.1000	105000	100000	5.2	20.0
2,4-Dimethylphenol	Ave	0.3082	0.3267	0.2000	106000	100000	6.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4569	0.4347	0.3000	95100	100000	-4.9	20.0
Benzoic acid	Lin2		0.2667		210000	200000	4.8	20.0
2,4-Dichlorophenol	Ave	0.3019	0.2998	0.2000	99300	100000	-0.7	20.0
1,2,4-Trichlorobenzene	Ave	0.3292	0.3213		97600	100000	-2.4	20.0
Naphthalene	Ave	1.048	1.010	0.7000	96400	100000	-3.6	20.0
4-Chloroaniline	Ave	0.4563	0.4449	0.0100	97500	100000	-2.5	20.0
2,6-Dichlorophenol	Ave	0.2953	0.2926		99100	100000	-0.9	20.0
Hexachlorobutadiene	Ave	0.1766	0.1704	0.0100	96500	100000	-3.5	20.0
4-Chloro-3-methylphenol	Ave	0.3094	0.2960	0.2000	95700	100000	-4.3	20.0
2-Methylnaphthalene	Ave	0.7199	0.6875	0.4000	95500	100000	-4.5	20.0
1-Methylnaphthalene	Ave	0.6561	0.6377		97200	100000	-2.8	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3133	0.3014	0.0100	96200	100000	-3.8	20.0
Hexachlorocyclopentadiene	Ave	0.2753	0.2608	0.0500	94700	100000	-5.3	20.0
2,4,6-Trichlorophenol	Ave	0.3587	0.3697	0.2000	103000	100000	3.1	20.0
2,4,5-Trichlorophenol	Ave	0.3884	0.4067	0.2000	105000	100000	4.7	20.0
1,1'-Biphenyl	Ave	1.454	1.440	0.0100	99000	100000	-1.0	20.0
2-Chloronaphthalene	Ave	1.126	1.098	0.8000	97500	100000	-2.5	20.0
2-Nitroaniline	Ave	0.3574	0.3873	0.0100	108000	100000	8.4	20.0
Dimethyl phthalate	Ave	1.218	1.201	0.0100	98600	100000	-1.4	20.0
1,3-Dinitrobenzene	Ave	0.2091	0.2250		108000	100000	7.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-644801/11 | Calibration Date: 03/04/2024 13:09

Instrument ID: SMS_G6 | Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 03/04/2024 12:47

Lab File ID: G6_b030424011.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2854	0.3177	0.2000	111000	100000	11.3	20.0
Acenaphthylene	Ave	1.686	1.694	0.9000	100000	100000	0.5	20.0
3-Nitroaniline	Ave	0.3554	0.3808	0.0100	107000	100000	7.1	20.0
Acenaphthene	Ave	1.124	1.114	0.9000	99100	100000	-0.9	20.0
2,4-Dinitrophenol	Lin1		0.1745	0.0100	204000	200000	1.8	20.0
4-Nitrophenol	Ave	0.1785	0.1899	0.0100	213000	200000	6.4	20.0
2,4-Dinitrotoluene	Ave	0.3715	0.4030	0.2000	108000	100000	8.5	20.0
Dibenzofuran	Ave	1.590	1.532	0.8000	96400	100000	-3.6	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3003	0.3356	0.0100	112000	100000	11.8	20.0
Diethyl phthalate	Ave	1.270	1.261	0.0100	99200	100000	-0.8	20.0
Fluorene	Ave	1.257	1.229	0.9000	97800	100000	-2.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.5761	0.5557	0.4000	96500	100000	-3.5	20.0
4-Nitroaniline	Ave	0.3507	0.3667	0.0100	105000	100000	4.6	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1375	0.0100	197000	200000	-1.5	20.0
Diphenylamine	Ave	1.100	1.106		85500	85000	0.6	20.0
N-Nitrosodiphenylamine	Ave	0.5554	0.5617	0.0100	101000	100000	1.1	20.0
1,2-Diphenylhydrazine	Ave	1.388	1.364		98300	100000	-1.7	20.0
Azobenzene	Ave	1.403	1.364		97200	100000	-2.8	20.0
4-Bromophenyl phenyl ether	Ave	0.2186	0.2240	0.1000	102000	100000	2.5	20.0
Hexachlorobenzene	Ave	0.2845	0.2881	0.1000	101000	100000	1.3	20.0
Pentachlorophenol	Lin2		0.1612	0.0500	205000	200000	2.4	20.0
Phenanthrene	Ave	1.095	1.074	0.7000	98200	100000	-1.8	20.0
Anthracene	Ave	1.095	1.102	0.7000	101000	100000	0.6	20.0
Carbazole	Ave	1.067	1.046	0.0100	98000	100000	-2.0	20.0
Di-n-butyl phthalate	Ave	1.227	1.287	0.0100	105000	100000	4.9	20.0
Fluoranthene	Ave	1.106	1.131	0.6000	102000	100000	2.2	20.0
Pyrene	Ave	1.440	1.470	0.6000	102000	100000	2.1	20.0
Butyl benzyl phthalate	Lin1		0.7199	0.0100	107000	100000	7.1	20.0
Benzo[a]anthracene	Ave	1.288	1.365	0.8000	106000	100000	6.0	20.0
Chrysene	Ave	1.374	1.377	0.7000	100000	100000	0.3	20.0
Bis(2-ethylhexyl) phthalate	Lin2		0.9431	0.0100	102000	100000	1.6	20.0
Di-n-octyl phthalate	Qua		1.589	0.0100	103000	100000	2.8	20.0
Benzo[b]fluoranthene	Ave	1.117	1.235	0.7000	111000	100000	10.6	20.0
Benzo[k]fluoranthene	Ave	1.357	1.355	0.7000	99800	100000	-0.2	20.0
Benzo[a]pyrene	Lin1		1.195	0.7000	99900	100000	-0.0	20.0
Indeno[1,2,3-cd]pyrene	Lin1		1.175	0.5000	90000	100000	-10.0	20.0
Dibenz(a,h)anthracene	Ave	1.043	1.190	0.4000	114000	100000	14.1	20.0
Benzo[g,h,i]perylene	Ave	1.197	1.275	0.5000	107000	100000	6.5	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424011.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 04-Mar-2024 13:09:30 ALS Bottle#: 10 Worklist Smp#: 11
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: icv
Operator ID: RC Instrument ID: SMS_G6
Sublist:

Method: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 04-Mar-2024 15:51:27 Calib Date: 04-Mar-2024 12:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1687

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.320	4.323	-0.003	96	183989	40.0	40.0	
* 2 Naphthalene-d8	136	5.481	5.484	-0.003	100	679058	40.0	40.0	
* 3 Acenaphthene-d10	164	7.166	7.168	-0.002	90	374454	40.0	40.0	
* 4 Phenanthrene-d10	188	8.610	8.618	-0.008	96	626868	40.0	40.0	
* 5 Chrysene-d12	240	11.455	11.463	-0.008	99	512453	40.0	40.0	
* 6 Perylene-d12	264	13.798	13.806	-0.008	99	575434	40.0	40.0	
16 1,4-Dioxane	88	2.042	2.039	0.003	99	324348	100.0	100.6	
17 N-Nitrosodimethylamine	74	2.234	2.232	0.002	90	428894	100.0	101.9	
18 Pyridine	79	2.261	2.264	-0.003	89	1197043	200.0	219.9	
29 Phenol	94	4.021	4.023	-0.002	98	903962	100.0	96.2	
28 Aniline	93	4.037	4.034	0.003	97	888070	100.0	94.5	
32 Bis(2-chloroethyl)ether	93	4.090	4.088	0.002	94	631652	100.0	96.6	
33 2-Chlorophenol	128	4.144	4.141	0.003	97	663689	100.0	95.1	
34 n-Decane	43	4.202	4.205	-0.003	94	782766	100.0	92.9	
35 1,3-Dichlorobenzene	146	4.277	4.275	0.002	98	706936	100.0	95.7	
37 1,4-Dichlorobenzene	146	4.336	4.334	0.002	95	716983	100.0	94.8	
39 Benzyl alcohol	108	4.443	4.441	0.002	94	433986	100.0	96.1	
40 1,2-Dichlorobenzene	146	4.475	4.473	0.002	97	681025	100.0	95.1	
42 2-Methylphenol	108	4.550	4.553	-0.003	93	531284	100.0	90.4	
41 Indene	116	4.555	4.553	0.002	92	1760349	200.0	165.2	
43 2,2'-oxybis[1-chloropropane]	45	4.571	4.564	0.007	93	1054632	100.0	89.6	
45 Acetophenone	105	4.678	4.676	0.002	96	807051	100.0	91.0	
46 N-Nitrosodi-n-propylamine	70	4.684	4.687	-0.003	95	407386	100.0	91.1	
47 4-Methylphenol	108	4.694	4.692	0.002	93	596325	100.0	93.0	
49 3 & 4 Methylphenol	108	4.694	4.692	0.002	87	596325	100.0	93.0	
48 3-Methylphenol	108	4.694	4.692	0.002	96	596325	100.0	93.0	
52 Hexachloroethane	117	4.780	4.778	0.002	98	280453	100.0	90.7	
53 Nitrobenzene	77	4.828	4.826	0.002	91	636361	100.0	96.2	
55 Isophorone	82	5.053	5.056	-0.003	99	1212809	100.0	94.5	
56 2-Nitrophenol	139	5.128	5.125	0.003	93	337125	100.0	105.2	
58 2,4-Dimethylphenol	107	5.181	5.179	0.002	94	554603	100.0	106.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
60 Bis(2-chloroethoxy)methane	93	5.261	5.259	0.002	97	737975	100.0	95.1	
63 Benzoic acid	105	5.331	5.318	0.013	91	905366	200.0	209.6	
62 2,4-Dichlorophenol	162	5.358	5.355	0.003	94	508964	100.0	99.3	
66 1,2,4-Trichlorobenzene	180	5.433	5.435	-0.002	94	545533	100.0	97.6	
67 Naphthalene	128	5.502	5.500	0.002	97	1714923	100.0	96.4	
69 4-Chloroaniline	127	5.556	5.558	-0.002	97	755313	100.0	97.5	
68 2,6-Dichlorophenol	162	5.566	5.569	-0.003	98	496790	100.0	99.1	
71 Hexachlorobutadiene	225	5.641	5.644	-0.003	97	289252	100.0	96.5	
77 4-Chloro-3-methylphenol	107	6.032	6.029	0.003	96	502483	100.0	95.7	
80 2-Methylnaphthalene	142	6.165	6.163	0.002	95	1167101	100.0	95.5	
81 1-Methylnaphthalene	142	6.256	6.259	-0.003	96	1082573	100.0	97.2	
83 Hexachlorocyclopentadiene	237	6.337	6.334	0.002	95	244177	100.0	94.7	
84 1,2,4,5-Tetrachlorobenzene	216	6.331	6.334	-0.003	97	511642	100.0	96.2	
87 2,4,6-Trichlorophenol	196	6.443	6.441	0.002	92	346070	100.0	103.1	
88 2,4,5-Trichlorophenol	196	6.476	6.473	0.003	94	380690	100.0	104.7	
90 1,1'-Biphenyl	154	6.620	6.617	0.003	96	1348041	100.0	99.0	
91 2-Chloronaphthalene	162	6.631	6.628	0.003	96	1027811	100.0	97.5	
93 2-Nitroaniline	65	6.732	6.730	0.002	87	362586	100.0	108.4	
96 Dimethyl phthalate	163	6.925	6.928	-0.003	97	1124027	100.0	98.6	
97 1,3-Dinitrobenzene	168	6.936	6.933	0.003	84	210608	100.0	107.6	
98 2,6-Dinitrotoluene	165	6.973	6.970	0.003	96	297402	100.0	111.3	
99 Acenaphthylene	152	7.026	7.029	-0.003	98	1585873	100.0	100.5	
100 3-Nitroaniline	138	7.133	7.131	0.002	97	356468	100.0	107.1	
101 Acenaphthene	153	7.203	7.200	0.003	93	1043181	100.0	99.1	
102 2,4-Dinitrophenol	184	7.235	7.233	0.002	85	326683	200.0	203.7	
107 4-Nitrophenol	109	7.315	7.318	-0.003	95	355577	200.0	212.8	
109 2,4-Dinitrotoluene	165	7.363	7.361	0.002	94	377304	100.0	108.5	
108 Dibenzofuran	168	7.369	7.372	-0.003	96	1433833	100.0	96.4	
114 2,3,4,6-Tetrachlorophenol	232	7.497	7.500	-0.003	73	314169	100.0	111.8	
116 Diethyl phthalate	149	7.615	7.618	-0.003	98	1180001	100.0	99.2	
117 Hexadecane	57	7.658	7.660	-0.002	92	873082	100.0	98.6	
118 Fluorene	166	7.700	7.703	-0.003	96	1150257	100.0	97.8	
120 4-Chlorophenyl phenyl ether	204	7.711	7.714	-0.003	93	520182	100.0	96.5	
122 4-Nitroaniline	138	7.727	7.730	-0.003	86	343244	100.0	104.6	
123 4,6-Dinitro-2-methylphenol	198	7.765	7.767	-0.002	83	431002	200.0	197.0	
125 Diphenylamine	169	7.829	7.826	0.003	96	880314	85.0	85.5	
126 N-Nitrosodiphenylamine	169	7.829	7.826	0.003	99	880314	100.0	101.1	
129 Azobenzene	77	7.861	7.864	-0.003	99	1277307	100.0	97.2	
128 1,2-Diphenylhydrazine	77	7.861	7.864	-0.003	98	1277307	100.0	98.3	
138 4-Bromophenyl phenyl ether	248	8.182	8.185	-0.003	66	350996	100.0	102.5	
140 Hexachlorobenzene	284	8.251	8.254	-0.003	97	451556	100.0	101.3	
143 Pentachlorophenol	266	8.444	8.447	-0.003	98	505175	200.0	204.9	
288 n-Octadecane	57	8.556	8.564	-0.008	93	888861	100.0	101.7	
148 Phenanthrene	178	8.636	8.639	-0.003	97	1683833	100.0	98.2	
151 Anthracene	178	8.685	8.687	-0.002	97	1726673	100.0	100.6	
152 Carbazole	167	8.845	8.848	-0.003	95	1638887	100.0	98.0	
155 Di-n-butyl phthalate	149	9.214	9.222	-0.008	99	2017179	100.0	104.9	
160 Fluoranthene	202	9.797	9.805	-0.008	97	1772105	100.0	102.2	
162 Pyrene	202	10.016	10.025	-0.009	98	1882739	100.0	102.1	
169 Butyl benzyl phthalate	149	10.760	10.773	-0.013	97	922313	100.0	107.1	
173 Benzo[a]anthracene	228	11.444	11.453	-0.009	98	1748704	100.0	106.0	
175 Chrysene	228	11.493	11.501	-0.008	97	1764756	100.0	100.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
176 Bis(2-ethylhexyl) phthalate	149	11.578	11.586	-0.008	98	1208189	100.0	101.6	
178 Di-n-octyl phthalate	149	12.621	12.635	-0.014	99	2035495	100.0	102.8	
179 Benzo[b]fluoranthene	252	13.140	13.148	-0.008	97	1776436	100.0	110.6	
181 Benzo[k]fluoranthene	252	13.193	13.196	-0.003	99	1948929	100.0	99.8	
183 Benzo[a]pyrene	252	13.702	13.710	-0.008	76	1718553	100.0	99.9	
187 Indeno[1,2,3-cd]pyrene	276	15.761	15.769	-0.008	98	1504710	100.0	90.0	
188 Dibenz(a,h)anthracene	278	15.820	15.822	-0.002	93	1711959	100.0	114.1	
189 Benzo[g,h,i]perylene	276	16.178	16.181	-0.003	99	1833717	100.0	106.5	

Reagents:

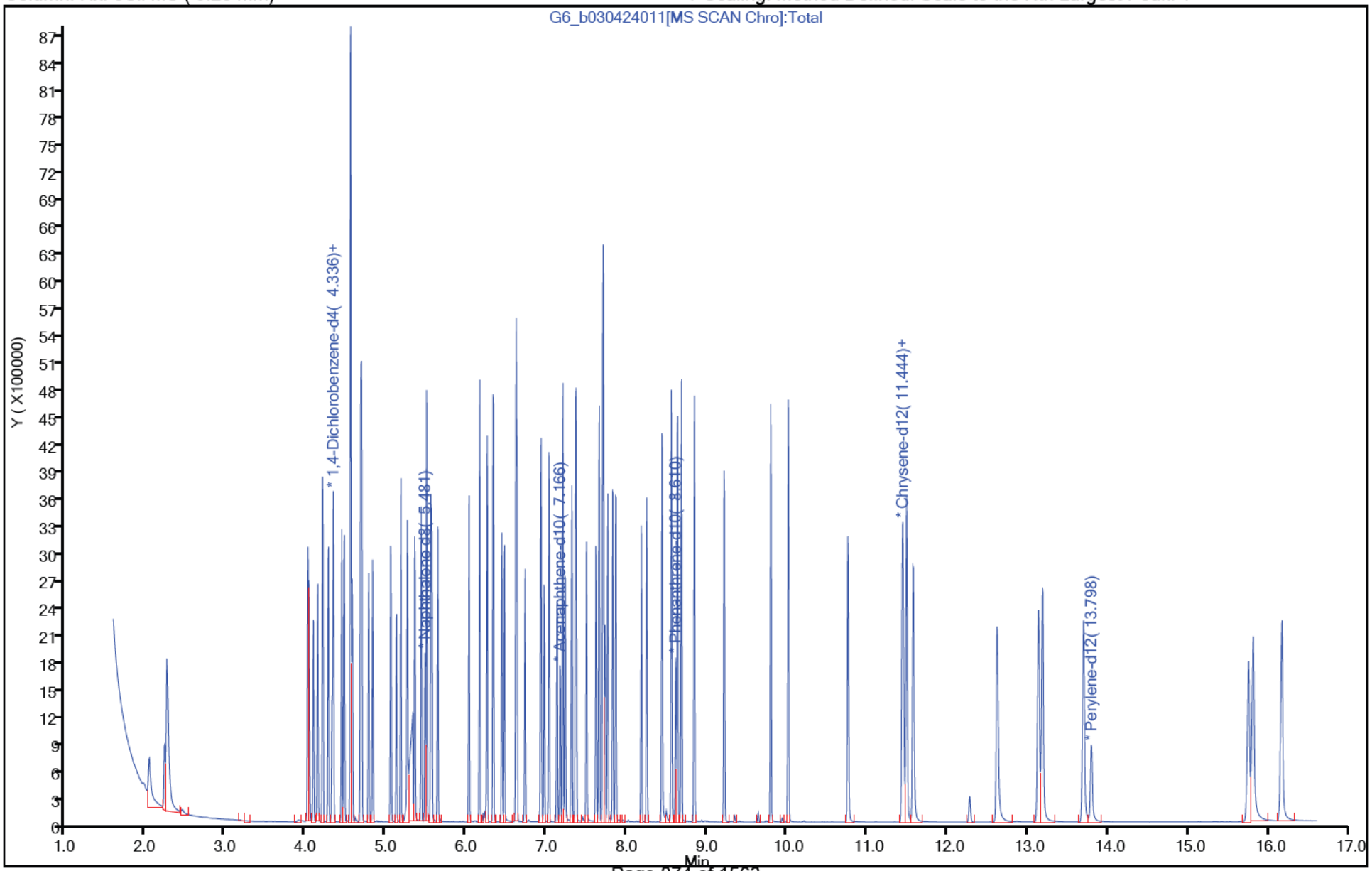
MS-HSL-ICV1_00010	Amount Added: 250.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

Report Date: 04-Mar-2024 15:51:29 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424011.D				
Injection Date:	04-Mar-2024 13:09:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	ICV			Worklist Smp#:	11
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-646020/10 Calibration Date: 03/15/2024 12:59

Instrument ID: SMS_G6 Calib Start Date: 03/15/2024 09:14

GC Column: Rxi-5Sil MS ID: 0.25(mm) Calib End Date: 03/15/2024 12:35

Lab File ID: 031524012.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tributyl phosphate	Ave	1.717	1.625		94600	100000	-5.4	20.0

Report Date: 15-Mar-2024 13:47:10 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524012.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 15-Mar-2024 12:59:30 ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: icv
Operator ID: RC Instrument ID: SMS_G6
Sublist:

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 15-Mar-2024 13:47:08 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1683

First Level Reviewer: HPV7 Date: 15-Mar-2024 13:31:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.315	4.320	-0.005	95	239021	40.0	40.0	
* 2 Naphthalene-d8	136	5.486	5.486	0.000	99	897187	40.0	40.0	
* 3 Acenaphthene-d10	164	7.171	7.176	-0.005	92	480967	40.0	40.0	
* 4 Phenanthrene-d10	188	8.615	8.615	0.000	96	897832	40.0	40.0	
* 5 Chrysene-d12	240	11.455	11.460	-0.005	99	831762	40.0	40.0	
* 6 Perylene-d12	264	13.819	13.824	-0.005	99	1005236	40.0	40.0	
$ 10 2,4,6-Trichlorophenol-d2	198	6.443	6.449	-0.006	0	332192	75.0	75.3	
14 Triethyl amine	86	1.817	1.822	-0.005	97	821262	100.0	91.1	M
15 2-Ethoxyethanol	59	1.961	1.966	-0.005	93	496620	100.0	96.0	
19 Dimethylformamide	73	2.443	2.448	-0.005	87	551871	100.0	96.0	
57 Benzyl dichloride	125	5.170	5.170	0.000	99	1109066	100.0	96.8	
286 Alpha-Terpineol	59	5.523	5.523	0.000	93	700692	100.0	94.8	
79 Carbofuran phenol	164	6.117	6.122	-0.005	85	468937	100.0	97.8	
287 Toluene diamine (2,4- + 2,6- isb	122	6.614	6.620	-0.006	0	1697933	200.0	188.3	
127 Tributyl phosphate	99	7.834	7.839	-0.005	97	1954015	100.0	94.6	
64 Tris(2,3-dibromopropyl)phosphate	419	14.771	14.782	-0.011	58	333533	400.0	269.2	
289 Dibenzo[a,e]pyrene	302	18.601	18.601	0.000	95	1129425	100.0	134.6	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

MS-CUST-ICV_00003 Amount Added: 500.00 Units: uL
MS-IS_00037 Amount Added: 100.00 Units: uL Run Reagent

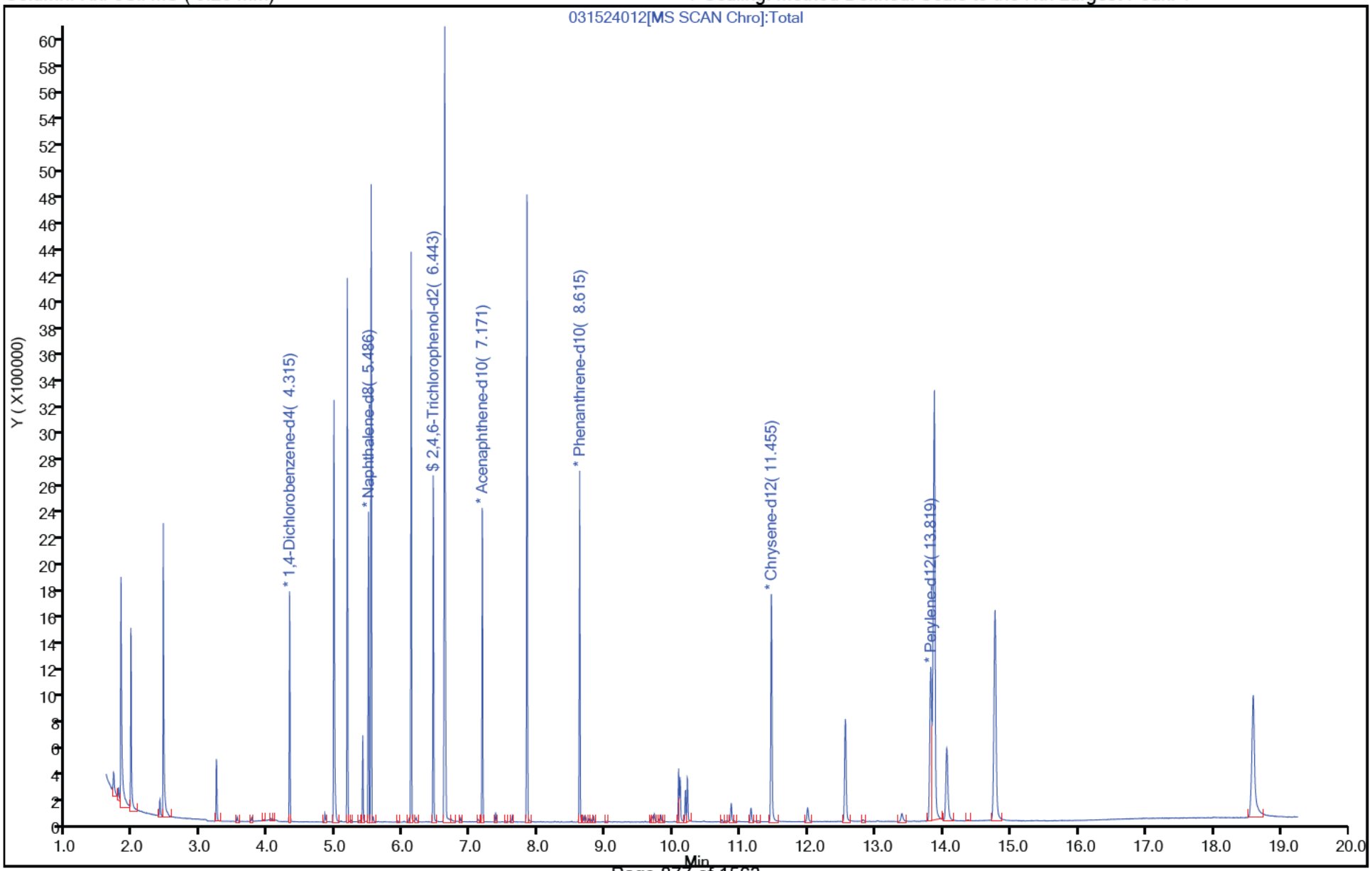
Report Date: 15-Mar-2024 13:47:10 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524012.D

Injection Date:	15-Mar-2024 12:59:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	ICV			Worklist Smp#:	10
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVIS 280-646066/3 | Calibration Date: 03/15/2024 14:12

Instrument ID: SMS_G6 | Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524003.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7013	0.5702		65000	80000	-18.7	20.0
N-Nitrosodimethylamine	Ave	0.9146	0.8820		77100	80000	-3.6	20.0
Pyridine	Ave	1.183	1.167		158000	160000	-1.3	20.0
Aniline	Ave	2.043	1.802		70600	80000	-11.8	20.0
Phenol	Ave	2.044	1.716	0.8000	67200	80000	-16.0	20.0
Bis(2-chloroethyl)ether	Ave	1.421	1.310	0.7000	73800	80000	-7.8	20.0
2-Chlorophenol	Ave	1.517	1.398	0.8000	73700	80000	-7.8	20.0
1,3-Dichlorobenzene	Ave	1.606	1.425		71000	80000	-11.3	20.0
1,4-Dichlorobenzene	Ave	1.644	1.461		71100	80000	-11.1	20.0
Benzyl alcohol	Ave	0.9814	0.9025		73600	80000	-8.0	20.0
1,2-Dichlorobenzene	Ave	1.557	1.387		71300	80000	-10.9	20.0
2-Methylphenol	Ave	1.278	1.106	0.7000	69200	80000	-13.4	20.0
2,2'-oxybis[1-chloropropane]	Ave	2.558	2.542	0.0100	79500	80000	-0.6	20.0
Acetophenone	Ave	1.929	1.692	0.0100	70200	80000	-12.3	20.0
N-Nitrosodi-n-propylamine	Ave	0.9720	0.9014	0.5000	74200	80000	-7.3	20.0
3 & 4 Methylphenol	Ave	1.394	1.289		74000	80000	-7.5	20.0
Hexachloroethane	Ave	0.6719	0.5918	0.3000	70500	80000	-11.9	20.0
Nitrobenzene	Ave	0.3898	0.3508	0.2000	72000	80000	-10.0	20.0
Isophorone	Ave	0.7559	0.6755	0.4000	71500	80000	-10.6	20.0
2-Nitrophenol	Ave	0.1888	0.1979	0.1000	83900	80000	4.8	20.0
2,4-Dimethylphenol	Ave	0.3082	0.2675	0.2000	69400	80000	-13.2	20.0
Bis(2-chloroethoxy)methane	Ave	0.4569	0.4491	0.3000	78600	80000	-1.7	20.0
Benzoic acid	Lin2		0.2429		156000	160000	-2.5	20.0
2,4-Dichlorophenol	Ave	0.3019	0.2966	0.2000	78600	80000	-1.7	20.0
1,2,4-Trichlorobenzene	Ave	0.3292	0.3044		74000	80000	-7.5	20.0
Naphthalene	Ave	1.048	0.9741	0.7000	74400	80000	-7.0	20.0
4-Chloroaniline	Ave	0.4563	0.4390	0.0100	77000	80000	-3.8	20.0
2,6-Dichlorophenol	Ave	0.2953	0.2866		77600	80000	-2.9	20.0
Hexachlorobutadiene	Ave	0.1766	0.1725	0.0100	78100	80000	-2.3	20.0
4-Chloro-3-methylphenol	Ave	0.3094	0.2794	0.2000	72200	80000	-9.7	20.0
2-Methylnaphthalene	Ave	0.7199	0.6672	0.4000	74100	80000	-7.3	20.0
1-Methylnaphthalene	Ave	0.6561	0.6124		74700	80000	-6.7	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3133	0.2909	0.0100	74300	80000	-7.2	20.0
Hexachlorocyclopentadiene	Ave	0.2753	0.2636	0.0500	76600	80000	-4.2	20.0
2,4,6-Trichlorophenol	Ave	0.3587	0.3804	0.2000	84800	80000	6.0	20.0
2,4,5-Trichlorophenol	Ave	0.3884	0.4231	0.2000	87100	80000	8.9	20.0
1,1'-Biphenyl	Ave	1.454	1.350	0.0100	74300	80000	-7.2	20.0
2-Chloronaphthalene	Ave	1.126	1.092	0.8000	77600	80000	-3.0	20.0
2-Nitroaniline	Ave	0.3574	0.3804	0.0100	85100	80000	6.4	20.0
Dimethyl phthalate	Ave	1.218	1.214	0.0100	79700	80000	-0.4	20.0
1,3-Dinitrobenzene	Ave	0.2091	0.2365		90500	80000	13.1	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVIS 280-646066/3 | Calibration Date: 03/15/2024 14:12

Instrument ID: SMS_G6 | Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524003.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2854	0.3074	0.2000	86200	80000	7.7	20.0
Acenaphthylene	Ave	1.686	1.728	0.9000	82000	80000	2.5	20.0
3-Nitroaniline	Ave	0.3554	0.3879	0.0100	87300	80000	9.2	20.0
Acenaphthene	Ave	1.124	1.045	0.9000	74400	80000	-7.1	20.0
2,4-Dinitrophenol	Lin1		0.1835	0.0100	173000	160000	8.0	20.0
4-Nitrophenol	Ave	0.1785	0.1633	0.0100	146000	160000	-8.5	20.0
2,4-Dinitrotoluene	Ave	0.3715	0.3852	0.2000	83000	80000	3.7	20.0
Dibenzofuran	Ave	1.590	1.507	0.8000	75800	80000	-5.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3003	0.3364	0.0100	89600	80000	12.0	20.0
Diethyl phthalate	Ave	1.270	1.302	0.0100	82000	80000	2.5	20.0
Fluorene	Ave	1.257	1.191	0.9000	75800	80000	-5.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.5761	0.5363	0.4000	74500	80000	-6.9	20.0
4-Nitroaniline	Ave	0.3507	0.3778	0.0100	86200	80000	7.7	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1360	0.0100	157000	160000	-1.6	20.0
Diphenylamine	Ave	1.100	1.111		68700	68000	1.0	20.0
N-Nitrosodiphenylamine	Ave	0.5554	0.5453	0.0100	78500	80000	-1.8	20.0
1,2-Diphenylhydrazine	Ave	1.388	1.275		74300	80900	-8.2	20.0
Azobenzene	Ave	1.403	1.289		73500	80000	-8.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2186	0.2236	0.1000	81800	80000	2.3	20.0
Hexachlorobenzene	Ave	0.2845	0.3045	0.1000	85600	80000	7.0	20.0
Pentachlorophenol	Lin2		0.1771	0.0500	181000	160000	13.2	20.0
Phenanthrene	Ave	1.095	1.026	0.7000	75000	80000	-6.3	20.0
Anthracene	Ave	1.095	1.061	0.7000	77500	80000	-3.1	20.0
Carbazole	Ave	1.067	1.055	0.0100	79000	80000	-1.2	20.0
Alachlor	Ave	0.1208	0.1361		90100	80000	12.7	20.0
Di-n-butyl phthalate	Ave	1.227	1.317	0.0100	85900	80000	7.3	20.0
Fluoranthene	Ave	1.106	1.131	0.6000	81800	80000	2.2	20.0
Pyrene	Ave	1.440	1.314	0.6000	73000	80000	-8.7	20.0
Butyl benzyl phthalate	Lin1		0.6828	0.0100	81800	80000	2.3	20.0
Benzo[a]anthracene	Ave	1.288	1.209	0.8000	75100	80000	-6.2	20.0
Chrysene	Ave	1.374	1.201	0.7000	69900	80000	-12.6	20.0
Bis(2-ethylhexyl) phthalate	Lin2		0.9249	0.0100	80800	80000	1.0	20.0
Di-n-octyl phthalate	Qua		1.654	0.0100	87900	80000	9.8	20.0
Benzo[b]fluoranthene	Ave	1.117	1.093	0.7000	78300	80000	-2.1	20.0
Benzo[k]fluoranthene	Ave	1.357	1.250	0.7000	73700	80000	-7.9	20.0
Benzo[a]pyrene	Lin1		1.058	0.7000	71400	80000	-10.8	20.0
Indeno[1,2,3-cd]pyrene	Lin1		1.070	0.5000	67000	80000	-16.3	20.0
Dibenz(a,h)anthracene	Ave	1.043	0.9172	0.4000	70300	80000	-12.1	20.0
Benzo[g,h,i]perylene	Ave	1.197	0.9370	0.5000	62600	80000	-21.7*	20.0
2-Fluorophenol (Surr)	Ave	1.457	1.319		72400	80000	-9.5	20.0
Phenol-d5 (Surr)	Ave	1.793	1.570		70000	80000	-12.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVIS 280-646066/3 Calibration Date: 03/15/2024 14:12

Instrument ID: SMS_G6 Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524003.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitrobenzene-d5 (Surr)	Ave	0.3917	0.3475		71000	80000	-11.3	20.0
2-Fluorobiphenyl	Ave	1.244	1.198		77000	80000	-3.7	20.0
2,4,6-Tribromophenol (Surr)	Lin1		0.3052		93300	80000	16.7	20.0
Terphenyl-d14 (Surr)	Ave	1.108	1.052		76000	80000	-5.0	20.0

Report Date: 18-Mar-2024 14:41:09 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524003.D
Lims ID: CCVIS HSL
Client ID:
Sample Type: CCVIS
Inject. Date: 15-Mar-2024 14:12:30 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: CCVIS HSL
Operator ID: RC Instrument ID: SMS_G6
Sublist: chrom-SMSG6_8270C*sub97

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:41:08 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 15-Mar-2024 14:52:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	216399	40.0	40.0	
* 2 Naphthalene-d8	136	5.486	5.486	0.000	99	794954	40.0	40.0	
* 3 Acenaphthene-d10	164	7.176	7.176	0.000	91	434100	40.0	40.0	
* 4 Phenanthrene-d10	188	8.620	8.620	0.000	96	751464	40.0	40.0	
* 5 Chrysene-d12	240	11.466	11.466	0.000	99	688050	40.0	40.0	
* 6 Perylene-d12	264	13.814	13.814	0.000	99	801374	40.0	40.0	
$ 7 2-Fluorophenol	112	3.224	3.224	0.000	93	570946	80.0	72.4	
$ 8 Phenol-d5	99	4.010	4.010	0.000	95	679437	80.0	70.0	
$ 9 Nitrobenzene-d5	82	4.812	4.812	0.000	92	552427	80.0	71.0	
$ 11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	1040263	80.0	77.0	
$ 12 2,4,6-Tribromophenol	330	7.946	7.946	0.000	91	264949	80.0	93.3	
$ 13 Terphenyl-d14	244	10.203	10.203	0.000	97	1447835	80.0	76.0	
16 1,4-Dioxane	88	1.956	1.956	0.000	97	246778	80.0	65.0	
17 N-Nitrosodimethylamine	74	2.164	2.164	0.000	90	381712	80.0	77.1	
18 Pyridine	79	2.197	2.197	0.000	85	1010529	160.0	157.8	
29 Phenol	94	4.026	4.026	0.000	87	742508	80.0	67.2	
28 Aniline	93	4.026	4.026	0.000	73	780080	80.0	70.6	
31 Alpha Methyl Styrene	118	4.074	4.074	0.000	92	531176	80.0	72.9	
32 Bis(2-chloroethyl)ether	93	4.079	4.079	0.000	93	567110	80.0	73.8	
33 2-Chlorophenol	128	4.138	4.138	0.000	97	605058	80.0	73.7	
34 n-Decane	43	4.197	4.197	0.000	97	778321	80.0	78.5	
35 1,3-Dichlorobenzene	146	4.267	4.267	0.000	99	616837	80.0	71.0	
37 1,4-Dichlorobenzene	146	4.331	4.331	0.000	95	632440	80.0	71.1	
39 Benzyl alcohol	108	4.443	4.443	0.000	94	390591	80.0	73.6	
40 1,2-Dichlorobenzene	146	4.470	4.470	0.000	98	600441	80.0	71.3	
41 Indene	116	4.550	4.550	0.000	93	1744382	160.0	139.1	
42 2-Methylphenol	108	4.555	4.555	0.000	94	478748	80.0	69.2	
43 2,2'-oxybis[1-chloropropane]	45	4.561	4.561	0.000	93	1099995	80.0	79.5	
45 Acetophenone	105	4.678	4.678	0.000	96	732440	80.0	70.2	
46 N-Nitrosodi-n-propylamine	70	4.684	4.684	0.000	96	390138	80.0	74.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
49 3 & 4 Methylphenol	108	4.700	4.700	0.000	79	557977	80.0	74.0	
47 4-Methylphenol	108	4.700	4.700	0.000	91	557977	80.0	74.0	
48 3-Methylphenol	108	4.700	4.700	0.000	95	557977	80.0	74.0	
52 Hexachloroethane	117	4.775	4.775	0.000	98	256148	80.0	70.5	
53 Nitrobenzene	77	4.828	4.828	0.000	93	557786	80.0	72.0	
55 Isophorone	82	5.058	5.058	0.000	98	1073962	80.0	71.5	
56 2-Nitrophenol	139	5.128	5.128	0.000	91	314708	80.0	83.9	
58 2,4-Dimethylphenol	107	5.186	5.186	0.000	93	425320	80.0	69.4	
60 Bis(2-chloroethoxy)methane	93	5.261	5.261	0.000	99	713957	80.0	78.6	
63 Benzoic acid	105	5.336	5.336	0.000	93	772256	160.0	156.0	
62 2,4-Dichlorophenol	162	5.363	5.363	0.000	93	471566	80.0	78.6	
66 1,2,4-Trichlorobenzene	180	5.438	5.438	0.000	94	483939	80.0	74.0	
67 Naphthalene	128	5.502	5.502	0.000	97	1548707	80.0	74.4	
69 4-Chloroaniline	127	5.561	5.561	0.000	97	698023	80.0	77.0	
68 2,6-Dichlorophenol	162	5.572	5.572	0.000	98	455622	80.0	77.6	
71 Hexachlorobutadiene	225	5.641	5.641	0.000	95	274259	80.0	78.1	
77 4-Chloro-3-methylphenol	107	6.042	6.042	0.000	94	444206	80.0	72.2	
80 2-Methylnaphthalene	142	6.171	6.171	0.000	94	1060727	80.0	74.1	
81 1-Methylnaphthalene	142	6.262	6.262	0.000	95	973592	80.0	74.7	
84 1,2,4,5-Tetrachlorobenzene	216	6.336	6.336	0.000	97	462435	80.0	74.3	
83 Hexachlorocyclopentadiene	237	6.336	6.336	0.000	74	228866	80.0	76.6	
86 2,3-Dichlorobenzenamine	161	6.443	6.443	0.000	97	534845	80.0	80.4	
87 2,4,6-Trichlorophenol	196	6.454	6.454	0.000	94	330244	80.0	84.8	
88 2,4,5-Trichlorophenol	196	6.486	6.486	0.000	96	367335	80.0	87.1	
90 1,1'-Biphenyl	154	6.620	6.620	0.000	94	1172110	80.0	74.3	
91 2-Chloronaphthalene	162	6.636	6.636	0.000	95	948304	80.0	77.6	
93 2-Nitroaniline	65	6.738	6.738	0.000	87	330237	80.0	85.1	
96 Dimethyl phthalate	163	6.930	6.930	0.000	99	1053608	80.0	79.7	
97 1,3-Dinitrobenzene	168	6.946	6.946	0.000	93	205309	80.0	90.5	
98 2,6-Dinitrotoluene	165	6.978	6.978	0.000	95	266884	80.0	86.2	
99 Acenaphthylene	152	7.037	7.037	0.000	98	1500085	80.0	82.0	
100 3-Nitroaniline	138	7.139	7.139	0.000	96	336814	80.0	87.3	
101 Acenaphthene	153	7.208	7.208	0.000	93	907290	80.0	74.4	
102 2,4-Dinitrophenol	184	7.240	7.240	0.000	85	318687	160.0	172.8	
107 4-Nitrophenol	109	7.337	7.337	0.000	91	283543	160.0	146.4	
109 2,4-Dinitrotoluene	165	7.369	7.369	0.000	94	334451	80.0	83.0	
108 Dibenzofuran	168	7.374	7.374	0.000	97	1308335	80.0	75.8	
114 2,3,4,6-Tetrachlorophenol	232	7.508	7.508	0.000	71	292100	80.0	89.6	
116 Diethyl phthalate	149	7.620	7.620	0.000	98	1130491	80.0	82.0	
117 Hexadecane	57	7.658	7.658	0.000	90	857568	80.0	83.6	
118 Fluorene	166	7.711	7.711	0.000	98	1033741	80.0	75.8	
120 4-Chlorophenyl phenyl ether	204	7.716	7.716	0.000	92	465576	80.0	74.5	
122 4-Nitroaniline	138	7.738	7.738	0.000	87	328015	80.0	86.2	
123 4,6-Dinitro-2-methylphenol	198	7.775	7.775	0.000	83	408676	160.0	157.5	
126 N-Nitrosodiphenylamine	169	7.834	7.834	0.000	100	819550	80.0	78.5	
125 Diphenylamine	169	7.834	7.834	0.000	96	819550	68.0	68.7	
128 1,2-Diphenylhydrazine	77	7.871	7.871	0.000	97	1118824	80.9	74.3	
129 Azobenzene	77	7.871	7.871	0.000	98	1118824	80.0	73.5	
138 4-Bromophenyl phenyl ether	248	8.192	8.192	0.000	65	336026	80.0	81.8	
140 Hexachlorobenzene	284	8.262	8.262	0.000	97	457587	80.0	85.6	
143 Pentachlorophenol	266	8.454	8.454	0.000	97	532423	160.0	181.0	
288 n-Octadecane	57	8.561	8.561	0.000	92	884362	80.0	84.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
148 Phenanthrene	178	8.642	8.642	0.000	97	1541655	80.0	75.0	
151 Anthracene	178	8.695	8.695	0.000	97	1594892	80.0	77.5	
152 Carbazole	167	8.856	8.856	0.000	95	1584956	80.0	79.0	
154 Alachlor	188	9.016	9.016	0.000	91	204586	80.0	90.1	
155 Di-n-butyl phthalate	149	9.225	9.225	0.000	99	1978664	80.0	85.9	
160 Fluoranthene	202	9.808	9.808	0.000	97	1699520	80.0	81.8	a
162 Pyrene	202	10.032	10.032	0.000	98	1807919	80.0	73.0	
169 Butyl benzyl phthalate	149	10.770	10.770	0.000	95	939588	80.0	81.8	
173 Benzo[a]anthracene	228	11.455	11.455	0.000	98	1663580	80.0	75.1	
175 Chrysene	228	11.503	11.503	0.000	96	1652222	80.0	69.9	
176 Bis(2-ethylhexyl) phthalate	149	11.578	11.578	0.000	97	1272810	80.0	80.8	
178 Di-n-octyl phthalate	149	12.626	12.626	0.000	99	2275390	80.0	87.9	
179 Benzo[b]fluoranthene	252	13.156	13.156	0.000	96	1751889	80.0	78.3	
181 Benzo[k]fluoranthene	252	13.204	13.204	0.000	98	2003465	80.0	73.7	
183 Benzo[a]pyrene	252	13.718	13.718	0.000	76	1696334	80.0	71.4	
187 Indeno[1,2,3-cd]pyrene	276	15.777	15.777	0.000	98	1472505	80.0	67.0	
188 Dibenz(a,h)anthracene	278	15.836	15.836	0.000	91	1470067	80.0	70.3	
189 Benzo[g,h,i]perylene	276	16.194	16.194	0.000	98	1501777	80.0	62.6	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

MS-HSL-WS_00010	Amount Added: 200.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

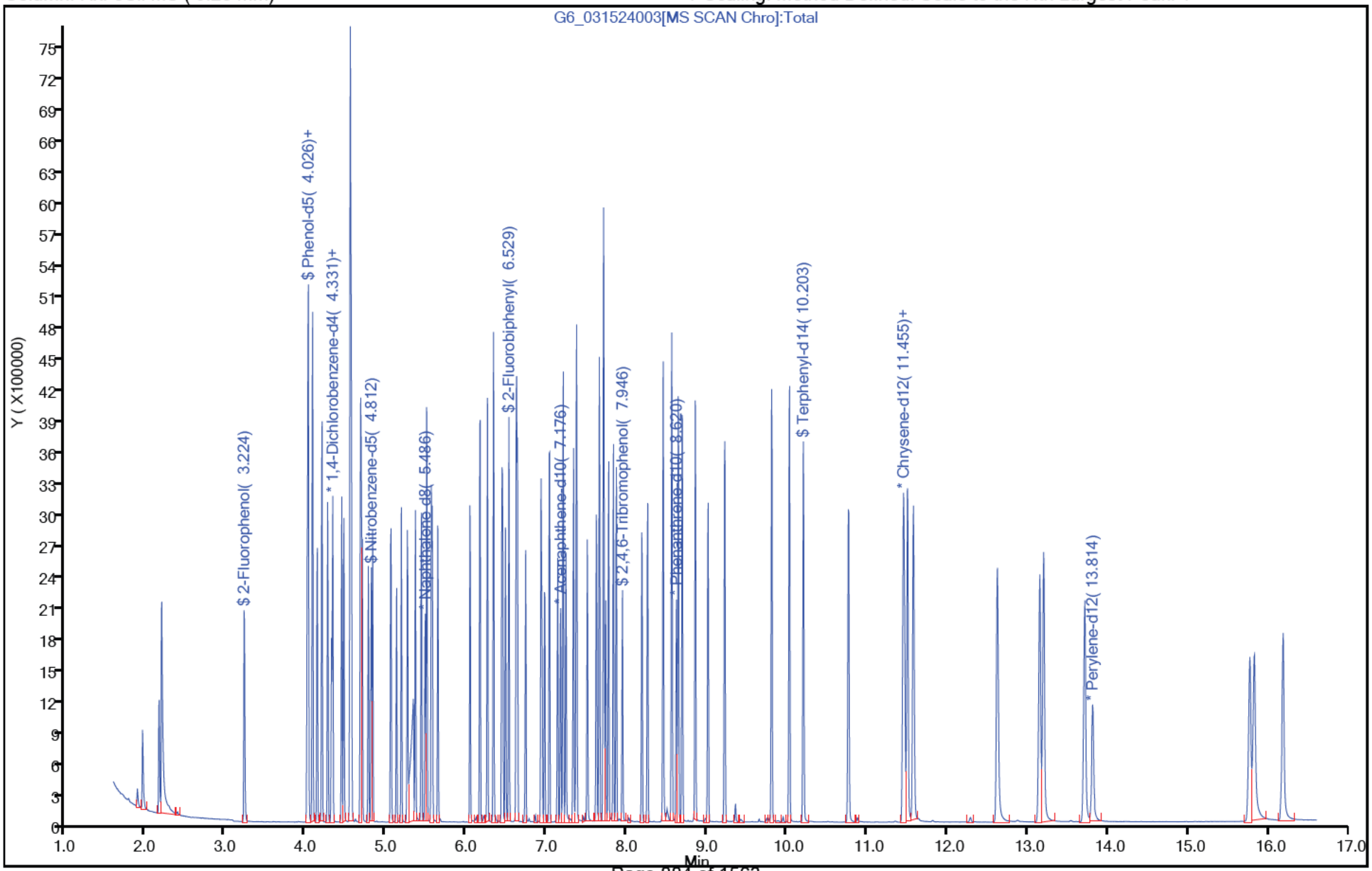
Report Date: 18-Mar-2024 14:41:09 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524003.D

Injection Date:	15-Mar-2024 14:12:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	CCVIS HSL			Worklist Smp#:	3
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

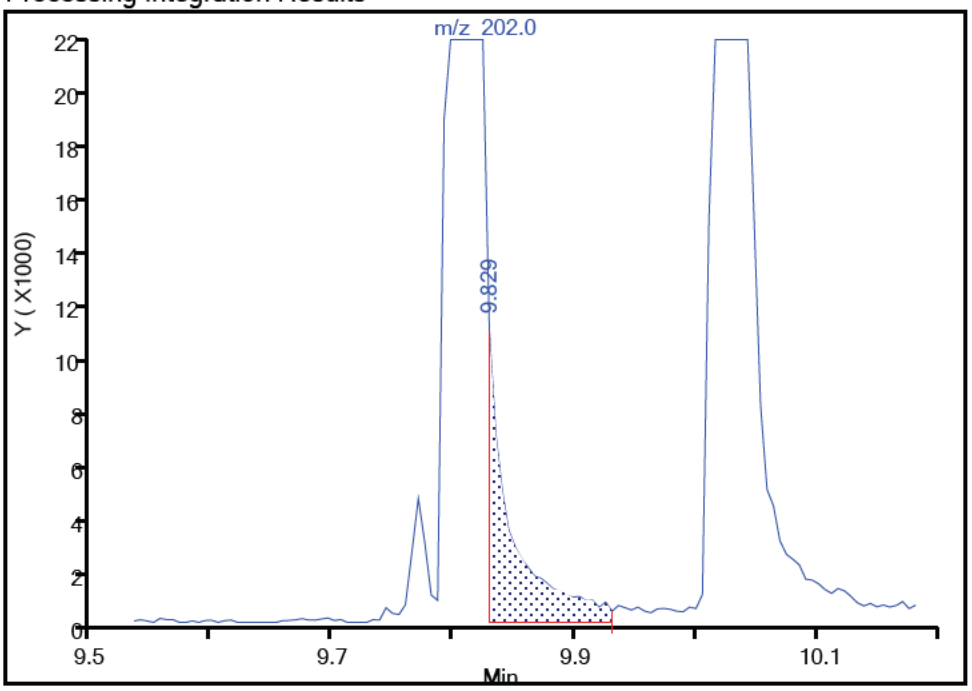
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524003.D
Injection Date: 15-Mar-2024 14:12:30 Instrument ID: SMS_G6
Lims ID: CCVIS HSL
Client ID:
Operator ID: RC ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Column: Rxi-5Sil MS (0.25 mm) Detector MS SCAN

160 Fluoranthene, CAS: 206-44-0

Signal: 1

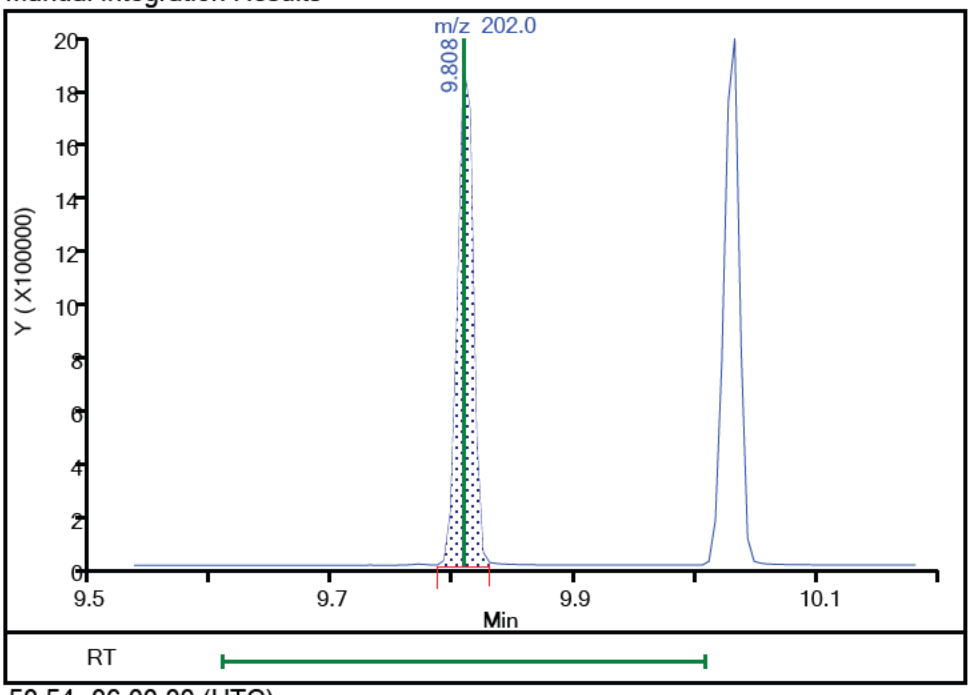
Processing Integration Results

RT: 9.83
Area: 14406
Amount: 0.693338
Amount Units: ug/ml



Manual Integration Results

RT: 9.81
Area: 1699520
Amount: 81.795209
Amount Units: ug/ml



Reviewer: HPV7, 15-Mar-2024 14:50:54 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVC 280-646066/29 | Calibration Date: 03/16/2024 00:01

Instrument ID: SMS_G6 | Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524030.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7013	0.5497		62700	80000	-21.6	50.0
N-Nitrosodimethylamine	Ave	0.9146	0.8756		76600	80000	-4.3	50.0
Pyridine	Ave	1.183	0.9934		134000	160000	-16.1	50.0
Aniline	Ave	2.043	1.780		69700	80000	-12.9	50.0
Phenol	Ave	2.044	1.708	0.8000	66900	80000	-16.4	50.0
Bis(2-chloroethyl)ether	Ave	1.421	1.314	0.7000	74000	80000	-7.5	50.0
2-Chlorophenol	Ave	1.517	1.432	0.8000	75500	80000	-5.6	50.0
1,3-Dichlorobenzene	Ave	1.606	1.418		70600	80000	-11.7	50.0
1,4-Dichlorobenzene	Ave	1.644	1.466		71300	80000	-10.8	50.0
Benzyl alcohol	Ave	0.9814	0.9539		77800	80000	-2.8	50.0
1,2-Dichlorobenzene	Ave	1.557	1.385		71200	80000	-11.1	50.0
2-Methylphenol	Ave	1.278	1.170	0.7000	73300	80000	-8.4	50.0
2,2'-oxybis[1-chloropropane]	Ave	2.558	2.523	0.0100	78900	80000	-1.3	50.0
Acetophenone	Ave	1.929	1.730	0.0100	71700	80000	-10.3	50.0
N-Nitrosodi-n-propylamine	Ave	0.9720	0.9356	0.5000	77000	80000	-3.8	50.0
3 & 4 Methylphenol	Ave	1.394	1.345		77200	80000	-3.5	50.0
Hexachloroethane	Ave	0.6719	0.4835	0.3000	57600	80000	-28.0	50.0
Nitrobenzene	Ave	0.3898	0.3542	0.2000	72700	80000	-9.1	50.0
Isophorone	Ave	0.7559	0.6702	0.4000	70900	80000	-11.3	50.0
2-Nitrophenol	Ave	0.1888	0.1955	0.1000	82800	80000	3.5	50.0
2,4-Dimethylphenol	Ave	0.3082	0.2678	0.2000	69500	80000	-13.1	50.0
Bis(2-chloroethoxy)methane	Ave	0.4569	0.4494	0.3000	78700	80000	-1.6	50.0
Benzoic acid	Lin2		0.2570		164000	160000	2.7	50.0
2,4-Dichlorophenol	Ave	0.3019	0.2968	0.2000	78700	80000	-1.7	50.0
1,2,4-Trichlorobenzene	Ave	0.3292	0.3020		73400	80000	-8.3	50.0
Naphthalene	Ave	1.048	0.9647	0.7000	73600	80000	-7.9	50.0
4-Chloroaniline	Ave	0.4563	0.4397	0.0100	77100	80000	-3.6	50.0
2,6-Dichlorophenol	Ave	0.2953	0.2860		77500	80000	-3.1	50.0
Hexachlorobutadiene	Ave	0.1766	0.1675	0.0100	75900	80000	-5.1	50.0
4-Chloro-3-methylphenol	Ave	0.3094	0.2781	0.2000	71900	80000	-10.1	50.0
2-Methylnaphthalene	Ave	0.7199	0.6713	0.4000	74600	80000	-6.7	50.0
1-Methylnaphthalene	Ave	0.6561	0.6106		74400	80000	-6.9	50.0
Hexachlorocyclopentadiene	Ave	0.2753	0.0366*	0.0500	10600	80000	-86.7*	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3133	0.2926	0.0100	74700	80000	-6.6	50.0
2,4,6-Trichlorophenol	Ave	0.3587	0.3844	0.2000	85700	80000	7.2	50.0
2,4,5-Trichlorophenol	Ave	0.3884	0.4221	0.2000	86900	80000	8.7	50.0
1,1'-Biphenyl	Ave	1.454	1.353	0.0100	74400	80000	-6.9	50.0
2-Chloronaphthalene	Ave	1.126	1.086	0.8000	77200	80000	-3.5	50.0
2-Nitroaniline	Ave	0.3574	0.3773	0.0100	84500	80000	5.6	50.0
Dimethyl phthalate	Ave	1.218	1.211	0.0100	79500	80000	-0.6	50.0
1,3-Dinitrobenzene	Ave	0.2091	0.2372		90800	80000	13.5	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVC 280-646066/29 | Calibration Date: 03/16/2024 00:01

Instrument ID: SMS_G6 | Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524030.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2854	0.3015	0.2000	84500	80000	5.6	50.0
Acenaphthylene	Ave	1.686	1.705	0.9000	80900	80000	1.1	50.0
3-Nitroaniline	Ave	0.3554	0.3980	0.0100	89600	80000	12.0	50.0
Acenaphthene	Ave	1.124	1.046	0.9000	74500	80000	-6.9	50.0
2,4-Dinitrophenol	Lin1		0.0689	0.0100	70500	160000	-55.9*	50.0
4-Nitrophenol	Ave	0.1785	0.1601	0.0100	144000	160000	-10.3	50.0
2,4-Dinitrotoluene	Ave	0.3715	0.3694	0.2000	79600	80000	-0.6	50.0
Dibenzofuran	Ave	1.590	1.498	0.8000	75400	80000	-5.7	50.0
2,3,4,6-Tetrachlorophenol	Ave	0.3003	0.3368	0.0100	89700	80000	12.2	50.0
Diethyl phthalate	Ave	1.270	1.296	0.0100	81600	80000	2.0	50.0
Fluorene	Ave	1.257	1.179	0.9000	75100	80000	-6.1	50.0
4-Chlorophenyl phenyl ether	Ave	0.5761	0.5311	0.4000	73700	80000	-7.8	50.0
4-Nitroaniline	Ave	0.3507	0.3778	0.0100	86200	80000	7.7	50.0
4,6-Dinitro-2-methylphenol	Lin1		0.0616	0.0100	75600	160000	-52.8*	50.0
Diphenylamine	Ave	1.100	1.100		68000	68000	0.0	50.0
N-Nitrosodiphenylamine	Ave	0.5554	0.5479	0.0100	78900	80000	-1.3	50.0
1,2-Diphenylhydrazine	Ave	1.388	1.303		75900	80900	-6.1	50.0
Azobenzene	Ave	1.403	1.317		75100	80000	-6.1	50.0
4-Bromophenyl phenyl ether	Ave	0.2186	0.2236	0.1000	81800	80000	2.3	50.0
Hexachlorobenzene	Ave	0.2845	0.3021	0.1000	84900	80000	6.2	50.0
Pentachlorophenol	Lin2		0.1742	0.0500	178000	160000	11.4	50.0
Phenanthrene	Ave	1.095	1.011	0.7000	73900	80000	-7.6	50.0
Anthracene	Ave	1.095	1.033	0.7000	75500	80000	-5.7	50.0
Carbazole	Ave	1.067	1.038	0.0100	77800	80000	-2.7	50.0
Alachlor	Ave	0.1208	0.1323		87600	80000	9.5	50.0
Di-n-butyl phthalate	Ave	1.227	1.322	0.0100	86200	80000	7.8	50.0
Fluoranthene	Ave	1.106	1.074	0.6000	77700	80000	-2.9	50.0
Pyrene	Ave	1.440	1.444	0.6000	80200	80000	0.3	50.0
Butyl benzyl phthalate	Lin1		0.7627	0.0100	91100	80000	13.9	50.0
Benzo[a]anthracene	Ave	1.288	1.232	0.8000	76500	80000	-4.4	50.0
Chrysene	Ave	1.374	1.202	0.7000	70000	80000	-12.5	50.0
Bis(2-ethylhexyl) phthalate	Lin2		1.057	0.0100	91600	80000	14.5	50.0
Di-n-octyl phthalate	Qua		1.844	0.0100	96500	80000	20.6	50.0
Benzo[b]fluoranthene	Ave	1.117	1.108	0.7000	79300	80000	-0.8	50.0
Benzo[k]fluoranthene	Ave	1.357	1.196	0.7000	70500	80000	-11.9	50.0
Benzo[a]pyrene	Lin1		1.058	0.7000	71400	80000	-10.8	50.0
Indeno[1,2,3-cd]pyrene	Lin1		1.097	0.5000	68500	80000	-14.4	50.0
Dibenz(a,h)anthracene	Ave	1.043	0.9553	0.4000	73300	80000	-8.4	50.0
Benzo[g,h,i]perylene	Ave	1.197	0.9421	0.5000	63000	80000	-21.3	50.0
2-Fluorophenol (Surr)	Ave	1.457	1.327		72900	80000	-8.9	50.0
Phenol-d5 (Surr)	Ave	1.793	1.577		70400	80000	-12.0	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVC 280-646066/29 Calibration Date: 03/16/2024 00:01

Instrument ID: SMS_G6 Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524030.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitrobenzene-d5 (Surr)	Ave	0.3917	0.3524		72000	80000	-10.0	50.0
2-Fluorobiphenyl	Ave	1.244	1.195		76800	80000	-4.0	50.0
2,4,6-Tribromophenol (Surr)	Lin1		0.2895		88700	80000	10.8	50.0
Terphenyl-d14 (Surr)	Ave	1.108	1.164		84100	80000	5.1	50.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524030.D
Lims ID: CCVC HSL
Client ID:
Sample Type: CCVC
Inject. Date: 16-Mar-2024 00:01:30 ALS Bottle#: 2 Worklist Smp#: 29
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: CCVIS HSL
Operator ID: RC Instrument ID: SMS_G6
Sublist: chrom-SMSG6_8270C*sub97

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:51:35 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	221858	40.0	40.0	
* 2 Naphthalene-d8	136	5.486	5.486	0.000	99	836418	40.0	40.0	
* 3 Acenaphthene-d10	164	7.176	7.171	0.005	91	459366	40.0	40.0	
* 4 Phenanthrene-d10	188	8.615	8.615	0.000	96	783602	40.0	40.0	
* 5 Chrysene-d12	240	11.466	11.455	0.011	99	604009	40.0	40.0	
* 6 Perylene-d12	264	13.819	13.814	0.005	99	668926	40.0	40.0	
$ 7 2-Fluorophenol	112	3.229	3.224	0.005	93	588880	80.0	72.9	
$ 8 Phenol-d5	99	4.021	4.010	0.011	95	699769	80.0	70.4	
$ 9 Nitrobenzene-d5	82	4.812	4.812	0.000	94	589578	80.0	72.0	
$ 11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	1097490	80.0	76.8	
$ 12 2,4,6-Tribromophenol	330	7.946	7.946	0.000	91	265952	80.0	88.7	
$ 13 Terphenyl-d14	244	10.204	10.203	0.001	97	1406282	80.0	84.1	
16 1,4-Dioxane	88	1.956	1.956	0.000	97	243899	80.0	62.7	
17 N-Nitrosodimethylamine	74	2.159	2.164	-0.005	90	388514	80.0	76.6	
18 Pyridine	79	2.191	2.197	-0.006	85	881550	160.0	134.3	
28 Aniline	93	4.031	4.026	0.005	90	789602	80.0	69.7	
29 Phenol	94	4.031	4.026	0.005	88	758045	80.0	66.9	
31 Alpha Methyl Styrene	118	4.079	4.074	0.005	92	548067	80.0	73.4	
32 Bis(2-chloroethyl)ether	93	4.085	4.079	0.006	96	583182	80.0	74.0	
33 2-Chlorophenol	128	4.144	4.138	0.006	97	635248	80.0	75.5	
34 n-Decane	43	4.197	4.197	0.000	97	793962	80.0	78.1	
35 1,3-Dichlorobenzene	146	4.272	4.267	0.006	99	629391	80.0	70.6	
37 1,4-Dichlorobenzene	146	4.331	4.331	0.000	95	650397	80.0	71.3	
39 Benzyl alcohol	108	4.448	4.443	0.005	94	423272	80.0	77.8	
40 1,2-Dichlorobenzene	146	4.470	4.470	0.000	98	614456	80.0	71.2	
41 Indene	116	4.550	4.550	0.000	91	1814923	160.0	141.2	
42 2-Methylphenol	108	4.561	4.555	0.006	94	519295	80.0	73.3	
43 2,2'-oxybis[1-chloropropane]	45	4.566	4.561	0.005	93	1119648	80.0	78.9	
45 Acetophenone	105	4.678	4.678	0.000	96	767517	80.0	71.7	
46 N-Nitrosodi-n-propylamine	70	4.689	4.684	0.005	95	415129	80.0	77.0	
47 4-Methylphenol	108	4.705	4.700	0.005	91	596686	80.0	77.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 3-Methylphenol	108	4.705	4.700	0.005	95	596686	80.0	77.2	
49 3 & 4 Methylphenol	108	4.705	4.700	0.005	79	596686	80.0	77.2	
52 Hexachloroethane	117	4.775	4.775	0.000	97	214519	80.0	57.6	
53 Nitrobenzene	77	4.834	4.828	0.006	92	592508	80.0	72.7	
55 Isophorone	82	5.058	5.058	0.000	98	1121150	80.0	70.9	
56 2-Nitrophenol	139	5.128	5.128	0.000	92	326989	80.0	82.8	
58 2,4-Dimethylphenol	107	5.192	5.186	0.006	92	448039	80.0	69.5	
60 Bis(2-chloroethoxy)methane	93	5.267	5.261	0.006	99	751815	80.0	78.7	
63 Benzoic acid	105	5.352	5.336	0.016	92	859736	160.0	164.4	
62 2,4-Dichlorophenol	162	5.368	5.363	0.005	93	496448	80.0	78.7	
66 1,2,4-Trichlorobenzene	180	5.438	5.438	0.000	95	505137	80.0	73.4	
67 Naphthalene	128	5.507	5.502	0.005	97	1613721	80.0	73.6	
69 4-Chloroaniline	127	5.566	5.561	0.005	97	735613	80.0	77.1	
68 2,6-Dichlorophenol	162	5.577	5.572	0.005	98	478409	80.0	77.5	
71 Hexachlorobutadiene	225	5.641	5.641	0.000	96	280258	80.0	75.9	
77 4-Chloro-3-methylphenol	107	6.053	6.042	0.011	95	465214	80.0	71.9	
80 2-Methylnaphthalene	142	6.171	6.171	0.000	94	1123048	80.0	74.6	
81 1-Methylnaphthalene	142	6.262	6.262	0.000	95	1021444	80.0	74.4	
83 Hexachlorocyclopentadiene	237	6.337	6.336	0.000	52	33655	80.0	10.6	
84 1,2,4,5-Tetrachlorobenzene	216	6.342	6.336	0.006	97	489531	80.0	74.7	
86 2,3-Dichlorobenzenamine	161	6.443	6.443	0.000	97	567204	80.0	80.6	
87 2,4,6-Trichlorophenol	196	6.454	6.454	0.000	92	353194	80.0	85.7	
88 2,4,5-Trichlorophenol	196	6.492	6.486	0.006	96	387808	80.0	86.9	
90 1,1'-Biphenyl	154	6.625	6.620	0.005	94	1243300	80.0	74.4	
91 2-Chloronaphthalene	162	6.636	6.636	0.000	96	998116	80.0	77.2	
93 2-Nitroaniline	65	6.743	6.738	0.005	89	346650	80.0	84.5	
96 Dimethyl phthalate	163	6.930	6.930	0.000	98	1112294	80.0	79.5	
97 1,3-Dinitrobenzene	168	6.946	6.946	0.000	88	217919	80.0	90.8	
98 2,6-Dinitrotoluene	165	6.978	6.978	0.000	95	276958	80.0	84.5	
99 Acenaphthylene	152	7.037	7.037	0.000	98	1566523	80.0	80.9	
100 3-Nitroaniline	138	7.139	7.139	0.000	96	365656	80.0	89.6	
101 Acenaphthene	153	7.208	7.208	0.000	93	961446	80.0	74.5	
102 2,4-Dinitrophenol	184	7.240	7.240	0.000	84	126685	160.0	70.5	
107 4-Nitrophenol	109	7.342	7.337	0.005	91	294206	160.0	143.6	
109 2,4-Dinitrotoluene	165	7.369	7.369	0.000	94	339409	80.0	79.6	
108 Dibenzofuran	168	7.374	7.374	0.000	97	1376426	80.0	75.4	
114 2,3,4,6-Tetrachlorophenol	232	7.508	7.508	0.000	72	309469	80.0	89.7	
116 Diethyl phthalate	149	7.620	7.620	0.000	98	1190225	80.0	81.6	
117 Hexadecane	57	7.658	7.658	0.000	90	925090	80.0	85.2	
118 Fluorene	166	7.706	7.711	-0.005	98	1083514	80.0	75.1	
120 4-Chlorophenyl phenyl ether	204	7.716	7.716	0.000	93	487924	80.0	73.7	
122 4-Nitroaniline	138	7.738	7.738	0.000	88	347073	80.0	86.2	
123 4,6-Dinitro-2-methylphenol	198	7.775	7.775	0.000	89	193009	160.0	75.6	
126 N-Nitrosodiphenylamine	169	7.834	7.834	0.000	99	858740	80.0	78.9	
125 Diphenylamine	169	7.834	7.834	0.000	96	858740	68.0	68.0	
128 1,2-Diphenylhydrazine	77	7.866	7.871	-0.005	98	1210314	80.9	75.9	
129 Azobenzene	77	7.866	7.871	-0.005	99	1210314	80.0	75.1	
138 4-Bromophenyl phenyl ether	248	8.187	8.192	-0.005	65	350429	80.0	81.8	
140 Hexachlorobenzene	284	8.262	8.262	0.000	97	473393	80.0	84.9	
143 Pentachlorophenol	266	8.455	8.454	0.001	97	546056	160.0	178.2	
288 n-Octadecane	57	8.556	8.561	-0.005	92	964380	80.0	88.3	
148 Phenanthrene	178	8.642	8.642	0.000	97	1584555	80.0	73.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
151 Anthracene	178	8.690	8.695	-0.005	97	1619018	80.0	75.5	
152 Carbazole	167	8.856	8.856	0.000	95	1627371	80.0	77.8	
154 Alachlor	188	9.011	9.016	-0.005	90	207321	80.0	87.6	
155 Di-n-butyl phthalate	149	9.219	9.225	-0.006	99	2072184	80.0	86.2	
160 Fluoranthene	202	9.808	9.808	0.000	97	1683272	80.0	77.7	
162 Pyrene	202	10.027	10.032	-0.005	98	1744442	80.0	80.2	
169 Butyl benzyl phthalate	149	10.765	10.770	-0.005	95	921411	80.0	91.1	
173 Benzo[a]anthracene	228	11.450	11.455	-0.005	98	1487885	80.0	76.5	
175 Chrysene	228	11.503	11.503	0.000	97	1452300	80.0	70.0	
176 Bis(2-ethylhexyl) phthalate	149	11.573	11.578	-0.005	97	1276787	80.0	91.6	
178 Di-n-octyl phthalate	149	12.621	12.626	-0.005	99	2227829	80.0	96.5	
179 Benzo[b]fluoranthene	252	13.156	13.156	0.000	97	1481988	80.0	79.3	
181 Benzo[k]fluoranthene	252	13.204	13.204	0.000	98	1600200	80.0	70.5	
183 Benzo[a]pyrene	252	13.718	13.718	0.000	77	1415892	80.0	71.4	
187 Indeno[1,2,3-cd]pyrene	276	15.782	15.777	0.005	98	1325058	80.0	68.5	
188 Dibenz(a,h)anthracene	278	15.836	15.836	0.000	91	1278084	80.0	73.3	
189 Benzo[g,h,i]perylene	276	16.194	16.194	0.000	99	1260419	80.0	63.0	
S 200 Methyl Phenols,Total	108				0			150.4	
S 199 Total Cresols	108				0			150.4	

Reagents:

MS-HSL-WS_00010	Amount Added: 200.00	Units: uL	
MS-IS_00037	Amount Added: 100.00	Units: uL	Run Reagent

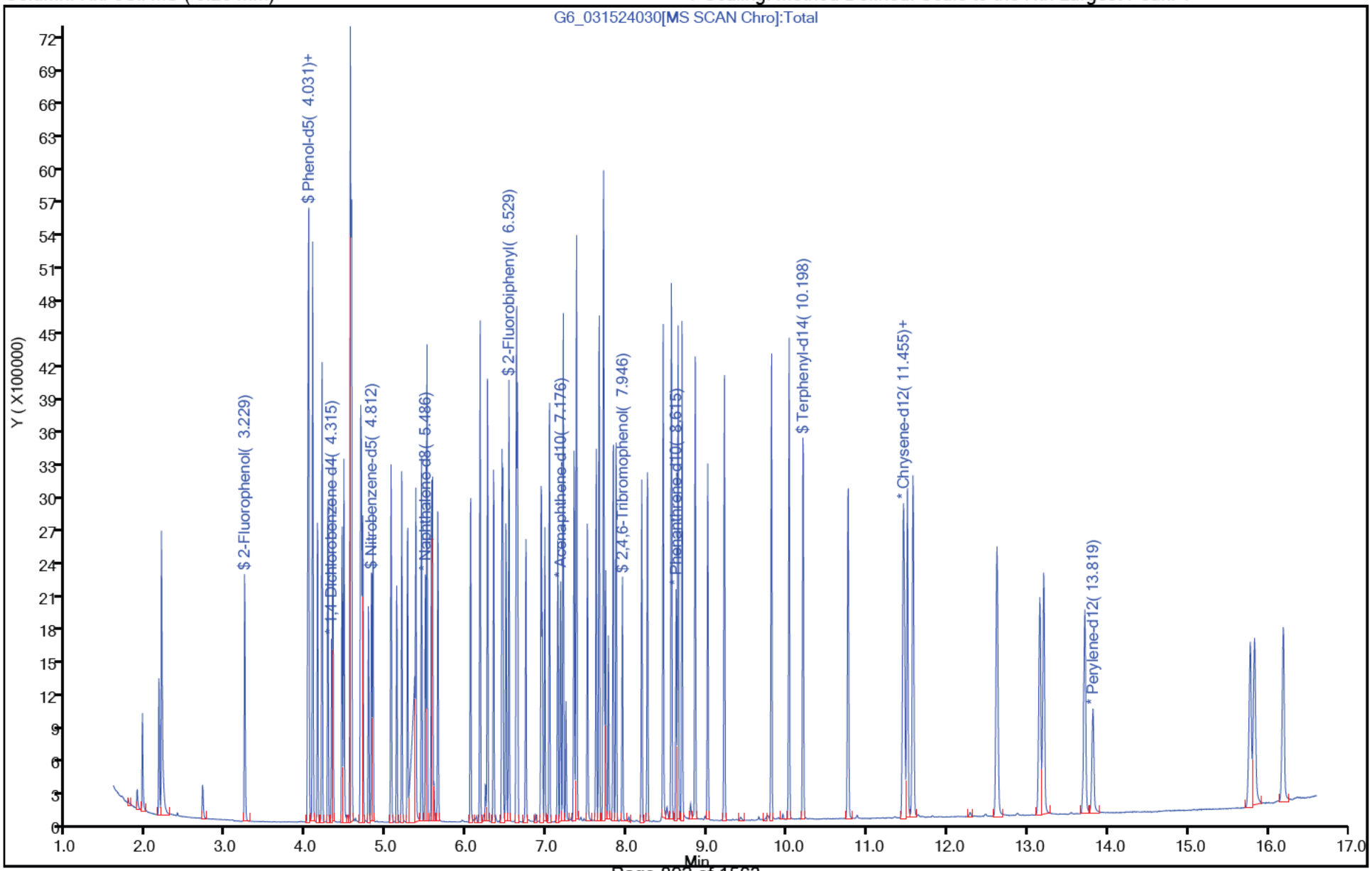
Report Date: 18-Mar-2024 14:51:36 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524030.D

Injection Date:	16-Mar-2024 00:01:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	CCVC HSL			Worklist Smp#:	29
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424002C.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 04-Mar-2024 09:59:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 04-Mar-2024 15:51:27 Calib Date: 04-Mar-2024 12:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424010.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1687

First Level Reviewer: HPV7 Date: 04-Mar-2024 10:09:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
24 Pentachlorophenol_T	266	3.323	3.323	0.000	94	378234	NR	NR	a
38 Benzidine_T	184	4.393	4.393	0.000	99	2120659	NR	NR	a
194 DFTPP									
196 4,4'-DDE	246	4.185	4.185	0.000	1	80	NR	NR	a
195 4,4'-DDD	235	4.810	4.810	0.000	95	9331	NR	NR	a
197 4,4'-DDT	235	5.019	5.019	0.000	97	781983	NR	NR	a

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
Review Flags
a - User Assigned ID

Reagents:

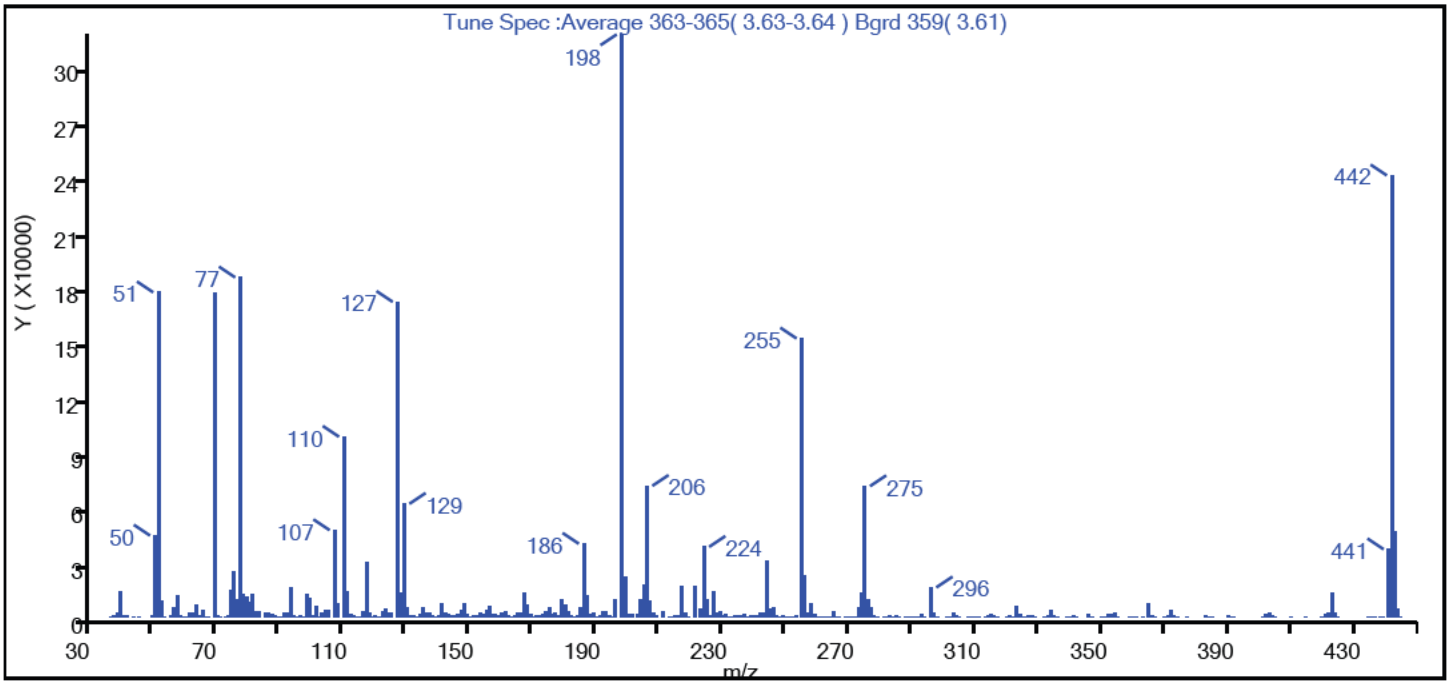
MS-DFTPP_00072 Amount Added: 500.00 Units: uL

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424002C.D
Injection Date: 04-Mar-2024 09:59:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Tune Method: DFTPP Method 8270

194 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	55.8
68	<2% of mass 69	0.0 (0.0)
69	Present	55.6
70	<2% of mass 69	0.2 (0.4)
127	40-60% of mass 198	54.1
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.8
275	10-30% of mass 198	22.5
365	>1% of mass 198	2.4
441	Present but less than mass 443	11.6 (79.0)
442	>40% of mass 198	75.8
443	17-23% of mass 442	14.7 (19.4)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424002C.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	264	129.00	61816	215.00	719	308.00	231
37.00	769	130.00	4992	216.00	918	309.00	224
38.00	2405	131.00	897	217.00	16480	310.00	308
39.00	14149	132.00	528	218.00	2281	311.00	44
40.00	687	133.00	252	219.00	212	313.00	205
41.00	470	134.00	1595	221.00	16680	314.00	911
43.00	117	135.00	4817	223.00	4506	315.00	1788
45.00	257	136.00	1898	224.00	38360	316.00	1092
49.00	602	137.00	2368	225.00	9626	317.00	226
50.00	44480	138.00	594	226.00	819	320.00	97
51.00	177088	139.00	313	227.00	13824	321.00	602
52.00	9086	140.00	755	228.00	1974	322.00	301
53.00	341	141.00	7082	229.00	3186	323.00	5915
55.00	708	142.00	2598	230.00	498	324.00	1172
56.00	4976	143.00	1605	231.00	1470	325.00	95
57.00	11776	144.00	465	232.00	199	326.00	175
58.00	535	145.00	502	233.00	290	327.00	1166
59.00	233	146.00	1293	234.00	843	328.00	490
60.00	112	147.00	3737	235.00	1001	329.00	129
61.00	2055	148.00	7271	236.00	680	332.00	427
62.00	2293	149.00	1526	237.00	1180	333.00	608
63.00	6321	150.00	425	238.00	152	334.00	3892
64.00	871	151.00	944	239.00	517	335.00	1062
65.00	3693	152.00	692	240.00	455	336.00	139
66.00	236	153.00	2368	241.00	867	339.00	66
67.00	142	154.00	1749	242.00	2163	340.00	105
69.00	176640	155.00	3873	243.00	2541	341.00	678
70.00	792	156.00	6037	244.00	30272	342.00	192
71.00	50	157.00	1404	245.00	4244	346.00	1397
72.00	91	158.00	1276	246.00	4972	347.00	238
73.00	1057	159.00	948	247.00	1058	350.00	58
74.00	14799	160.00	2159	248.00	270	351.00	149
75.00	24632	161.00	3290	249.00	1079	352.00	1894

Report Date: 04-Mar-2024 15:51:27 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424002C.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	9325	162.00	918	250.00	236	353.00	1262
77.00	185216	163.00	236	251.00	265	354.00	2030
78.00	12605	164.00	460	252.00	331	355.00	430
79.00	10825	165.00	2365	253.00	551	359.00	142
80.00	8369	166.00	2209	255.00	151936	360.00	47
81.00	12098	167.00	13497	256.00	22768	361.00	50
82.00	3010	168.00	6297	257.00	1923	363.00	37
83.00	2912	169.00	1178	258.00	7539	365.00	7661
85.00	2005	170.00	440	259.00	1234	366.00	1130
86.00	2443	171.00	617	260.00	243	367.00	97
87.00	1403	172.00	1136	261.00	274	370.00	227
88.00	528	173.00	1625	262.00	17	371.00	554
89.00	257	174.00	2928	263.00	67	372.00	3454
90.00	45	175.00	5255	264.00	51	373.00	927
91.00	2306	176.00	1634	265.00	2883	374.00	90
92.00	2609	177.00	2481	266.00	331	377.00	84
93.00	16408	178.00	520	267.00	19	383.00	943
94.00	1154	179.00	9548	269.00	19	384.00	277
95.00	274	180.00	6693	270.00	129	385.00	83
96.00	932	181.00	3286	271.00	364	390.00	455
97.00	43	182.00	552	272.00	105	391.00	390
98.00	12317	183.00	358	273.00	5214	392.00	244
99.00	10400	184.00	742	274.00	13501	401.00	243
100.00	928	185.00	5093	275.00	71416	402.00	1461
101.00	6163	186.00	40016	276.00	9446	403.00	2054
102.00	364	187.00	11406	277.00	5136	404.00	735
103.00	2123	188.00	1234	278.00	818	405.00	100
104.00	3679	189.00	1987	279.00	203	410.00	25
105.00	3392	190.00	352	281.00	51	415.00	68
107.00	47432	191.00	1002	282.00	138	420.00	20
108.00	7441	192.00	2977	283.00	586	421.00	1879
110.00	98336	193.00	3274	284.00	432	422.00	1952
111.00	13775	194.00	756	285.00	1005	423.00	13228
112.00	1691	195.00	370	286.00	194	424.00	2562

Report Date: 04-Mar-2024 15:51:27 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424002C.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	481	196.00	9391	288.00	50	425.00	236
114.00	132	198.00	317632	289.00	212	435.00	17
115.00	204	199.00	21664	290.00	197	435.00	41
116.00	2660	200.00	1533	291.00	130	436.00	99
117.00	30208	201.00	1500	292.00	290	437.00	114
118.00	2149	203.00	1800	293.00	1349	438.00	121
119.00	272	204.00	9708	294.00	370	439.00	187
120.00	544	205.00	17432	296.00	16233	441.00	36992
121.00	49	206.00	71608	297.00	2410	442.00	240832
122.00	2798	207.00	8988	298.00	167	443.00	46832
123.00	4265	208.00	2130	301.00	241	444.00	4104
124.00	1951	209.00	662	302.00	387	445.00	242
125.00	1938	211.00	2654	303.00	2116		
127.00	171904	213.00	200	304.00	616		
128.00	12944	214.00	107	305.00	41		

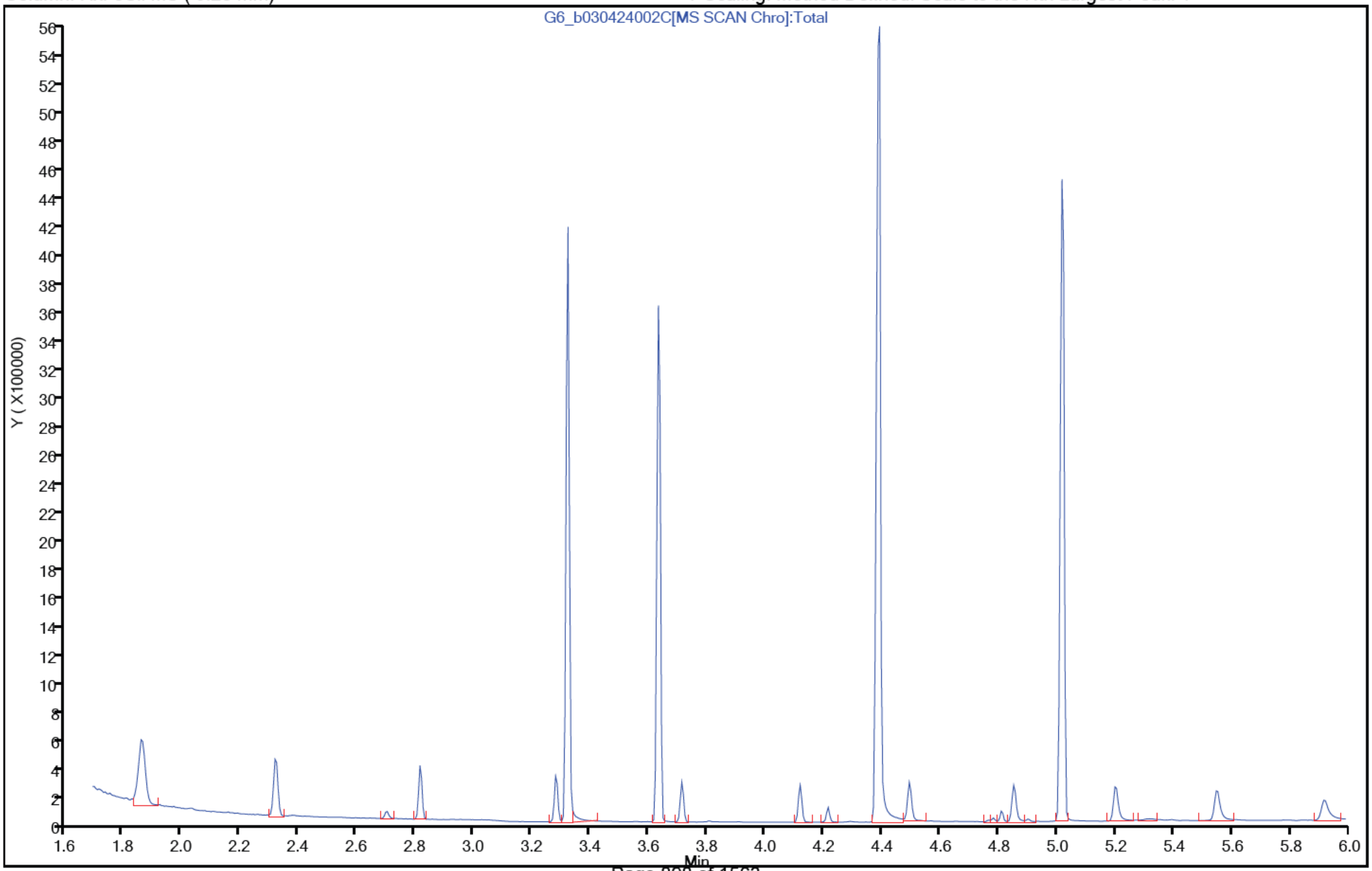
Report Date: 04-Mar-2024 15:51:27 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424002C.D

Injection Date:	04-Mar-2024 09:59:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	DFTPP			Worklist Smp#:	2
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424002C.D
Injection Date: 04-Mar-2024 09:59:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

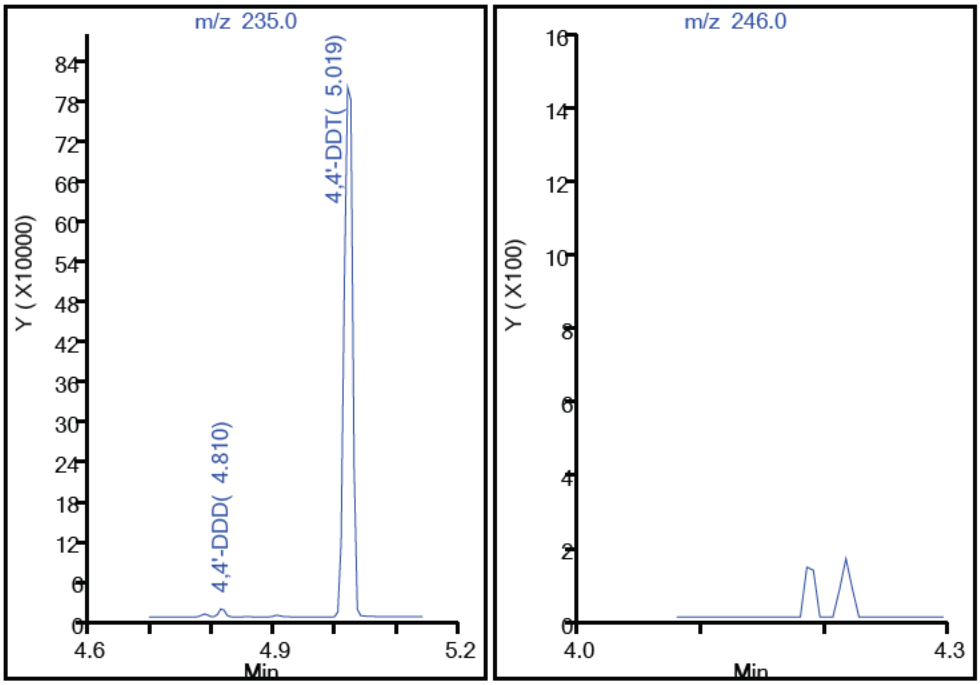
197 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

197 4,4'-DDT, Area = 781983
195 4,4'-DDD, Area = 9331
196 4,4'-DDE, Area = 80

%Breakdown: 1.19%, <= 20.00%
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130811.b\G6_b030424002D.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 04-Mar-2024 09:59:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240304-130811.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 04-Mar-2024 17:15:01 Calib Date: 04-Mar-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130811.b\G6_b030424019.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1687

First Level Reviewer: HPV7 Date: 04-Mar-2024 16:34:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
24 Pentachlorophenol_T	266	3.323	3.323	0.000	94	378234	NR	NR	
38 Benzidine_T	184	4.393	4.393	0.000	99	2120659	NR	NR	
194 DFTPP									
196 4,4'-DDE	246		4.185				ND	ND	
195 4,4'-DDD	235	4.810	4.810	0.000	95	9331	NR	NR	
197 4,4'-DDT	235	5.019	5.019	0.000	97	781983	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
ND - Not Detected or Marked ND

Reagents:

MS-DFTPP_00072 Amount Added: 500.00 Units: uL

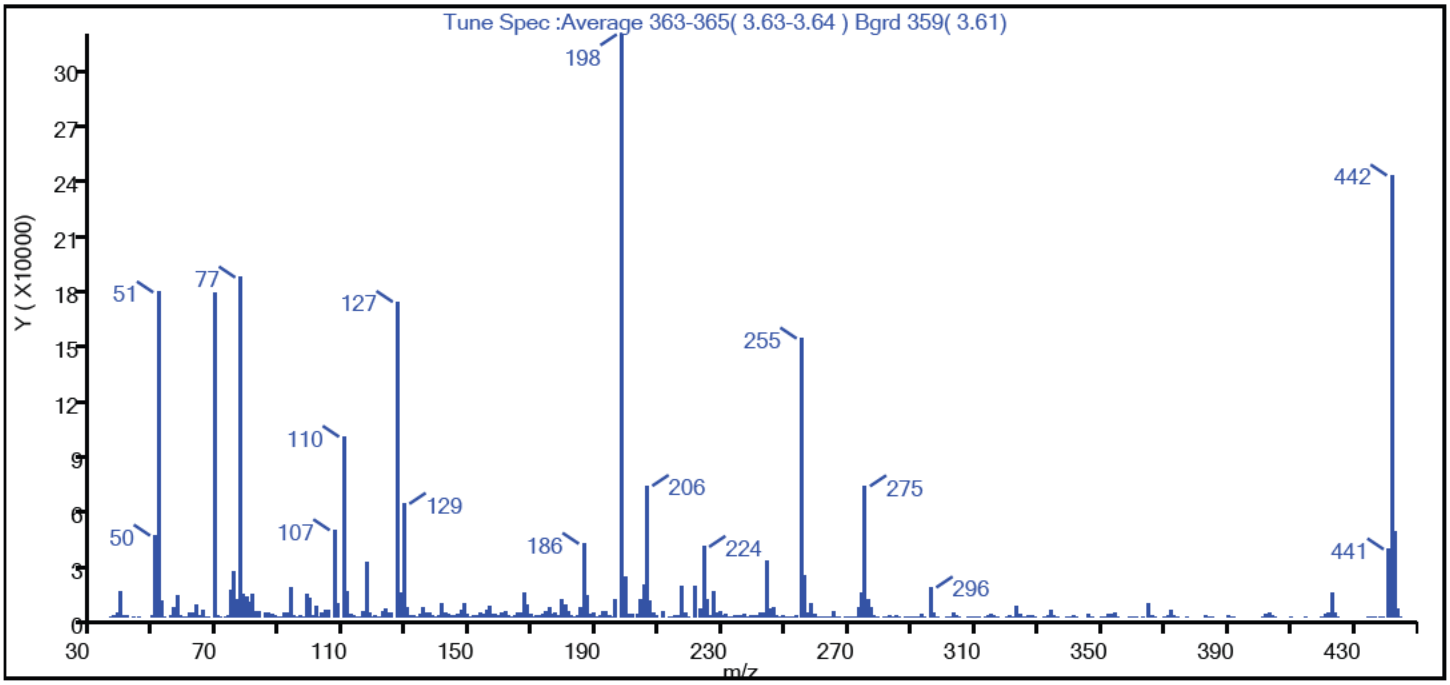
Report Date: 04-Mar-2024 17:15:02 Chrom Revision: 2.3 23-Feb-2024 16:51:14

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130811.b\G6_b030424002D.D
Injection Date: 04-Mar-2024 09:59:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Tune Method: DFTPP Method 8270

194 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	55.8
68	<2% of mass 69	0.0 (0.0)
69	Present	55.6
70	<2% of mass 69	0.2 (0.4)
127	40-60% of mass 198	54.1
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.8
275	10-30% of mass 198	22.5
365	>1% of mass 198	2.4
441	Present but less than mass 443	11.6 (79.0)
442	>40% of mass 198	75.8
443	17-23% of mass 442	14.7 (19.4)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130811.b\G6_b030424002D.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	264	129.00	61816	215.00	719	308.00	231
37.00	769	130.00	4992	216.00	918	309.00	224
38.00	2405	131.00	897	217.00	16480	310.00	308
39.00	14149	132.00	528	218.00	2281	311.00	44
40.00	687	133.00	252	219.00	212	313.00	205
41.00	470	134.00	1595	221.00	16680	314.00	911
43.00	117	135.00	4817	223.00	4506	315.00	1788
45.00	257	136.00	1898	224.00	38360	316.00	1092
49.00	602	137.00	2368	225.00	9626	317.00	226
50.00	44480	138.00	594	226.00	819	320.00	97
51.00	177088	139.00	313	227.00	13824	321.00	602
52.00	9086	140.00	755	228.00	1974	322.00	301
53.00	341	141.00	7082	229.00	3186	323.00	5915
55.00	708	142.00	2598	230.00	498	324.00	1172
56.00	4976	143.00	1605	231.00	1470	325.00	95
57.00	11776	144.00	465	232.00	199	326.00	175
58.00	535	145.00	502	233.00	290	327.00	1166
59.00	233	146.00	1293	234.00	843	328.00	490
60.00	112	147.00	3737	235.00	1001	329.00	129
61.00	2055	148.00	7271	236.00	680	332.00	427
62.00	2293	149.00	1526	237.00	1180	333.00	608
63.00	6321	150.00	425	238.00	152	334.00	3892
64.00	871	151.00	944	239.00	517	335.00	1062
65.00	3693	152.00	692	240.00	455	336.00	139
66.00	236	153.00	2368	241.00	867	339.00	66
67.00	142	154.00	1749	242.00	2163	340.00	105
69.00	176640	155.00	3873	243.00	2541	341.00	678
70.00	792	156.00	6037	244.00	30272	342.00	192
71.00	50	157.00	1404	245.00	4244	346.00	1397
72.00	91	158.00	1276	246.00	4972	347.00	238
73.00	1057	159.00	948	247.00	1058	350.00	58
74.00	14799	160.00	2159	248.00	270	351.00	149
75.00	24632	161.00	3290	249.00	1079	352.00	1894

Report Date: 04-Mar-2024 17:15:02 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130811.b\G6_b030424002D.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	9325	162.00	918	250.00	236	353.00	1262
77.00	185216	163.00	236	251.00	265	354.00	2030
78.00	12605	164.00	460	252.00	331	355.00	430
79.00	10825	165.00	2365	253.00	551	359.00	142
80.00	8369	166.00	2209	255.00	151936	360.00	47
81.00	12098	167.00	13497	256.00	22768	361.00	50
82.00	3010	168.00	6297	257.00	1923	363.00	37
83.00	2912	169.00	1178	258.00	7539	365.00	7661
85.00	2005	170.00	440	259.00	1234	366.00	1130
86.00	2443	171.00	617	260.00	243	367.00	97
87.00	1403	172.00	1136	261.00	274	370.00	227
88.00	528	173.00	1625	262.00	17	371.00	554
89.00	257	174.00	2928	263.00	67	372.00	3454
90.00	45	175.00	5255	264.00	51	373.00	927
91.00	2306	176.00	1634	265.00	2883	374.00	90
92.00	2609	177.00	2481	266.00	331	377.00	84
93.00	16408	178.00	520	267.00	19	383.00	943
94.00	1154	179.00	9548	269.00	19	384.00	277
95.00	274	180.00	6693	270.00	129	385.00	83
96.00	932	181.00	3286	271.00	364	390.00	455
97.00	43	182.00	552	272.00	105	391.00	390
98.00	12317	183.00	358	273.00	5214	392.00	244
99.00	10400	184.00	742	274.00	13501	401.00	243
100.00	928	185.00	5093	275.00	71416	402.00	1461
101.00	6163	186.00	40016	276.00	9446	403.00	2054
102.00	364	187.00	11406	277.00	5136	404.00	735
103.00	2123	188.00	1234	278.00	818	405.00	100
104.00	3679	189.00	1987	279.00	203	410.00	25
105.00	3392	190.00	352	281.00	51	415.00	68
107.00	47432	191.00	1002	282.00	138	420.00	20
108.00	7441	192.00	2977	283.00	586	421.00	1879
110.00	98336	193.00	3274	284.00	432	422.00	1952
111.00	13775	194.00	756	285.00	1005	423.00	13228
112.00	1691	195.00	370	286.00	194	424.00	2562

Report Date: 04-Mar-2024 17:15:02 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130811.b\G6_b030424002D.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	481	196.00	9391	288.00	50	425.00	236
114.00	132	198.00	317632	289.00	212	435.00	17
115.00	204	199.00	21664	290.00	197	435.00	41
116.00	2660	200.00	1533	291.00	130	436.00	99
117.00	30208	201.00	1500	292.00	290	437.00	114
118.00	2149	203.00	1800	293.00	1349	438.00	121
119.00	272	204.00	9708	294.00	370	439.00	187
120.00	544	205.00	17432	296.00	16233	441.00	36992
121.00	49	206.00	71608	297.00	2410	442.00	240832
122.00	2798	207.00	8988	298.00	167	443.00	46832
123.00	4265	208.00	2130	301.00	241	444.00	4104
124.00	1951	209.00	662	302.00	387	445.00	242
125.00	1938	211.00	2654	303.00	2116		
127.00	171904	213.00	200	304.00	616		
128.00	12944	214.00	107	305.00	41		

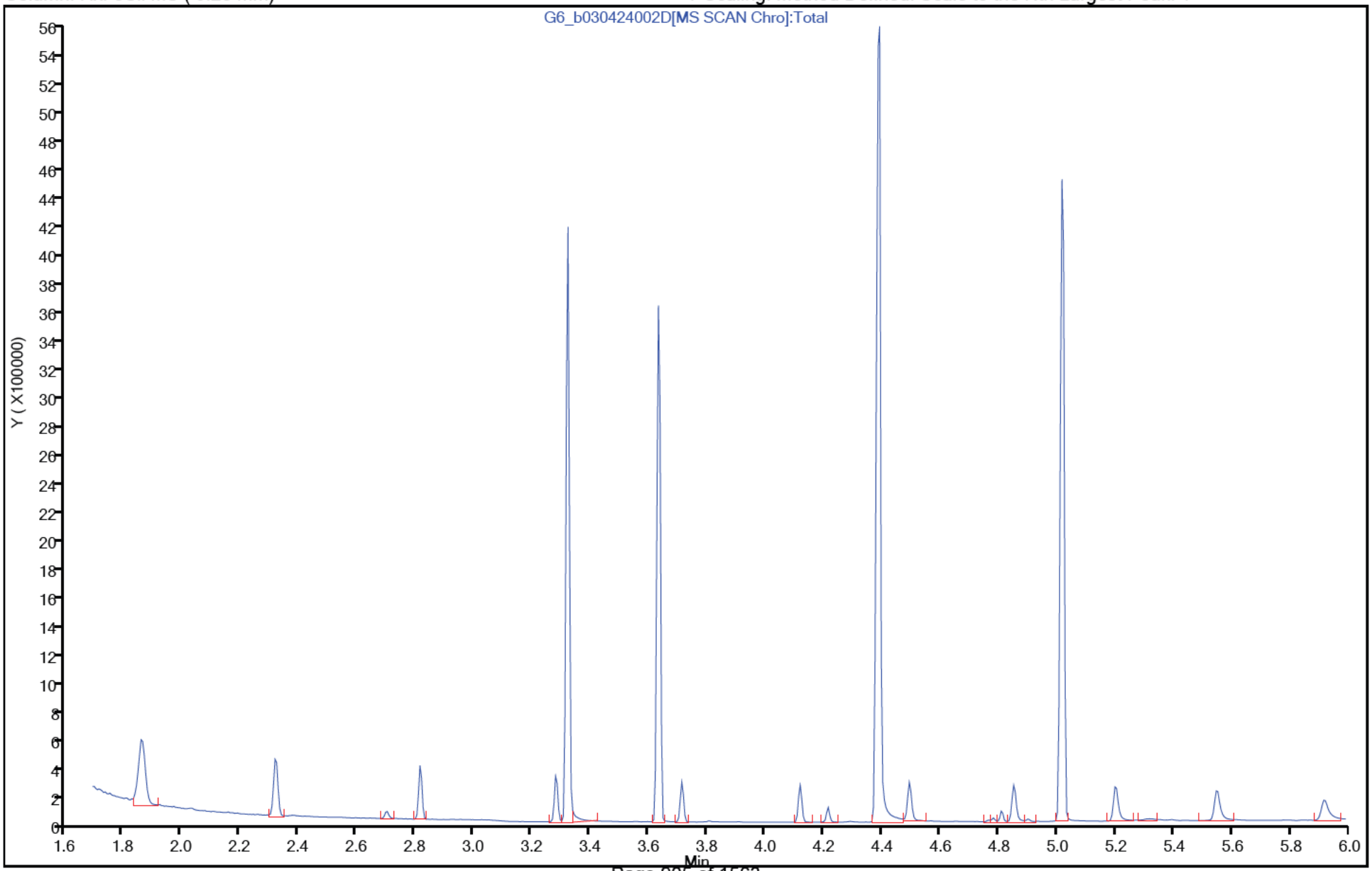
Report Date: 04-Mar-2024 17:15:02 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130811.b\G6_b030424002D.D

Injection Date:	04-Mar-2024 09:59:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	DFTPP			Worklist Smp#:	2
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130811.b\G6_b030424002D.D
Injection Date: 04-Mar-2024 09:59:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

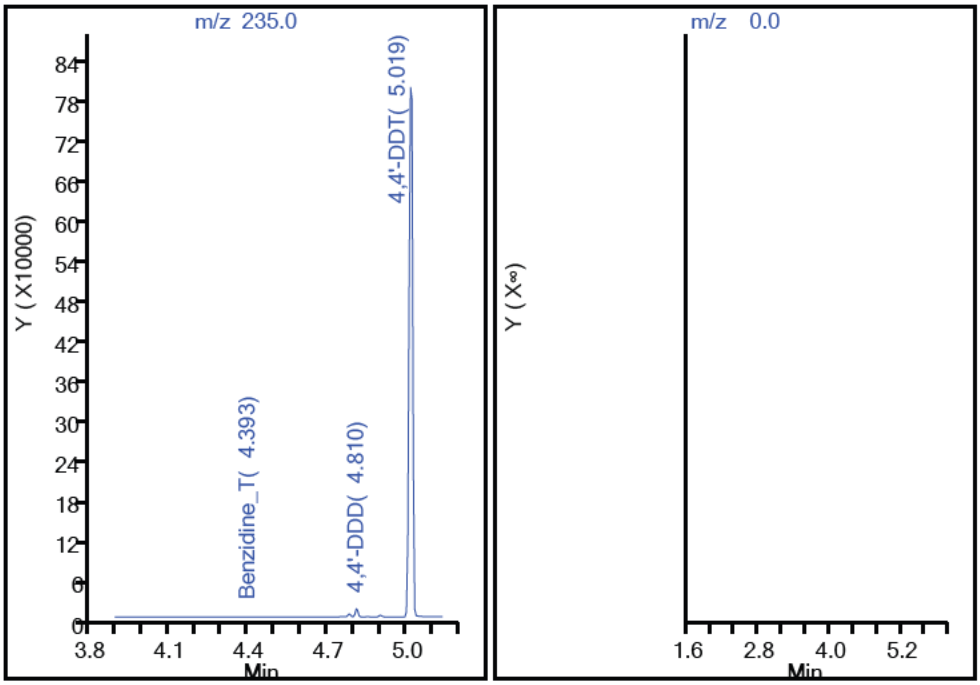
197 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

197 4,4'-DDT, Area = 781983
195 4,4'-DDD, Area = 9331
196 4,4'-DDE, Area = 0

%Breakdown: 1.18%, <= 20.00%
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130829.b\G6_b030424002E.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 04-Mar-2024 09:59:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240305-130829.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 05-Mar-2024 08:55:47 Calib Date: 04-Mar-2024 19:22:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130829.b\G6_b030424027.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1651

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
24 Pentachlorophenol_T	266	3.323	3.323	0.000	94	378234	NR	NR	
38 Benzidine_T	184	4.393	4.393	0.000	99	2120659	NR	NR	
194 DFTPP									
196 4,4'-DDE	246		4.185				ND	ND	
195 4,4'-DDD	235	4.810	4.810	0.000	95	9331	NR	NR	
197 4,4'-DDT	235	5.019	5.019	0.000	97	781983	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
ND - Not Detected or Marked ND

Reagents:

MS-DFTPP_00072 Amount Added: 500.00 Units: uL

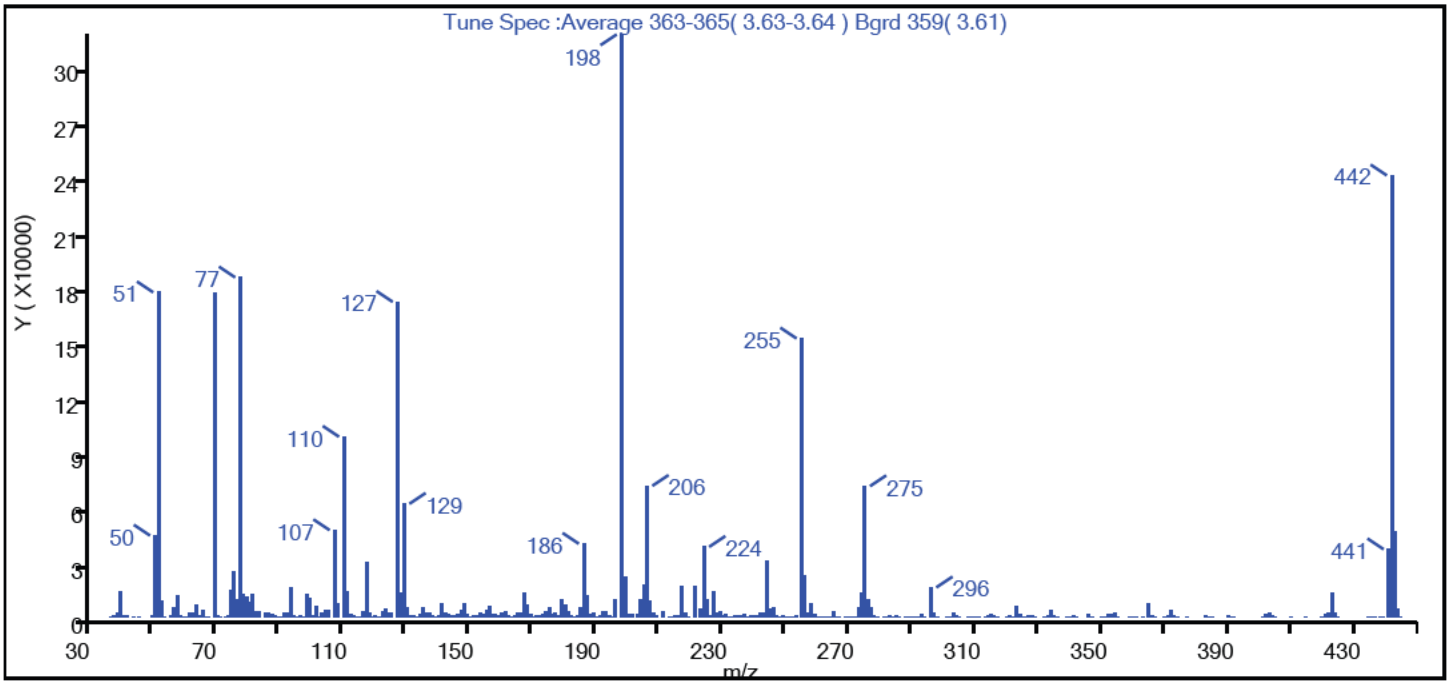
Report Date: 05-Mar-2024 08:55:47 Chrom Revision: 2.3 23-Feb-2024 16:51:14

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130829.b\G6_b030424002E.D
Injection Date: 04-Mar-2024 09:59:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Tune Method: DFTPP Method 8270

194 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	55.8
68	<2% of mass 69	0.0 (0.0)
69	Present	55.6
70	<2% of mass 69	0.2 (0.4)
127	40-60% of mass 198	54.1
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.8
275	10-30% of mass 198	22.5
365	>1% of mass 198	2.4
441	Present but less than mass 443	11.6 (79.0)
442	>40% of mass 198	75.8
443	17-23% of mass 442	14.7 (19.4)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130829.b\G6_b030424002E.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	264	129.00	61816	215.00	719	308.00	231
37.00	769	130.00	4992	216.00	918	309.00	224
38.00	2405	131.00	897	217.00	16480	310.00	308
39.00	14149	132.00	528	218.00	2281	311.00	44
40.00	687	133.00	252	219.00	212	313.00	205
41.00	470	134.00	1595	221.00	16680	314.00	911
43.00	117	135.00	4817	223.00	4506	315.00	1788
45.00	257	136.00	1898	224.00	38360	316.00	1092
49.00	602	137.00	2368	225.00	9626	317.00	226
50.00	44480	138.00	594	226.00	819	320.00	97
51.00	177088	139.00	313	227.00	13824	321.00	602
52.00	9086	140.00	755	228.00	1974	322.00	301
53.00	341	141.00	7082	229.00	3186	323.00	5915
55.00	708	142.00	2598	230.00	498	324.00	1172
56.00	4976	143.00	1605	231.00	1470	325.00	95
57.00	11776	144.00	465	232.00	199	326.00	175
58.00	535	145.00	502	233.00	290	327.00	1166
59.00	233	146.00	1293	234.00	843	328.00	490
60.00	112	147.00	3737	235.00	1001	329.00	129
61.00	2055	148.00	7271	236.00	680	332.00	427
62.00	2293	149.00	1526	237.00	1180	333.00	608
63.00	6321	150.00	425	238.00	152	334.00	3892
64.00	871	151.00	944	239.00	517	335.00	1062
65.00	3693	152.00	692	240.00	455	336.00	139
66.00	236	153.00	2368	241.00	867	339.00	66
67.00	142	154.00	1749	242.00	2163	340.00	105
69.00	176640	155.00	3873	243.00	2541	341.00	678
70.00	792	156.00	6037	244.00	30272	342.00	192
71.00	50	157.00	1404	245.00	4244	346.00	1397
72.00	91	158.00	1276	246.00	4972	347.00	238
73.00	1057	159.00	948	247.00	1058	350.00	58
74.00	14799	160.00	2159	248.00	270	351.00	149
75.00	24632	161.00	3290	249.00	1079	352.00	1894

Report Date: 05-Mar-2024 08:55:48 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130829.b\G6_b030424002E.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	9325	162.00	918	250.00	236	353.00	1262
77.00	185216	163.00	236	251.00	265	354.00	2030
78.00	12605	164.00	460	252.00	331	355.00	430
79.00	10825	165.00	2365	253.00	551	359.00	142
80.00	8369	166.00	2209	255.00	151936	360.00	47
81.00	12098	167.00	13497	256.00	22768	361.00	50
82.00	3010	168.00	6297	257.00	1923	363.00	37
83.00	2912	169.00	1178	258.00	7539	365.00	7661
85.00	2005	170.00	440	259.00	1234	366.00	1130
86.00	2443	171.00	617	260.00	243	367.00	97
87.00	1403	172.00	1136	261.00	274	370.00	227
88.00	528	173.00	1625	262.00	17	371.00	554
89.00	257	174.00	2928	263.00	67	372.00	3454
90.00	45	175.00	5255	264.00	51	373.00	927
91.00	2306	176.00	1634	265.00	2883	374.00	90
92.00	2609	177.00	2481	266.00	331	377.00	84
93.00	16408	178.00	520	267.00	19	383.00	943
94.00	1154	179.00	9548	269.00	19	384.00	277
95.00	274	180.00	6693	270.00	129	385.00	83
96.00	932	181.00	3286	271.00	364	390.00	455
97.00	43	182.00	552	272.00	105	391.00	390
98.00	12317	183.00	358	273.00	5214	392.00	244
99.00	10400	184.00	742	274.00	13501	401.00	243
100.00	928	185.00	5093	275.00	71416	402.00	1461
101.00	6163	186.00	40016	276.00	9446	403.00	2054
102.00	364	187.00	11406	277.00	5136	404.00	735
103.00	2123	188.00	1234	278.00	818	405.00	100
104.00	3679	189.00	1987	279.00	203	410.00	25
105.00	3392	190.00	352	281.00	51	415.00	68
107.00	47432	191.00	1002	282.00	138	420.00	20
108.00	7441	192.00	2977	283.00	586	421.00	1879
110.00	98336	193.00	3274	284.00	432	422.00	1952
111.00	13775	194.00	756	285.00	1005	423.00	13228
112.00	1691	195.00	370	286.00	194	424.00	2562

Report Date: 05-Mar-2024 08:55:48 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130829.b\G6_b030424002E.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	481	196.00	9391	288.00	50	425.00	236
114.00	132	198.00	317632	289.00	212	435.00	17
115.00	204	199.00	21664	290.00	197	435.00	41
116.00	2660	200.00	1533	291.00	130	436.00	99
117.00	30208	201.00	1500	292.00	290	437.00	114
118.00	2149	203.00	1800	293.00	1349	438.00	121
119.00	272	204.00	9708	294.00	370	439.00	187
120.00	544	205.00	17432	296.00	16233	441.00	36992
121.00	49	206.00	71608	297.00	2410	442.00	240832
122.00	2798	207.00	8988	298.00	167	443.00	46832
123.00	4265	208.00	2130	301.00	241	444.00	4104
124.00	1951	209.00	662	302.00	387	445.00	242
125.00	1938	211.00	2654	303.00	2116		
127.00	171904	213.00	200	304.00	616		
128.00	12944	214.00	107	305.00	41		

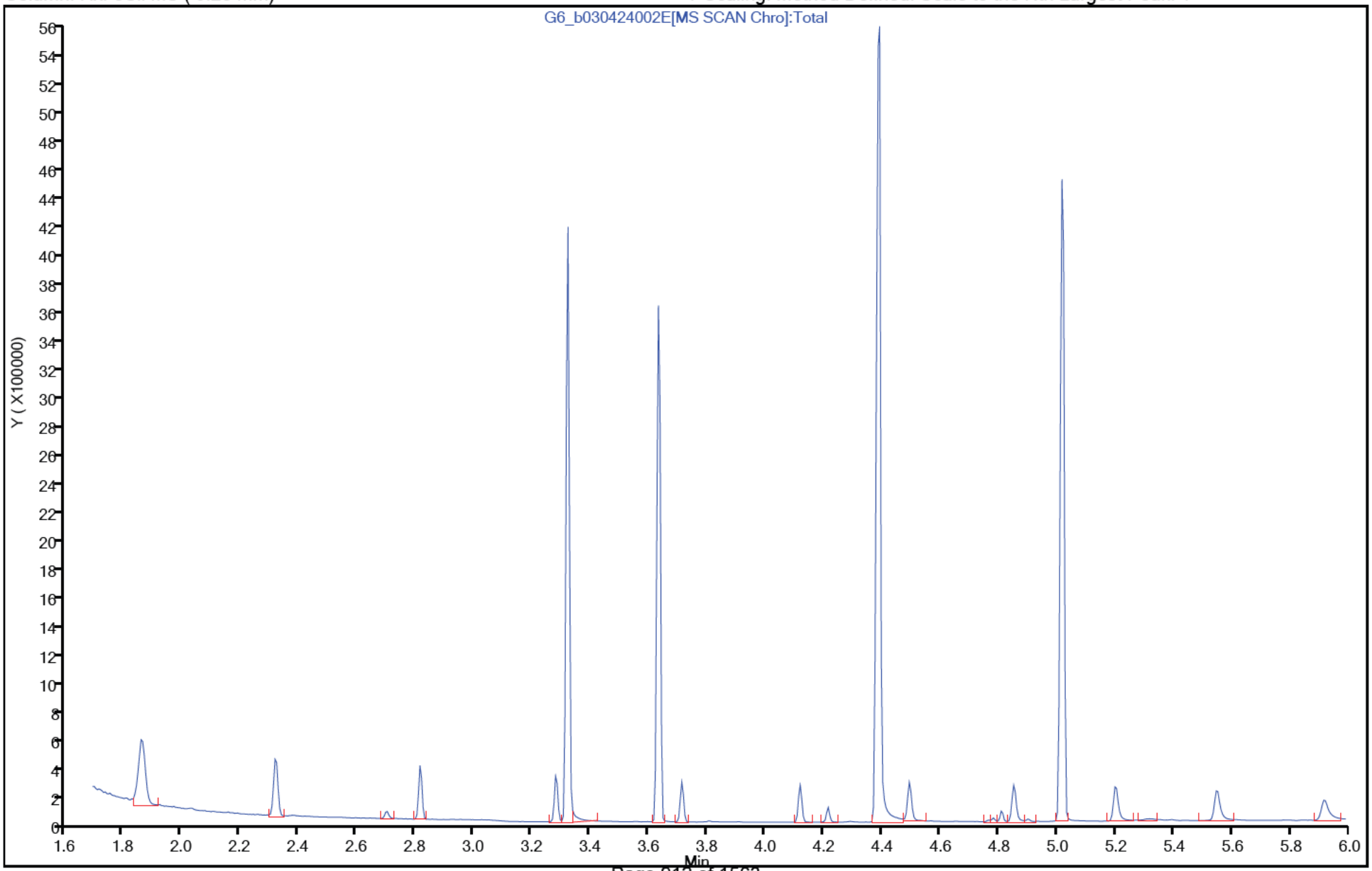
Report Date: 05-Mar-2024 08:55:48 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130829.b\G6_b030424002E.D

Injection Date:	04-Mar-2024 09:59:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	DFTPP			Worklist Smp#:	2
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130829.b\G6_b030424002E.D
Injection Date: 04-Mar-2024 09:59:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

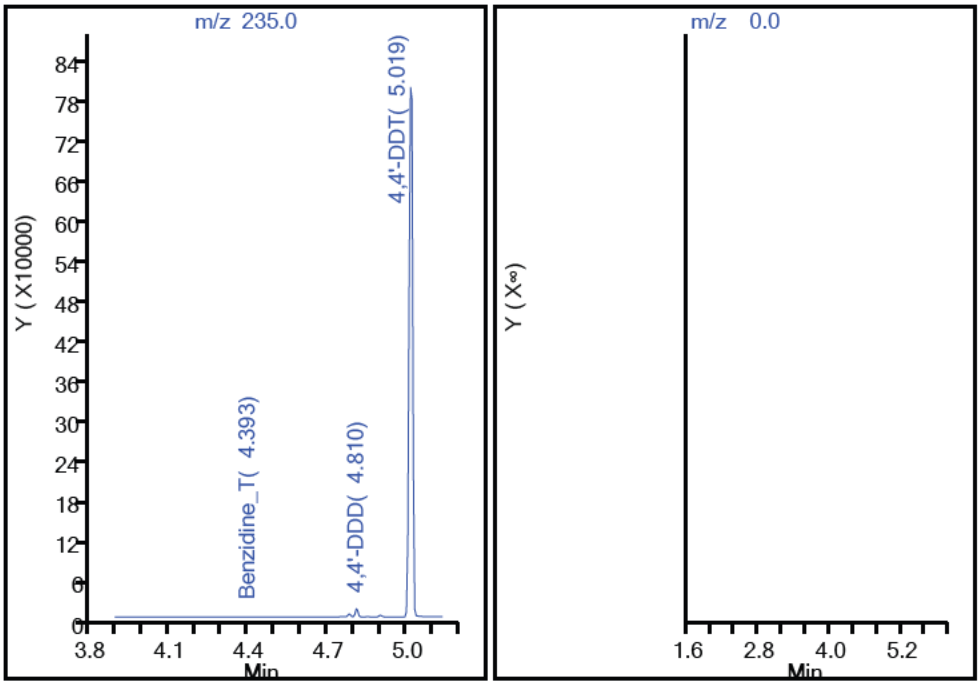
197 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

197 4,4'-DDT, Area = 781983
195 4,4'-DDD, Area = 9331
196 4,4'-DDE, Area = 0

%Breakdown: 1.18%, <= 20.00%
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130833.b\G6_b030524002C.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 05-Mar-2024 08:20:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240305-130833.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 12-Mar-2024 10:03:31 Calib Date: 04-Mar-2024 15:59:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130811.b\G6_b030424019.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1678

First Level Reviewer: JU6Y Date: 12-Mar-2024 10:03:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
24 Pentachlorophenol_T	266	3.318	3.318	0.000	93	373273	NR	NR	
38 Benzidine_T	184	4.388	4.388	0.000	99	2039166	NR	NR	
194 DFTPP									
196 4,4'-DDE	246	4.532	4.532	0.000	90	1104	NR	NR	a
195 4,4'-DDD	235	4.810	4.810	0.000	96	8957	NR	NR	
197 4,4'-DDT	235	5.019	5.019	0.000	97	750585	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
Review Flags
a - User Assigned ID

Reagents:

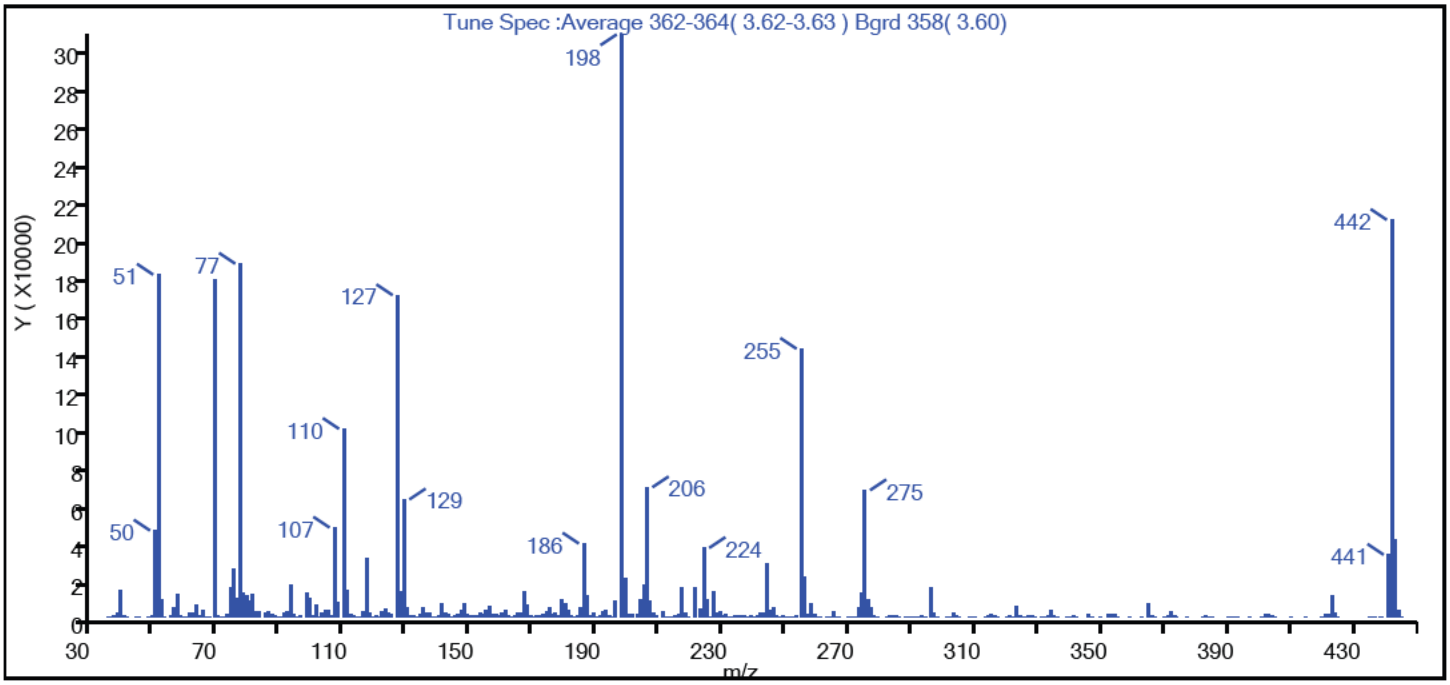
MS-DFTPP_00072 Amount Added: 500.00 Units: uL

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130833.b\G6_b030524002C.D
Injection Date: 05-Mar-2024 08:20:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Tune Method: DFTPP Method 8270

194 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	58.8
68	<2% of mass 69	0.0 (0.0)
69	Present	57.9
70	<2% of mass 69	0.3 (0.5)
127	40-60% of mass 198	55.3
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.8
275	10-30% of mass 198	21.8
365	>1% of mass 198	2.2
441	Present but less than mass 443	10.7 (80.9)
442	>40% of mass 198	68.2
443	17-23% of mass 442	13.2 (19.4)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130833.b\G6_b030524002C.D\SMSG6_8270C.rslt\spe
Injection Date: 05-Mar-2024 08:20:30
Spectrum: Tune Spec :Average 362-364(3.62-3.63) Bgrd 358(3.60)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	111	127.00	167552	212.00	117	305.00	40
36.00	319	128.00	12967	213.00	205	308.00	259
37.00	693	129.00	61288	214.00	42	309.00	152
38.00	2160	130.00	5153	215.00	671	310.00	261
39.00	13696	131.00	960	216.00	1431	313.00	174
40.00	679	132.00	560	217.00	15462	314.00	896
41.00	306	133.00	261	218.00	2075	315.00	1568
44.00	85	134.00	1580	219.00	240	316.00	1091
45.00	337	135.00	4685	221.00	15427	317.00	203
48.00	129	136.00	1889	223.00	4101	320.00	52
49.00	1086	137.00	2243	224.00	36032	321.00	557
50.00	45072	138.00	345	225.00	9304	322.00	52
51.00	178240	139.00	296	226.00	219	323.00	5524
52.00	8792	140.00	710	227.00	13187	324.00	1044
53.00	296	141.00	6834	228.00	1839	325.00	86
55.00	770	142.00	2406	229.00	3026	326.00	88
56.00	4928	143.00	1575	230.00	437	327.00	883
57.00	11675	144.00	402	231.00	1264	328.00	544
58.00	557	145.00	429	232.00	182	329.00	103
59.00	151	146.00	1280	233.00	219	331.00	17
60.00	140	147.00	3595	234.00	753	332.00	420
61.00	2109	148.00	7294	235.00	1000	333.00	498
62.00	2241	149.00	1559	236.00	599	334.00	3563
63.00	6244	150.00	436	237.00	1052	335.00	1041
64.00	926	151.00	922	238.00	192	336.00	116
65.00	3324	152.00	463	239.00	542	339.00	62
66.00	225	153.00	2169	240.00	397	340.00	32
67.00	152	154.00	1598	241.00	729	341.00	618
69.00	175616	155.00	3765	242.00	1882	342.00	171
70.00	811	156.00	5955	243.00	2363	346.00	1175
71.00	84	157.00	1254	244.00	27976	347.00	228
72.00	95	158.00	1342	245.00	3762	350.00	18
73.00	1131	159.00	905	246.00	4782	352.00	1644

Report Date: 12-Mar-2024 10:03:31 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130833.b\G6_b030524002C.D\SMSG6_8270C.rslt\spe
Injection Date: 05-Mar-2024 08:20:30
Spectrum: Tune Spec :Average 362-364(3.62-3.63) Bgrd 358(3.60)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	15426	160.00	2112	247.00	982	353.00	1273
75.00	25128	161.00	3290	248.00	246	354.00	1788
76.00	9495	162.00	889	249.00	910	355.00	373
77.00	183936	163.00	225	250.00	195	359.00	122
78.00	12550	164.00	439	251.00	217	363.00	40
79.00	11252	165.00	2252	252.00	294	365.00	6704
80.00	8436	166.00	1995	253.00	826	366.00	1018
81.00	12165	167.00	13205	255.00	139648	367.00	71
82.00	2901	168.00	6209	256.00	20648	370.00	209
83.00	2882	169.00	1054	257.00	1712	371.00	429
85.00	2154	170.00	411	258.00	7244	372.00	2893
86.00	2773	171.00	505	259.00	1124	373.00	722
87.00	1543	172.00	1027	260.00	242	374.00	109
88.00	604	173.00	1590	261.00	269	377.00	61
89.00	231	174.00	2694	263.00	61	382.00	18
90.00	67	175.00	5117	264.00	164	383.00	810
91.00	2476	176.00	1716	265.00	2726	384.00	233
92.00	2828	177.00	2284	266.00	339	385.00	60
93.00	16792	178.00	878	267.00	75	390.00	419
94.00	1216	179.00	9316	270.00	56	391.00	288
95.00	227	180.00	6705	270.00	179	392.00	198
96.00	770	181.00	3226	271.00	303	393.00	39
98.00	12353	182.00	494	272.00	278	397.00	18
99.00	10061	183.00	350	273.00	4606	401.00	209
100.00	977	184.00	722	274.00	12467	402.00	1207
101.00	6228	185.00	4781	275.00	66056	403.00	1708
102.00	339	186.00	38336	276.00	8942	404.00	622
103.00	2226	187.00	10863	277.00	4626	405.00	123
104.00	3745	188.00	1047	278.00	868	410.00	27
105.00	3401	189.00	2017	279.00	156	415.00	64
106.00	457	190.00	347	282.00	144	420.00	68
107.00	46632	191.00	1092	283.00	630	421.00	1655
108.00	7534	192.00	3044	284.00	424	422.00	1697
110.00	97960	193.00	3344	285.00	870	423.00	11458

Report Date: 12-Mar-2024 10:03:31 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130833.b\G6_b030524002C.D\SMSG6_8270C.rslt\spe
Injection Date: 05-Mar-2024 08:20:30
Spectrum: Tune Spec :Average 362-364(3.62-3.63) Bgrd 358(3.60)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	13848	194.00	669	286.00	181	424.00	2296
112.00	1564	195.00	209	288.00	18	425.00	258
113.00	458	196.00	8274	289.00	193	435.00	20
114.00	121	198.00	303168	290.00	212	436.00	87
115.00	147	199.00	20512	291.00	110	437.00	32
116.00	2710	200.00	1540	292.00	218	438.00	245
117.00	30408	201.00	1459	293.00	1107	439.00	333
118.00	2251	203.00	1678	294.00	319	441.00	32464
119.00	360	204.00	9103	296.00	15018	442.00	206720
120.00	615	205.00	16832	297.00	2039	443.00	40112
121.00	131	206.00	67616	298.00	164	444.00	3618
122.00	2785	207.00	8484	301.00	207	445.00	250
123.00	4222	208.00	2070	302.00	266		
124.00	1918	209.00	627	303.00	2000		
125.00	1807	211.00	2827	304.00	488		

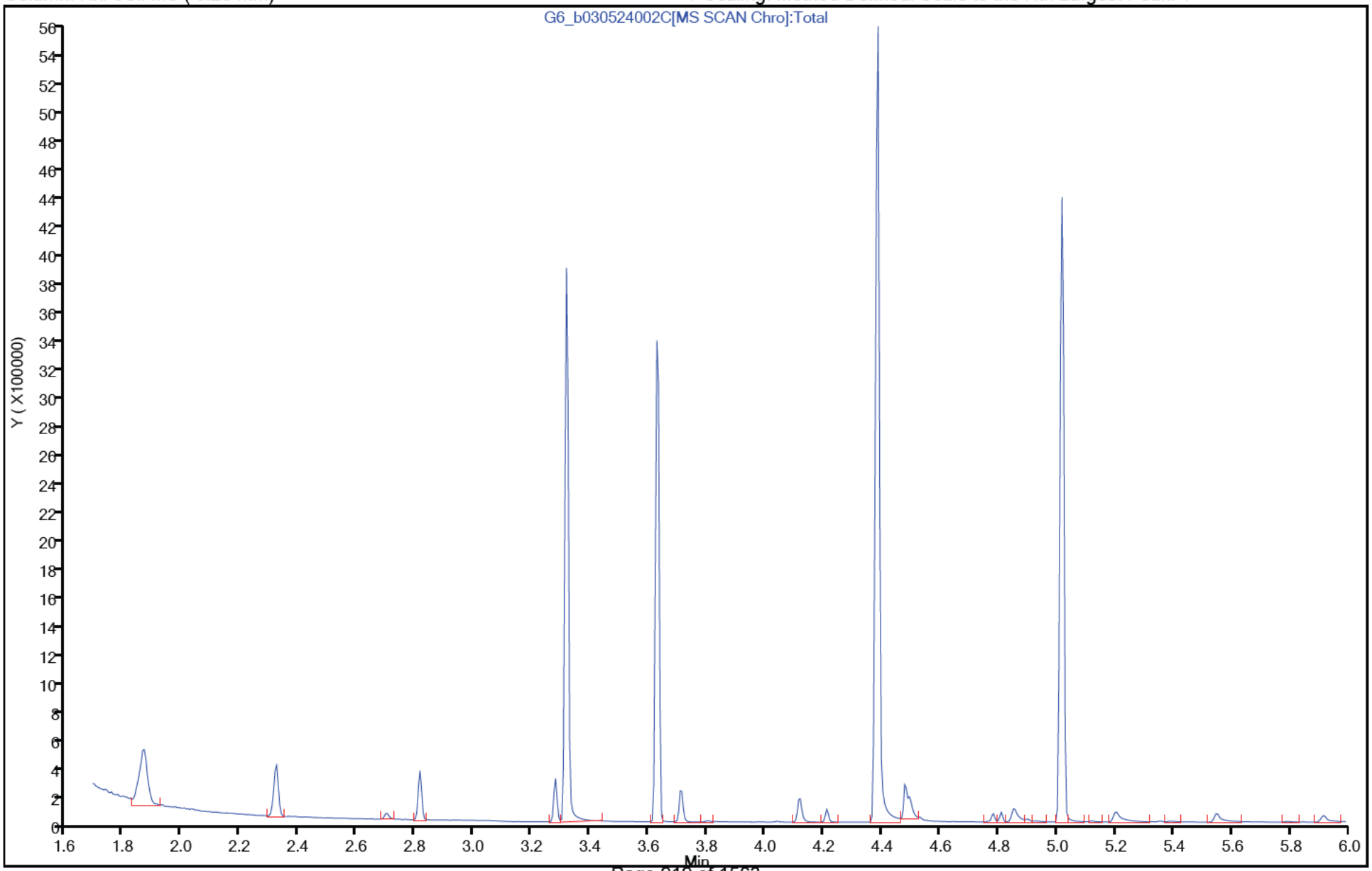
Report Date: 12-Mar-2024 10:03:31 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130833.b\G6_b030524002C.D

Injection Date:	05-Mar-2024 08:20:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	DFTPP			Worklist Smp#:	2
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240305-130833.b\G6_b030524002C.D
Injection Date: 05-Mar-2024 08:20:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

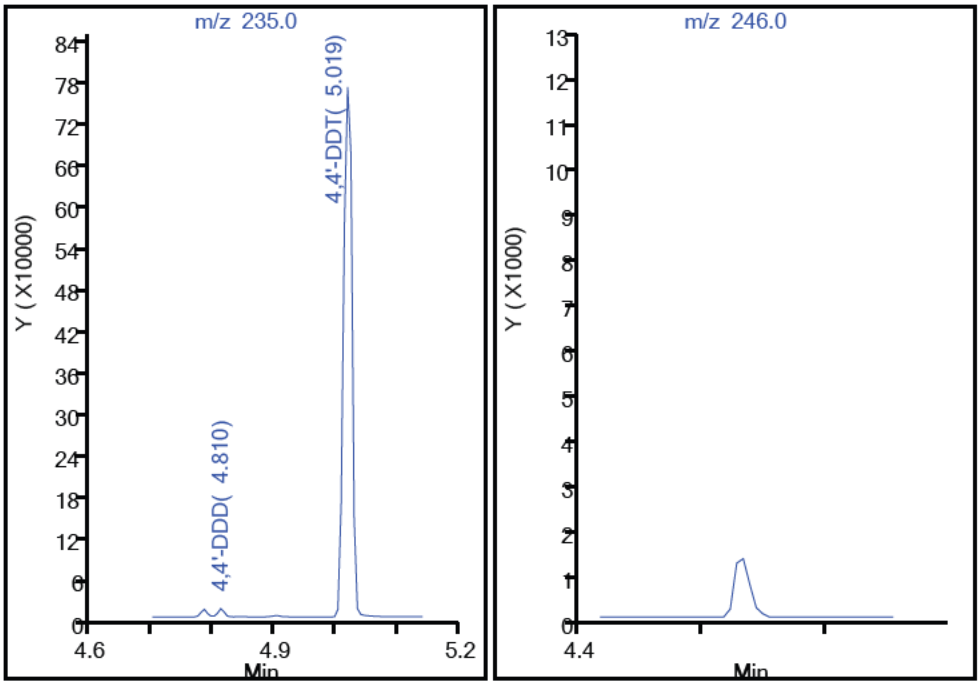
197 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

197 4,4'-DDT, Area = 750585
195 4,4'-DDD, Area = 8957
196 4,4'-DDE, Area = 1104

%Breakdown: 1.32%, <= 20.00%
Passed



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524002.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 15-Mar-2024 08:58:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 15-Mar-2024 13:47:08 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1683

First Level Reviewer: HPV7 Date: 15-Mar-2024 09:08:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
24 Pentachlorophenol_T	266	3.318	3.318	0.000	99	194526	NR	NR	
38 Benzidine_T	184	4.393	4.393	0.000	100	1029451	NR	NR	
194 DFTPP									
196 4,4'-DDE	246		4.532				ND	ND	
195 4,4'-DDD	235	4.821	4.821	0.000	95	3864	NR	NR	
197 4,4'-DDT	235	5.035	5.035	0.000	98	413830	NR	NR	a

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
ND - Not Detected or Marked ND
Review Flags
a - User Assigned ID

Reagents:

MS-DFTPP_00073 Amount Added: 500.00 Units: uL

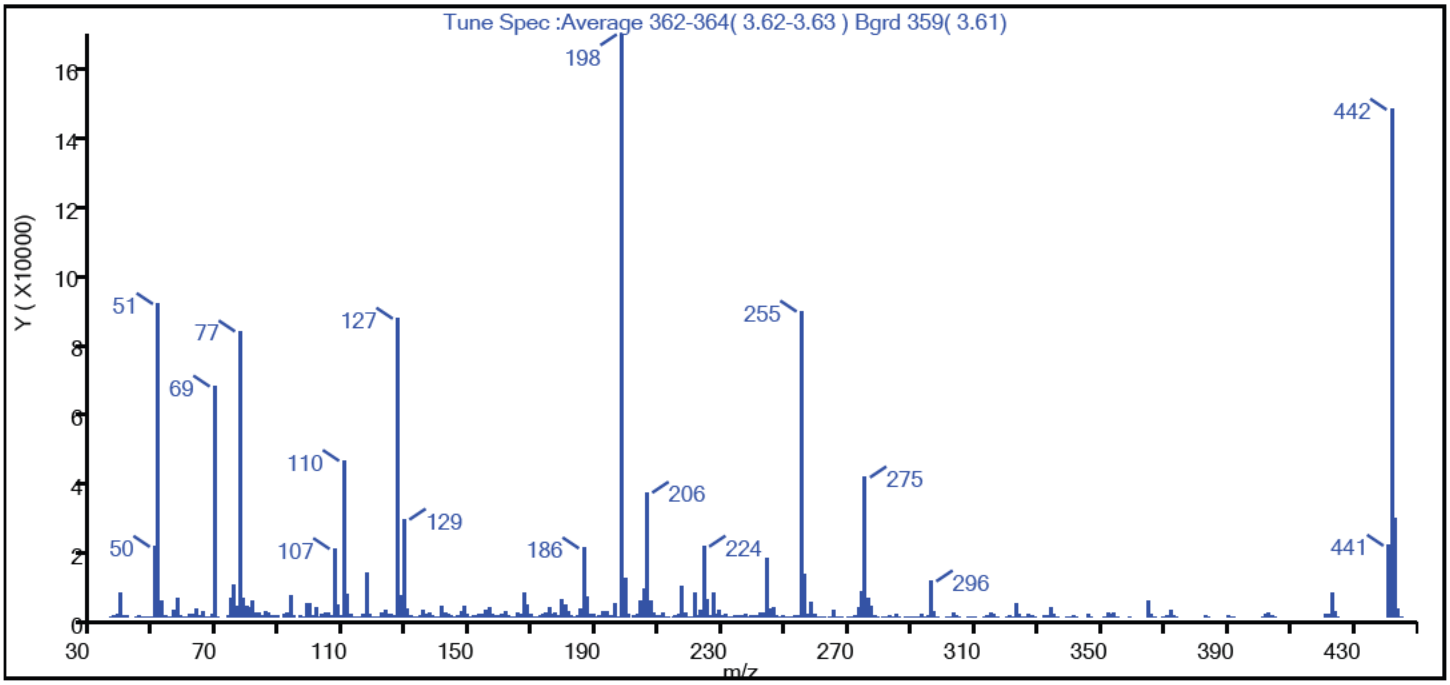
Report Date: 15-Mar-2024 13:47:09 Chrom Revision: 2.3 23-Feb-2024 16:51:14

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524002.D
Injection Date: 15-Mar-2024 08:58:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Tune Method: DFTPP Method 8270

194 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	53.8
68	<2% of mass 69	0.4 (1.1)
69	Present	39.6
70	<2% of mass 69	0.1 (0.3)
127	40-60% of mass 198	51.2
197	<1% of mass 198	0.1
199	5-9% of mass 198	6.6
275	10-30% of mass 198	24.0
365	>1% of mass 198	2.9
441	Present but less than mass 443	12.3 (72.5)
442	>40% of mass 198	87.1
443	17-23% of mass 442	16.9 (19.4)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524002.D\SMSG6_8270C.rslt\spectra.d
Injection Date: 15-Mar-2024 08:58:30
Spectrum: Tune Spec :Average 362-364(3.62-3.63) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	193	123.00	1807	204.00	4666	289.00	137
37.00	243	124.00	926	205.00	7981	290.00	60
38.00	984	125.00	779	206.00	35424	291.00	90
39.00	6690	126.00	386	207.00	4612	292.00	159
40.00	267	127.00	84904	208.00	1036	293.00	827
41.00	251	128.00	6088	209.00	331	294.00	190
44.00	142	129.00	27752	210.00	269	295.00	290
45.00	242	130.00	2439	211.00	1141	296.00	10211
46.00	18	131.00	458	212.00	87	297.00	1384
47.00	7	132.00	206	213.00	106	298.00	111
48.00	45	133.00	29	214.00	43	301.00	145
49.00	73	134.00	524	215.00	267	302.00	212
50.00	20016	135.00	2015	216.00	675	303.00	1314
51.00	89064	136.00	739	217.00	8722	304.00	450
52.00	4629	137.00	1225	218.00	1244	305.00	99
53.00	247	138.00	277	219.00	150	308.00	188
54.00	8	139.00	163	220.00	155	309.00	143
55.00	222	140.00	228	221.00	6760	310.00	136
56.00	1891	141.00	3135	222.00	436	313.00	55
57.00	5497	142.00	1119	223.00	2013	314.00	500
58.00	298	143.00	843	224.00	20072	315.00	1204
59.00	38	144.00	255	225.00	5137	316.00	635
60.00	107	145.00	181	226.00	508	317.00	114
61.00	705	146.00	462	227.00	6921	320.00	23
62.00	680	147.00	1373	228.00	937	321.00	384
63.00	2392	148.00	3126	229.00	1761	322.00	146
64.00	269	149.00	784	230.00	295	323.00	3860
65.00	1403	150.00	218	231.00	875	324.00	659
66.00	171	151.00	492	232.00	175	325.00	55
67.00	114	152.00	306	233.00	130	326.00	30
68.00	711	153.00	960	234.00	386	327.00	710
69.00	65608	154.00	836	235.00	500	328.00	343
70.00	180	155.00	1902	236.00	306	329.00	77

Report Date: 15-Mar-2024 13:47:09 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524002.D\SMSG6_8270C.rslt\spectra.d
Injection Date: 15-Mar-2024 08:58:30
Spectrum: Tune Spec :Average 362-364(3.62-3.63) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	318	156.00	2831	237.00	654	332.00	286
74.00	5330	157.00	655	238.00	19	333.00	307
75.00	9127	158.00	565	239.00	254	334.00	2552
76.00	2972	159.00	388	240.00	251	335.00	672
77.00	81272	160.00	949	241.00	380	336.00	57
78.00	5534	161.00	1625	242.00	1091	339.00	82
79.00	2927	162.00	460	243.00	1001	340.00	28
80.00	2620	163.00	27	244.00	16824	341.00	411
81.00	4438	164.00	179	245.00	2152	342.00	108
82.00	1294	165.00	1027	246.00	2673	346.00	848
83.00	1026	166.00	938	247.00	596	347.00	99
84.00	234	167.00	7009	248.00	120	351.00	76
85.00	1488	168.00	3463	249.00	603	352.00	1094
86.00	1058	169.00	628	250.00	116	353.00	865
87.00	503	170.00	180	251.00	106	354.00	1262
88.00	296	171.00	199	252.00	195	355.00	206
89.00	240	172.00	526	253.00	352	359.00	119
91.00	796	173.00	837	254.00	361	365.00	4750
92.00	1052	174.00	1242	255.00	86928	366.00	710
93.00	6135	175.00	2592	256.00	12212	367.00	73
94.00	530	176.00	887	257.00	864	370.00	16
96.00	311	177.00	1048	258.00	4058	370.00	112
97.00	29	178.00	371	259.00	682	371.00	360
98.00	3765	179.00	4853	260.00	132	372.00	2024
99.00	3742	180.00	3591	261.00	104	373.00	550
100.00	418	181.00	1745	262.00	20	374.00	18
101.00	2600	182.00	303	264.00	65	383.00	455
102.00	214	183.00	160	265.00	1764	384.00	190
103.00	731	184.00	331	266.00	196	390.00	339
104.00	1248	185.00	2367	267.00	94	391.00	199
105.00	1039	186.00	19576	268.00	76	392.00	162
106.00	370	187.00	5567	270.00	129	401.00	152
107.00	19400	188.00	636	271.00	188	402.00	635
108.00	3292	189.00	921	272.00	257	403.00	1217

Report Date: 15-Mar-2024 13:47:09 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524002.D\SMSG6_8270C.rslt\spectra.d
Injection Date: 15-Mar-2024 08:58:30
Spectrum: Tune Spec :Average 362-364(3.62-3.63) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
109.00	559	190.00	190	273.00	2628	404.00	386
110.00	44464	191.00	436	274.00	7108	405.00	40
111.00	6374	192.00	1393	275.00	39760	421.00	934
112.00	697	193.00	1621	276.00	5342	422.00	916
113.00	223	194.00	475	277.00	2889	423.00	6718
114.00	37	195.00	267	278.00	589	424.00	1417
115.00	59	196.00	3800	279.00	124	425.00	128
116.00	885	197.00	93	281.00	48	441.00	20336
117.00	12486	198.00	165696	282.00	97	442.00	144320
118.00	943	199.00	10999	283.00	336	443.00	28032
119.00	61	200.00	913	284.00	219	444.00	2486
120.00	196	202.00	553	285.00	638	445.00	162
121.00	67	202.00	59	286.00	104		
122.00	1076	203.00	824	288.00	19		

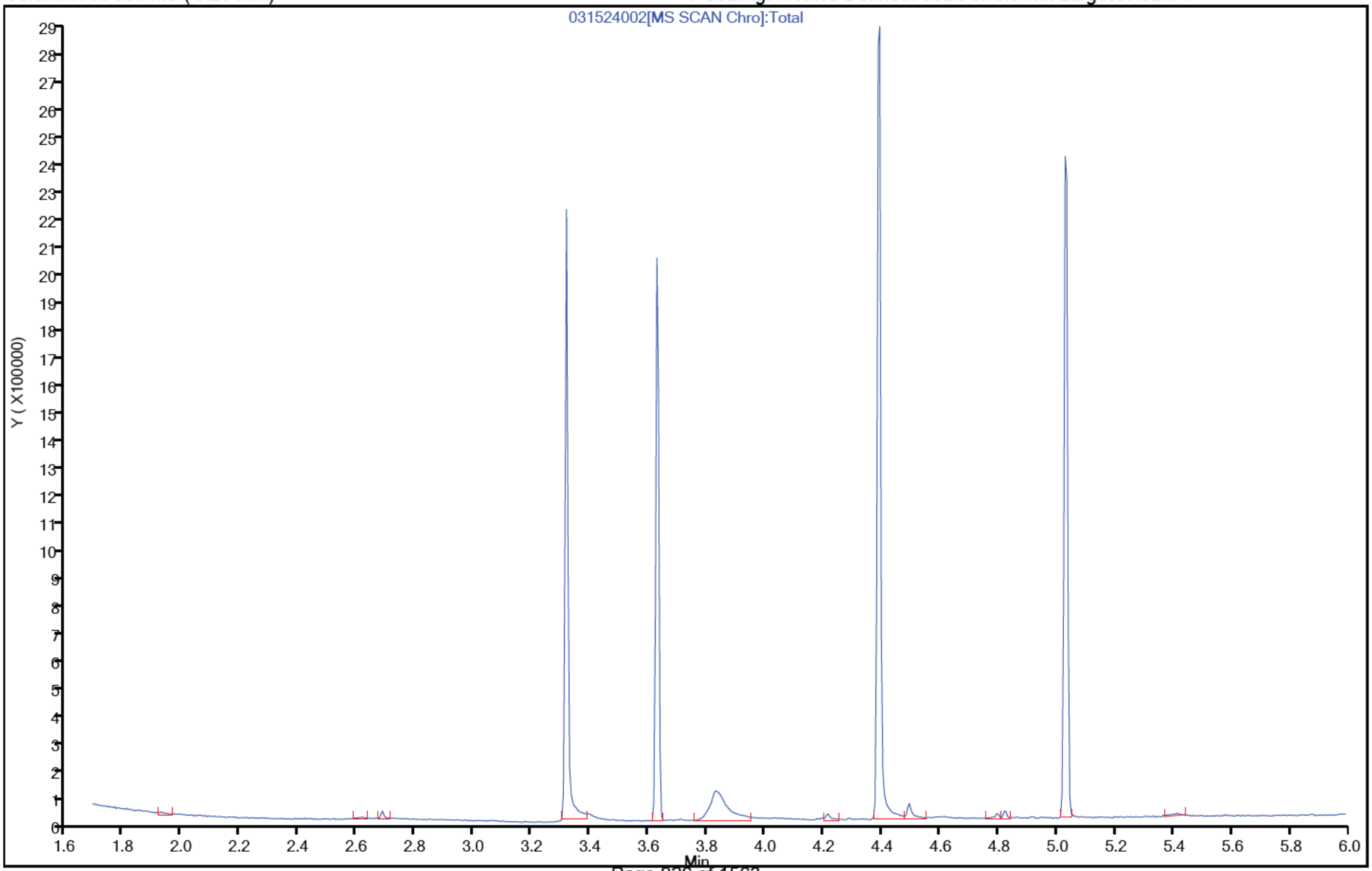
Report Date: 15-Mar-2024 13:47:09 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524002.D

Injection Date:	15-Mar-2024 08:58:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	DFTPP			Worklist Smp#:	2
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1

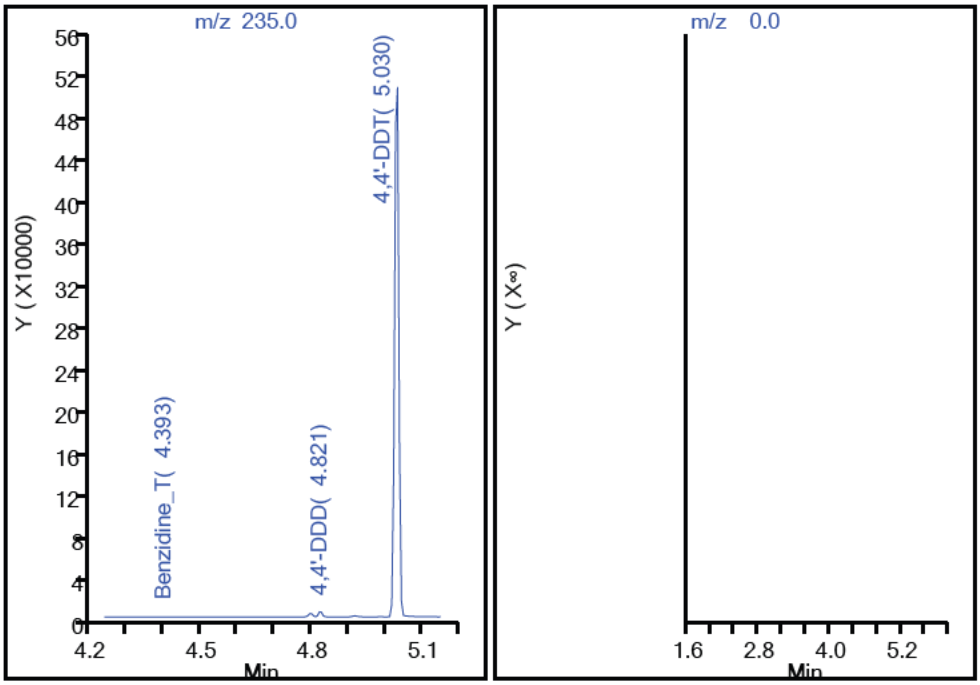


Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524002.D
Injection Date: 15-Mar-2024 08:58:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

197 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

197 4,4'-DDT, Area = 413830
195 4,4'-DDD, Area = 3864
196 4,4'-DDE, Area = 0

%Breakdown: 0.93%, <= 20.00%
Passed

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524002.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 15-Mar-2024 13:56:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:53:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
24 Pentachlorophenol_T	266	3.318	3.318	0.000	99	190388	NR	NR	
38 Benzidine_T	184	4.399	4.399	0.000	99	1169722	NR	NR	
194 DFTPP									
196 4,4'-DDE	246	4.548	4.548	0.000	85	930	NR	NR	
195 4,4'-DDD	235	4.832	4.832	0.000	95	3995	NR	NR	
197 4,4'-DDT	235	5.046	5.046	0.000	98	469266	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

MS-DFTPP_00073 Amount Added: 500.00 Units: uL

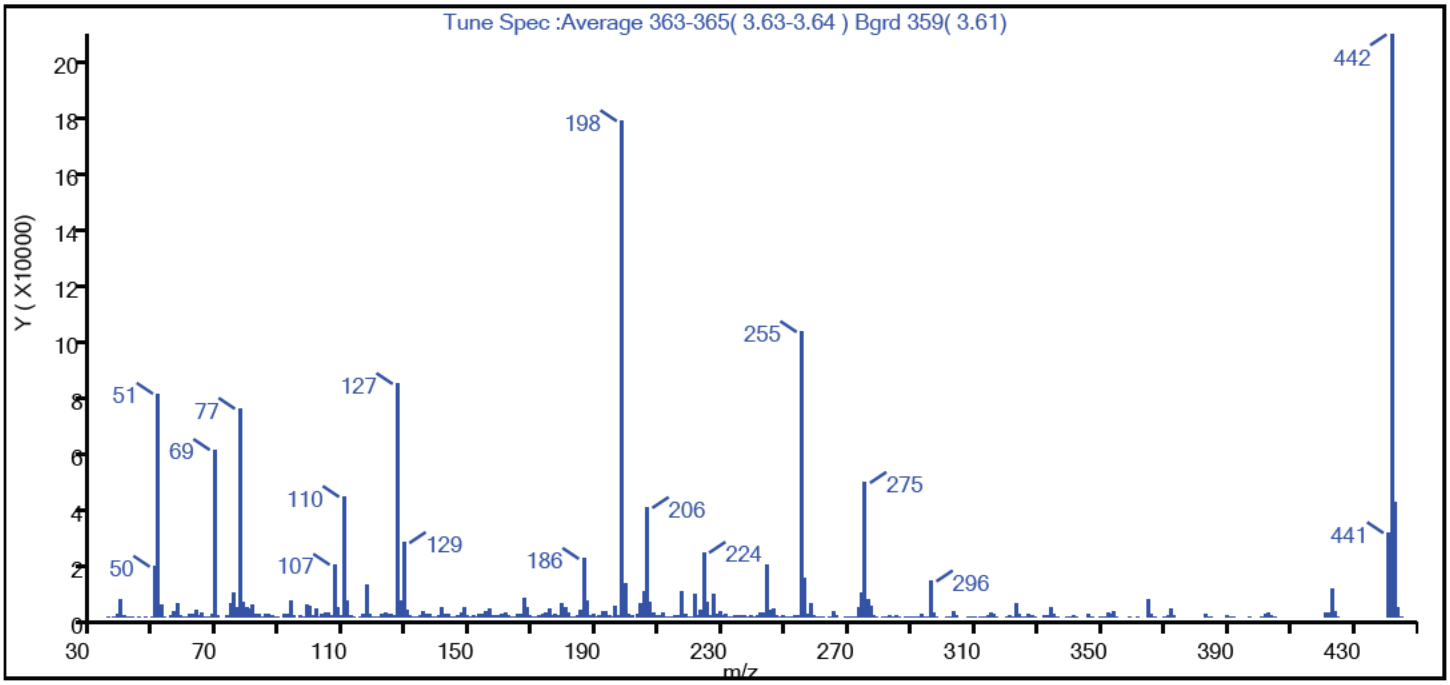
Report Date: 18-Mar-2024 14:53:53 Chrom Revision: 2.3 23-Feb-2024 16:51:14

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524002.D
Injection Date: 15-Mar-2024 13:56:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Tune Method: DFTPP Method 8270

194 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	45.0
68	<2% of mass 69	0.6 (1.7)
69	Present	33.7
70	<2% of mass 69	0.2 (0.5)
127	40-60% of mass 198	47.0
197	<1% of mass 198	0.3
199	5-9% of mass 198	6.6
275	10-30% of mass 198	27.1
365	>1% of mass 198	3.6
441	Present but less than mass 443	17.0 (73.7)
442	>40% of mass 198	117.5
443	17-23% of mass 442	23.0 (19.6)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524002.D\SMSG6_8270C.rslt\spectra
Injection Date: 15-Mar-2024 13:56:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 319

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	24	125.00	889	206.00	39168	291.00	58
37.00	287	126.00	365	207.00	5193	292.00	187
38.00	782	127.00	83576	208.00	1271	293.00	928
39.00	6376	128.00	5688	209.00	313	294.00	185
40.00	432	129.00	26600	210.00	554	295.00	290
41.00	272	130.00	2302	211.00	1258	296.00	12836
42.00	74	131.00	482	212.00	106	297.00	1706
43.00	100	132.00	262	213.00	95	298.00	83
45.00	113	133.00	47	214.00	62	301.00	180
47.00	81	134.00	760	215.00	374	302.00	190
49.00	191	135.00	2198	216.00	595	303.00	1741
50.00	18080	136.00	867	217.00	9275	304.00	385
51.00	80088	137.00	975	218.00	1114	308.00	223
52.00	4186	138.00	259	219.00	95	309.00	68
53.00	99	139.00	105	220.00	46	310.00	230
55.00	343	140.00	306	221.00	8106	312.00	42
56.00	1803	141.00	3229	222.00	538	313.00	120
57.00	4767	142.00	1089	223.00	2210	314.00	758
58.00	324	143.00	795	224.00	23104	315.00	1550
59.00	121	144.00	248	225.00	5233	316.00	864
60.00	20	145.00	198	226.00	676	317.00	153
61.00	783	146.00	535	227.00	8053	320.00	52
62.00	775	147.00	1324	228.00	1057	321.00	511
63.00	2376	148.00	3188	229.00	1825	322.00	221
64.00	368	149.00	768	230.00	381	323.00	4864
65.00	1310	150.00	227	231.00	931	324.00	903
66.00	126	151.00	579	232.00	94	325.00	102
67.00	80	152.00	234	233.00	159	326.00	130
68.00	995	153.00	1086	234.00	556	327.00	1018
69.00	59968	154.00	777	235.00	689	328.00	438
70.00	318	155.00	1847	236.00	460	329.00	74
73.00	326	156.00	2790	237.00	622	332.00	345
74.00	4736	157.00	608	238.00	77	333.00	540

Report Date: 18-Mar-2024 14:53:53 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524002.D\SMSG6_8270C.rslt\spectra
Injection Date: 15-Mar-2024 13:56:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 319

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	8536	158.00	697	239.00	363	334.00	3225
76.00	3183	159.00	305	240.00	168	335.00	809
77.00	74688	160.00	1044	241.00	430	336.00	31
78.00	5161	161.00	1627	242.00	1286	339.00	63
79.00	3549	162.00	447	243.00	1312	340.00	23
80.00	2904	163.00	128	244.00	18816	341.00	554
81.00	4241	164.00	157	245.00	2675	342.00	185
82.00	947	165.00	881	246.00	3144	346.00	1099
83.00	838	166.00	847	247.00	528	347.00	256
84.00	66	167.00	6643	248.00	218	350.00	20
85.00	1013	168.00	3456	249.00	695	351.00	64
86.00	1066	169.00	416	250.00	179	352.00	1541
87.00	464	170.00	195	251.00	108	353.00	938
88.00	189	171.00	202	252.00	168	354.00	1728
89.00	117	172.00	552	253.00	418	355.00	231
91.00	796	173.00	782	254.00	374	359.00	118
92.00	997	174.00	1538	255.00	102224	361.00	21
93.00	6008	175.00	2707	256.00	14093	365.00	6411
94.00	386	176.00	757	257.00	1105	366.00	987
96.00	357	177.00	974	258.00	4977	367.00	36
97.00	15	178.00	361	259.00	763	370.00	256
98.00	4116	179.00	4827	260.00	137	371.00	408
99.00	4030	180.00	3452	261.00	199	372.00	2952
100.00	419	181.00	1674	262.00	47	373.00	697
101.00	2817	182.00	235	264.00	196	383.00	820
102.00	125	183.00	167	265.00	1926	384.00	268
103.00	792	184.00	342	266.00	426	385.00	63
104.00	1321	185.00	2380	269.00	26	390.00	421
105.00	1373	186.00	20920	270.00	186	391.00	222
106.00	521	187.00	5892	271.00	206	392.00	204
107.00	18792	188.00	608	272.00	264	397.00	35
108.00	3360	189.00	969	273.00	3427	401.00	160
109.00	514	190.00	269	274.00	8892	402.00	1147
110.00	43104	191.00	398	275.00	48120	403.00	1636

Report Date: 18-Mar-2024 14:53:53 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524002.D\SMSG6_8270C.rslt\spectra
Injection Date: 15-Mar-2024 13:56:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 442.00
Minimum % Base Peak: 0
Number of Points: 319

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	5723	192.00	1762	276.00	6403	404.00	661
112.00	657	193.00	1852	277.00	3731	405.00	84
113.00	235	194.00	385	278.00	588	421.00	1429
115.00	78	195.00	284	279.00	99	422.00	1264
116.00	869	196.00	3725	281.00	17	423.00	9988
117.00	11626	197.00	565	282.00	83	424.00	2037
118.00	1184	198.00	177792	283.00	395	425.00	230
119.00	136	199.00	11781	284.00	253	441.00	30160
120.00	186	200.00	1015	285.00	699	442.00	208832
121.00	66	201.00	553	286.00	181	443.00	40920
122.00	1106	203.00	877	288.00	35	444.00	3608
123.00	1626	204.00	4977	289.00	179	445.00	186
124.00	807	205.00	8917	290.00	118		

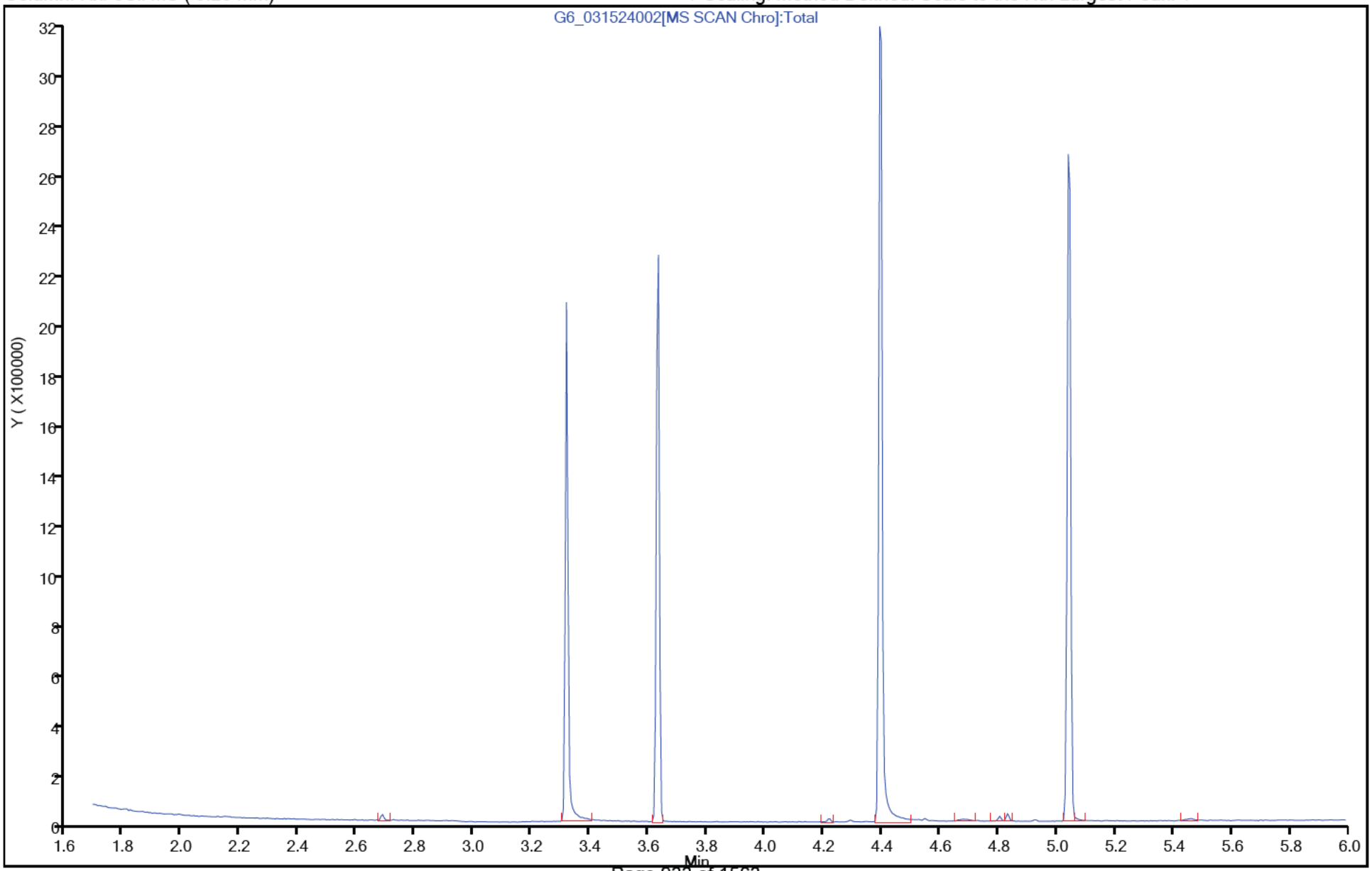
Report Date: 18-Mar-2024 14:53:53 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524002.D

Injection Date:	15-Mar-2024 13:56:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	DFTPP			Worklist Smp#:	2
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Breakdown Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524002.D
Injection Date: 15-Mar-2024 13:56:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625

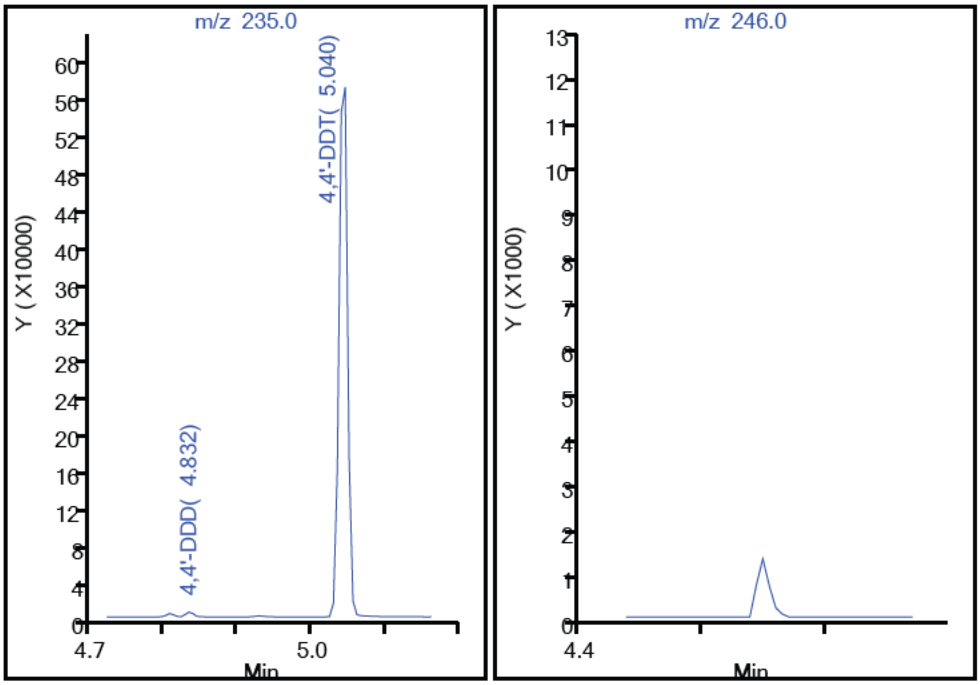
197 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

197 4,4'-DDT, Area = 469266
195 4,4'-DDD, Area = 3995
196 4,4'-DDE, Area = 930

%Breakdown: 1.04%, <= 20.00%
Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-645670/1-A

Matrix: Solid | Lab File ID: G6_031524012.D

Analysis Method: 8270E | Date Collected:

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 30(g) | Date Analyzed: 03/15/2024 17:36

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1000	U	1600	1000	330
122-39-4	Diphenylamine	170	U	330	170	44
86-30-6	N-Nitrosodiphenylamine	67	U	330	67	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	70		44-115
367-12-4	2-Fluorophenol (Surr)	63		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	81		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	62		37-122
4165-62-2	Phenol-d5 (Surr)	64		33-122
1718-51-0	Terphenyl-d14 (Surr)	80		54-127

Report Date: 18-Mar-2024 14:41:26 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524012.D
Lims ID: MB 280-645670/1-A
Client ID:
Sample Type: MB
Inject. Date: 15-Mar-2024 17:36:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: mb280-645670_1-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:41:15 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:06:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	189037	40.0	40.0	
* 2 Naphthalene-d8	136	5.486	5.486	0.000	99	696410	40.0	40.0	
* 3 Acenaphthene-d10	164	7.171	7.171	0.000	91	383054	40.0	40.0	
* 4 Phenanthrene-d10	188	8.615	8.615	0.000	96	692456	40.0	40.0	
* 5 Chrysene-d12	240	11.455	11.455	0.000	99	615574	40.0	40.0	
* 6 Perylene-d12	264	13.809	13.814	-0.006	99	675707	40.0	40.0	
$ 7 2-Fluorophenol	112	3.229	3.224	0.005	94	431827	100.0	62.7	
$ 8 Phenol-d5	99	4.015	4.010	0.005	95	538917	100.0	63.6	
$ 9 Nitrobenzene-d5	82	4.812	4.812	0.000	92	420292	100.0	61.6	
$ 10 2,4,6-Trichlorophenol-d2	198		6.443					ND	
$ 11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	831655	100.0	69.8	
$ 12 2,4,6-Tribromophenol	330	7.941	7.946	-0.005	92	202761	100.0	81.3	
$ 13 Terphenyl-d14	244	10.198	10.203	-0.005	97	1362179	100.0	79.9	
14 Triethyl amine	86		1.817					ND	7
16 1,4-Dioxane	88		1.956					ND	7
15 2-Ethoxyethanol	59		1.967					ND	
17 N-Nitrosodimethylamine	74		2.164					ND	
18 Pyridine	79		2.197					ND	7
19 Dimethylformamide	73		2.443					ND	
20 2-Picoline	93		2.747					ND	
21 N-Nitrosomethylethylamine	88		2.828					ND	
22 Methyl methanesulfonate	80		3.068					ND	
23 Acrylamide	71		3.079					ND	7
24 Pentachlorophenol_T	266		3.318					ND	
25 N-Nitrosodiethylamine	102		3.395					ND	
26 Ethyl methanesulfonate	79		3.646					ND	
27 Benzaldehyde	106		3.930					ND	
29 Phenol	94		4.026					ND	
28 Aniline	93		4.026					ND	
30 Pentachloroethane	117		4.068					ND	
31 Alpha Methyl Styrene	118		4.074					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 Bis(2-chloroethyl)ether	93		4.079					ND	
33 2-Chlorophenol	128		4.138					ND	
34 n-Decane	43		4.197					ND	
35 1,3-Dichlorobenzene	146		4.267					ND	
37 1,4-Dichlorobenzene	146		4.331					ND	
36 2-Bromopyridine	78		4.384					ND	
38 Benzidine_T	184		4.399					ND	
39 Benzyl alcohol	108		4.443					ND	7
40 1,2-Dichlorobenzene	146		4.470					ND	
41 Indene	116		4.550					ND	
42 2-Methylphenol	108		4.555					ND	
43 2,2'-oxybis[1-chloropropane]	45		4.561					ND	7
44 N-Nitrosopyrrolidine	100		4.646					ND	
61 3,5-Dimethylphenol	107		4.670					ND	
45 Acetophenone	105		4.678					ND	
50 N-Nitrosomorpholine	116		4.684					ND	
46 N-Nitrosodi-n-propylamine	70		4.684					ND	
47 4-Methylphenol	108		4.700					ND	
48 3-Methylphenol	108		4.700					ND	
49 3 & 4 Methylphenol	108		4.700					ND	
51 2-Toluidine	106		4.710					ND	
52 Hexachloroethane	117		4.775					ND	
53 Nitrobenzene	77		4.828					ND	7
54 N-Nitrosopiperidine	114		4.962					ND	
55 Isophorone	82		5.058					ND	
56 2-Nitrophenol	139		5.128					ND	
57 Benzyl dichloride	125		5.170					ND	
58 2,4-Dimethylphenol	107		5.186					ND	
198 4-Chloro-3-nitro-alpha,alpha,alp	179		5.240					ND	
59 o,o',o''-Triethylphosphorothioat	198		5.245					ND	
60 Bis(2-chloroethoxy)methane	93		5.261					ND	
192 3-Amino-4-Chlorobenzotrifluoride	195		5.267					ND	
63 Benzoic acid	105		5.336					ND	
62 2,4-Dichlorophenol	162		5.363					ND	
65 alpha,alpha-Dimethyl phenethylam	58		5.395					ND	7
66 1,2,4-Trichlorobenzene	180		5.438					ND	
67 Naphthalene	128		5.502					ND	
286 Alpha-Terpineol	59		5.523					ND	U
69 4-Chloroaniline	127		5.561					ND	
74 Phthalic anhydride	76	5.481	5.564	-0.083	32	19768		NC	
68 2,6-Dichlorophenol	162		5.572					ND	
70 Hexachloropropene	213		5.598					ND	
71 Hexachlorobutadiene	225		5.641					ND	
72 Quinoline	129		5.818					ND	
73 Caprolactam	55		5.871					ND	
75 p-Phenylene diamine	108		5.892					ND	
76 N-Nitrosodi-n-butylamine	84		5.892					ND	
77 4-Chloro-3-methylphenol	107		6.042					ND	
78 Safrole, Total	162		6.090					ND	
79 Carbofuran phenol	164		6.117					ND	
80 2-Methylnaphthalene	142		6.171					ND	
81 1-Methylnaphthalene	142		6.262					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
82 3'-Bromoacetophenone	183		6.272					ND	
84 1,2,4,5-Tetrachlorobenzene	216		6.336					ND	
83 Hexachlorocyclopentadiene	237		6.336					ND	
85 Isosafrole Peak 1	162		6.374					ND	
86 2,3-Dichlorobenzenamine	161		6.443					ND	
87 2,4,6-Trichlorophenol	196		6.454					ND	
88 2,4,5-Trichlorophenol	196		6.486					ND	
89 Isosafrole Peak 2	162		6.593					ND	
287 Toluene diamine (2,4- + 2,6- isb	122		6.615					ND	U
90 1,1'-Biphenyl	154		6.620					ND	7
91 2-Chloronaphthalene	162		6.636					ND	
92 1-Chloronaphthalene	162		6.657					ND	
93 2-Nitroaniline	65		6.738					ND	
94 1,4-Naphthoquinone	158		6.796					ND	
95 1,4-Dinitrobenzene	168		6.860					ND	
96 Dimethyl phthalate	163		6.930					ND	
97 1,3-Dinitrobenzene	168		6.946					ND	
98 2,6-Dinitrotoluene	165		6.978					ND	
99 Acenaphthylene	152		7.037					ND	
100 3-Nitroaniline	138		7.139					ND	
101 Acenaphthene	153		7.208					ND	
102 2,4-Dinitrophenol	184		7.240					ND	
105 1,3-Dimethyl-2,4-Dinitrobenzene	77		7.265					ND	
107 4-Nitrophenol	109		7.337					ND	7
103 Pentachlorobenzene	250		7.347					ND	
109 2,4-Dinitrotoluene	165		7.369					ND	
108 Dibenzofuran	168		7.374					ND	
111 1,3-Dimethyl-2,5-Dinitrobenzene	179		7.383					ND	
113 1-Naphthylamine	143		7.443					ND	
114 2,3,4,6-Tetrachlorophenol	232		7.508					ND	
104 1,4-Dimethyl-2,3-Dinitrobenzene	77		7.517					ND	
115 2-Naphthylamine	143		7.524					ND	
106 1,4-Dimethyl-2,5-Dinitrobenzene	179	7.609	7.554	0.055	19	40		0.0288	
110 1,4-Dimethyl-2,6-Dinitrobenzene	179		7.554					ND	
116 Diethyl phthalate	149	7.615	7.620	-0.005	98	6990		0.5746	
117 Hexadecane	57		7.658					ND	
112 1,2-Dimethyl-3,6-Dinitrobenzene	179		7.661					ND	
119 Thionazin	97		7.690					ND	
118 Fluorene	166		7.711					ND	
120 4-Chlorophenyl phenyl ether	204		7.716					ND	
121 N-Nitro-o-toluidine	152		7.722					ND	
122 4-Nitroaniline	138		7.738					ND	
123 4,6-Dinitro-2-methylphenol	198		7.775					ND	
124 1,5-Dimethyl-2,4-Dinitrobenzene	179		7.811					ND	
127 Tributyl phosphate	99		7.834					ND	
126 N-Nitrosodiphenylamine	169		7.834					ND	
125 Diphenylamine	169		7.834					ND	7
128 1,2-Diphenylhydrazine	77		7.871					ND	7
129 Azobenzene	77		7.871					ND	7
131 1,2-Dimethyl-3,5-Dinitrobenzene	179		7.993					ND	
132 Sulfotepp	97		8.000					ND	
130 1,5-Dimethyl-2,3-Dinitrobenzene	179		8.030					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
133 1,3,5-Trinitrobenzene	213		8.096					ND	
134 Diallate Peak 1	86		8.123					ND	7
136 Phorate	121		8.123					ND	
137 Phenacetin	108		8.150					ND	
135 1,2-Dimethyl-3,4-Dinitrobenzene	179		8.153					ND	
138 4-Bromophenyl phenyl ether	248		8.192					ND	
139 Diallate Peak 2	86		8.203					ND	
140 Hexachlorobenzene	284		8.262					ND	
141 Dimethoate	87		8.283					ND	
142 Atrazine	200		8.364					ND	
146 1,2-Dimethyl-4,5-Dinitrobenzene	91		8.389					ND	
145 4-Aminobiphenyl	169		8.444					ND	
143 Pentachlorophenol	266		8.454					ND	
144 Pentachloronitrobenzene	237		8.465					ND	
147 Pronamide	173		8.524					ND	
288 n-Octadecane	57		8.561					ND	U
150 Disulfoton	88		8.636					ND	7
149 Dinoseb	211		8.642					ND	
148 Phenanthrene	178		8.642					ND	
151 Anthracene	178		8.695					ND	
152 Carbazole	167		8.856					ND	
153 Methyl parathion	109		8.995					ND	
154 Alachlor	188		9.016					ND	
155 Di-n-butyl phthalate	149		9.225					ND	7
157 Ethyl Parathion	109		9.385					ND	
156 4-Nitroquinoline-1-oxide	190		9.396					ND	
158 Methapyrilene	97		9.492					ND	7
159 Isodrin	193		9.658					ND	
160 Fluoranthene	202		9.808					ND	
161 Benzidine	184		9.941					ND	
162 Pyrene	202		10.032					ND	7
163 Aramite Peak 1	185		10.193					ND	7
164 Aramite Peak 2	185		10.273					ND	7
165 p-Dimethylamino azobenzene	120		10.353					ND	
166 Chlorobenzilate	251		10.412					ND	
167 Famphur	218		10.679					ND	
168 3,3'-Dimethylbenzidine	212		10.733					ND	
169 Butyl benzyl phthalate	149		10.770					ND	
171 2-Acetylaminofluorene	181		11.048					ND	
172 3,3'-Dichlorobenzidine	252		11.434					ND	
174 4,4'-Methylene bis(2-chloroaniline)	231		11.439					ND	7
173 Benzo[a]anthracene	228		11.455					ND	7
175 Chrysene	228		11.503					ND	7
176 Bis(2-ethylhexyl) phthalate	149	11.567	11.578	-0.011	78	953		4.82	
177 6-Methylchrysene	242		12.188					ND	
178 Di-n-octyl phthalate	149		12.626					ND	
182 Hexachlorophene	196		12.661					ND	
180 7,12-Dimethylbenz(a)anthracene	256		13.150					ND	
179 Benzo[b]fluoranthene	252		13.156					ND	
181 Benzo[k]fluoranthene	252		13.204					ND	
183 Benzo[a]pyrene	252		13.718					ND	U
184 3-Methylcholanthrene	268		14.386					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
64 Tris(2,3-dibromopropyl)phosphate	419		14.766					ND	
185 Dibenz[a,h]acridine	279		15.381					ND	
186 Dibenz[a,j]acridine	279		15.482					ND	
187 Indeno[1,2,3-cd]pyrene	276		15.777					ND	
188 Dibenz(a,h)anthracene	278		15.836					ND	
189 Benzo[g,h,i]perylene	276		16.194					ND	
289 Dibenzo[a,e]pyrene	302		18.590					ND	
190 Sulfolane	1		0.000					ND	
193 Prometon	1		0.000					ND	
290 Alpha Methyl Styrene TIC	1		0.000					ND	
196 4,4'-DDE	246		4.548					ND	
195 4,4'-DDD	235		4.832					ND	
197 4,4'-DDT	235		5.046					ND	
S 200 Methyl Phenols,Total	108		15.496					ND	7
S 199 Total Cresols	108		15.496					ND	7
S 201 Isosafrole	162		15.496					ND	7
S 202 Diallate	86		15.496					ND	7
S 203 Aramite, Total	185		15.496					ND	7
S 204 TPAH	1		0.000					ND	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- 7 - Failed Limit of Detection

Review Flags
- U - Marked Undetected

Reagents:

MS-IS_00037 Amount Added: 100.00 Units: uL Run Reagent

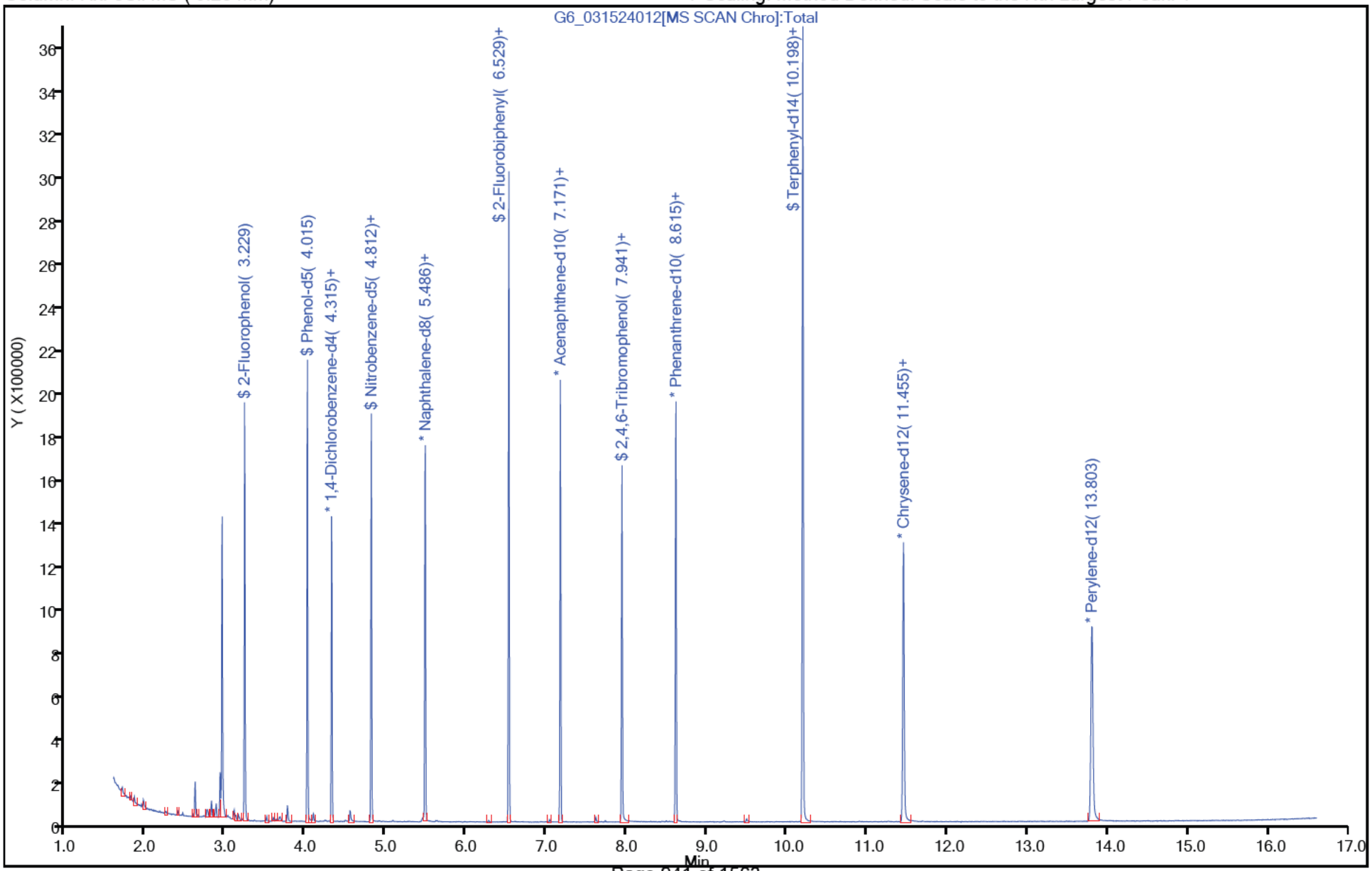
Report Date: 18-Mar-2024 14:41:26 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524012.D

Injection Date:	15-Mar-2024 17:36:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	MB 280-645670/1-A			Worklist Smp#:	11
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 18-Mar-2024 14:41:26 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524012.D
Lims ID: MB 280-645670/1-A
Client ID:
Sample Type: MB
Inject. Date: 15-Mar-2024 17:36:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: mb280-645670_1-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:41:15 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:06:40

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	100.0	62.7	62.71
$ 8 Phenol-d5	100.0	63.6	63.60
$ 9 Nitrobenzene-d5	100.0	61.6	61.64
$ 11 2-Fluorobiphenyl	100.0	69.8	69.79
$ 12 2,4,6-Tribromophenol	100.0	81.3	81.29
$ 13 Terphenyl-d14	100.0	79.9	79.90

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-645670/2-A

Matrix: Solid | Lab File ID: G6_031524013.D

Analysis Method: 8270E | Date Collected:

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 30(g) | Date Analyzed: 03/15/2024 17:57

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	4220		1600	1000	330
122-39-4	Diphenylamine	1770		330	170	44
86-30-6	N-Nitrosodiphenylamine	2040		330	67	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	62		44-115
367-12-4	2-Fluorophenol (Surr)	52		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	82		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	52		37-122
4165-62-2	Phenol-d5 (Surr)	53		33-122
1718-51-0	Terphenyl-d14 (Surr)	73		54-127

Report Date: 18-Mar-2024 14:41:30 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524013.D
Lims ID: LCS 280-645670/2-A
Client ID:
Sample Type: LCS
Inject. Date: 15-Mar-2024 17:57:30 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: lcs280-645670_2-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:41:15 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:08:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	199718	40.0	40.0	
* 2 Naphthalene-d8	136	5.486	5.486	0.000	99	727022	40.0	40.0	
* 3 Acenaphthene-d10	164	7.171	7.171	0.000	91	399482	40.0	40.0	
* 4 Phenanthrene-d10	188	8.615	8.615	0.000	96	685788	40.0	40.0	
* 5 Chrysene-d12	240	11.460	11.455	0.005	98	578823	40.0	40.0	
* 6 Perylene-d12	264	13.808	13.814	-0.006	99	666670	40.0	40.0	
$ 7 2-Fluorophenol	112	3.234	3.224	0.010	92	377489	100.0	51.9	
$ 8 Phenol-d5	99	4.015	4.010	0.005	95	474937	100.0	53.1	
$ 9 Nitrobenzene-d5	82	4.812	4.812	0.000	93	368442	100.0	51.8	
$ 11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	765454	100.0	61.6	
$ 12 2,4,6-Tribromophenol	330	7.946	7.946	0.000	92	212641	100.0	81.7	
$ 13 Terphenyl-d14	244	10.198	10.203	-0.005	98	1166629	100.0	72.8	
16 1,4-Dioxane	88	1.956	1.956	0.000	94	59955	80.0	17.1	
17 N-Nitrosodimethylamine	74	2.159	2.164	-0.005	89	184367	80.0	40.4	
18 Pyridine	79	2.197	2.197	0.000	86	362391	160.0	61.3	
20 2-Picoline	93	2.748	2.747	0.001	98	270849	80.0	37.7	
21 N-Nitrosomethylethylamine	88	2.833	2.828	0.005	93	141344	80.0	44.9	
22 Methyl methanesulfonate	80	3.068	3.068	0.000	87	174030	80.0	48.6	
23 Acrylamide	71	3.090	3.079	0.011	66	158523	80.0	53.3	
25 N-Nitrosodiethylamine	102	3.395	3.395	0.000	90	150476	80.0	49.7	
26 Ethyl methanesulfonate	79	3.646	3.646	0.000	98	249720	80.0	48.2	
27 Benzaldehyde	106	3.930	3.930	0.000	92	207022	80.0	38.1	
29 Phenol	94	4.026	4.026	0.000	93	444557	80.0	43.6	
28 Aniline	93	4.026	4.026	0.000	83	291170	80.0	28.5	
30 Pentachloroethane	117	4.069	4.068	0.001	95	110998	80.0	43.7	
32 Bis(2-chloroethyl)ether	93	4.079	4.079	0.000	95	324298	80.0	45.7	
33 2-Chlorophenol	128	4.138	4.138	0.000	98	349195	80.0	46.1	
34 n-Decane	43	4.197	4.197	0.000	97	316857	80.0	34.6	
35 1,3-Dichlorobenzene	146	4.272	4.267	0.006	99	307264	80.0	38.3	
37 1,4-Dichlorobenzene	146	4.331	4.331	0.000	95	315855	80.0	38.5	
39 Benzyl alcohol	108	4.443	4.443	0.000	94	233817	80.0	47.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
40 1,2-Dichlorobenzene	146	4.470	4.470	0.000	97	306142	80.0	39.4	
41 Indene	116	4.550	4.550	0.000	92	505299	80.0	43.7	
42 2-Methylphenol	108	4.566	4.555	0.011	92	315288	80.0	49.4	
43 2,2'-oxybis[1-chloropropane]	45	4.566	4.561	0.005	92	633324	80.0	49.6	
44 N-Nitrosopyrrolidine	100	4.652	4.646	0.006	84	195697	80.0	63.8	
45 Acetophenone	105	4.678	4.678	0.000	96	313789	80.0	32.6	
50 N-Nitrosomorpholine	116	4.684	4.684	0.000	94	75165	80.0	55.8	
46 N-Nitrosodi-n-propylamine	70	4.689	4.684	0.005	94	232177	80.0	47.8	
47 4-Methylphenol	108	4.705	4.700	0.005	94	371580	80.0	53.4	
48 3-Methylphenol	108	4.705	4.700	0.005	87	371580	80.0	53.4	
49 3 & 4 Methylphenol	108	4.705	4.700	0.005	77	371580	80.0	53.4	
51 2-Toluidine	106	4.710	4.710	0.000	92	422659	80.0	44.0	
52 Hexachloroethane	117	4.775	4.775	0.000	96	130677	80.0	39.0	
53 Nitrobenzene	77	4.828	4.828	0.000	93	321019	80.0	45.3	
54 N-Nitrosopiperidine	114	4.962	4.962	0.000	78	175283	80.0	56.1	
55 Isophorone	82	5.053	5.058	-0.005	98	561897	80.0	40.9	
56 2-Nitrophenol	139	5.128	5.128	0.000	91	181454	80.0	52.9	
58 2,4-Dimethylphenol	107	5.186	5.186	0.000	92	220441	80.0	39.4	
59 o,o',o''-Triethylphosphorothioat	198	5.245	5.245	0.000	87	144287	80.0	51.7	
60 Bis(2-chloroethoxy)methane	93	5.261	5.261	0.000	98	441395	80.0	53.1	
63 Benzoic acid	105	5.299	5.336	-0.037	91	221701	80.0	57.1	
62 2,4-Dichlorophenol	162	5.363	5.363	0.000	93	303278	80.0	55.3	
65 alpha,alpha-Dimethyl phenethylam	58	5.465	5.395	0.070	96	579936	80.0	34.9	M
66 1,2,4-Trichlorobenzene	180	5.438	5.438	0.000	94	270423	80.0	45.2	
67 Naphthalene	128	5.502	5.502	0.000	97	887330	80.0	46.6	
69 4-Chloroaniline	127	5.561	5.561	0.000	97	342990	80.0	41.4	
68 2,6-Dichlorophenol	162	5.572	5.572	0.000	97	290986	80.0	54.2	
70 Hexachloropropene	213	5.598	5.598	0.000	91	158825	80.0	52.2	
71 Hexachlorobutadiene	225	5.641	5.641	0.000	96	143016	80.0	44.6	
72 Quinoline	129	5.823	5.818	0.005	97	702616	80.0	60.9	
73 Caprolactam	55	5.882	5.871	0.011	73	255961	80.0	82.3	
75 p-Phenylene diamine	108		5.892				80.0	ND	7
76 N-Nitrosodi-n-butylamine	84	5.892	5.892	0.000	86	296891	80.0	80.0	
77 4-Chloro-3-methylphenol	107	6.048	6.042	0.006	95	303280	80.0	53.9	
78 Safrole, Total	162	6.090	6.090	0.000	93	252810	80.0	56.3	
80 2-Methylnaphthalene	142	6.165	6.171	-0.006	95	635220	80.0	48.5	
81 1-Methylnaphthalene	142	6.262	6.262	0.000	94	600473	80.0	50.4	
84 1,2,4,5-Tetrachlorobenzene	216	6.336	6.336	0.000	96	278511	80.0	48.9	
83 Hexachlorocyclopentadiene	237	6.336	6.336	0.000	76	155937	160.4	56.7	
85 Isosafrole Peak 1	162	6.374	6.374	0.000	99	49477	12.8	9.24	
87 2,4,6-Trichlorophenol	196	6.454	6.454	0.000	92	226725	80.0	63.3	
88 2,4,5-Trichlorophenol	196	6.492	6.486	0.006	95	251125	80.0	64.7	
89 Isosafrole Peak 2	162	6.593	6.593	0.000	99	279532	67.2	48.4	
90 1,1'-Biphenyl	154	6.620	6.620	0.000	95	765108	80.0	52.7	
91 2-Chloronaphthalene	162	6.636	6.636	0.000	95	660667	80.0	58.8	
92 1-Chloronaphthalene	162	6.657	6.657	0.000	99	569749	80.0	54.5	
93 2-Nitroaniline	65	6.738	6.738	0.000	88	227778	80.0	63.8	
94 1,4-Naphthoquinone	158	6.796	6.796	0.000	93	259251	80.0	63.6	
95 1,4-Dinitrobenzene	168	6.861	6.860	0.001	95	131882	80.0	75.0	
96 Dimethyl phthalate	163	6.930	6.930	0.000	98	757361	80.0	62.2	
97 1,3-Dinitrobenzene	168	6.941	6.946	-0.005	89	153467	80.0	73.5	
98 2,6-Dinitrotoluene	165	6.973	6.978	-0.005	95	186134	80.0	65.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
99 Acenaphthylene	152	7.032	7.037	-0.005	98	993307	80.0	59.0	
100 3-Nitroaniline	138	7.139	7.139	0.000	96	236894	80.0	66.7	
101 Acenaphthene	153	7.203	7.208	-0.005	93	613293	80.0	54.6	
102 2,4-Dinitrophenol	184	7.240	7.240	0.000	85	210423	160.0	126.5	
107 4-Nitrophenol	109	7.337	7.337	0.000	91	221845	160.0	124.5	
103 Pentachlorobenzene	250	7.347	7.347	0.000	97	294831	80.0	59.3	
109 2,4-Dinitrotoluene	165	7.369	7.369	0.000	91	244053	80.0	65.8	
108 Dibenzofuran	168	7.374	7.374	0.000	97	891233	80.0	56.1	
113 1-Naphthylamine	143	7.444	7.443	0.001	98	472987	80.0	44.0	
114 2,3,4,6-Tetrachlorophenol	232	7.508	7.508	0.000	71	215521	80.0	71.9	
115 2-Naphthylamine	143	7.524	7.524	0.000	98	674416	80.0	54.9	
116 Diethyl phthalate	149	7.615	7.620	-0.005	98	814811	80.0	64.2	
117 Hexadecane	57	7.652	7.658	-0.006	90	554937	80.0	58.8	
119 Thionazin	97	7.690	7.690	0.000	80	190008	80.0	66.4	
118 Fluorene	166	7.706	7.711	-0.005	97	721929	80.0	57.5	
120 4-Chlorophenyl phenyl ether	204	7.711	7.716	-0.005	92	328975	80.0	57.2	
121 N-Nitro-o-toluidine	152	7.722	7.722	0.000	94	253116	80.0	69.1	
122 4-Nitroaniline	138	7.732	7.738	-0.006	92	244806	80.0	69.9	
123 4,6-Dinitro-2-methylphenol	198	7.770	7.775	-0.005	85	293994	160.0	125.8	
126 N-Nitrosodiphenylamine	169	7.829	7.834	-0.005	99	583477	80.0	61.3	
125 Diphenylamine	169	7.829	7.834	-0.005	96	583477	68.0	53.1	
128 1,2-Diphenylhydrazine	77	7.866	7.871	-0.005	98	802736	80.9	57.9	
129 Azobenzene	77	7.866	7.871	-0.005	98	802736	80.0	57.3	
132 Sulfotepp	97	8.000	8.000	0.000	92	122493	80.0	62.0	
133 1,3,5-Trinitrobenzene	213	8.107	8.096	0.011	85	97390	80.0	81.4	
134 Diallate Peak 1	86	8.123	8.123	0.000	89	256839	59.2	47.7	
136 Phorate	121	8.123	8.123	0.000	95	160973	80.0	68.1	
137 Phenacetin	108	8.150	8.150	0.000	96	422828	80.0	68.1	
138 4-Bromophenyl phenyl ether	248	8.187	8.192	-0.005	65	234922	80.0	62.7	
139 Diallate Peak 2	86	8.203	8.203	0.000	88	97677	20.8	16.9	
140 Hexachlorobenzene	284	8.257	8.262	-0.005	97	323221	80.0	66.3	
141 Dimethoate	87	8.283	8.283	0.000	98	375648	80.0	82.3	
142 Atrazine	200	8.364	8.364	0.000	89	199524	80.0	67.8	
145 4-Aminobiphenyl	169	8.444	8.444	0.000	89	604291	80.0	45.8	
143 Pentachlorophenol	266	8.454	8.454	0.000	97	372078	160.0	140.5	
144 Pentachloronitrobenzene	237	8.465	8.465	0.000	93	108533	80.0	79.6	
147 Pronamide	173	8.524	8.524	0.000	91	350600	80.0	68.3	
288 n-Octadecane	57	8.556	8.561	-0.005	92	631534	80.0	66.0	
150 Disulfoton	88	8.636	8.636	0.000	96	452659	80.0	70.6	
149 Dinoseb	211	8.642	8.642	0.000	68	170700	80.0	75.9	
148 Phenanthrene	178	8.642	8.642	0.000	97	1023421	80.0	54.5	
151 Anthracene	178	8.690	8.695	-0.005	97	1121145	80.0	59.7	
152 Carbazole	167	8.850	8.856	-0.006	95	1156861	80.0	63.2	
153 Methyl parathion	109	9.000	8.995	0.005	94	299555	80.0	91.5	
155 Di-n-butyl phthalate	149	9.219	9.225	-0.006	99	1475343	80.0	70.2	
157 Ethyl Parathion	109	9.385	9.385	0.000	87	178619	80.0	75.1	
156 4-Nitroquinoline-1-oxide	190	9.396	9.396	0.000	92	88918	80.0	63.2	
158 Methapyrilene	97	9.492	9.492	0.000	98	166973	80.0	36.7	
159 Isodrin	193	9.658	9.658	0.000	94	142957	80.0	69.6	
160 Fluoranthene	202	9.802	9.808	-0.006	97	1213626	80.0	64.0	
161 Benzidine	184	9.947	9.941	0.006	100	867168	160.0	76.4	
162 Pyrene	202	10.022	10.032	-0.010	98	1287921	80.0	61.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
163 Aramite Peak 1	185	10.193	10.193	0.000	95	60832	40.8	35.3	
164 Aramite Peak 2	185	10.273	10.273	0.000	97	134872	39.2	54.0	
165 p-Dimethylamino azobenzene	120	10.353	10.353	0.000	93	373722	80.0	66.9	
166 Chlorobenzilate	251	10.412	10.412	0.000	94	363679	80.0	67.8	
167 Famphur	218	10.685	10.679	0.006	86	188615	80.0	36.3	
168 3,3'-Dimethylbenzidine	212	10.733	10.733	0.000	99	438067	80.0	43.7	
169 Butyl benzyl phthalate	149	10.760	10.770	-0.010	96	670236	80.0	69.8	
171 2-Acetylaminofluorene	181	11.049	11.048	0.001	95	482916	80.0	65.9	
172 3,3'-Dichlorobenzidine	252	11.434	11.434	0.000	74	887213	160.0	121.9	
174 4,4'-Methylene bis(2-chloroanil	231	11.439	11.439	0.000	93	208497	80.0	60.0	
173 Benzo[a]anthracene	228	11.450	11.455	-0.005	98	1085104	80.0	58.2	
175 Chrysene	228	11.498	11.503	-0.005	97	1147683	80.0	57.7	
176 Bis(2-ethylhexyl) phthalate	149	11.573	11.578	-0.005	98	913457	80.0	69.6	
177 6-Methylchrysene	242	12.188	12.188	0.000	98	843667	80.0	63.0	
178 Di-n-octyl phthalate	149	12.621	12.626	-0.005	99	1556582	80.0	73.6	
180 7,12-Dimethylbenz(a)anthracene	256	13.156	13.150	0.006	93	558251	80.0	65.1	
179 Benzo[b]fluoranthene	252	13.156	13.156	0.000	97	1222102	80.0	65.7	
181 Benzo[k]fluoranthene	252	13.199	13.204	-0.005	98	1285884	80.0	56.8	
183 Benzo[a]pyrene	252	13.707	13.718	-0.011	76	1098226	80.0	56.0	
184 3-Methylcholanthrene	268	14.375	14.386	-0.011	92	198705	80.0	18.0	
185 Dibenz[a,h]acridine	279	15.376	15.381	-0.005	90	788564	80.0	57.4	
186 Dibenz[a,j]acridine	279	15.472	15.482	-0.010	96	1000385	80.7	55.3	
187 Indeno[1,2,3-cd]pyrene	276	15.771	15.777	-0.006	98	955406	80.0	52.8	
188 Dibenz(a,h)anthracene	278	15.825	15.836	-0.011	93	1003105	80.0	57.7	
189 Benzo[g,h,i]perylene	276	16.189	16.194	-0.005	99	1043432	80.0	52.3	
S 201 Isosafrole	162				0		80.0	57.6	
S 202 Diallate	86				0		80.0	64.6	
S 203 Aramite, Total	185				0		80.0	89.3	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MS-IS_00037 Amount Added: 100.00 Units: uL Run Reagent

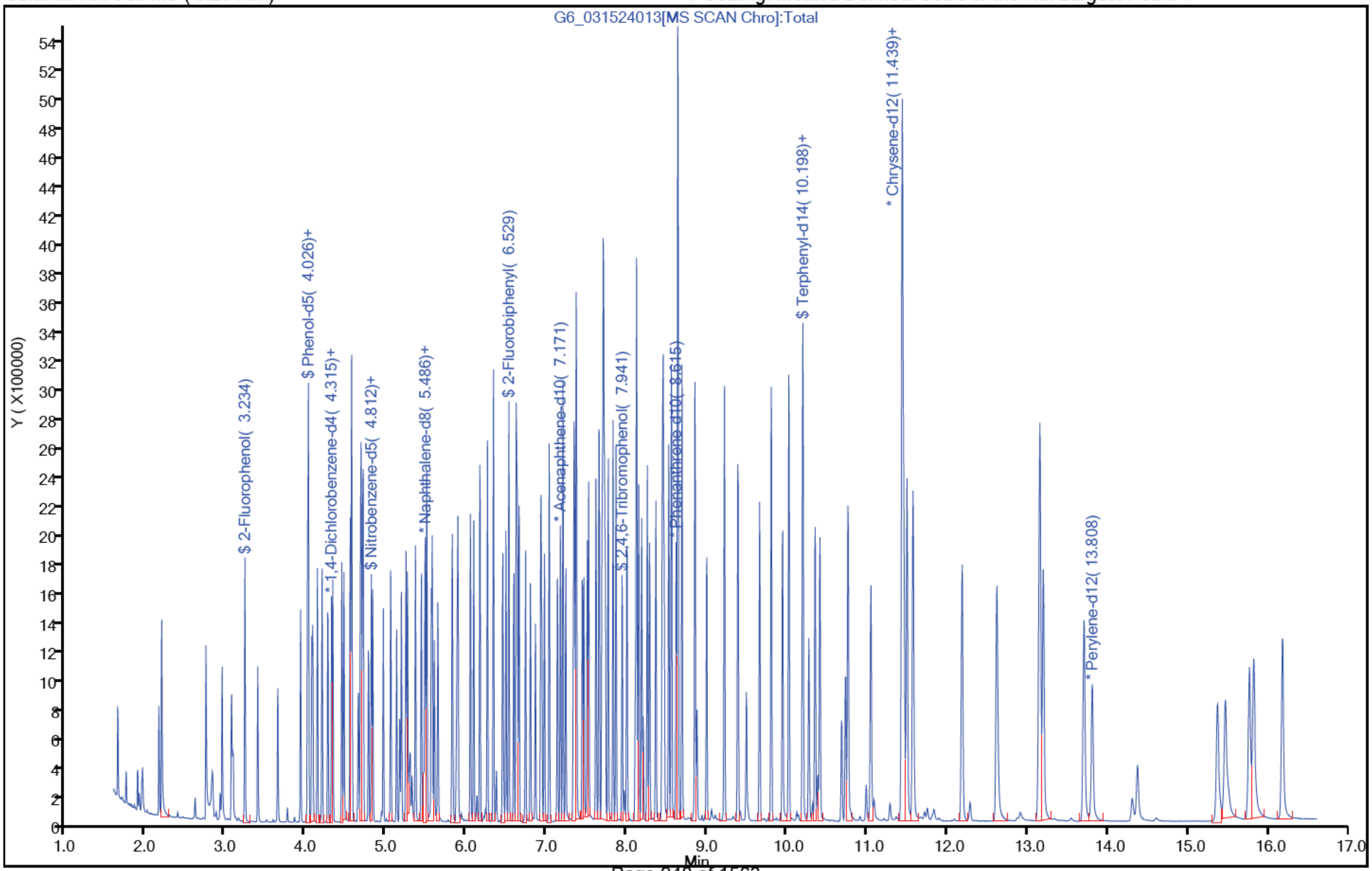
Report Date: 18-Mar-2024 14:41:30 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524013.D

Injection Date:	15-Mar-2024 17:57:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	LCS 280-645670/2-A			Worklist Smp#:	12
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 18-Mar-2024 14:41:30 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524013.D
Lims ID: LCS 280-645670/2-A
Client ID:
Sample Type: LCS
Inject. Date: 15-Mar-2024 17:57:30 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: lcs280-645670_2-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:41:15 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:08:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	100.0	51.9	51.89
$ 8 Phenol-d5	100.0	53.1	53.05
$ 9 Nitrobenzene-d5	100.0	51.8	51.76
$ 11 2-Fluorobiphenyl	100.0	61.6	61.59
$ 12 2,4,6-Tribromophenol	100.0	81.7	81.73
$ 13 Terphenyl-d14	100.0	72.8	72.78

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MS | Lab Sample ID: 280-188555-4 MS

Matrix: Solid | Lab File ID: G6_031524019.D

Analysis Method: 8270E | Date Collected: 03/06/2024 09:55

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 30.9(g) | Date Analyzed: 03/15/2024 20:06

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: 17.4 % Solids: 82.6 | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	5640		1900	1200	390
122-39-4	Diphenylamine	2210		390	200	52
86-30-6	N-Nitrosodiphenylamine	2510		390	79	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	57		44-115
367-12-4	2-Fluorophenol (Surr)	46		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	91		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	45		37-122
4165-62-2	Phenol-d5 (Surr)	48		33-122
1718-51-0	Terphenyl-d14 (Surr)	78		54-127

Report Date: 18-Mar-2024 14:43:10 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524019.D
Lims ID: 280-188555-A-4-B MS
Client ID: X7-TP-C03-2436
Sample Type: MS
Inject. Date: 15-Mar-2024 20:06:30 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-4-bms
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:19:51

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	231448	40.0	40.0	
*	2 Naphthalene-d8	136	5.486	5.486	0.000	99	852767	40.0	40.0	
*	3 Acenaphthene-d10	164	7.171	7.171	0.000	91	469029	40.0	40.0	
*	4 Phenanthrene-d10	188	8.615	8.615	0.000	96	818871	40.0	40.0	
*	5 Chrysene-d12	240	11.461	11.455	0.005	98	687928	40.0	40.0	
*	6 Perylene-d12	264	13.814	13.814	0.000	99	800837	40.0	40.0	
$	7 2-Fluorophenol	112	3.234	3.224	0.010	94	384525	100.0	45.6	
$	8 Phenol-d5	99	4.021	4.010	0.011	95	495020	100.0	47.7	
$	9 Nitrobenzene-d5	82	4.812	4.812	0.000	92	378742	100.0	45.4	
$	10 2,4,6-Trichlorophenol-d2	198	6.454	6.443	0.011	0	260958		60.7	
$	11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	829292	100.0	56.8	
$	12 2,4,6-Tribromophenol	330	7.946	7.946	0.000	92	280375	100.0	91.5	
$	13 Terphenyl-d14	244	10.198	10.203	-0.005	97	1486336	100.0	78.0	
	14 Triethyl amine	86		1.817					ND	
	16 1,4-Dioxane	88	1.961	1.956	0.005	99	61638	80.0	15.2	
	15 2-Ethoxyethanol	59		1.967					ND	7
	17 N-Nitrosodimethylamine	74	2.165	2.164	0.001	90	182854	80.0	34.6	
	18 Pyridine	79	2.197	2.197	0.000	86	324945	160.0	47.5	
	19 Dimethylformamide	73		2.443					ND	
	20 2-Picoline	93	2.753	2.747	0.006	97	192633	80.0	23.1	
	21 N-Nitrosomethylethylamine	88	2.833	2.828	0.005	94	139787	80.0	38.3	
	22 Methyl methanesulfonate	80	3.068	3.068	0.000	86	171263	80.0	41.3	
	23 Acrylamide	71	3.095	3.079	0.016	65	153748	80.0	44.6	
	24 Pentachlorophenol_T	266		3.318					ND	
	25 N-Nitrosodiethylamine	102	3.395	3.395	0.000	90	145927	80.0	41.6	
	26 Ethyl methanesulfonate	79	3.646	3.646	0.000	98	242766	80.0	40.4	
	27 Benzaldehyde	106	3.930	3.930	0.000	91	231148	80.0	36.7	
	29 Phenol	94	4.031	4.026	0.005	95	455284	80.0	38.5	
	28 Aniline	93	4.026	4.026	0.000	57	263419	80.0	22.3	
	30 Pentachloroethane	117	4.069	4.068	0.001	95	105483	80.0	35.8	
	31 Alpha Methyl Styrene	118		4.074					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 Bis(2-chloroethyl)ether	93	4.079	4.079	0.000	96	330805	80.0	40.2	
33 2-Chlorophenol	128	4.138	4.138	0.000	98	358286	80.0	40.8	
34 n-Decane	43	4.197	4.197	0.000	97	256434	80.0	24.2	
35 1,3-Dichlorobenzene	146	4.267	4.267	0.001	98	289358	80.0	31.1	
37 1,4-Dichlorobenzene	146	4.331	4.331	0.000	95	300561	80.0	31.6	
36 2-Bromopyridine	78		4.384					ND	
38 Benzidine_T	184		4.399					ND	
39 Benzyl alcohol	108	4.443	4.443	0.000	94	247646	80.0	43.6	
40 1,2-Dichlorobenzene	146	4.470	4.470	0.000	98	294205	80.0	32.7	
41 Indene	116	4.550	4.550	0.000	92	488434	80.0	36.4	
42 2-Methylphenol	108	4.566	4.555	0.011	92	320465	80.0	43.3	
43 2,2'-oxybis[1-chloropropane]	45	4.566	4.561	0.005	93	620515	80.0	41.9	
44 N-Nitrosopyrrolidine	100	4.652	4.646	0.006	84	198631	80.0	55.9	
61 3,5-Dimethylphenol	107		4.670					ND	
45 Acetophenone	105	4.678	4.678	0.000	97	338436	80.0	30.3	
50 N-Nitrosomorpholine	116	4.684	4.684	0.000	94	77077	80.0	49.4	
46 N-Nitrosodi-n-propylamine	70	4.684	4.684	0.000	93	233394	80.0	41.5	
47 4-Methylphenol	108	4.705	4.700	0.005	96	392277	80.0	48.6	a
48 3-Methylphenol	108	4.705	4.700	0.005	88	392277	80.0	48.6	a
49 3 & 4 Methylphenol	108	4.705	4.700	0.005	77	392277	80.0	48.6	
51 2-Toluidine	106	4.711	4.710	0.001	96	382958	80.0	34.4	
52 Hexachloroethane	117	4.775	4.775	0.000	96	122402	80.0	31.5	
53 Nitrobenzene	77	4.828	4.828	0.000	93	322817	80.0	38.8	
54 N-Nitrosopiperidine	114	4.962	4.962	0.000	78	176595	80.0	48.2	
55 Isophorone	82	5.053	5.058	-0.005	98	580509	80.0	36.0	
56 2-Nitrophenol	139	5.128	5.128	0.000	91	186407	80.0	46.3	
57 Benzyl dichloride	125		5.170					ND	7
58 2,4-Dimethylphenol	107	5.187	5.186	0.001	93	238410	80.0	36.3	
198 4-Chloro-3-nitro-alpha,alpha,alp	179		5.240					ND	
59 o,o',o''-Triethylphosphorothioat	198	5.245	5.245	0.000	88	139536	80.0	42.6	
60 Bis(2-chloroethoxy)methane	93	5.261	5.261	0.000	98	443073	80.0	45.5	
192 3-Amino-4-Chlorobenzotrifluoride	195		5.267					ND	
63 Benzoic acid	105	5.310	5.336	-0.026	91	296496	80.0	63.5	a
62 2,4-Dichlorophenol	162	5.363	5.363	0.000	94	330628	80.0	51.4	
65 alpha,alpha-Dimethyl phenethylam	58		5.395				80.0	ND	7
66 1,2,4-Trichlorobenzene	180	5.438	5.438	0.000	95	271566	80.0	38.7	
67 Naphthalene	128	5.502	5.502	0.000	97	960342	80.0	43.0	
286 Alpha-Terpineol	59	5.481	5.523	-0.042	46	616		0.0877	
69 4-Chloroaniline	127	5.561	5.561	0.000	97	354633	80.0	36.5	
74 Phthalic anhydride	76	5.561	5.564	-0.003	34	3425		NC	
68 2,6-Dichlorophenol	162	5.572	5.572	0.000	97	313713	80.0	49.8	
70 Hexachloropropene	213	5.598	5.598	0.000	89	138743	80.0	38.9	
71 Hexachlorobutadiene	225	5.641	5.641	0.000	96	142775	80.0	37.9	
72 Quinoline	129	5.823	5.818	0.005	97	788113	80.0	58.9	
73 Caprolactam	55	5.887	5.871	0.016	73	261897	80.0	71.8	
75 p-Phenylene diamine	108		5.892				80.0	ND	7
76 N-Nitrosodi-n-butylamine	84	5.893	5.892	0.001	82	312931	80.0	71.9	
77 4-Chloro-3-methylphenol	107	6.053	6.042	0.011	95	363322	80.0	55.1	
78 Safrole, Total	162	6.090	6.090	0.000	94	259889	80.0	49.3	
79 Carbofuran phenol	164		6.117					ND	
80 2-Methylnaphthalene	142	6.165	6.171	-0.006	95	682875	80.0	44.5	
81 1-Methylnaphthalene	142	6.262	6.262	0.000	95	641215	80.0	45.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
82 3'-Bromoacetophenone	183		6.272					ND	
84 1,2,4,5-Tetrachlorobenzene	216	6.337	6.336	0.000	96	301124	80.0	45.1	
83 Hexachlorocyclopentadiene	237	6.337	6.336	0.000	64	91247	160.4	28.3	
85 Isosafrole Peak 1	162	6.374	6.374	0.000	98	51124	12.8	8.13	
86 2,3-Dichlorobenzenamine	161		6.443					ND	7
87 2,4,6-Trichlorophenol	196	6.454	6.454	0.000	92	271863	80.0	64.6	
88 2,4,5-Trichlorophenol	196	6.492	6.486	0.006	96	311506	80.0	68.4	
89 Isosafrole Peak 2	162	6.593	6.593	0.000	98	309554	67.2	45.6	
287 Toluene diamine (2,4- + 2,6- isc	122	6.593	6.615	-0.022	0	2111		0.2400	
90 1,1'-Biphenyl	154	6.620	6.620	0.000	94	840908	80.0	49.3	
91 2-Chloronaphthalene	162	6.636	6.636	0.000	95	716306	80.0	54.3	
92 1-Chloronaphthalene	162	6.657	6.657	0.000	99	616100	80.0	50.2	
93 2-Nitroaniline	65	6.738	6.738	0.000	87	281281	80.0	67.1	
94 1,4-Naphthoquinone	158	6.802	6.796	0.006	95	280755	80.0	58.6	
95 1,4-Dinitrobenzene	168	6.861	6.860	0.001	96	160863	80.0	77.7	
96 Dimethyl phthalate	163	6.930	6.930	0.000	98	899570	80.0	63.0	
97 1,3-Dinitrobenzene	168	6.941	6.946	-0.005	92	188070	80.0	76.7	
98 2,6-Dinitrotoluene	165	6.973	6.978	-0.005	95	227468	80.0	68.0	
99 Acenaphthylene	152	7.032	7.037	-0.005	98	1151193	80.0	58.2	
100 3-Nitroaniline	138	7.139	7.139	0.000	95	292403	80.0	70.2	
101 Acenaphthene	153	7.203	7.208	-0.005	93	715490	80.0	54.3	
102 2,4-Dinitrophenol	184	7.240	7.240	0.000	84	284038	160.0	144.1	
105 1,3-Dimethyl-2,4-Dinitrobenzene	77		7.265					ND	
107 4-Nitrophenol	109	7.342	7.337	0.005	91	279818	160.0	133.7	
103 Pentachlorobenzene	250	7.347	7.347	0.000	97	336285	80.0	57.6	
109 2,4-Dinitrotoluene	165	7.369	7.369	0.000	91	309340	80.0	71.0	
108 Dibenzofuran	168	7.374	7.374	0.000	97	1053125	80.0	56.5	
111 1,3-Dimethyl-2,5-Dinitrobenzene	179	7.342	7.383	-0.041	54	17841		5.01	
113 1-Naphthylamine	143	7.449	7.443	0.006	97	152264	80.0	12.1	
114 2,3,4,6-Tetrachlorophenol	232	7.508	7.508	0.000	71	278875	80.0	79.2	
104 1,4-Dimethyl-2,3-Dinitrobenzene	77		7.517					ND	7
115 2-Naphthylamine	143	7.524	7.524	0.000	98	610950	80.0	42.4	
106 1,4-Dimethyl-2,5-Dinitrobenzene	179	7.615	7.554	0.061	56	5415		3.18	
110 1,4-Dimethyl-2,6-Dinitrobenzene	179	7.615	7.554	0.061	51	5415		1.41	
116 Diethyl phthalate	149	7.620	7.620	0.000	99	1011676	80.0	67.9	
117 Hexadecane	57	7.658	7.658	0.000	90	636421	80.0	57.4	
112 1,2-Dimethyl-3,6-Dinitrobenzene	179	7.615	7.661	-0.046	55	5415		1.61	
119 Thionazin	97	7.695	7.690	0.005	82	227182	80.0	67.6	
118 Fluorene	166	7.706	7.711	-0.005	98	860412	80.0	58.4	
120 4-Chlorophenyl phenyl ether	204	7.711	7.716	-0.005	93	391204	80.0	57.9	
121 N-Nitro-o-toluidine	152	7.727	7.722	0.005	92	315554	80.0	73.4	
122 4-Nitroaniline	138	7.738	7.738	0.000	90	307631	80.0	74.8	
123 4,6-Dinitro-2-methylphenol	198	7.770	7.775	-0.005	82	374862	160.0	133.8	
124 1,5-Dimethyl-2,4-Dinitrobenzene	179	7.781	7.811	-0.030	56	599		0.7185	
127 Tributyl phosphate	99		7.834					ND	7
126 N-Nitrosodiphenylamine	169	7.829	7.834	-0.005	99	728744	80.0	64.1	
125 Diphenylamine	169	7.829	7.834	-0.005	96	728744	68.0	56.5	
128 1,2-Diphenylhydrazine	77	7.866	7.871	-0.005	97	978534	80.9	60.1	
129 Azobenzene	77	7.866	7.871	-0.005	98	978534	80.0	59.5	
131 1,2-Dimethyl-3,5-Dinitrobenzene	179	7.946	7.993	-0.047	53	160		4.24	
132 Sulfotepp	97	8.000	8.000	0.000	92	147793	80.0	62.6	
130 1,5-Dimethyl-2,3-Dinitrobenzene	179	8.000	8.030	-0.030	47	1542		6.82	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
133 1,3,5-Trinitrobenzene	213	8.112	8.096	0.016	86	112296	80.0	79.1	
134 Diallate Peak 1	86	8.123	8.123	0.000	90	302672	59.2	47.1	
136 Phorate	121	8.123	8.123	0.000	95	188116	80.0	66.7	
137 Phenacetin	108	8.155	8.150	0.005	96	528523	80.0	71.3	
135 1,2-Dimethyl-3,4-Dinitrobenzene	179	8.155	8.153	0.002	59	297199		85.0	
138 4-Bromophenyl phenyl ether	248	8.187	8.192	-0.005	65	291671	80.0	65.2	
139 Diallate Peak 2	86	8.203	8.203	0.000	88	117395	20.8	17.0	
140 Hexachlorobenzene	284	8.257	8.262	-0.005	97	406955	80.0	69.9	
141 Dimethoate	87	8.289	8.283	0.006	98	499879	80.0	91.8	
142 Atrazine	200	8.364	8.364	0.000	89	181051	80.0	51.5	
146 1,2-Dimethyl-4,5-Dinitrobenzene	91	8.390	8.389	0.001	62	161		4.58	
145 4-Aminobiphenyl	169	8.444	8.444	0.000	89	420555	80.0	26.7	
143 Pentachlorophenol	266	8.455	8.454	0.001	97	513591	160.0	161.2	
144 Pentachloronitrobenzene	237	8.465	8.465	0.000	93	133013	80.0	81.7	
147 Pronamide	173	8.524	8.524	0.000	92	443328	80.0	72.3	
288 n-Octadecane	57	8.556	8.561	-0.005	92	766030	80.0	67.1	
150 Disulfoton	88	8.636	8.636	0.000	96	505637	80.0	66.0	
149 Dinoseb	211	8.642	8.642	0.000	68	208854	80.0	77.4	
148 Phenanthrene	178	8.642	8.642	0.000	97	1302015	80.0	58.1	
151 Anthracene	178	8.690	8.695	-0.005	97	1396921	80.0	62.3	
152 Carbazole	167	8.850	8.856	-0.006	95	1467498	80.0	67.2	
153 Methyl parathion	109	8.995	8.995	0.000	93	404144	80.0	103.4	
154 Alachlor	188	9.214	9.016	0.198	59	714		0.2887	
155 Di-n-butyl phthalate	149	9.219	9.225	-0.006	99	1876360	80.0	74.7	
157 Ethyl Parathion	109	9.385	9.385	0.000	87	226431	80.0	79.7	
156 4-Nitroquinoline-1-oxide	190	9.391	9.396	-0.005	92	84257	80.0	50.1	
158 Methapyrilene	97		9.492				80.0	ND	7
159 Isodrin	193	9.658	9.658	0.000	94	177339	80.0	72.3	
160 Fluoranthene	202	9.802	9.808	-0.006	97	1570870	80.0	69.4	
161 Benzidine	184	9.941	9.941	0.000	100	196751	160.0	17.8	
162 Pyrene	202	10.022	10.032	-0.010	98	1681165	80.0	67.9	
163 Aramite Peak 1	185	10.188	10.193	-0.005	96	79352	40.8	38.7	
164 Aramite Peak 2	185	10.273	10.273	0.000	96	172872	39.2	58.2	
165 p-Dimethylamino azobenzene	120	10.348	10.353	-0.005	93	464365	80.0	69.9	
166 Chlorobenzilate	251	10.412	10.412	0.000	96	479249	80.0	74.7	
167 Famphur	218	10.680	10.679	0.001	86	477882	80.0	83.4	
168 3,3'-Dimethylbenzidine	212	10.728	10.733	-0.005	99	205750	80.0	17.3	
169 Butyl benzyl phthalate	149	10.760	10.770	-0.010	96	856066	80.0	74.8	
171 2-Acetylaminofluorene	181	11.049	11.048	0.001	95	635322	80.0	73.0	
172 3,3'-Dichlorobenzidine	252	11.434	11.434	0.000	74	1025750	160.0	118.7	
174 4,4'-Methylene bis(2-chloroaniline)	231	11.439	11.439	0.000	92	240078	80.0	58.1	
173 Benzo[a]anthracene	228	11.450	11.455	-0.005	98	1384988	80.0	62.5	
175 Chrysene	228	11.498	11.503	-0.005	97	1466598	80.0	62.1	
176 Bis(2-ethylhexyl) phthalate	149	11.573	11.578	-0.005	97	1183670	80.0	75.5	
177 6-Methylchrysene	242	12.188	12.188	0.000	98	1068145	80.0	67.1	
178 Di-n-octyl phthalate	149	12.616	12.626	-0.010	99	2120334	80.0	82.7	
182 Hexachlorophene	196		12.661					ND	
180 7,12-Dimethylbenz(a)anthracene	256	13.156	13.150	0.006	92	616009	80.0	59.8	
179 Benzo[b]fluoranthene	252	13.156	13.156	0.000	96	1561376	80.0	69.8	
181 Benzo[k]fluoranthene	252	13.204	13.204	0.000	98	1618103	80.0	59.5	
183 Benzo[a]pyrene	252	13.712	13.718	-0.006	76	1417698	80.0	60.0	
184 3-Methylcholanthrene	268	14.376	14.386	-0.010	92	258476	80.0	19.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
64 Tris(2,3-dibromopropyl)phosphate	419		14.766					ND	7
185 Dibenz[a,h]acridine	279	15.376	15.381	-0.005	90	1067029	80.0	64.0	
186 Dibenz[a,j]acridine	279	15.477	15.482	-0.005	96	1036005	80.7	47.7	
187 Indeno[1,2,3-cd]pyrene	276	15.777	15.777	0.000	98	1291940	80.0	59.4	
188 Dibenz(a,h)anthracene	278	15.830	15.836	-0.006	93	1349534	80.0	64.6	
189 Benzo[g,h,i]perylene	276	16.189	16.194	-0.005	98	1376083	80.0	57.4	
289 Dibenzo[a,e]pyrene	302		18.590					ND	
190 Sulfolane	1		0.000					ND	
193 Prometon	1		0.000					ND	
290 Alpha Methyl Styrene TIC	1		0.000					ND	
196 4,4'-DDE	246		4.548					ND	
195 4,4'-DDD	235		4.832					ND	
197 4,4'-DDT	235		5.046					ND	
S 200 Methyl Phenols,Total	108				0			92.0	
S 199 Total Cresols	108				0			92.0	
S 201 Isosafrole	162				0		80.0	53.8	
S 202 Diallate	86				0		80.0	64.1	
S 203 Aramite, Total	185				0		80.0	96.9	
S 204 TPAH	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

MS-IS_00037 Amount Added: 100.00 Units: uL Run Reagent

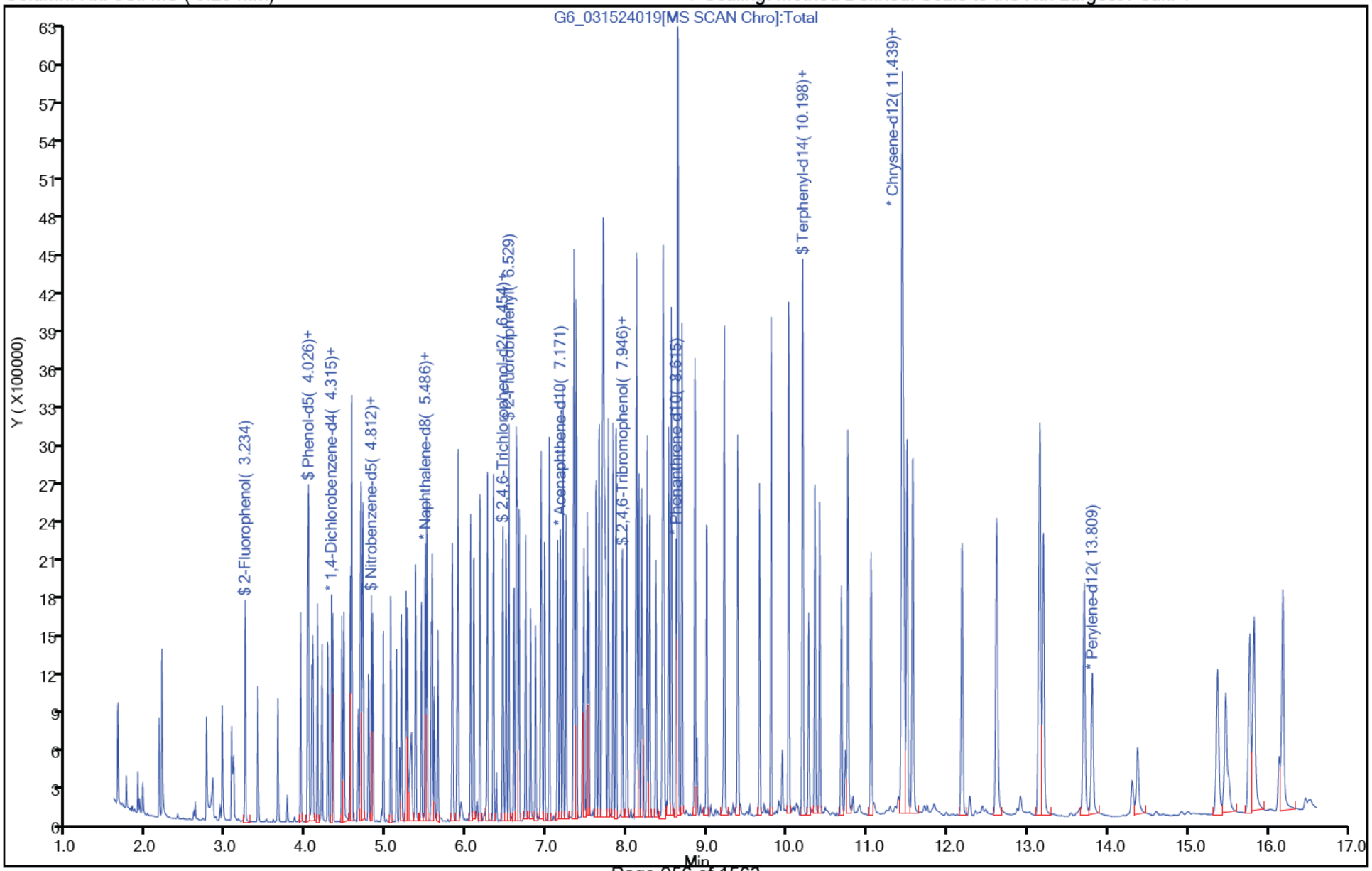
Report Date: 18-Mar-2024 14:43:10 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524019.D

Injection Date:	15-Mar-2024 20:06:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	280-188555-A-4-B MS			Worklist Smp#:	18
Client ID:	X7-TP-C03-2436				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 18-Mar-2024 14:43:10 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524019.D
Lims ID: 280-188555-A-4-B MS
Client ID: X7-TP-C03-2436
Sample Type: MS
Inject. Date: 15-Mar-2024 20:06:30 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-4-bms
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:19:51

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	100.0	45.6	45.61
$ 8 Phenol-d5	100.0	47.7	47.72
$ 9 Nitrobenzene-d5	100.0	45.4	45.36
$ 11 2-Fluorobiphenyl	100.0	56.8	56.83
$ 12 2,4,6-Tribromophenol	100.0	91.5	91.47
$ 13 Terphenyl-d14	100.0	78.0	78.01

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MSD | Lab Sample ID: 280-188555-4 MSD

Matrix: Solid | Lab File ID: G6_031524020.D

Analysis Method: 8270E | Date Collected: 03/06/2024 09:55

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 32.6(g) | Date Analyzed: 03/15/2024 20:27

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: 17.4 % Solids: 82.6 | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	5740		1800	1100	370
122-39-4	Diphenylamine	2240		370	190	49
86-30-6	N-Nitrosodiphenylamine	2510		370	75	23

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	69		44-115
367-12-4	2-Fluorophenol (Surr)	57		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	97		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	56		37-122
4165-62-2	Phenol-d5 (Surr)	60		33-122
1718-51-0	Terphenyl-d14 (Surr)	83		54-127

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524020.D
Lims ID: 280-188555-A-4-C MSD
Client ID: X7-TP-C03-2436
Sample Type: MSD
Inject. Date: 15-Mar-2024 20:27:30 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-4-cmsd
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:21:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	183036	40.0	40.0	
* 2 Naphthalene-d8	136	5.486	5.486	0.000	99	677725	40.0	40.0	
* 3 Acenaphthene-d10	164	7.171	7.171	0.000	91	378319	40.0	40.0	
* 4 Phenanthrene-d10	188	8.615	8.615	0.000	96	669415	40.0	40.0	
* 5 Chrysene-d12	240	11.460	11.455	0.005	99	566123	40.0	40.0	
* 6 Perylene-d12	264	13.808	13.814	-0.006	99	661949	40.0	40.0	
$ 7 2-Fluorophenol	112	3.240	3.224	0.016	92	379933	100.0	57.0	
$ 8 Phenol-d5	99	4.020	4.010	0.010	96	491123	100.0	59.9	
$ 9 Nitrobenzene-d5	82	4.812	4.812	0.000	93	370912	100.0	55.9	
$ 10 2,4,6-Trichlorophenol-d2	198	6.454	6.443	0.011	0	235909		68.0	
$ 11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	807553	100.0	68.6	
$ 12 2,4,6-Tribromophenol	330	7.946	7.946	0.000	92	238950	100.0	96.5	
$ 13 Terphenyl-d14	244	10.198	10.203	-0.005	98	1293678	100.0	82.5	
14 Triethyl amine	86		1.817					ND	
16 1,4-Dioxane	88	1.961	1.956	0.005	98	60809	80.0	18.9	
15 2-Ethoxyethanol	59		1.967					ND	7
17 N-Nitrosodimethylamine	74	2.164	2.164	0.000	90	182619	80.0	43.6	
18 Pyridine	79	2.202	2.197	0.005	87	318419	160.0	58.8	
19 Dimethylformamide	73		2.443					ND	
20 2-Picoline	93	2.753	2.747	0.006	98	196929	80.0	29.9	
21 N-Nitrosomethylethylamine	88	2.833	2.828	0.005	94	141152	80.0	48.9	
22 Methyl methanesulfonate	80	3.068	3.068	0.000	87	167695	80.0	51.1	
23 Acrylamide	71	3.100	3.079	0.021	65	162846	80.0	59.7	
24 Pentachlorophenol_T	266		3.318					ND	
25 N-Nitrosodiethylamine	102	3.395	3.395	0.000	90	145890	80.0	52.6	
26 Ethyl methanesulfonate	79	3.646	3.646	0.000	98	244261	80.0	51.4	
27 Benzaldehyde	106	3.929	3.930	-0.001	91	223452	80.0	44.8	
29 Phenol	94	4.031	4.026	0.005	94	456493	80.0	48.8	
28 Aniline	93	4.026	4.026	0.000	59	262749	80.0	28.1	
30 Pentachloroethane	117	4.069	4.068	0.001	95	105656	80.0	45.4	
31 Alpha Methyl Styrene	118		4.074					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 Bis(2-chloroethyl)ether	93	4.079	4.079	0.000	95	320068	80.0	49.2	
33 2-Chlorophenol	128	4.143	4.138	0.005	97	354980	80.0	51.1	
34 n-Decane	43	4.197	4.197	0.000	97	253843	80.0	30.3	
35 1,3-Dichlorobenzene	146	4.266	4.267	0.000	98	287407	80.0	39.1	
37 1,4-Dichlorobenzene	146	4.331	4.331	0.000	95	294169	80.0	39.1	
36 2-Bromopyridine	78		4.384					ND	
38 Benzidine_T	184		4.399					ND	
39 Benzyl alcohol	108	4.443	4.443	0.000	94	246343	80.0	54.9	
40 1,2-Dichlorobenzene	146	4.470	4.470	0.000	98	289978	80.0	40.7	
41 Indene	116	4.550	4.550	0.000	92	483499	80.0	45.6	
42 2-Methylphenol	108	4.566	4.555	0.011	93	319510	80.0	54.6	
43 2,2'-oxybis[1-chloropropane]	45	4.566	4.561	0.005	93	615277	80.0	52.6	
44 N-Nitrosopyrrolidine	100	4.652	4.646	0.006	83	199162	80.0	70.8	
61 3,5-Dimethylphenol	107	4.710	4.670	0.040	60	649331		159.3	
45 Acetophenone	105	4.678	4.678	0.000	97	338237	80.0	38.3	
50 N-Nitrosomorpholine	116	4.684	4.684	0.000	93	76718	80.0	62.2	
46 N-Nitrosodi-n-propylamine	70	4.684	4.684	0.000	94	230145	80.0	51.7	
47 4-Methylphenol	108	4.705	4.700	0.005	96	389818	80.0	61.1	
48 3-Methylphenol	108	4.705	4.700	0.005	94	389818	80.0	61.1	
49 3 & 4 Methylphenol	108	4.705	4.700	0.005	79	389818	80.0	61.1	
51 2-Toluidine	106	4.710	4.710	0.000	98	380286	80.0	43.2	
52 Hexachloroethane	117	4.775	4.775	0.000	97	119806	80.0	39.0	
53 Nitrobenzene	77	4.828	4.828	0.000	94	318238	80.0	48.2	
54 N-Nitrosopiperidine	114	4.962	4.962	0.000	77	175274	80.0	60.2	
55 Isophorone	82	5.053	5.058	-0.005	98	576706	80.0	45.0	
56 2-Nitrophenol	139	5.128	5.128	0.000	91	187045	80.0	58.5	
57 Benzyl dichloride	125		5.170					ND	7
58 2,4-Dimethylphenol	107	5.186	5.186	0.000	92	231265	80.0	44.3	
198 4-Chloro-3-nitro-alpha,alpha,alp	179		5.240					ND	
59 o,o',o''-Triethylphosphorothioat	198	5.245	5.245	0.000	86	141318	80.0	54.3	
60 Bis(2-chloroethoxy)methane	93	5.261	5.261	0.000	98	446716	80.0	57.7	
192 3-Amino-4-Chlorobenzotrifluoride	195		5.267					ND	
63 Benzoic acid	105	5.309	5.336	-0.027	92	299991	80.0	77.6	
62 2,4-Dichlorophenol	162	5.363	5.363	0.000	94	318735	80.0	62.3	
65 alpha,alpha-Dimethyl phenethylam	58		5.395				80.0	ND	7
66 1,2,4-Trichlorobenzene	180	5.438	5.438	0.000	95	269969	80.0	48.4	
67 Naphthalene	128	5.502	5.502	0.000	97	942145	80.0	53.1	
286 Alpha-Terpineol	59	5.598	5.523	0.075	50	3787		0.6784	
69 4-Chloroaniline	127	5.561	5.561	0.000	97	344615	80.0	44.6	
74 Phthalic anhydride	76	5.561	5.564	-0.003	33	3407		NC	
68 2,6-Dichlorophenol	162	5.572	5.572	0.000	97	306455	80.0	61.3	
70 Hexachloropropene	213	5.598	5.598	0.000	90	145711	80.0	51.4	
71 Hexachlorobutadiene	225	5.641	5.641	0.000	96	139599	80.0	46.7	
72 Quinoline	129	5.823	5.818	0.005	98	727648	80.0	68.8	
73 Caprolactam	55	5.887	5.871	0.016	72	251993	80.0	86.9	
75 p-Phenylene diamine	108	6.048	5.892	0.156	36	27117	80.0	6.69	
76 N-Nitrosodi-n-butylamine	84	5.892	5.892	0.000	82	301425	80.0	87.1	
77 4-Chloro-3-methylphenol	107	6.053	6.042	0.011	94	325975	80.0	62.2	
78 Safrole, Total	162	6.090	6.090	0.000	93	255786	80.0	61.1	
79 Carbofuran phenol	164		6.117					ND	
80 2-Methylnaphthalene	142	6.165	6.171	-0.006	94	677911	80.0	55.6	
81 1-Methylnaphthalene	142	6.262	6.262	0.000	95	628046	80.0	56.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
82 3'-Bromoacetophenone	183		6.272					ND	
84 1,2,4,5-Tetrachlorobenzene	216	6.336	6.336	0.000	96	281986	80.0	53.1	
83 Hexachlorocyclopentadiene	237	6.336	6.336	0.000	74	141988	160.4	54.5	
85 Isosafrole Peak 1	162	6.374	6.374	0.000	98	51362	12.8	10.1	
86 2,3-Dichlorobenzenamine	161		6.443					ND	7
87 2,4,6-Trichlorophenol	196	6.454	6.454	0.000	91	244116	80.0	72.0	
88 2,4,5-Trichlorophenol	196	6.491	6.486	0.005	95	272875	80.0	74.3	
89 Isosafrole Peak 2	162	6.593	6.593	0.000	98	292751	67.2	53.5	
287 Toluene diamine (2,4- + 2,6- isom	122	6.636	6.615	0.021	0	5761		0.8121	
90 1,1'-Biphenyl	154	6.620	6.620	0.000	95	803013	80.0	58.4	
91 2-Chloronaphthalene	162	6.636	6.636	0.000	95	705449	80.0	66.3	
92 1-Chloronaphthalene	162	6.657	6.657	0.000	99	596982	80.0	60.3	
93 2-Nitroaniline	65	6.738	6.738	0.000	88	249357	80.0	73.8	
94 1,4-Naphthoquinone	158	6.796	6.796	0.000	92	256253	80.0	66.4	
95 1,4-Dinitrobenzene	168	6.861	6.860	0.001	95	142719	80.0	84.9	
96 Dimethyl phthalate	163	6.930	6.930	0.000	99	792783	80.0	68.8	
97 1,3-Dinitrobenzene	168	6.941	6.946	-0.005	92	163958	80.0	82.9	
98 2,6-Dinitrotoluene	165	6.973	6.978	-0.005	95	199456	80.0	73.9	
99 Acenaphthylene	152	7.032	7.037	-0.005	98	1049032	80.0	65.8	
100 3-Nitroaniline	138	7.139	7.139	0.000	97	256891	80.0	76.4	
101 Acenaphthene	153	7.203	7.208	-0.005	93	664663	80.0	62.5	
102 2,4-Dinitrophenol	184	7.240	7.240	0.000	85	247019	160.0	154.7	
105 1,3-Dimethyl-2,4-Dinitrobenzene	77	7.240	7.265	-0.025	51	7781		4.41	
107 4-Nitrophenol	109	7.337	7.337	0.000	91	247585	160.0	146.7	
103 Pentachlorobenzene	250	7.347	7.347	0.000	97	302907	80.0	64.3	
109 2,4-Dinitrotoluene	165	7.369	7.369	0.000	91	265064	80.0	75.4	
108 Dibenzofuran	168	7.374	7.374	0.000	97	956474	80.0	63.6	
111 1,3-Dimethyl-2,5-Dinitrobenzene	179	7.342	7.383	-0.041	52	17302		6.03	
113 1-Naphthylamine	143	7.449	7.443	0.006	90	143972	80.0	14.2	
114 2,3,4,6-Tetrachlorophenol	232	7.508	7.508	0.000	70	247853	80.0	87.3	
104 1,4-Dimethyl-2,3-Dinitrobenzene	77	7.465	7.517	-0.052	54	2774		0.8000	
115 2-Naphthylamine	143	7.524	7.524	0.000	98	541036	80.0	46.5	
106 1,4-Dimethyl-2,5-Dinitrobenzene	179	7.551	7.554	-0.003	50	76		0.0554	
110 1,4-Dimethyl-2,6-Dinitrobenzene	179		7.554					ND	7
116 Diethyl phthalate	149	7.615	7.620	-0.005	98	879207	80.0	73.2	
117 Hexadecane	57	7.652	7.658	-0.006	90	591686	80.0	66.1	
112 1,2-Dimethyl-3,6-Dinitrobenzene	179	7.615	7.661	-0.046	54	4471		1.65	
119 Thionazin	97	7.690	7.690	0.000	81	200163	80.0	73.9	
118 Fluorene	166	7.706	7.711	-0.005	98	777927	80.0	65.5	
120 4-Chlorophenyl phenyl ether	204	7.711	7.716	-0.005	93	345789	80.0	63.5	
121 N-Nitro-o-toluidine	152	7.722	7.722	0.000	94	279470	80.0	80.6	
122 4-Nitroaniline	138	7.738	7.738	0.000	92	269286	80.0	81.2	
123 4,6-Dinitro-2-methylphenol	198	7.770	7.775	-0.005	83	315670	160.0	137.6	
124 1,5-Dimethyl-2,4-Dinitrobenzene	179	7.786	7.811	-0.025	51	714		0.7830	
127 Tributyl phosphate	99		7.834					ND	7
126 N-Nitrosodiphenylamine	169	7.829	7.834	-0.005	99	628842	80.0	67.7	
125 Diphenylamine	169	7.829	7.834	-0.005	95	628842	68.0	60.5	
128 1,2-Diphenylhydrazine	77	7.866	7.871	-0.005	98	866804	80.9	66.0	
129 Azobenzene	77	7.866	7.871	-0.005	99	866804	80.0	65.3	
131 1,2-Dimethyl-3,5-Dinitrobenzene	179	8.000	7.993	0.007	49	1226		4.61	
132 Sulfotepp	97	8.000	8.000	0.000	91	130997	80.0	67.9	
130 1,5-Dimethyl-2,3-Dinitrobenzene	179	8.043	8.030	0.013	50	216		6.50	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
133 1,3,5-Trinitrobenzene	213	8.107	8.096	0.011	85	98584	80.0	84.0	
134 Diallate Peak 1	86	8.123	8.123	0.000	90	269113	59.2	51.2	
136 Phorate	121	8.123	8.123	0.000	95	168065	80.0	72.9	
137 Phenacetin	108	8.150	8.150	0.000	95	458420	80.0	75.6	a
135 1,2-Dimethyl-3,4-Dinitrobenzene	179	8.150	8.153	-0.003	58	261768		91.5	
138 4-Bromophenyl phenyl ether	248	8.187	8.192	-0.005	65	251169	80.0	68.7	
139 Diallate Peak 2	86	8.203	8.203	0.000	88	104546	20.8	18.6	
140 Hexachlorobenzene	284	8.257	8.262	-0.005	97	349255	80.0	73.3	
141 Dimethoate	87	8.283	8.283	0.000	98	433702	80.0	97.4	
142 Atrazine	200	8.364	8.364	0.000	88	158667	80.0	55.2	
146 1,2-Dimethyl-4,5-Dinitrobenzene	91	8.385	8.389	-0.004	60	181		4.60	
145 4-Aminobiphenyl	169	8.444	8.444	0.000	89	391163	80.0	30.4	
143 Pentachlorophenol	266	8.454	8.454	0.000	97	457239	160.0	174.8	
144 Pentachloronitrobenzene	237	8.465	8.465	0.000	92	116336	80.0	87.4	
147 Pronamide	173	8.524	8.524	0.000	92	390195	80.0	77.9	
288 n-Octadecane	57	8.556	8.561	-0.005	92	673707	80.0	72.2	
150 Disulfoton	88	8.636	8.636	0.000	96	472333	80.0	75.4	
149 Dinoseb	211	8.642	8.642	0.000	67	182116	80.0	81.8	
148 Phenanthrene	178	8.642	8.642	0.000	96	1141129	80.0	62.3	
151 Anthracene	178	8.690	8.695	-0.005	97	1223615	80.0	66.8	
152 Carbazole	167	8.850	8.856	-0.006	95	1289937	80.0	72.2	
153 Methyl parathion	109	8.995	8.995	0.000	93	356423	80.0	111.6	
154 Alachlor	188	9.000	9.016	-0.016	58	542		0.2681	
155 Di-n-butyl phthalate	149	9.219	9.225	-0.006	99	1629359	80.0	79.4	
157 Ethyl Parathion	109	9.385	9.385	0.000	86	199469	80.0	85.9	
156 4-Nitroquinoline-1-oxide	190	9.390	9.396	-0.006	95	68435	80.0	49.8	
158 Methapyrilene	97		9.492				80.0	ND	7
159 Isodrin	193	9.658	9.658	0.000	94	155847	80.0	77.7	
160 Fluoranthene	202	9.802	9.808	-0.006	97	1366480	80.0	73.8	
161 Benzidine	184	9.941	9.941	0.000	100	207223	160.0	21.6	
162 Pyrene	202	10.043	10.032	0.011	99	10744	80.0	0.5273	
163 Aramite Peak 1	185	10.193	10.193	0.000	96	70253	40.8	41.6	
164 Aramite Peak 2	185	10.273	10.273	0.000	96	154123	39.2	63.1	
165 p-Dimethylamino azobenzene	120	10.348	10.353	-0.005	93	408411	80.0	74.7	
166 Chlorobenzilate	251	10.412	10.412	0.000	95	421463	80.0	79.6	
167 Famphur	218	10.679	10.679	0.000	87	418751	80.0	90.3	
168 3,3'-Dimethylbenzidine	212	10.728	10.733	-0.005	100	202748	80.0	20.7	
169 Butyl benzyl phthalate	149	10.760	10.770	-0.010	95	759555	80.0	80.4	
171 2-Acetylaminofluorene	181	11.049	11.048	0.001	95	559555	80.0	78.1	
172 3,3'-Dichlorobenzidine	252	11.434	11.434	0.000	74	943018	160.0	132.2	
174 4,4'-Methylene bis(2-chloroaniline)	231	11.439	11.439	0.000	93	219748	80.0	64.6	
173 Benzo[a]anthracene	228	11.450	11.455	-0.005	97	1219360	80.0	66.9	
175 Chrysene	228	11.498	11.503	-0.005	97	1266292	80.0	65.1	
176 Bis(2-ethylhexyl) phthalate	149	11.573	11.578	-0.005	97	1037839	80.0	80.1	
177 6-Methylchrysene	242	12.182	12.188	-0.006	98	947788	80.0	72.4	
178 Di-n-octyl phthalate	149	12.616	12.626	-0.010	99	1852343	80.0	87.1	
182 Hexachlorophene	196		12.661					ND	
180 7,12-Dimethylbenz(a)anthracene	256	13.156	13.150	0.006	93	529413	80.0	62.2	
179 Benzo[b]fluoranthene	252	13.151	13.156	-0.005	97	1388740	80.0	75.1	
181 Benzo[k]fluoranthene	252	13.199	13.204	-0.005	98	1392249	80.0	62.0	
183 Benzo[a]pyrene	252	13.707	13.718	-0.011	76	1243622	80.0	63.6	
184 3-Methylcholanthrene	268	14.375	14.386	-0.011	92	229335	80.0	21.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
64 Tris(2,3-dibromopropyl)phosphate	419		14.766					ND	7
185 Dibenz[a,h]acridine	279	15.370	15.381	-0.011	90	944122	80.0	68.1	
186 Dibenz[a,j]acridine	279	15.472	15.482	-0.010	96	961315	80.7	53.5	
187 Indeno[1,2,3-cd]pyrene	276	15.771	15.777	-0.006	98	1142069	80.0	63.4	
188 Dibenz(a,h)anthracene	278	15.830	15.836	-0.006	93	1182360	80.0	68.5	
189 Benzo[g,h,i]perylene	276	16.189	16.194	-0.005	99	1203759	80.0	60.8	
289 Dibenzo[a,e]pyrene	302		18.590					ND	
190 Sulfolane	1		0.000					ND	
193 Prometon	1		0.000					ND	
290 Alpha Methyl Styrene TIC	1		0.000					ND	
196 4,4'-DDE	246		4.548					ND	
195 4,4'-DDD	235		4.832					ND	
197 4,4'-DDT	235		5.046					ND	
S 200 Methyl Phenols,Total	108				0			115.8	
S 199 Total Cresols	108				0			115.8	
S 201 Isosafrole	162				0		80.0	63.6	
S 202 Diallate	86				0		80.0	69.8	
S 203 Aramite, Total	185				0		80.0	104.7	
S 204 TPAH	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

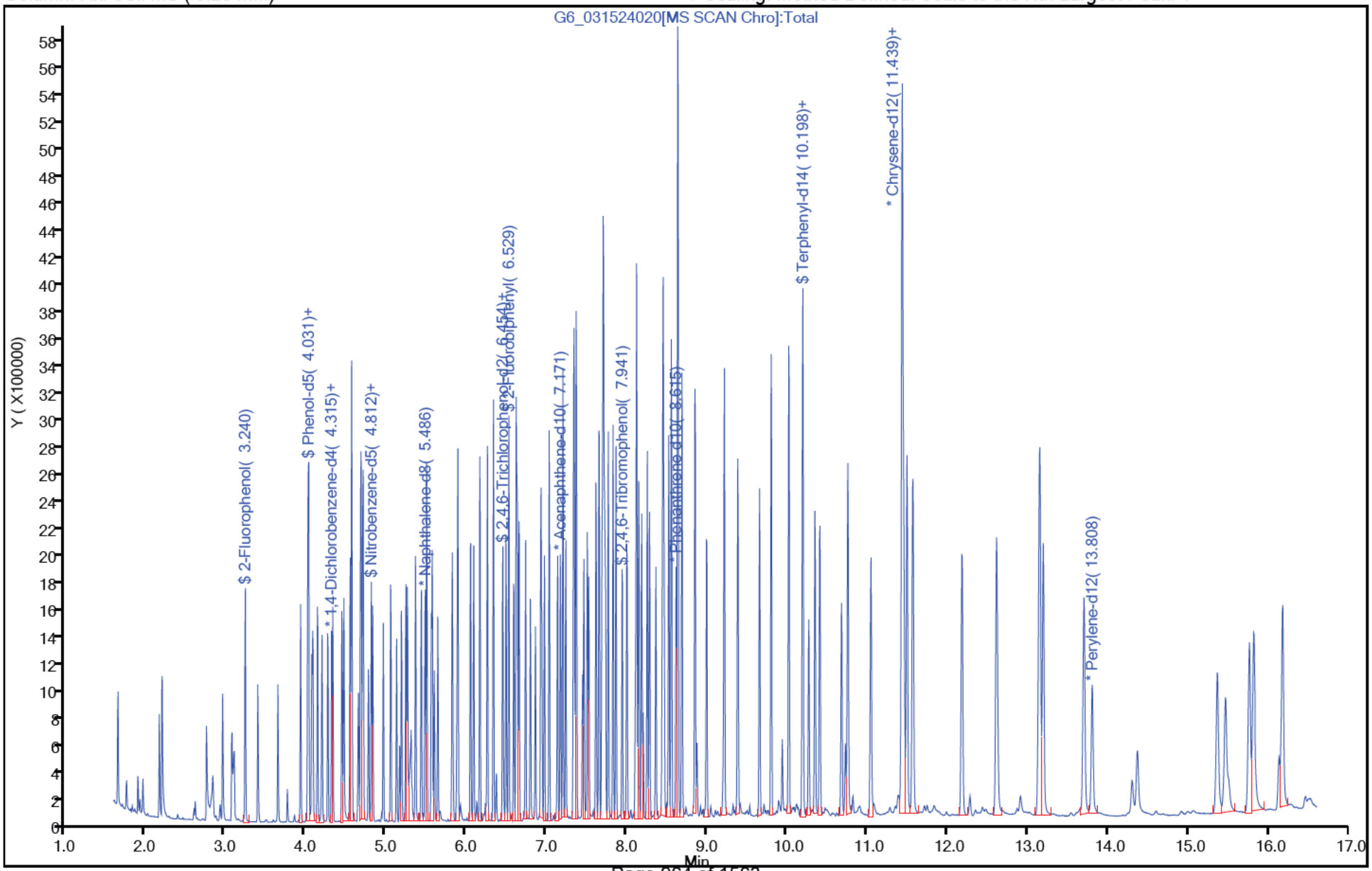
MS-IS_00037 Amount Added: 100.00 Units: uL Run Reagent

Report Date: 18-Mar-2024 14:43:22 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524020.D				
Injection Date:	15-Mar-2024 20:27:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	280-188555-A-4-C MSD			Worklist Smp#:	19
Client ID:	X7-TP-C03-2436				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 18-Mar-2024 14:43:22 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524020.D
Lims ID: 280-188555-A-4-C MSD
Client ID: X7-TP-C03-2436
Sample Type: MSD
Inject. Date: 15-Mar-2024 20:27:30 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-4-cmsd
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:21:29

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	100.0	57.0	56.98
$ 8 Phenol-d5	100.0	59.9	59.86
$ 9 Nitrobenzene-d5	100.0	55.9	55.89
$ 11 2-Fluorobiphenyl	100.0	68.6	68.61
$ 12 2,4,6-Tribromophenol	100.0	96.5	96.50
$ 13 Terphenyl-d14	100.0	82.5	82.51

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 09/15/2021 10:39

Analysis Batch Number: 550041 End Date: 09/15/2021 19:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-550041/2		09/15/2021 10:39	1		Rxi-5Sil MS 0.25(mm)
STD080 280-550041/3 IC		09/15/2021 16:55	1		Rxi-5Sil MS 0.25(mm)
STD010 280-550041/4 IC		09/15/2021 17:20	1		Rxi-5Sil MS 0.25(mm)
STD020 280-550041/5 IC		09/15/2021 17:46	1		Rxi-5Sil MS 0.25(mm)
STD050 280-550041/6 IC		09/15/2021 18:12	1		Rxi-5Sil MS 0.25(mm)
STD120 280-550041/7 IC		09/15/2021 18:38	1		Rxi-5Sil MS 0.25(mm)
STD160 280-550041/8 IC		09/15/2021 19:03	1		Rxi-5Sil MS 0.25(mm)
STD200 280-550041/9 IC		09/15/2021 19:29	1		Rxi-5Sil MS 0.25(mm)
ICV 280-550041/10		09/15/2021 19:55	1	G6_760388.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/04/2024 09:59

Analysis Batch Number: 644801 End Date: 03/04/2024 13:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-644801/2		03/04/2024 09:59	1	G6_b030424002C.D	Rxi-5Sil MS 0.25(mm)
ICIS 280-644801/3		03/04/2024 10:17	1	G6_b030424003.D	Rxi-5Sil MS 0.25(mm)
STD004 280-644801/4 IC		03/04/2024 10:38	1	G6_b030424004.D	Rxi-5Sil MS 0.25(mm)
STD010 280-644801/5 IC		03/04/2024 11:00	1	G6_b030424005.D	Rxi-5Sil MS 0.25(mm)
STD020 280-644801/6 IC		03/04/2024 11:21	1	G6_b030424006.D	Rxi-5Sil MS 0.25(mm)
STD050 280-644801/7 IC		03/04/2024 11:43	1	G6_b030424007.D	Rxi-5Sil MS 0.25(mm)
STD120 280-644801/8 IC		03/04/2024 12:04	1	G6_b030424008.D	Rxi-5Sil MS 0.25(mm)
STD160 280-644801/9 IC		03/04/2024 12:26	1	G6_b030424009.D	Rxi-5Sil MS 0.25(mm)
STD200 280-644801/10 IC		03/04/2024 12:47	1	G6_b030424010.D	Rxi-5Sil MS 0.25(mm)
ICV 280-644801/11		03/04/2024 13:09	1	G6_b030424011.D	Rxi-5Sil MS 0.25(mm)
ICV 280-644801/12		03/04/2024 13:30	1	G6_b030424012.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/04/2024 09:59

Analysis Batch Number: 644899 End Date: 03/04/2024 16:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-644899/2		03/04/2024 09:59	1	G6_b030424002D.D	Rxi-5Sil MS 0.25(mm)
STD010 280-644899/13 IC		03/04/2024 13:51	1		Rxi-5Sil MS 0.25(mm)
STD020 280-644899/14 IC		03/04/2024 14:13	1		Rxi-5Sil MS 0.25(mm)
STD050 280-644899/15 IC		03/04/2024 14:34	1		Rxi-5Sil MS 0.25(mm)
STD080 280-644899/16 IC		03/04/2024 14:55	1		Rxi-5Sil MS 0.25(mm)
STD120 280-644899/17 IC		03/04/2024 15:17	1		Rxi-5Sil MS 0.25(mm)
STD160 280-644899/18 IC		03/04/2024 15:38	1		Rxi-5Sil MS 0.25(mm)
STD200 280-644899/19 IC		03/04/2024 15:59	1		Rxi-5Sil MS 0.25(mm)
ICV 280-644899/20		03/04/2024 16:21	1	G6_b030424020.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/04/2024 09:59

Analysis Batch Number: 644942 End Date: 03/04/2024 19:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-644942/2		03/04/2024 09:59	1	G6_b030424002E.D	Rxi-5Sil MS 0.25(mm)
STD010 280-644942/3 IC		03/04/2024 17:15	1		Rxi-5Sil MS 0.25(mm)
STD020 280-644942/4 IC		03/04/2024 17:36	1		Rxi-5Sil MS 0.25(mm)
STD050 280-644942/5 IC		03/04/2024 17:57	1		Rxi-5Sil MS 0.25(mm)
STD080 280-644942/6 IC		03/04/2024 18:18	1		Rxi-5Sil MS 0.25(mm)
STD120 280-644942/7 IC		03/04/2024 18:39	1		Rxi-5Sil MS 0.25(mm)
STD160 280-644942/8 IC		03/04/2024 19:01	1		Rxi-5Sil MS 0.25(mm)
STD200 280-644942/9 IC		03/04/2024 19:22	1		Rxi-5Sil MS 0.25(mm)
ICV 280-644942/10		03/04/2024 19:43	1	G6_b030424028.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/05/2024 08:20

Analysis Batch Number: 644947 End Date: 03/05/2024 11:07

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-644947/2		03/05/2024 08:20	1	G6_b030524002C.D	Rxi-5Sil MS 0.25(mm)
STD080 280-644947/3 IC		03/05/2024 08:39	1		Rxi-5Sil MS 0.25(mm)
STD010 280-644947/4 IC		03/05/2024 09:00	1		Rxi-5Sil MS 0.25(mm)
STD020 280-644947/5 IC		03/05/2024 09:21	1		Rxi-5Sil MS 0.25(mm)
STD050 280-644947/6 IC		03/05/2024 09:42	1		Rxi-5Sil MS 0.25(mm)
STD120 280-644947/7 IC		03/05/2024 10:03	1		Rxi-5Sil MS 0.25(mm)
STD160 280-644947/8 IC		03/05/2024 10:25	1		Rxi-5Sil MS 0.25(mm)
STD200 280-644947/9 IC		03/05/2024 10:46	1		Rxi-5Sil MS 0.25(mm)
ICV 280-644947/10		03/05/2024 11:07	1	G6_b0305240010C.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/15/2024 08:58

Analysis Batch Number: 646020 End Date: 03/15/2024 12:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-646020/2		03/15/2024 08:58	1	031524002.D	Rxi-5Sil MS 0.25(mm)
STD080 280-646020/3 IC		03/15/2024 09:14	1	031524003.D	Rxi-5Sil MS 0.25(mm)
STD010 280-646020/4 IC		03/15/2024 09:38	1	031524004.D	Rxi-5Sil MS 0.25(mm)
STD020 280-646020/5 IC		03/15/2024 10:03	1	031524005.D	Rxi-5Sil MS 0.25(mm)
STD050 280-646020/6 IC		03/15/2024 10:27	1	031524006.D	Rxi-5Sil MS 0.25(mm)
STD120 280-646020/7 IC		03/15/2024 10:51	1	031524007.D	Rxi-5Sil MS 0.25(mm)
STD 280-646020/9 IC		03/15/2024 11:39	1	031524009.D	Rxi-5Sil MS 0.25(mm)
STD160 280-646020/12 IC		03/15/2024 12:35	1	031524011.D	Rxi-5Sil MS 0.25(mm)
ICV 280-646020/10		03/15/2024 12:59	1	031524012.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/15/2024 13:56

Analysis Batch Number: 646066 End Date: 03/16/2024 01:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-646066/2		03/15/2024 13:56	1	G6_031524002.D	Rxi-5Sil MS 0.25(mm)
CCVIS 280-646066/3		03/15/2024 14:12	1	G6_031524003.D	Rxi-5Sil MS 0.25(mm)
CCV 280-646066/5		03/15/2024 14:54	1		Rxi-5Sil MS 0.25(mm)
CCV 280-646066/6		03/15/2024 15:16	1		Rxi-5Sil MS 0.25(mm)
CCVL 280-646066/7		03/15/2024 16:02	1		Rxi-5Sil MS 0.25(mm)
MB 280-645670/1-A		03/15/2024 17:36	1	G6_031524012.D	Rxi-5Sil MS 0.25(mm)
LCS 280-645670/2-A		03/15/2024 17:57	1	G6_031524013.D	Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 18:19	5		Rxi-5Sil MS 0.25(mm)
280-188555-1	X7-TP-C01-3642	03/15/2024 18:40	1	G6_031524015.D	Rxi-5Sil MS 0.25(mm)
280-188555-2	X7-TP-C02-2430	03/15/2024 19:01	1	G6_031524016.D	Rxi-5Sil MS 0.25(mm)
280-188555-3	FD-03062401	03/15/2024 19:23	1	G6_031524017.D	Rxi-5Sil MS 0.25(mm)
280-188555-4	X7-TP-C03-2436	03/15/2024 19:44	1	G6_031524018.D	Rxi-5Sil MS 0.25(mm)
280-188555-4 MS	X7-TP-C03-2436 MS	03/15/2024 20:06	1	G6_031524019.D	Rxi-5Sil MS 0.25(mm)
280-188555-4 MSD	X7-TP-C03-2436 MSD	03/15/2024 20:27	1	G6_031524020.D	Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 20:48	5		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 21:10	5		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 21:31	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 21:53	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 22:14	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 22:35	5		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 22:57	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 23:18	5		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 23:39	5		Rxi-5Sil MS 0.25(mm)
CCVC 280-646066/29		03/16/2024 00:01	1	G6_031524030.D	Rxi-5Sil MS 0.25(mm)
CCVC 280-646066/31		03/16/2024 00:43	1		Rxi-5Sil MS 0.25(mm)
CCVC 280-646066/32		03/16/2024 01:05	1		Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 550041 Batch Start Date: 09/15/21 10:39 Batch Analyst: Polite, Sean

Batch Method: 8270E Batch End Date: 09/15/21 19:55

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	MS-REFSSV10000045				
ICV 280-550041/10		8270E			1.0 mL	200 uL				

Batch Notes	

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 644801 Batch Start Date: 03/04/24 09:59 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	CalcMsg	MS-DFTPP 00072	MS-HSL-ICV1 00010	MS-HSL-ICV2 00004	MS-HSL-WS 00010
DFTPP 280-644801/2		8270E			500 uL	Perform Calculation left blank	500 uL			
ICIS 280-644801/3		8270E			500 uL	Perform Calculation left blank				200 uL
STD004 280-644801/4 IC		8270E			500 uL	Perform Calculation left blank				10 uL
STD010 280-644801/5 IC		8270E			500 uL	Perform Calculation left blank				25 uL
STD020 280-644801/6 IC		8270E			500 uL	Perform Calculation left blank				50 uL
STD050 280-644801/7 IC		8270E			500 uL	Perform Calculation left blank				125 uL
STD120 280-644801/8 IC		8270E			500 uL	Perform Calculation left blank				300 uL
STD160 280-644801/9 IC		8270E			500 uL	Perform Calculation left blank				400 uL
STD200 280-644801/10 IC		8270E			500 uL	Perform Calculation left blank				500 uL
ICV 280-644801/11		8270E			500 uL	Perform Calculation left blank		250 uL		
ICV 280-644801/12		8270E			500 uL	Perform Calculation left blank			250 uL	

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	MS-IS 00037					
DFTPP 280-644801/2		8270E								
ICIS 280-644801/3		8270E			100 uL					
STD004 280-644801/4 IC		8270E			100 uL					

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 644801 Batch Start Date: 03/04/24 09:59 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	MS-IS 00037					
STD010 280-644801/5 IC		8270E			100 uL					
STD020 280-644801/6 IC		8270E			100 uL					
STD050 280-644801/7 IC		8270E			100 uL					
STD120 280-644801/8 IC		8270E			100 uL					
STD160 280-644801/9 IC		8270E			100 uL					
STD200 280-644801/10 IC		8270E			100 uL					
ICV 280-644801/11		8270E			100 uL					
ICV 280-644801/12		8270E			100 uL					

Batch Notes	

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 644899 Batch Start Date: 03/04/24 09:59 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	CalcMsg	MS-AP9-ICV1 00003	MS-AP9-ICV2 00005	MS-DFTPP 00072	MS-IS 00037
DFTPP 280-644899/2		8270E			500 uL	Perform Calculation left blank			500 uL	
ICV 280-644899/20		8270E			500 uL	Perform Calculation left blank	250 uL	250 uL		100 uL

Batch Notes	

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 644942 Batch Start Date: 03/04/24 09:59 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	CalcMsg	MS-DFTPP 00072	MS-DIAZ_SSSTK 00007	MS-IS 00037	
DFTPP 280-644942/2		8270E			500 uL	Perform Calculation left blank	500 uL			
ICV 280-644942/10		8270E			500 uL	Perform Calculation left blank		250 uL	100 uL	

Batch Notes	

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 644947 Batch Start Date: 03/05/24 08:20 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	CalcMsg	MS-DFTPP 00072	MS-FAB-ICV 00003	MS-IS 00037	
DFTPP 280-644947/2		8270E			500 uL	Perform Calculation left blank	500 uL			
ICV 280-644947/10		8270E			500 uL	Perform Calculation left blank		250 uL	100 uL	

Batch Notes	

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645670 Batch Start Date: 03/12/24 10:29 Batch Analyst: Garcia, Jan P

Batch Method: 3550C Batch End Date: 03/13/24 08:32

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	CalcMsg	8270_AP9_LCS 00113	8270_LCS_Main 00090	8270_LCS_Supp 00598
MB 280-645670/1		3550C, 8270E			30 g	1 mL	CALC NOT SET TO RUN			
LCS 280-645670/2		3550C, 8270E			30 g	1 mL	CALC NOT SET TO RUN	1 mL	1 mL	1 mL
280-188555-A-1	X7-TP-C01-3642	3550C, 8270E	Solid	T	30.6 g	1 mL	CALC NOT SET TO RUN			
280-188555-A-2	X7-TP-C02-2430	3550C, 8270E	Solid	T	30.2 g	1 mL	CALC NOT SET TO RUN			
280-188555-A-3	FD-03062401	3550C, 8270E	Solid	T	31.5 g	1 mL	CALC NOT SET TO RUN			
280-188555-A-4	X7-TP-C03-2436	3550C, 8270E	Solid	T	30.3 g	1 mL	CALC NOT SET TO RUN			
280-188555-A-4 MS	X7-TP-C03-2436	3550C, 8270E	Solid	T	30.9 g	1 mL	CALC NOT SET TO RUN	1 mL	1 mL	1 mL
280-188555-A-4 MSD	X7-TP-C03-2436	3550C, 8270E	Solid	T	32.6 g	1 mL	CALC NOT SET TO RUN	1 mL	1 mL	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8270Surrogate 00174					
MB 280-645670/1		3550C, 8270E			1 mL					
LCS 280-645670/2		3550C, 8270E			1 mL					
280-188555-A-1	X7-TP-C01-3642	3550C, 8270E	Solid	T	1 mL					
280-188555-A-2	X7-TP-C02-2430	3550C, 8270E	Solid	T	1 mL					
280-188555-A-3	FD-03062401	3550C, 8270E	Solid	T	1 mL					
280-188555-A-4	X7-TP-C03-2436	3550C, 8270E	Solid	T	1 mL					
280-188555-A-4 MS	X7-TP-C03-2436	3550C, 8270E	Solid	T	1 mL					
280-188555-A-4 MSD	X7-TP-C03-2436	3550C, 8270E	Solid	T	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645670 Batch Start Date: 03/12/24 10:29 Batch Analyst: Garcia, Jan P

Batch Method: 3550C Batch End Date: 03/13/24 08:32

Batch Notes	
Method/Fraction	3550C/8270D_DOD5/8270E_DOD5
Nominal Amount Used	30g g
Balance ID	24750402
Balance is Level? (Y/N)	yes
Pipette/Syringe/Dispenser ID	Rose/JR
Analyst ID - Extraction	GL (trainer) JPG (trainee)
Blank Matrix ID	Ottawa_Sand_00010
Analyst ID - Spike Analyst	JPG (trainee)
Analyst ID - Spike Witness Analyst	REVIEWER: GL(trainer)
Sufficient Volume for Batch QC	YES
Prep Solvent ID	1:1AceMeCl2_00518 MeCl2_Cycl_00629
Na2SO4 ID	Na2SO4_00147
Filter ID	22-124
Analyst ID - Concentration	JC
Equipment ID - Concentration 1	TV1, TV2, TV3
Concentration 1 Uncorrected Temperature	40, 40, 40 Degrees C
Concentration 1 Corrected Temperature	39.8, 39.3, 39.9 Degrees C
Pipette Tip Lot ID	B10705329S/0000008794
Batch Comment	DV-OP-0016/0007

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 646020 Batch Start Date: 03/15/24 08:58 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	CalcMsg	MS-CUST-ICV 00003	MS-CUST-WS 00004	MS-DFTPP 00073	MS-IS 00037
DFTPP 280-646020/2		8270E			500 uL	Perform Calculation left blank			500 uL	
STD080 280-646020/3 IC		8270E			500 uL	Perform Calculation left blank		200 uL		100 uL
STD010 280-646020/4 IC		8270E			500 uL	Perform Calculation left blank		25 uL		100 uL
STD020 280-646020/5 IC		8270E			500 uL	Perform Calculation left blank		50 uL		100 uL
STD050 280-646020/6 IC		8270E			500 uL	Perform Calculation left blank		125 uL		100 uL
STD120 280-646020/7 IC		8270E			500 uL	Perform Calculation left blank		300 uL		100 uL
STD 280-646020/9 IC		8270E			500 uL	Perform Calculation left blank		500 uL		100 uL
ICV 280-646020/10		8270E			500 uL	Perform Calculation left blank	500 uL			100 uL
STD160 280-646020/12 IC		8270E			500 uL	Perform Calculation left blank		400 uL		100 uL

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8330B_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid 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 #
X7-TP-C01-3642	280-188555-1		95 M
X7-TP-C01-3642	280-188555-1	102	
X7-TP-C02-2430	280-188555-2		103
X7-TP-C02-2430	280-188555-2	103	
X7-TP-C02-2430 DL	280-188555-2 DL	98 D	
FD-03062401	280-188555-3	103	
FD-03062401 DL	280-188555-3 DL	98 D	
FD-03062401 DL2	280-188555-3 DL2	0 D Q	
X7-TP-C03-2436	280-188555-4		98 M
X7-TP-C03-2436	280-188555-4	101	
	MB 280-645871/1-A	101	
	LCS 280-645871/2-A	101	
	LCS 280-645871/3-A	101	
X7-TP-C03-2436 MS	280-188555-4 MS		108
X7-TP-C03-2436 MS	280-188555-4 MS	100	
X7-TP-C03-2436 MS	280-188555-4 MS	101	
X7-TP-C03-2436 MSD	280-188555-4 MSD		110
X7-TP-C03-2436 MSD	280-188555-4 MSD	100	
X7-TP-C03-2436 MSD	280-188555-4 MSD	104	
X7-TP-C03-2436 DU	280-188555-4 DU		101
X7-TP-C03-2436 DU	280-188555-4 DU	102	
X7-TP-C03-2436 TRL	280-188555-4 TRL		100 M
X7-TP-C03-2436 TRL	280-188555-4 TRL	102	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	78-119

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.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190042.D

Lab ID: LCS 280-645871/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	1000	1140	114	80-116	
1,3-Dinitrobenzene	1000	1110	111	73-119	
2,4,6-Trinitrotoluene	1000	1040	104	71-120	
3,5-Dinitroaniline	1000	1090	109	86-118	
2,4-Dinitrotoluene	1000	1060	106	75-121	
2,6-Dinitrotoluene	1000	1080	108	79-117	
2-Amino-4,6-dinitrotoluene	1000	1070	107	71-123	
2-Nitrotoluene	1000	1100	110	70-124	
3-Nitrotoluene	1000	1100	110	67-129	
4-Amino-2,6-dinitrotoluene	1000	1060	106	64-127	
4-Nitrotoluene	1000	1100	110	71-124	
Nitrobenzene	1000	1140	114	67-129	
Nitroglycerin	10000	11800	118	73-124	
HMX	1000	918	92	74-124	M
PETN	10000	11100	111	72-128	
Picric acid	1000	1190	119	38-154	
RDX	1000	1020	102	67-129	
Tetryl	1000	1060	106	68-135	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190043.D

Lab ID: LCS 280-645871/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
2,4-diamino-6-nitrotoluene	2000	1590 J	80	10-150	
2,6-diamino-4-nitrotoluene	2000	1860 J	93	10-150	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190050.D

Lab ID: 280-188555-4 MS Client ID: X7-TP-C03-2436 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	990	39 U	1110	112	80-116	
1,3-Dinitrobenzene	990	39 U	1090	110	73-119	
3,5-Dinitroaniline	990	19 U	958	97	86-118	
2,4-Dinitrotoluene	990	39 U	1060	107	75-121	M
2,6-Dinitrotoluene	990	39 U	1070	108	79-117	M
2-Amino-4,6-dinitrotoluene	990	68 U	1000	101	71-123	M
2-Nitrotoluene	990	97 U	1090	110	70-124	M
3-Nitrotoluene	990	150 U	1070	108	67-129	M
4-Amino-2,6-dinitrotoluene	990	68 U	855	86	64-127	M
4-Nitrotoluene	990	97 U	1080	110	71-124	M
Nitrobenzene	990	190 U	1110	112	67-129	
Nitroglycerin	9900	680 U	11400	115	73-124	
HMX	990	68 U	879	89	74-124	M
PETN	9900	970 U	11000	112	72-128	
Picric acid	990	77 U	291	29	38-154	J1
Tetryl	990	97 U	974	98	68-135	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190052.D

Lab ID: 280-188555-4 MS Client ID: X7-TP-C03-2436 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
2,4-diamino-6-nitrotoluene	1930	970 U	960 U	0	10-150	M J1
2,6-diamino-4-nitrotoluene	1930	970 U	960 U	0	10-150	M J1

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03200020.D

Lab ID: 280-188555-4 MS Client ID: X7-TP-C03-2436 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
2,4,6-Trinitrotoluene	990	68 U	1100	111	71-120	
RDX	990	97 U	958	97	67-129	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190051.D

Lab ID: 280-188555-4 MSD Client ID: X7-TP-C03-2436 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	949	1060	112	5	20	80-116	
1,3-Dinitrobenzene	949	1040	109	5	20	73-119	
3,5-Dinitroaniline	949	940	99	2	20	86-118	
2,4-Dinitrotoluene	949	1010	107	5	20	75-121	
2,6-Dinitrotoluene	949	1020	107	5	20	79-117	
2-Amino-4,6-dinitrotoluene	949	976	103	3	20	71-123	
2-Nitrotoluene	949	1030	109	6	20	70-124	
3-Nitrotoluene	949	1020	107	5	20	67-129	
4-Amino-2,6-dinitrotoluene	949	884	93	3	20	64-127	
4-Nitrotoluene	949	1020	108	6	20	71-124	
Nitrobenzene	949	1060	112	5	20	67-129	
Nitroglycerin	9490	11000	116	3	20	73-124	
HMX	949	878	93	0	20	74-124	
PETN	9490	10400	110	6	20	72-128	
Picric acid	949	107	11	93	20	38-154	J1
Tetryl	949	901	95	8	20	68-135	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190053.D

Lab ID: 280-188555-4 MSD Client ID: X7-TP-C03-2436 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4-diamino-6-nitrotoluene	1940	970 U	0	NC	20	10-150	M J1
2,6-diamino-4-nitrotoluene	1940	970 U	0	NC	20	10-150	M J1

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03200021.D

Lab ID: 280-188555-4 MSD Client ID: X7-TP-C03-2436 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4,6-Trinitrotoluene	949	1050	110	5	20	71-120	
RDX	949	889	94	7	20	67-129	

Column to be used to flag recovery and RPD values

FORM III 8330B

HPLC/IC DUPLICATE SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190054.D

Lab ID: 280-188555-4 DU Client ID: X7-TP-C03-2436 DU

COMPOUND	SAMPLE CONCENTRATION (ug/Kg)	DUPLICATE CONCENTRATION (ug/Kg)	%RPD	%RPD LIMIT	#
1,3,5-Trinitrobenzene	39 U	39 U	NC	20	
1,3-Dinitrobenzene	39 U	39 U	NC	20	
3,5-Dinitroaniline	19 U	20 U	NC	20	
2,4-Dinitrotoluene	39 U	39 U	NC	20	
2,6-Dinitrotoluene	39 U	39 U	NC	20	
2-Amino-4,6-dinitrotoluene	68 U	68 U	NC	20	
2-Nitrotoluene	97 U	98 U	NC	20	
3-Nitrotoluene	150 U	150 U	NC	20	
4-Amino-2,6-dinitrotoluene	68 U	68 U	NC	20	
4-Nitrotoluene	97 U	98 U	NC	20	
Nitrobenzene	190 U	200 U	NC	20	
Nitroglycerin	680 U	680 U	NC	20	
HMX	68 U	68 U	NC	20	
PETN	970 U	980 U	NC	20	
Picric acid	77 U	78 U	NC	20	
Tetryl	97 U	98 U	NC	20	
2,4-diamino-6-nitrotoluene	970 U	980 U	NC	20	
2,6-diamino-4-nitrotoluene	970 U	980 U	NC	20	

Column to be used to flag %RPD values

8330B

HPLC/IC DUPLICATE SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03200022.D

Lab ID: 280-188555-4 DU Client ID: X7-TP-C03-2436 DU

COMPOUND	SAMPLE CONCENTRATION (ug/Kg)	DUPLICATE CONCENTRATION (ug/Kg)	%RPD	%RPD LIMIT	#
2,4,6-Trinitrotoluene	68 U	68 U	NC	20	
RDX	97 U	98 U	NC	20	

Column to be used to flag %RPD values

8330B

HPLC/IC TRIPLICATE SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190055.D

Lab ID: 280-188555-4 TRL Client ID: X7-TP-C03-2436 TRL

COMPOUND	SAMPLE CONC. (ug/Kg)	DUPLICATE CONC. (ug/Kg)	TRIPLICATE CONC. (ug/Kg)	%RSD	%RSD LIMIT	#
1,3,5-Trinitrobenzene	39 U	39 U	39 U	NC	20	
1,3-Dinitrobenzene	39 U	39 U	39 U	NC	20	
3,5-Dinitroaniline	19 U	20 U	20 U	NC	20	
2,4-Dinitrotoluene	39 U	39 U	39 U	NC	20	
2,6-Dinitrotoluene	39 U	39 U	39 U	NC	20	
2-Amino-4,6-dinitrotoluene	68 U	68 U	68 U	NC	20	
2-Nitrotoluene	97 U	98 U	98 U	NC	20	
3-Nitrotoluene	150 U	150 U	150 U	NC	20	
4-Amino-2,6-dinitrotoluene	68 U	68 U	68 U	NC	20	
4-Nitrotoluene	97 U	98 U	98 U	NC	20	
Nitrobenzene	190 U	200 U	200 U	NC	20	
Nitroglycerin	680 U	680 U	680 U	NC	20	
HMX	68 U	68 U	68 U	NC	20	
PETN	970 U	980 U	980 U	NC	20	
Picric acid	77 U	78 U	78 U	NC	20	
Tetryl	97 U	98 U	98 U	NC	20	
2,4-diamino-6-nitrotoluene	970 U	980 U	980 U	NC	20	
2,6-diamino-4-nitrotoluene	970 U	980 U	980 U	NC	20	

Column to be used to flag %RSD

8330B

HPLC/IC TRIPLICATE SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03200023.D

Lab ID: 280-188555-4 TRL Client ID: X7-TP-C03-2436 TRL

COMPOUND	SAMPLE CONC. (ug/Kg)	DUPLICATE CONC. (ug/Kg)	TRIPLICATE CONC. (ug/Kg)	%RSD	%RSD LIMIT	#
2,4,6-Trinitrotoluene	68 U	68 U	68 U	NC	20	
RDX	97 U	98 U	98 U	NC	20	

Column to be used to flag %RSD

8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: MB 280-645871/1-A

Matrix: Solid Date Extracted: 03/13/2024 13:25

Lab File ID:(1) 03190041.D Lab File ID:(2)

Date Analyzed:(1) 03/20/2024 04:49 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 280-645871/2-A	03/20/2024 05:12	
	LCS 280-645871/3-A	03/20/2024 05:35	
X7-TP-C01-3642	280-188555-1	03/20/2024 05:58	03/20/2024 20:16
X7-TP-C02-2430	280-188555-2	03/20/2024 06:21	03/20/2024 20:52
FD-03062401	280-188555-3	03/20/2024 06:43	
X7-TP-C03-2436	280-188555-4	03/20/2024 07:52	03/21/2024 00:28
X7-TP-C03-2436 MS	280-188555-4 MS	03/20/2024 08:15	03/21/2024 01:04
X7-TP-C03-2436 MSD	280-188555-4 MSD	03/20/2024 08:38	03/21/2024 01:40
X7-TP-C03-2436 MS	280-188555-4 MS	03/20/2024 09:01	
X7-TP-C03-2436 MSD	280-188555-4 MSD	03/20/2024 09:24	
X7-TP-C03-2436 DU	280-188555-4 DU	03/20/2024 09:47	03/21/2024 02:15
X7-TP-C03-2436 TRL	280-188555-4 TRL	03/20/2024 10:10	03/21/2024 02:51
X7-TP-C02-2430 DL	280-188555-2 DL	03/20/2024 17:52	
FD-03062401 DL	280-188555-3 DL	03/20/2024 18:15	
FD-03062401 DL2	280-188555-3 DL2	03/20/2024 18:38	

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7 TP C01 3642 Lab Sample ID: 280 188555 1

Instrument ID (1): CHHPLC X3 Instrument ID (2): CHHPLC G2 LUNA

Date Analyzed (1): 03/20/2024 05:58 Date Analyzed (2): 03/20/2024 20:16

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.64	7.50	7.80	71		9.3
	2		8.85	8.69	8.99	64		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7 TP C02 2430 Lab Sample ID: 280 188555 2

Instrument ID (1): CHHPLC X3 Instrument ID (2): CHHPLC G2 LUNA

Date Analyzed (1): 03/20/2024 06:21 Date Analyzed (2): 03/20/2024 20:52

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.61	6.47	6.77	1600		5.0
	2		6.59	6.50	6.80	1600		
RDX	1		7.63	7.50	7.80	37000		5.0
	2		8.76	8.69	8.99	35000		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MS Lab Sample ID: 280-188555-4 MS

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_G2_LUNA

Date Analyzed (1): 03/20/2024 08:15 Date Analyzed (2): 03/21/2024 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	
HMX	1		6.61	6.47	6.77	879		8.8
	2		6.59	6.50	6.80	960		
RDX	1		7.64	7.50	7.80	980		2.3
	2		8.76	8.69	8.99	958		
Picric acid	1		7.86	7.72	8.02	291		130.6
	2		8.31	8.30	8.60	61.1		
1,3,5-Trinitrobenzene	1		8.72	8.58	8.88	1110		2.7
	2		17.20	17.10	17.40	1140		
1,3-Dinitrobenzene	1		9.34	9.21	9.51	1090		6.5
	2		14.38	14.31	14.61	1160		
Nitrobenzene	1		9.70	9.58	9.88	1110		0.1
	2		11.34	11.27	11.57	1110		
3,5-Dinitroaniline	1		9.94	9.82	10.12	958		8.6
	2		14.07	13.99	14.29	879		
Tetryl	1		10.05	9.92	10.22	974		8.9
	2		21.97	21.87	22.17	1060		
Nitroglycerin	1		10.51	10.38	10.68	11400		16.1
	2		14.85	14.75	15.05	9680		
2,4,6-Trinitrotoluene	1		10.94	10.87	11.07	1040		5.9
	2		22.85	22.74	23.04	1100		
4-Amino-2,6-dinitrotoluene	1		11.13	11.06	11.26	855		18.5
	2		16.18	16.10	16.40	710		
2-Amino-4,6-dinitrotoluene	1		11.38	11.32	11.52	1000		4.1
	2		17.09	16.88	17.18	1040		
2,6-Dinitrotoluene	1		11.53	11.46	11.66	1070		9.9
	2		18.32	18.23	18.53	1180		
2,4-Dinitrotoluene	1		11.70	11.64	11.84	1060		3.6
	2		18.76	18.67	18.97	1100		
2-Nitrotoluene	1		12.50	12.39	12.69	1090		14.1
	2		15.50	15.40	15.70	949		
4-Nitrotoluene	1		12.92	12.81	13.11	1080		4.4
	2		15.66	15.62	15.92	1130		
3-Nitrotoluene	1		13.48	13.37	13.67	1070		1.3
	2		16.54	16.46	16.76	1090		
PETN	1		14.58	14.47	14.77	11000		3.1
	2		24.01	23.89	24.19	11400		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MSD Lab Sample ID: 280-188555-4 MSD

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_G2_LUNA

Date Analyzed (1): 03/20/2024 08:38 Date Analyzed (2): 03/21/2024 01:40

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.61	6.47	6.77	878		0.7
	2		6.59	6.50	6.80	884		
RDX	1		7.64	7.50	7.80	921		3.5
	2		8.77	8.69	8.99	889		
Picric acid	1		7.87	7.72	8.02	107		62.8
	2		8.31	8.30	8.60	55.6		
1,3,5-Trinitrobenzene	1		8.72	8.58	8.88	1060		3.4
	2		17.21	17.10	17.40	1100		
1,3-Dinitrobenzene	1		9.34	9.21	9.51	1040		4.0
	2		14.39	14.31	14.61	1080		
Nitrobenzene	1		9.70	9.58	9.88	1060		0.5
	2		11.36	11.27	11.57	1050		
3,5-Dinitroaniline	1		9.94	9.82	10.12	940		9.4
	2		14.09	13.99	14.29	856		
Tetryl	1		10.05	9.92	10.22	901		7.8
	2		21.98	21.87	22.17	975		
Nitroglycerin	1		10.51	10.38	10.68	11000		21.4
	2		14.87	14.75	15.05	8900		
2,4,6-Trinitrotoluene	1		10.95	10.87	11.07	994		5.1
	2		22.85	22.74	23.04	1050		
4-Amino-2,6-dinitrotoluene	1		11.14	11.06	11.26	884		20.1
	2		16.20	16.10	16.40	722		
2-Amino-4,6-dinitrotoluene	1		11.39	11.32	11.52	976		3.4
	2		17.10	16.88	17.18	943		
2,6-Dinitrotoluene	1		11.54	11.46	11.66	1020		3.7
	2		18.33	18.23	18.53	1060		
2,4-Dinitrotoluene	1		11.71	11.64	11.84	1010		2.2
	2		18.77	18.67	18.97	991		
2-Nitrotoluene	1		12.50	12.39	12.69	1030		16.6
	2		15.53	15.40	15.70	876		
4-Nitrotoluene	1		12.92	12.81	13.11	1020		4.8
	2		15.67	15.62	15.92	1070		
3-Nitrotoluene	1		13.48	13.37	13.67	1020		1.4
	2		16.57	16.46	16.76	1000		
PETN	1		14.58	14.47	14.77	10400		0.6
	2		24.02	23.89	24.19	10500		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C01-3642 | Lab Sample ID: 280-188555-1

Matrix: Solid | Lab File ID: 03190044.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:00

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.18(g) | Date Analyzed: 03/20/2024 05:58

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	39	U	98	39	14
99-65-0	1,3-Dinitrobenzene	39	U	98	39	16
118-96-7	2,4,6-Trinitrotoluene	69	U	98	69	30
618-87-1	3,5-Dinitroaniline	20	U	98	20	8.8
121-14-2	2,4-Dinitrotoluene	39	U	98	39	14
606-20-2	2,6-Dinitrotoluene	39	U	98	39	19
35572-78-2	2-Amino-4,6-dinitrotoluene	69	U	98	69	32
88-72-2	2-Nitrotoluene	98	U	200	98	46
99-08-1	3-Nitrotoluene	150	U	200	150	63
19406-51-0	4-Amino-2,6-dinitrotoluene	69	U	98	69	29
99-99-0	4-Nitrotoluene	98	U	200	98	36
98-95-3	Nitrobenzene	200	U	290	200	83
55-63-0	Nitroglycerin	690	U	2000	690	210
2691-41-0	HMX	69	U	98	69	22
78-11-5	PETN	980	U	2000	980	480
88-89-1	Picric acid	79	U	98	79	55
121-82-4	RDX	71	J	200	98	42
479-45-8	Tetryl	98	U	200	98	43
6629-29-4	2,4-diamino-6-nitrotoluene	980	U	2000	980	510
59229-75-3	2,6-diamino-4-nitrotoluene	980	U	2000	980	320

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	102		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190044.D
Lims ID: 280-188555-B-1-B
Client ID: X7-TP-C01-3642
Sample Type: Client
Inject. Date: 20-Mar-2024 05:58:05 ALS Bottle#: 44 Worklist Smp#: 44
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-1-B
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:28:54 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:26:26

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	2 2,6-diamino-4-nitrotoluene	1		6.496			ND	7
	4 HMX	1		6.620			ND	
	5 2,4-diamino-6-nitrotoluene	1		6.683			ND	
	8 RDX	1	7.641	7.647	-0.006	1935	0.0179	
	9 2,4,6-Trinitrophenol	1		7.874			ND	
$	10 1,2-Dinitrobenzene	1	8.588	8.607	-0.019	32947	0.2541	
	11 1,3,5-Trinitrobenzene	1		8.734			ND	
	12 1,3-Dinitrobenzene	1		9.360			ND	
	13 Nitrobenzene	1		9.727			ND	
	14 3,5-Dinitroaniline	1		9.967			ND	
	15 Tetryl	1		10.067			ND	
	16 Nitroglycerin	2		10.533			ND	
	17 2,4,6-Trinitrotoluene	1		10.967			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.160			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.420			ND	
	20 2,6-Dinitrotoluene	1		11.560			ND	
	21 2,4-Dinitrotoluene	1		11.740			ND	
	22 o-Nitrotoluene	1		12.540			ND	
	23 p-Nitrotoluene	1		12.960			ND	
	24 m-Nitrotoluene	1		13.520			ND	
	25 PETN	2		14.620			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

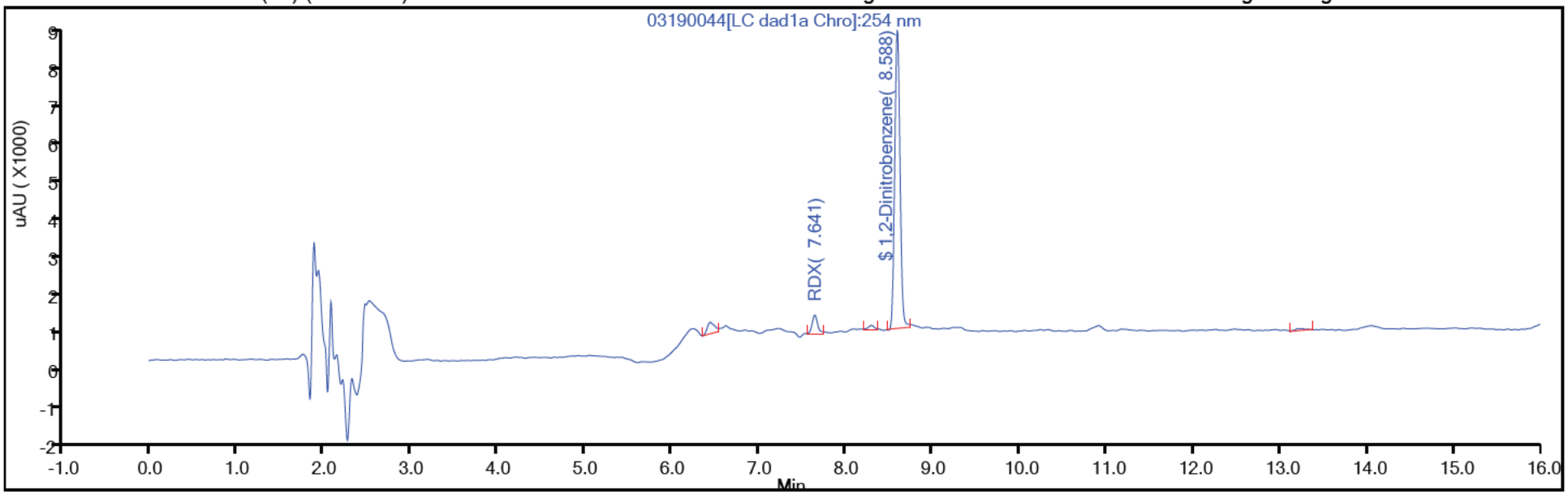
Report Date: 20-Mar-2024 12:28:57 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

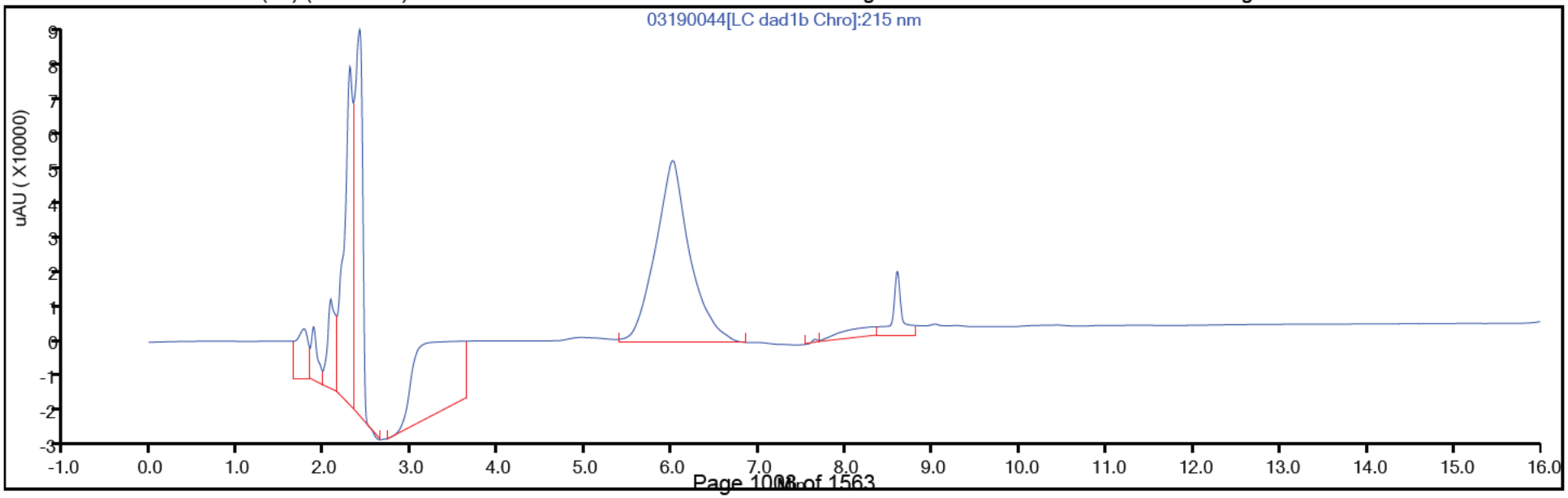
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190044.d

Injection Date:	20-Mar-2024 05:58:05	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-1-B	Lab Sample ID:	280-188555-1	Worklist Smp#:	44
Client ID:	X7-TP-C01-3642				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	44
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190044.D				
Lims ID:	280-188555-B-1-B				
Client ID:	X7-TP-C01-3642				
Sample Type:	Client				
Inject. Date:	20-Mar-2024 05:58:05	ALS Bottle#:	44	Worklist Smp#:	44
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-1-B				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-Mar-2024 12:28:54	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1651				

First Level Reviewer: LV5D Date: 20-Mar-2024 12:26:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2541	101.62

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C01-3642 Lab Sample ID: 280-188555-1

Matrix: Solid Lab File ID: 03200012.D

Analysis Method: 8330B Date Collected: 03/06/2024 09:00

Extraction Method: 8330B Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.18(g) Date Analyzed: 03/20/2024 20:16

Con. Extract Vol.: 40(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.: 646572 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95	*M*	78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200012.D
Lims ID: 280-188555-B-1-B
Client ID: X7-TP-C01-3642
Sample Type: Client
Inject. Date: 20-Mar-2024 20:16:32 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-1-B
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:12 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 14:43:19

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1		4.203			ND	7
2 2,4-diamino-6-nitrotoluene	1		4.783			ND	7
6 HMX	1		6.649			ND	
5 2,4,6-Trinitrophenol	1		8.449			ND	
8 RDX	1	8.850	8.842	0.008	3394	0.0163	M
9 Nitrobenzene	1		11.422			ND	7
$ 10 1,2-Dinitrobenzene	1	12.284	12.336	-0.052	61019	0.2376	M
11 3,5-Dinitroaniline	1		14.142			ND	
12 1,3-Dinitrobenzene	1		14.456			ND	7
13 Nitroglycerin	2		14.896			ND	
14 o-Nitrotoluene	1		15.549			ND	
15 p-Nitrotoluene	1		15.769			ND	7
16 4-Amino-2,6-dinitrotoluene	1		16.249			ND	
17 m-Nitrotoluene	1		16.609			ND	7
18 2-Amino-4,6-dinitrotoluene	1		17.029			ND	
19 1,3,5-Trinitrobenzene	1		17.249			ND	
20 2,6-Dinitrotoluene	1		18.376			ND	
21 2,4-Dinitrotoluene	1		18.822			ND	
22 Tetryl	1		22.016			ND	
23 2,4,6-Trinitrotoluene	1		22.889			ND	
24 PETN	2		24.036			ND	7

QC Flag Legend

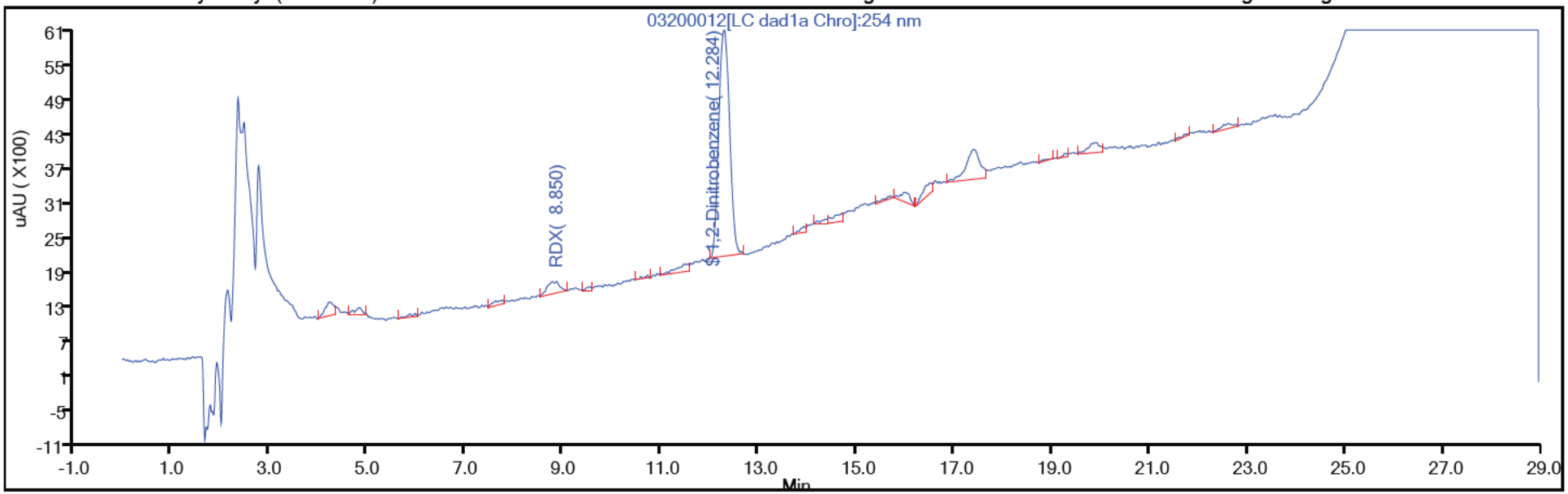
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

Report Date: 21-Mar-2024 16:20:13 Chrom Revision: 2.3 23-Feb-2024 16:51:14

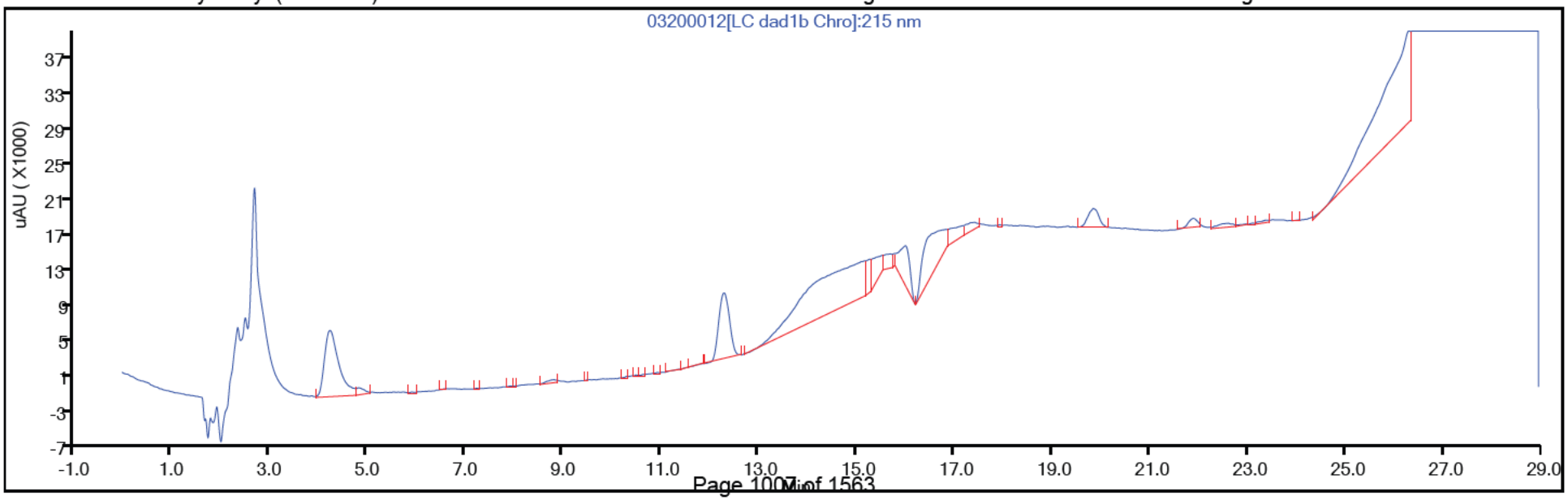
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200012.d				
Injection Date:	20-Mar-2024 20:16:32	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-188555-B-1-B	Lab Sample ID:	280-188555-1	Worklist Smp#:	12
Client ID:	X7-TP-C01-3642				
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
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200012.D				
Lims ID:	280-188555-B-1-B				
Client ID:	X7-TP-C01-3642				
Sample Type:	Client				
Inject. Date:	20-Mar-2024 20:16:32	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-1-B				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Mar-2024 16:20:12	Calib Date:	26-Sep-2023 04:54:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1668				

First Level Reviewer: LV5D Date: 21-Mar-2024 14:43:19

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2376	95.06

Manual Integration/User Assign Peak Report

Eurofins Denver

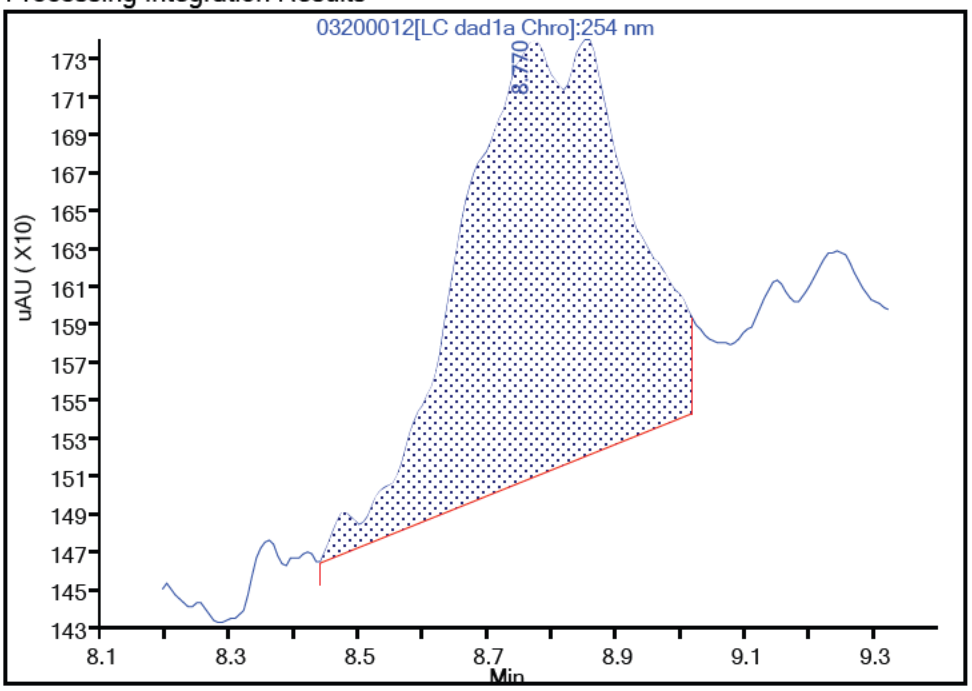
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200012.d				
Injection Date:	20-Mar-2024 20:16:32	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-1-B	Lab Sample ID:	280-188555-1		
Client ID:	X7-TP-C01-3642				
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	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		

8 RDX, CAS: 121-82-4

Signal: 1

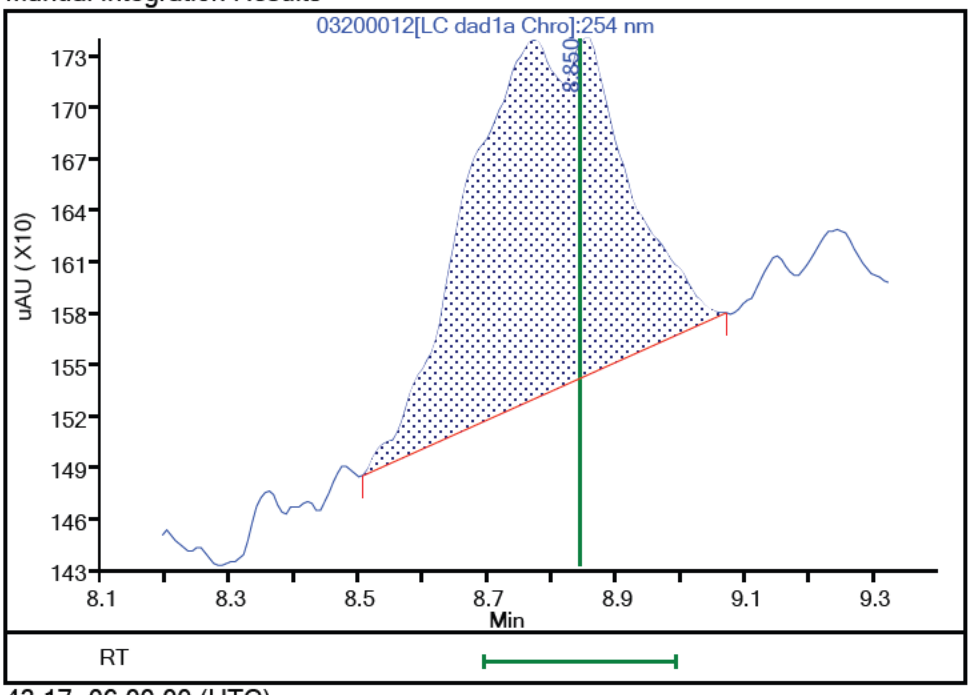
Processing Integration Results

RT: 8.77
Area: 4016
Amount: 0.019346
Amount Units: ug/ml



Manual Integration Results

RT: 8.85
Area: 3394
Amount: 0.016350
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 14:43:17 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

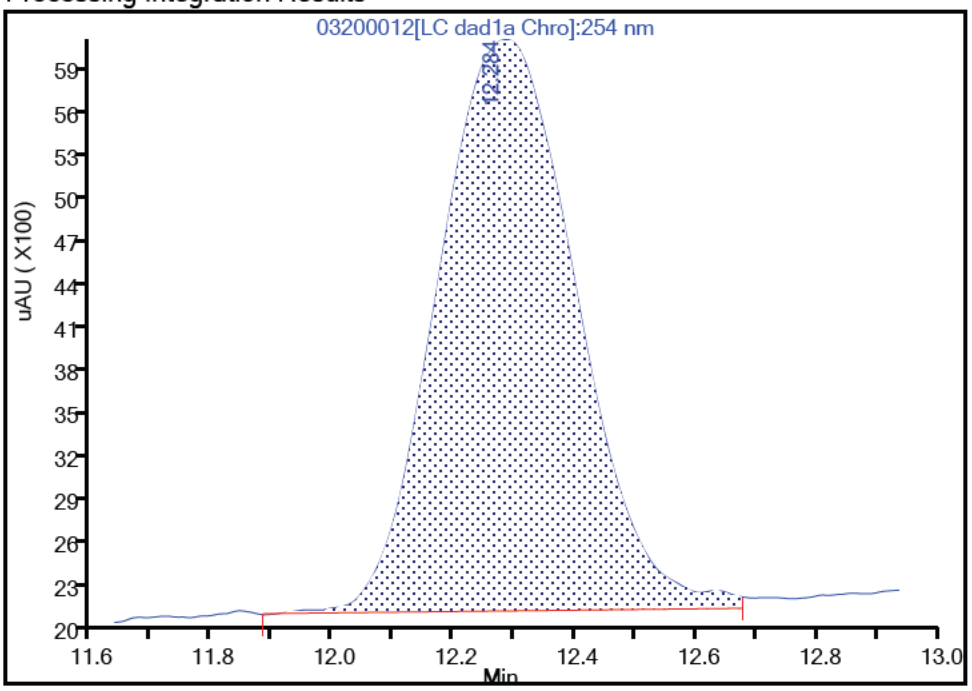
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200012.d				
Injection Date:	20-Mar-2024 20:16:32	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-1-B	Lab Sample ID:	280-188555-1		
Client ID:	X7-TP-C01-3642				
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	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		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

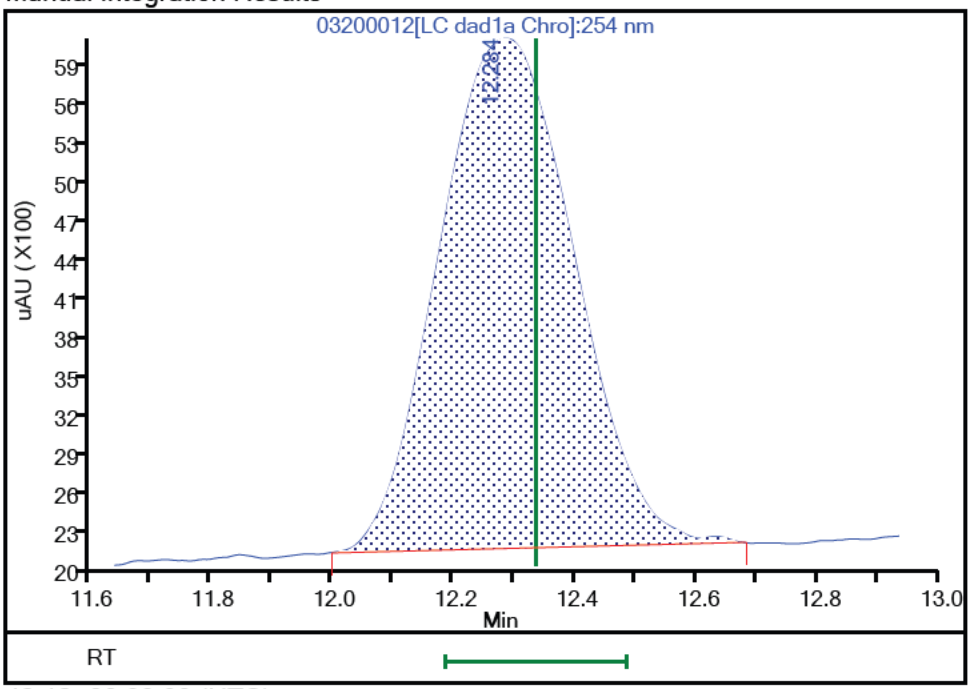
Processing Integration Results

RT: 12.28
Area: 63639
Amount: 0.247841
Amount Units: ug/ml



Manual Integration Results

RT: 12.28
Area: 61019
Amount: 0.237638
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 14:43:12 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C02-2430 | Lab Sample ID: 280-188555-2

Matrix: Solid | Lab File ID: 03190045.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:25

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.89(g) | Date Analyzed: 03/20/2024 06:21

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	37	U	92	37	13
99-65-0	1,3-Dinitrobenzene	37	U	92	37	15
618-87-1	3,5-Dinitroaniline	18	U	92	18	8.3
121-14-2	2,4-Dinitrotoluene	37	U	92	37	13
606-20-2	2,6-Dinitrotoluene	37	U	92	37	18
35572-78-2	2-Amino-4,6-dinitrotoluene	64	U	92	64	30
88-72-2	2-Nitrotoluene	92	U	180	92	43
99-08-1	3-Nitrotoluene	140	U	180	140	59
19406-51-0	4-Amino-2,6-dinitrotoluene	64	U	92	64	27
99-99-0	4-Nitrotoluene	92	U	180	92	34
98-95-3	Nitrobenzene	180	U	280	180	78
55-63-0	Nitroglycerin	640	U	1800	640	200
2691-41-0	HMX	1600	M	92	64	21
78-11-5	PETN	920	U	1800	920	450
88-89-1	Picric acid	73	U	92	73	52
479-45-8	Tetryl	92	U	180	92	40
6629-29-4	2,4-diamino-6-nitrotoluene	920	U	1800	920	470
59229-75-3	2,6-diamino-4-nitrotoluene	920	U	1800	920	300

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190045.D
Lims ID: 280-188555-B-2-B
Client ID: X7-TP-C02-2430
Sample Type: Client
Inject. Date: 20-Mar-2024 06:21:00 ALS Bottle#: 45 Worklist Smp#: 45
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-2-B
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:28:54 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:26:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1		6.496			ND	7
4 HMX	1	6.614	6.620	-0.006	40650	0.4265	M
5 2,4-diamino-6-nitrotoluene	1		6.683			ND	
8 RDX	1	7.634	7.647	-0.013	1055059	10.0	E
9 2,4,6-Trinitrophenol	1		7.874			ND	
$ 10 1,2-Dinitrobenzene	1	8.594	8.607	-0.013	33237	0.2563	
11 1,3,5-Trinitrobenzene	1		8.734			ND	
12 1,3-Dinitrobenzene	1		9.360			ND	
13 Nitrobenzene	1		9.727			ND	
14 3,5-Dinitroaniline	1		9.967			ND	
15 Tetryl	1		10.067			ND	
16 Nitroglycerin	2		10.533			ND	
17 2,4,6-Trinitrotoluene	1	10.941	10.967	-0.026	2017	0.009177	
18 4-Amino-2,6-dinitrotoluene	1		11.160			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.420			ND	
20 2,6-Dinitrotoluene	1		11.560			ND	
21 2,4-Dinitrotoluene	1		11.740			ND	
22 o-Nitrotoluene	1		12.540			ND	
23 p-Nitrotoluene	1		12.960			ND	
24 m-Nitrotoluene	1		13.520			ND	
25 PETN	2		14.620			ND	

QC Flag Legend

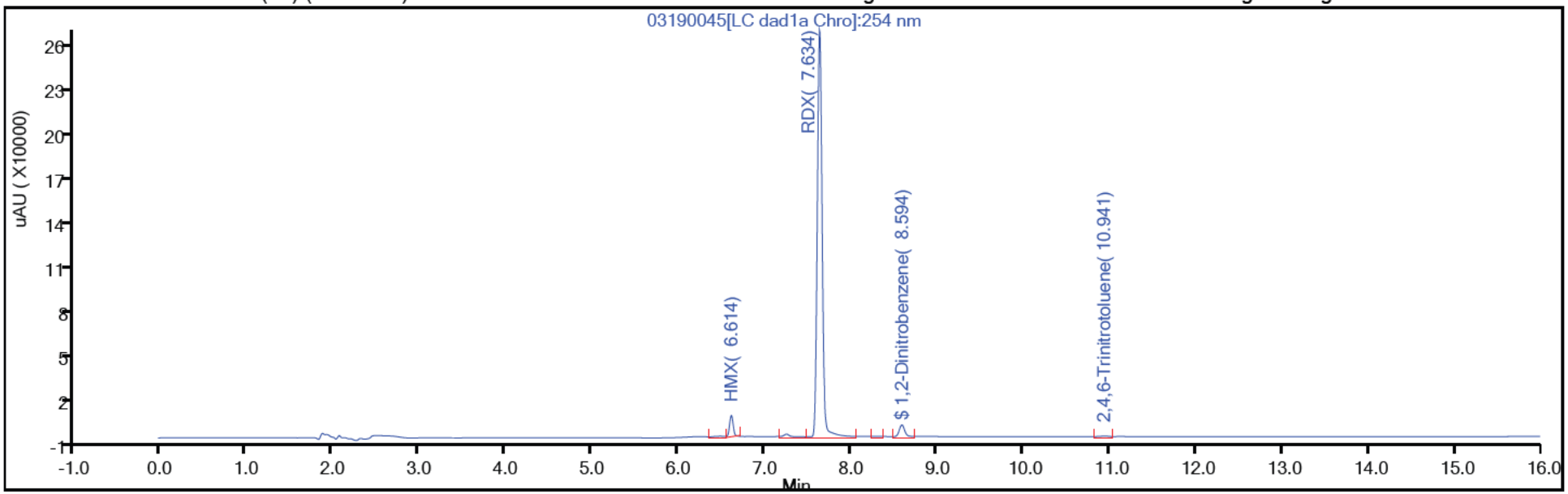
Processing Flags
E - Exceeded Maximum Amount
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

Report Date: 20-Mar-2024 12:28:58 Chrom Revision: 2.3 23-Feb-2024 16:51:14

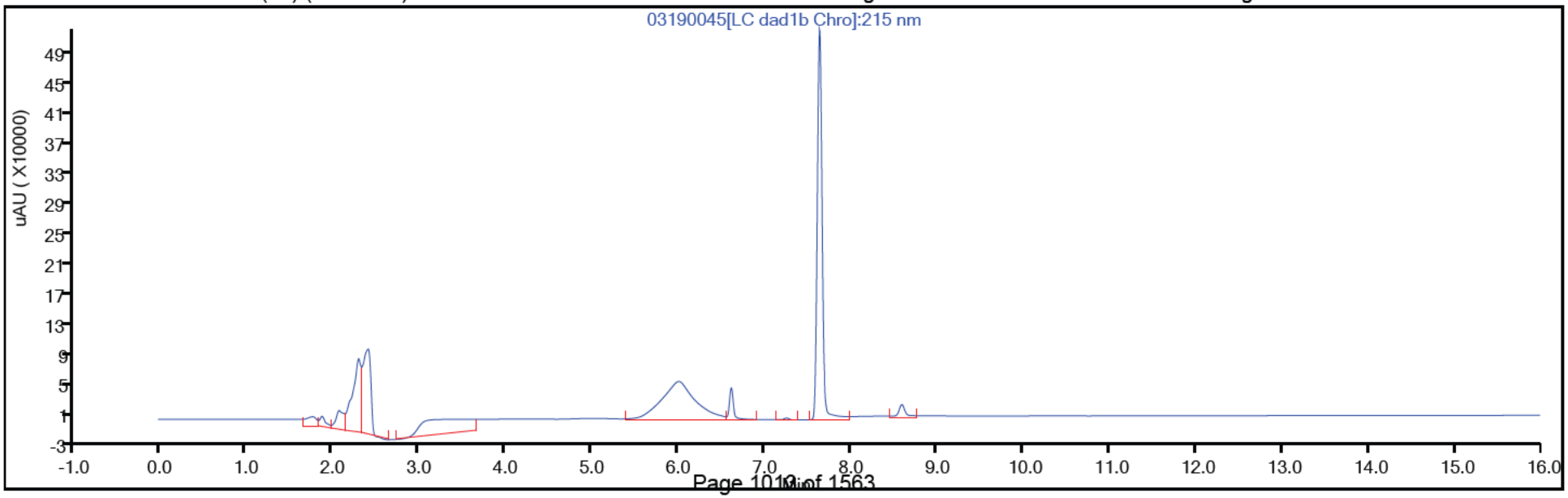
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190045.d				
Injection Date:	20-Mar-2024 06:21:00	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-2-B	Lab Sample ID:	280-188555-2	Worklist Smp#:	45
Client ID:	X7-TP-C02-2430				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	45
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190045.D				
Lims ID:	280-188555-B-2-B				
Client ID:	X7-TP-C02-2430				
Sample Type:	Client				
Inject. Date:	20-Mar-2024 06:21:00	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-2-B				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-Mar-2024 12:28:54	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1651				
First Level Reviewer: LV5D		Date:	20-Mar-2024 12:26:46		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2563	102.52

Manual Integration/User Assign Peak Report

Eurofins Denver

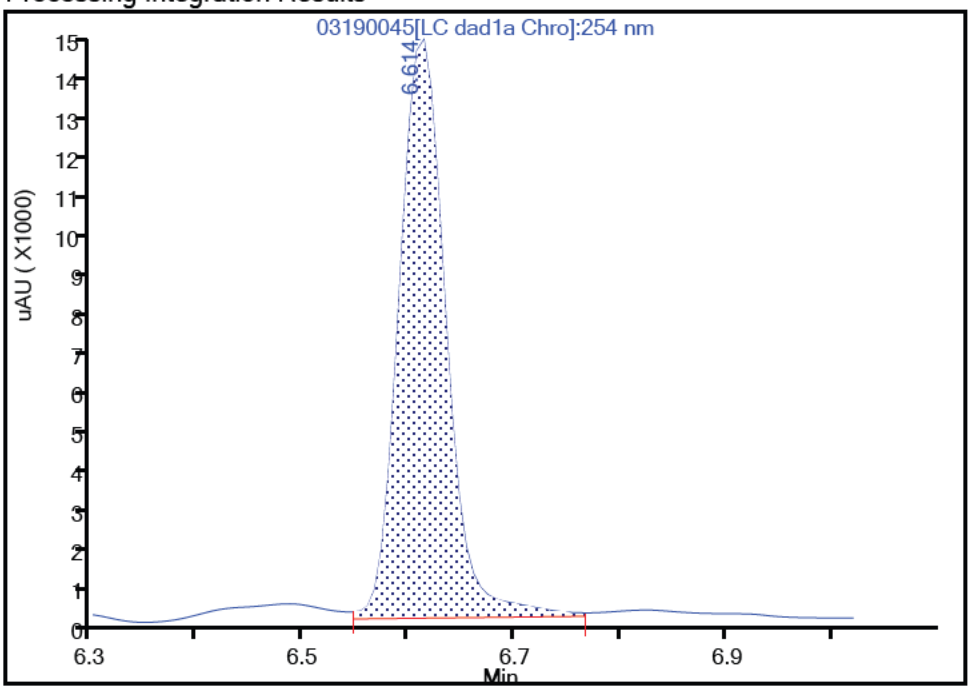
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190045.d				
Injection Date:	20-Mar-2024 06:21:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-2-B	Lab Sample ID:	280-188555-2		
Client ID:	X7-TP-C02-2430				
Operator ID:	JZ/JG	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

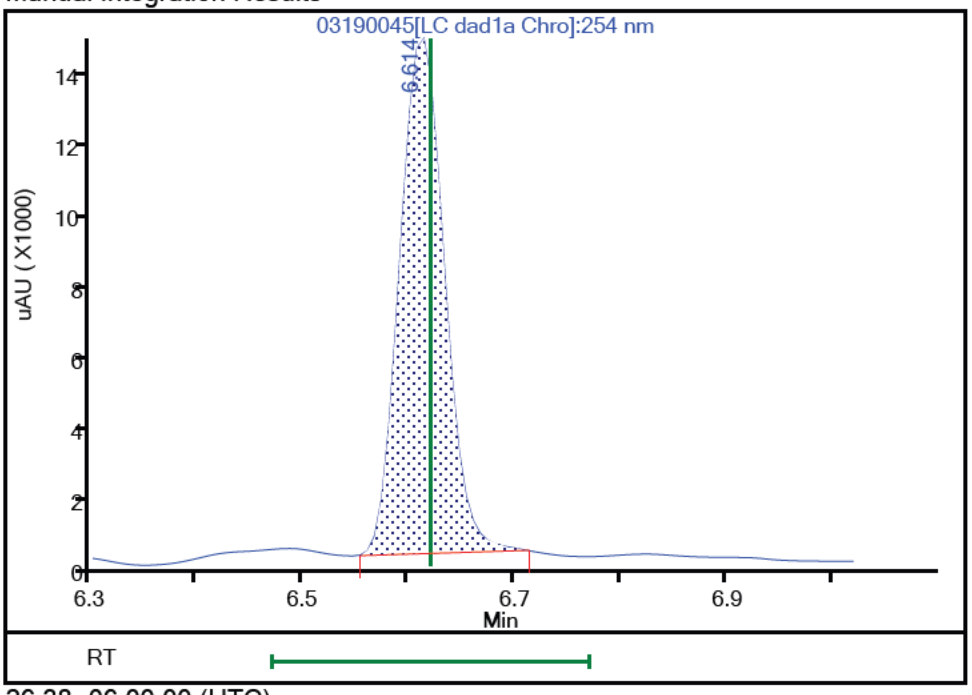
Processing Integration Results

RT: 6.61
Area: 43364
Amount: 0.454953
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 40650
Amount: 0.426479
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:26:38 -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.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C02-2430 | Lab Sample ID: 280-188555-2

Matrix: Solid | Lab File ID: 03200013.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:25

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.89(g) | Date Analyzed: 03/20/2024 20:52

Con. Extract Vol.: 40(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.: 646572 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	64	U M	92	64	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200013.D
Lims ID: 280-188555-B-2-B
Client ID: X7-TP-C02-2430
Sample Type: Client
Inject. Date: 20-Mar-2024 20:52:26 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-2-B
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:12 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 16:12:16

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1		4.203			ND	7
	2 2,4-diamino-6-nitrotoluene	1		4.783			ND	
	6 HMX	1	6.592	6.649	-0.057	77814	0.4486	
	5 2,4,6-Trinitrophenol	1		8.449			ND	
	8 RDX	1	8.758	8.842	-0.084	1983761	9.56	E
	9 Nitrobenzene	1		11.422			ND	7
$	10 1,2-Dinitrobenzene	1	12.238	12.336	-0.098	66202	0.2578	
	11 3,5-Dinitroaniline	1		14.142			ND	
	12 1,3-Dinitrobenzene	1		14.456			ND	7
	13 Nitroglycerin	2		14.896			ND	
	14 o-Nitrotoluene	1		15.549			ND	
	15 p-Nitrotoluene	1		15.769			ND	
	16 4-Amino-2,6-dinitrotoluene	1		16.249			ND	
	17 m-Nitrotoluene	1		16.609			ND	U
	18 2-Amino-4,6-dinitrotoluene	1		17.029			ND	
	19 1,3,5-Trinitrobenzene	1		17.249			ND	U
	20 2,6-Dinitrotoluene	1		18.376			ND	7
	21 2,4-Dinitrotoluene	1		18.822			ND	7
	22 Tetryl	1		22.016			ND	U
	23 2,4,6-Trinitrotoluene	1	22.858	22.889	-0.031	1892	0.004914	7M
	24 PETN	2		24.036			ND	7

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
7 - Failed Limit of Detection

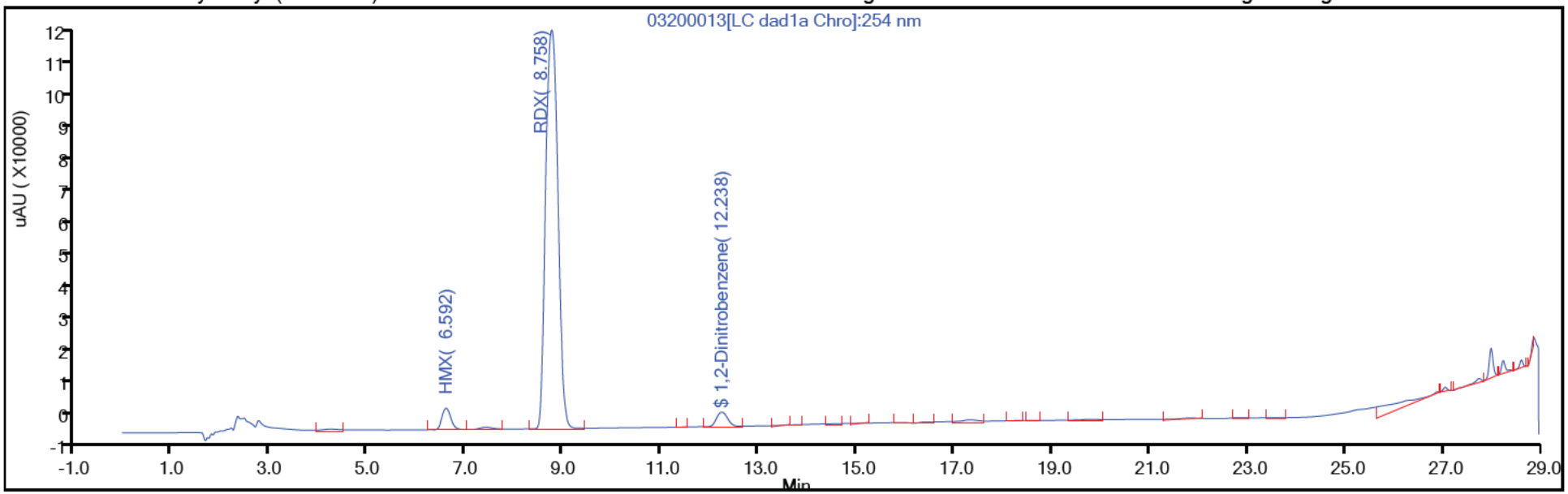
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 21-Mar-2024 16:20:14 Chrom Revision: 2.3 23-Feb-2024 16:51:14

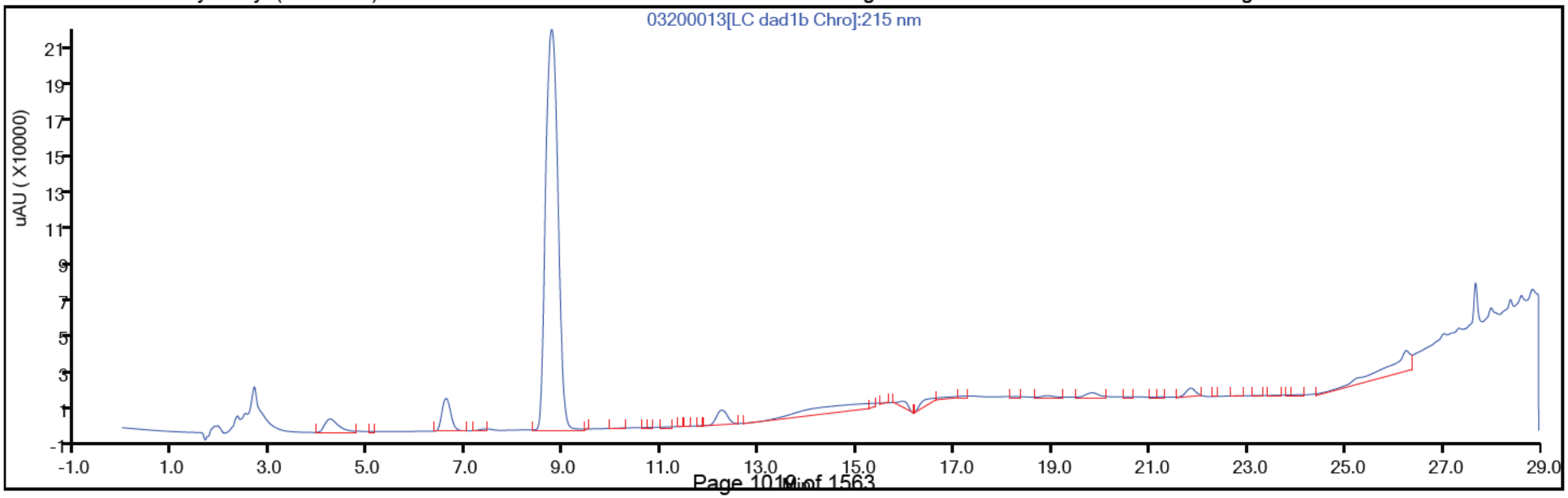
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200013.d				
Injection Date:	20-Mar-2024 20:52:26	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-188555-B-2-B	Lab Sample ID:	280-188555-2	Worklist Smp#:	13
Client ID:	X7-TP-C02-2430				
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



Report Date: 21-Mar-2024 16:20:14 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200013.D				
Lims ID:	280-188555-B-2-B				
Client ID:	X7-TP-C02-2430				
Sample Type:	Client				
Inject. Date:	20-Mar-2024 20:52:26	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-2-B				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Mar-2024 16:20:12	Calib Date:	26-Sep-2023 04:54:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1668				

First Level Reviewer: LV5D Date: 21-Mar-2024 16:12:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2578	103.13

User Disabled Compound Report

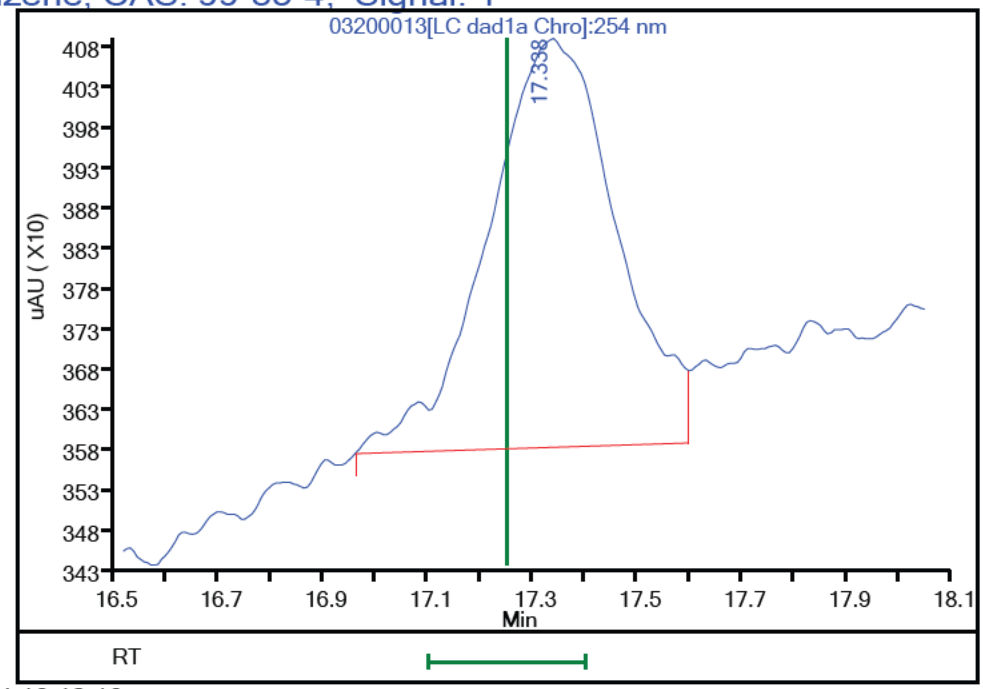
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200013.d

Injection Date:	20-Mar-2024 20:52:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-2-B	Lab Sample ID:	280-188555-2		
Client ID:	X7-TP-C02-2430				
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: 17.34
Response: 8584
Amount: 0.020854



Reviewer: LV5D, 21-Mar-2024 16:12:16

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

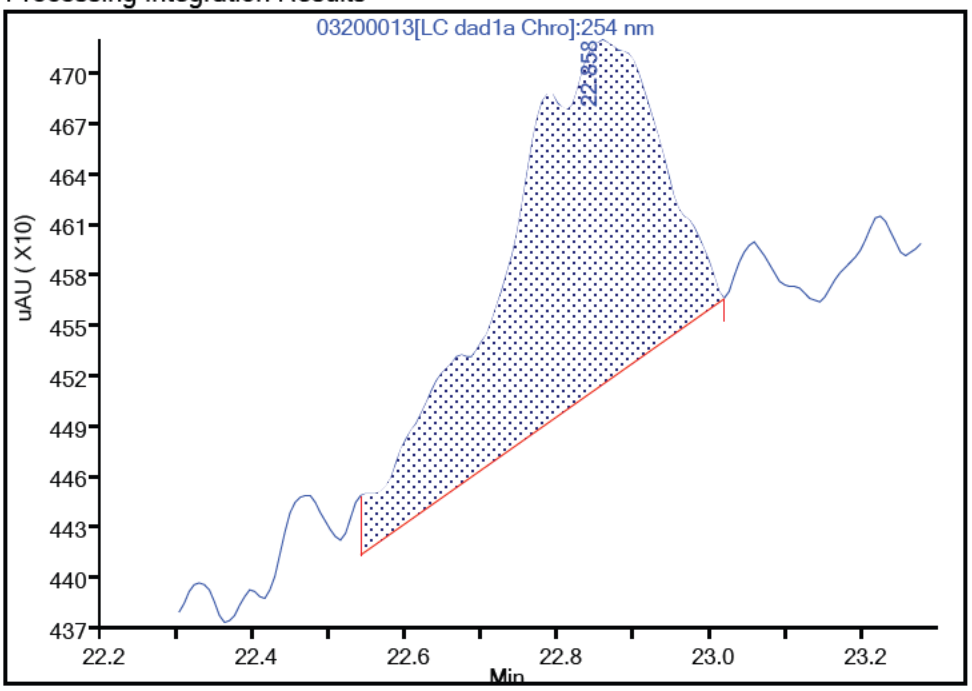
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200013.d				
Injection Date:	20-Mar-2024 20:52:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-2-B	Lab Sample ID:	280-188555-2		
Client ID:	X7-TP-C02-2430				
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	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

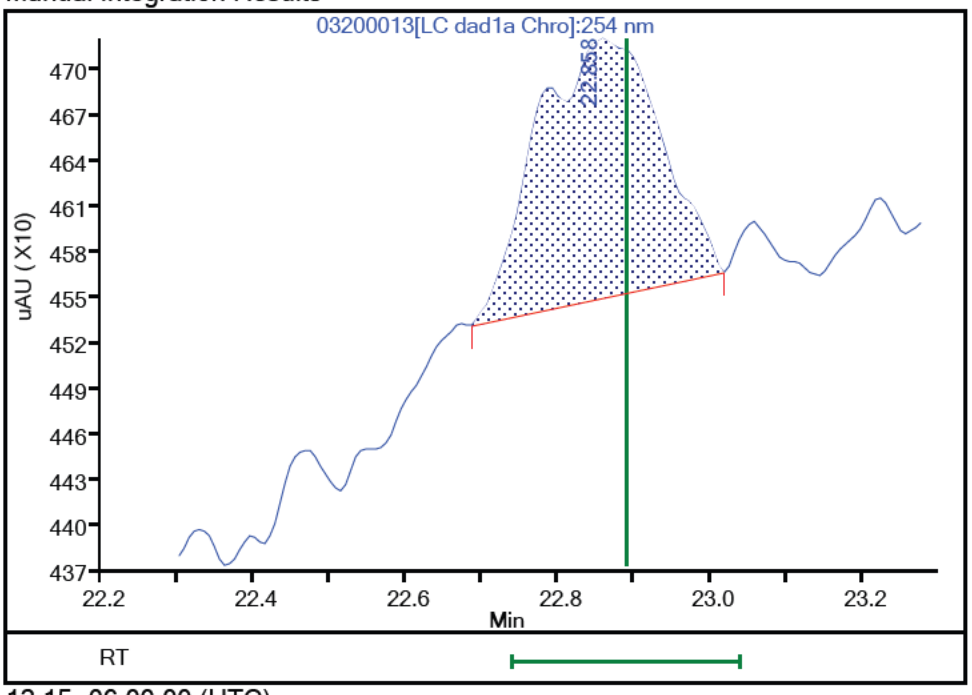
Processing Integration Results

RT: 22.86
Area: 3067
Amount: 0.007967
Amount Units: ug/ml



Manual Integration Results

RT: 22.86
Area: 1892
Amount: 0.004914
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:12:15 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

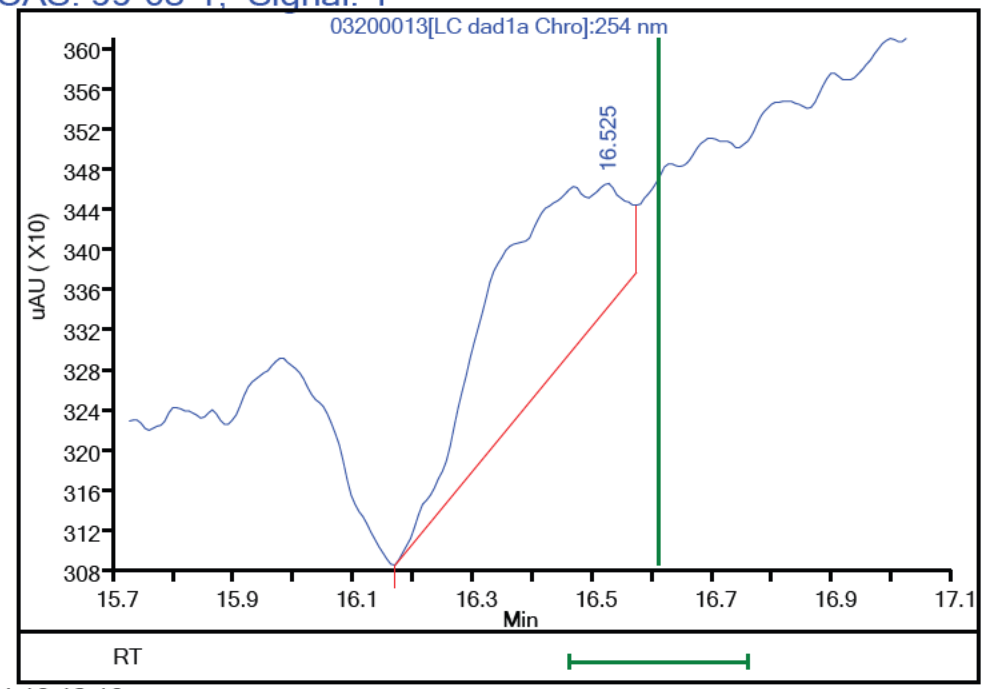
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200013.d				
Injection Date:	20-Mar-2024 20:52:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-2-B	Lab Sample ID:	280-188555-2		
Client ID:	X7-TP-C02-2430				
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: 16.52
Response: 2688
Amount: 0.005580



Reviewer: LV5D, 21-Mar-2024 16:12:16

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

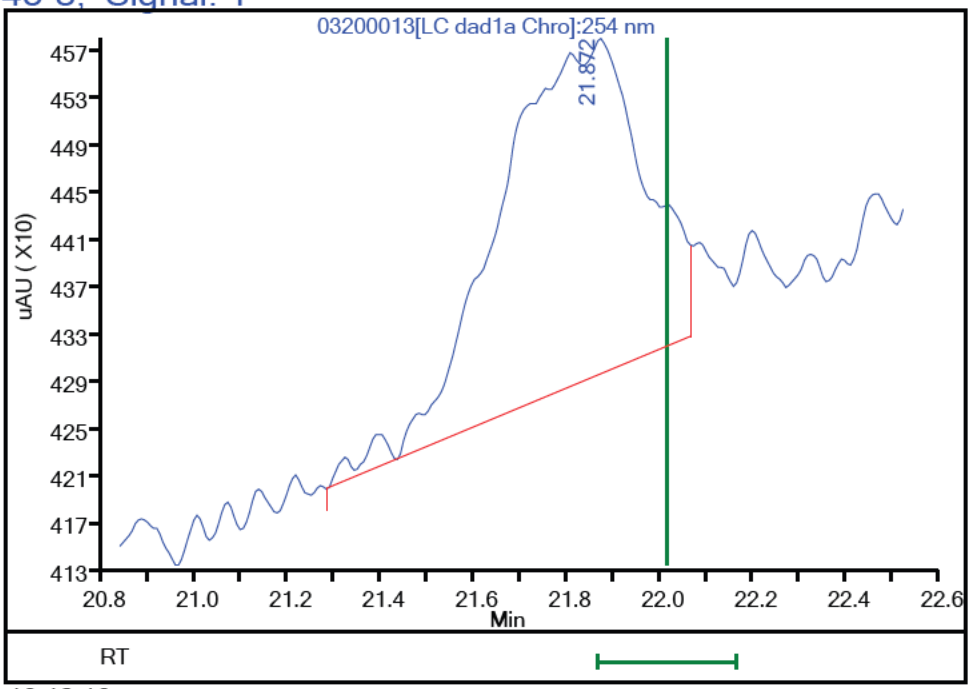
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200013.d

Injection Date:	20-Mar-2024 20:52:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-2-B	Lab Sample ID:	280-188555-2		
Client ID:	X7-TP-C02-2430				
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		

22 Tetryl, CAS: 479-45-8, Signal: 1

RT: 21.87
Response: 6308
Amount: 0.020458



Reviewer: LV5D, 21-Mar-2024 16:12:16

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C02-2430 DL | Lab Sample ID: 280-188555-2 DL

Matrix: Solid | Lab File ID: 03200012.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:25

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.89(g) | Date Analyzed: 03/20/2024 17:52

Con. Extract Vol.: 40(mL) | Dilution Factor: 10

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 646567 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	36000	D	1800	920	390

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	D	78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\03200012.D
Lims ID: 280-188555-B-2-B DL
Client ID: X7-TP-C02-2430
Sample Type: Client
Inject. Date: 20-Mar-2024 17:52:19 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 10.0000
Sample Info: 280-188555-B-2-B
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 12:36:17 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 20-Mar-2024 18:24:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1		6.496			ND	7
4 HMX	1	6.616	6.614	0.002	4010	0.0421	M
5 2,4-diamino-6-nitrotoluene	1		6.683			ND	
8 RDX	1	7.649	7.640	0.009	102853	0.9792	
9 2,4,6-Trinitrophenol	1		7.867			ND	
$ 10 1,2-Dinitrobenzene	1	8.596	8.594	0.002	3199	0.0245	
11 1,3,5-Trinitrobenzene	1		8.727			ND	
12 1,3-Dinitrobenzene	1		9.347			ND	
13 Nitrobenzene	1		9.713			ND	
14 3,5-Dinitroaniline	1		9.953			ND	
15 Tetryl	1		10.053			ND	
16 Nitroglycerin	2		10.513			ND	
17 2,4,6-Trinitrotoluene	1		10.953			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.140			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.393			ND	
20 2,6-Dinitrotoluene	1		11.540			ND	
21 2,4-Dinitrotoluene	1		11.713			ND	
22 o-Nitrotoluene	1		12.513			ND	
23 p-Nitrotoluene	1		12.933			ND	
24 m-Nitrotoluene	1		13.493			ND	
25 PETN	2		14.580			ND	

QC Flag Legend

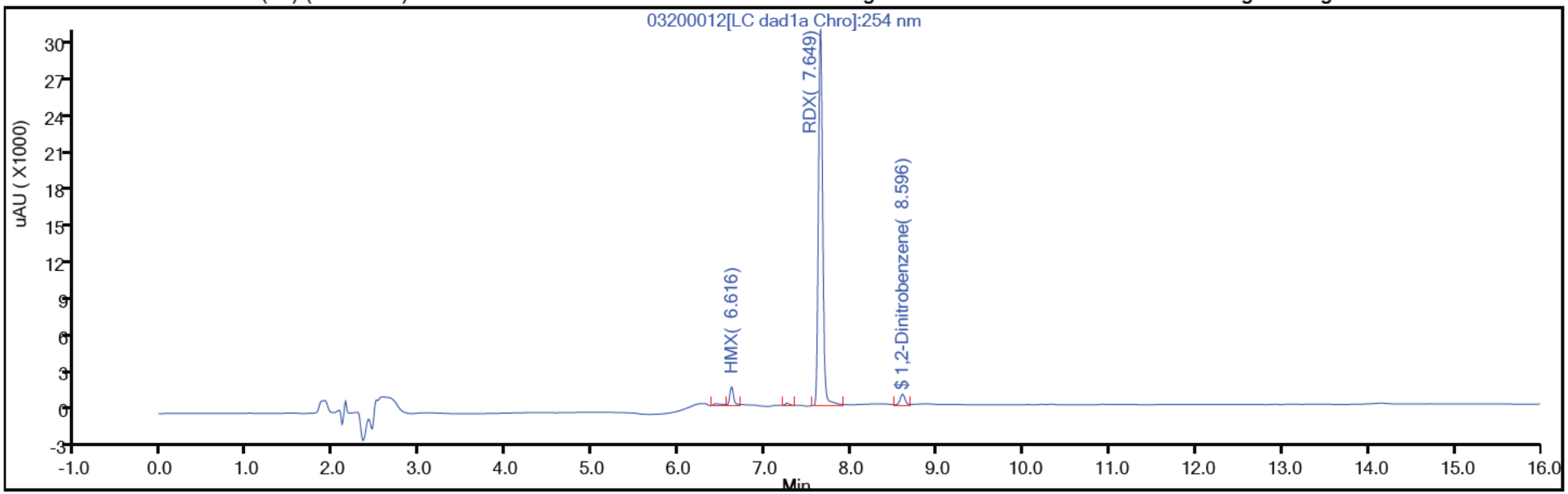
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

Report Date: 21-Mar-2024 12:36:20 Chrom Revision: 2.3 23-Feb-2024 16:51:14

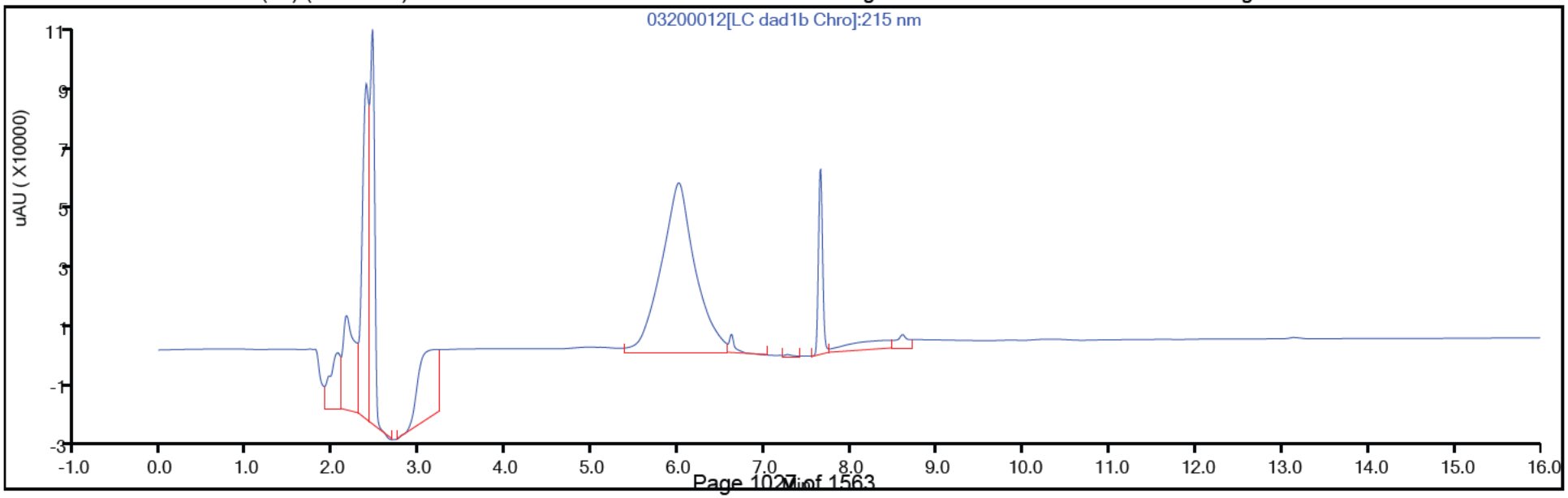
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240320-131364.b\03200012.d				
Injection Date:	20-Mar-2024 17:52:19	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-2-B DL	Lab Sample ID:	280-188555-2	Worklist Smp#:	12
Client ID:	X7-TP-C02-2430				
Injection Vol:	100.0 ul	Dil. Factor:	10.0000	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



Report Date: 21-Mar-2024 12:36:20 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\03200012.D				
Lims ID:	280-188555-B-2-B DL				
Client ID:	X7-TP-C02-2430				
Sample Type:	Client				
Inject. Date:	20-Mar-2024 17:52:19	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	10.0000		
Sample Info:	280-188555-B-2-B				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Mar-2024 12:36:17	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1668				

First Level Reviewer: LV5D Date: 20-Mar-2024 18:24:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.0245	9.81

Manual Integration/User Assign Peak Report

Eurofins Denver

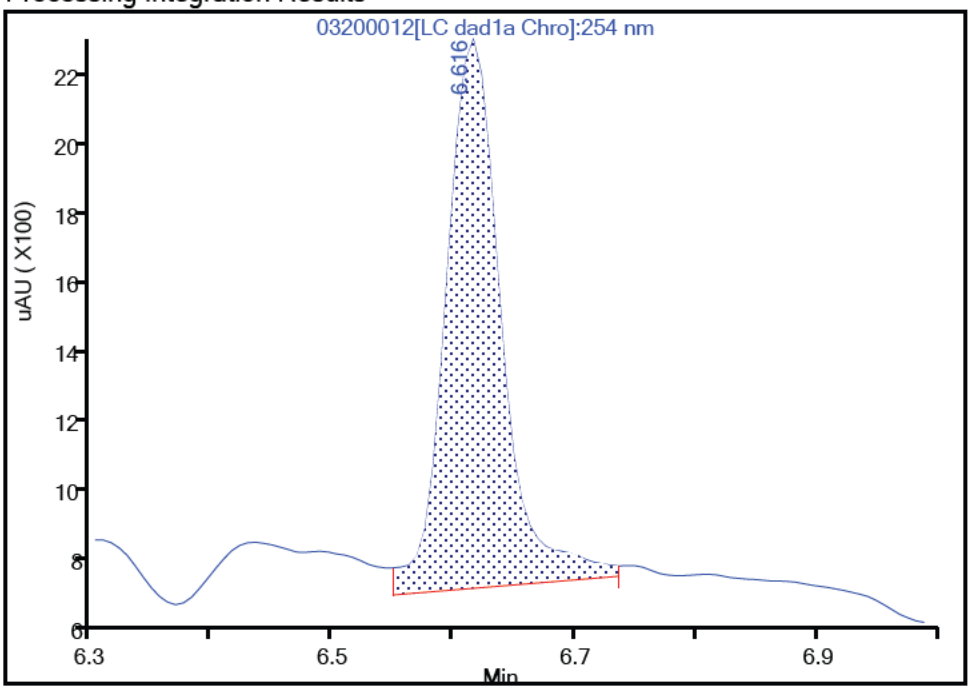
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240320-131364.b\03200012.d				
Injection Date:	20-Mar-2024 17:52:19	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-2-B DL	Lab Sample ID:	280-188555-2		
Client ID:	X7-TP-C02-2430				
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	10.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

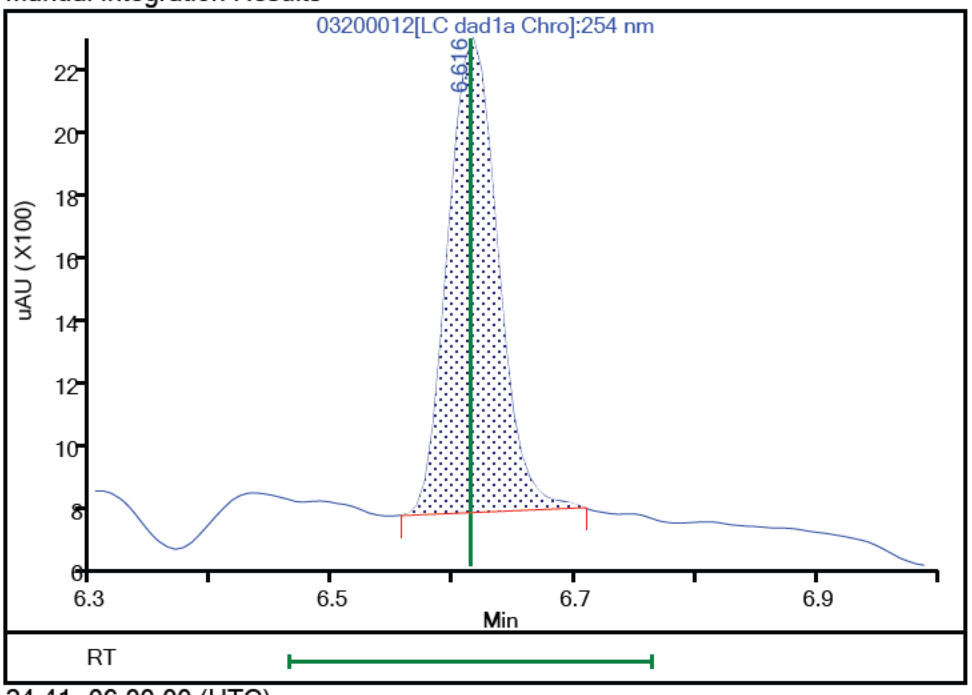
Processing Integration Results

RT: 6.62
Area: 4671
Amount: 0.049006
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 4010
Amount: 0.042071
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 18:24:41 -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.: 280-188555-1

SDG No.:

Client Sample ID: FD-03062401 | Lab Sample ID: 280-188555-3

Matrix: Solid | Lab File ID: 03190046.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:35

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.04(g) | Date Analyzed: 03/20/2024 06:43

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	40	U	100	40	14
99-65-0	1,3-Dinitrobenzene	40	U	100	40	17
118-96-7	2,4,6-Trinitrotoluene	40	J	100	70	31
618-87-1	3,5-Dinitroaniline	20	U	100	20	9.0
121-14-2	2,4-Dinitrotoluene	40	U	100	40	15
606-20-2	2,6-Dinitrotoluene	40	U	100	40	19
35572-78-2	2-Amino-4,6-dinitrotoluene	70	U	100	70	33
88-72-2	2-Nitrotoluene	100	U	200	100	47
99-08-1	3-Nitrotoluene	150	U	200	150	64
19406-51-0	4-Amino-2,6-dinitrotoluene	70	U	100	70	30
99-99-0	4-Nitrotoluene	100	U	200	100	36
98-95-3	Nitrobenzene	200	U	300	200	85
55-63-0	Nitroglycerin	700	U	2000	700	210
78-11-5	PETN	1000	U	2000	1000	490
88-89-1	Picric acid	80	U	100	80	56
479-45-8	Tetryl	100	U	200	100	44
6629-29-4	2,4-diamino-6-nitrotoluene	1000	U	2000	1000	510
59229-75-3	2,6-diamino-4-nitrotoluene	1000	U	2000	1000	330

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190046.D
Lims ID: 280-188555-B-3-B
Client ID: FD-03062401
Sample Type: Client
Inject. Date: 20-Mar-2024 06:43:56 ALS Bottle#: 46 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-3-B
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:28:54 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:27:02

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	2 2,6-diamino-4-nitrotoluene	1		6.496			ND	7
	4 HMX	1	6.610	6.620	-0.010	291399	3.06	E
	5 2,4-diamino-6-nitrotoluene	1		6.683			ND	
	8 RDX	1	7.637	7.647	-0.010	5964099	56.8	E
	9 2,4,6-Trinitrophenol	1		7.874			ND	
$	10 1,2-Dinitrobenzene	1	8.597	8.607	-0.010	33494	0.2583	
	11 1,3,5-Trinitrobenzene	1		8.734			ND	
	12 1,3-Dinitrobenzene	1		9.360			ND	
	13 Nitrobenzene	1		9.727			ND	
	14 3,5-Dinitroaniline	1		9.967			ND	
	15 Tetryl	1		10.067			ND	
	16 Nitroglycerin	2		10.533			ND	
	17 2,4,6-Trinitrotoluene	1	10.950	10.967	-0.017	2215	0.0101	
	18 4-Amino-2,6-dinitrotoluene	1		11.160			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.420			ND	
	20 2,6-Dinitrotoluene	1		11.560			ND	
	21 2,4-Dinitrotoluene	1		11.740			ND	
	22 o-Nitrotoluene	1		12.540			ND	
	23 p-Nitrotoluene	1		12.960			ND	7
	24 m-Nitrotoluene	1		13.520			ND	
	25 PETN	2		14.620			ND	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
7 - Failed Limit of Detection

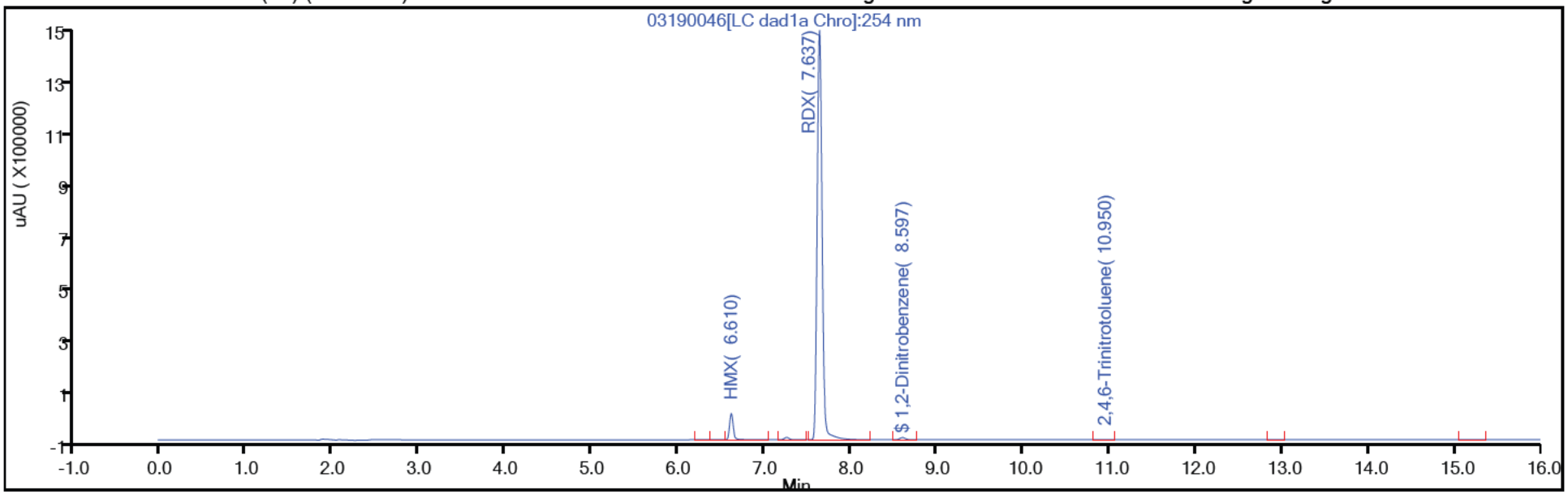
Report Date: 20-Mar-2024 12:28:59 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

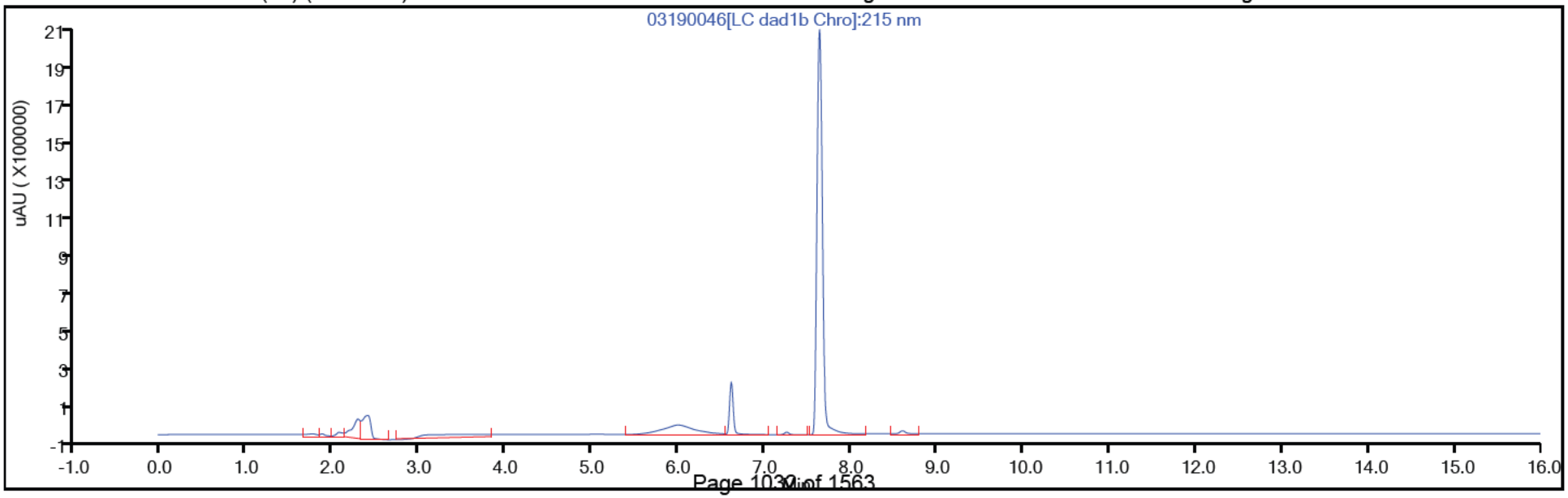
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190046.d

Injection Date:	20-Mar-2024 06:43:56	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-3-B	Lab Sample ID:	280-188555-3	Worklist Smp#:	46
Client ID:	FD-03062401				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	46
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 20-Mar-2024 12:28:59 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190046.D				
Lims ID:	280-188555-B-3-B				
Client ID:	FD-03062401				
Sample Type:	Client				
Inject. Date:	20-Mar-2024 06:43:56	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-3-B				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-Mar-2024 12:28:54	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1651				

First Level Reviewer: LV5D Date: 20-Mar-2024 12:27:02

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2583	103.31

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: FD-03062401 DL | Lab Sample ID: 280-188555-3 DL

Matrix: Solid | Lab File ID: 03200013.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:35

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.04(g) | Date Analyzed: 03/20/2024 18:15

Con. Extract Vol.: 40(mL) | Dilution Factor: 5

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 646567 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12000	D	500	350	110

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	D	78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\03200013.D
Lims ID: 280-188555-B-3-B DL
Client ID: FD-03062401
Sample Type: Client
Inject. Date: 20-Mar-2024 18:15:16 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 5.0000
Sample Info: 280-188555-B-3-B
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 12:36:17 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 20-Mar-2024 18:42:43

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1		6.496			ND	
4 HMX	1	6.615	6.614	0.001	56601	0.5938	
5 2,4-diamino-6-nitrotoluene	1		6.683			ND	
8 RDX	1	7.648	7.640	0.008	1245184	11.9	E
9 2,4,6-Trinitrophenol	1		7.867			ND	
$ 10 1,2-Dinitrobenzene	1	8.608	8.594	0.014	6375	0.0490	
11 1,3,5-Trinitrobenzene	1		8.727			ND	
12 1,3-Dinitrobenzene	1		9.347			ND	
13 Nitrobenzene	1		9.713			ND	
14 3,5-Dinitroaniline	1		9.953			ND	
15 Tetryl	1		10.053			ND	
16 Nitroglycerin	2		10.513			ND	
17 2,4,6-Trinitrotoluene	1		10.953			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.140			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.393			ND	
20 2,6-Dinitrotoluene	1		11.540			ND	
21 2,4-Dinitrotoluene	1		11.713			ND	
22 o-Nitrotoluene	1		12.513			ND	
23 p-Nitrotoluene	1		12.933			ND	
24 m-Nitrotoluene	1		13.493			ND	
25 PETN	2		14.580			ND	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

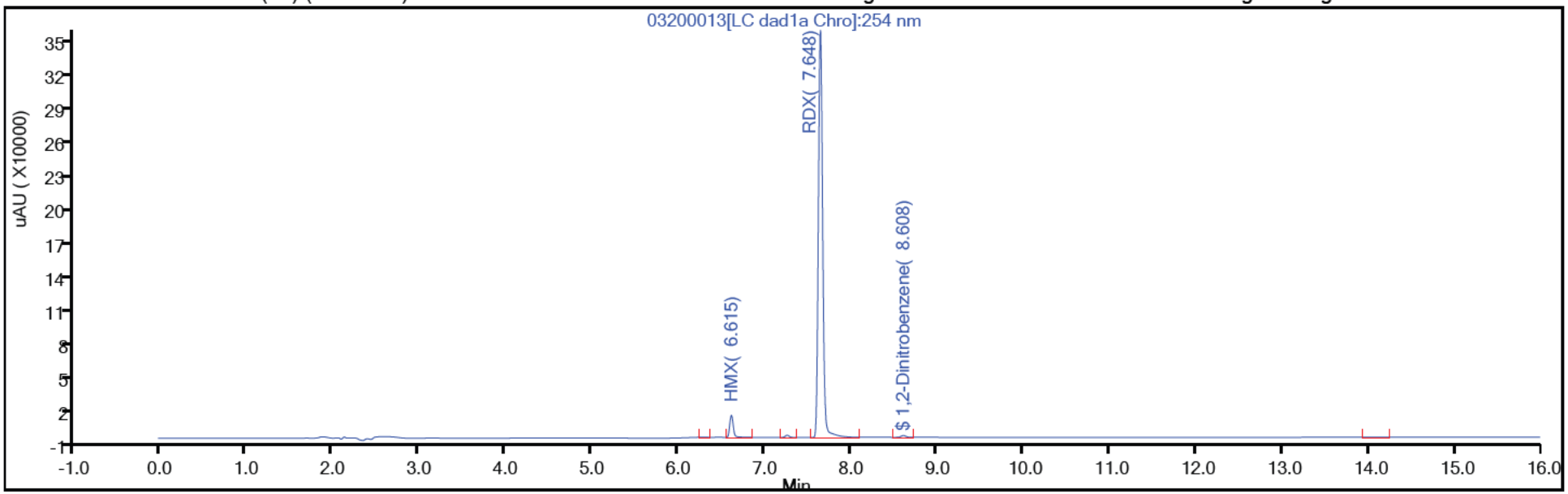
Report Date: 21-Mar-2024 12:36:21 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

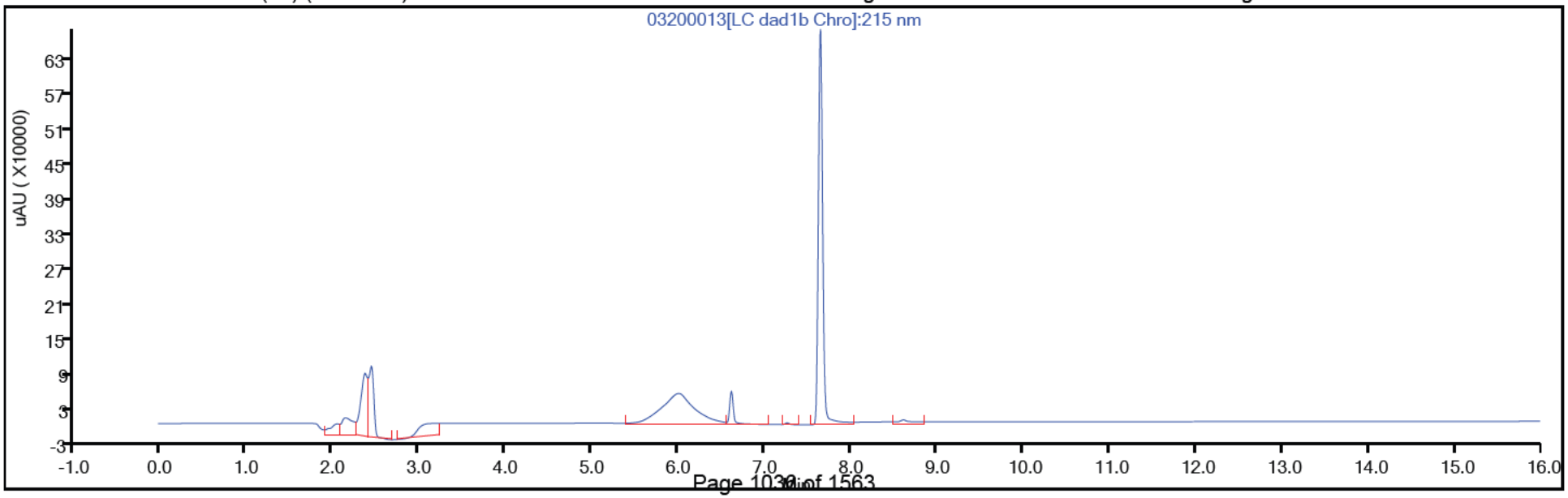
Data File: \\chromfs\denver\chromdata\chhplc_x\20240320-131364.b\03200013.d

Injection Date:	20-Mar-2024 18:15:16	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-3-B DL	Lab Sample ID:	280-188555-3	Worklist Smp#:	13
Client ID:	FD-03062401				
Injection Vol:	100.0 ul	Dil. Factor:	5.0000	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



Report Date: 21-Mar-2024 12:36:21 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\03200013.D				
Lims ID:	280-188555-B-3-B DL				
Client ID:	FD-03062401				
Sample Type:	Client				
Inject. Date:	20-Mar-2024 18:15:16	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	5.0000		
Sample Info:	280-188555-B-3-B				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Mar-2024 12:36:17	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1668				
First Level Reviewer: LV5D		Date:	20-Mar-2024 18:42:43		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.0490	19.61

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: FD-03062401 DL2 | Lab Sample ID: 280-188555-3 DL2

Matrix: Solid | Lab File ID: 03200014.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:35

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.04(g) | Date Analyzed: 03/20/2024 18:38

Con. Extract Vol.: 40(mL) | Dilution Factor: 50

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 646567 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	250000	D Q	10000	5000	2100

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	0	D Q	78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\03200014.D
Lims ID: 280-188555-B-3-B DL
Client ID: FD-03062401
Sample Type: Client
Inject. Date: 20-Mar-2024 18:38:09 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 50.0000
Sample Info: 280-188555-B-3-B
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 12:36:17 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 20-Mar-2024 19:15:00

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2	2,6-diamino-4-nitrotoluene	1		6.496			ND	
4	HMX	1	6.612	6.614	-0.002	5836	0.0612	
5	2,4-diamino-6-nitrotoluene	1		6.683			ND	
8	RDX	1	7.646	7.640	0.006	130876	1.25	
9	2,4,6-Trinitrophenol	1		7.867			ND	
$ 10	1,2-Dinitrobenzene	1		8.594			ND	7
11	1,3,5-Trinitrobenzene	1		8.727			ND	
12	1,3-Dinitrobenzene	1		9.347			ND	
13	Nitrobenzene	1		9.713			ND	
14	3,5-Dinitroaniline	1		9.953			ND	
15	Tetryl	1		10.053			ND	
16	Nitroglycerin	2		10.513			ND	
17	2,4,6-Trinitrotoluene	1		10.953			ND	
18	4-Amino-2,6-dinitrotoluene	1		11.140			ND	
19	2-Amino-4,6-dinitrotoluene	1		11.393			ND	
20	2,6-Dinitrotoluene	1		11.540			ND	
21	2,4-Dinitrotoluene	1		11.713			ND	
22	o-Nitrotoluene	1		12.513			ND	
23	p-Nitrotoluene	1		12.933			ND	
24	m-Nitrotoluene	1		13.493			ND	
25	PETN	2		14.580			ND	

QC Flag Legend

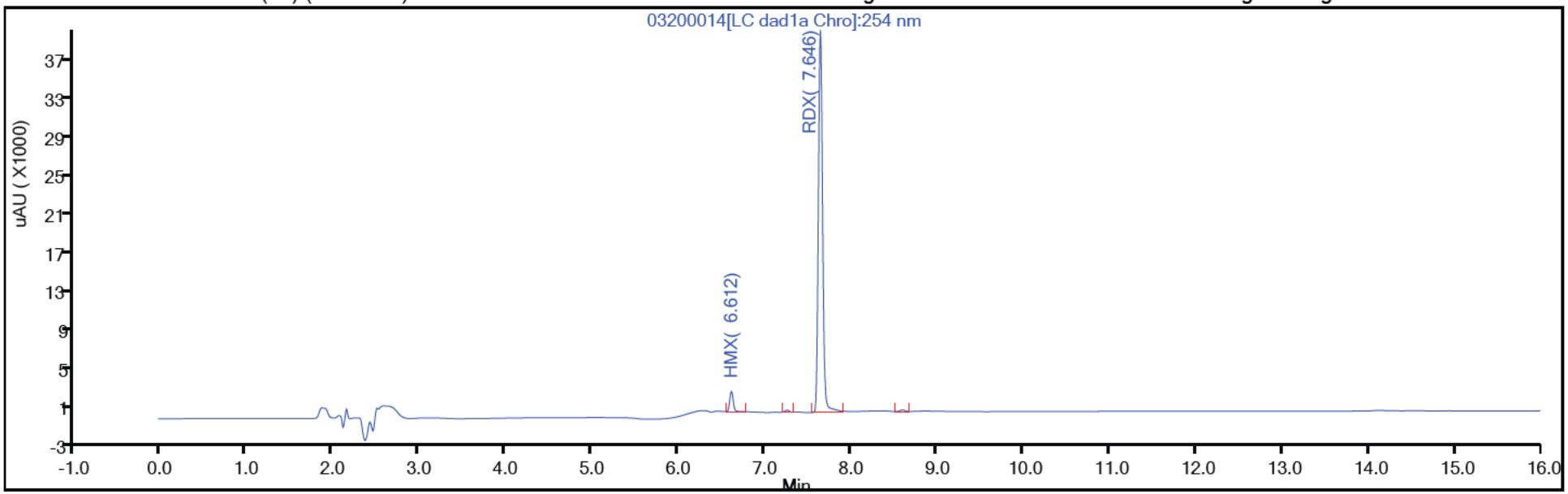
Processing Flags
7 - Failed Limit of Detection

Report Date: 21-Mar-2024 12:36:22 Chrom Revision: 2.3 23-Feb-2024 16:51:14

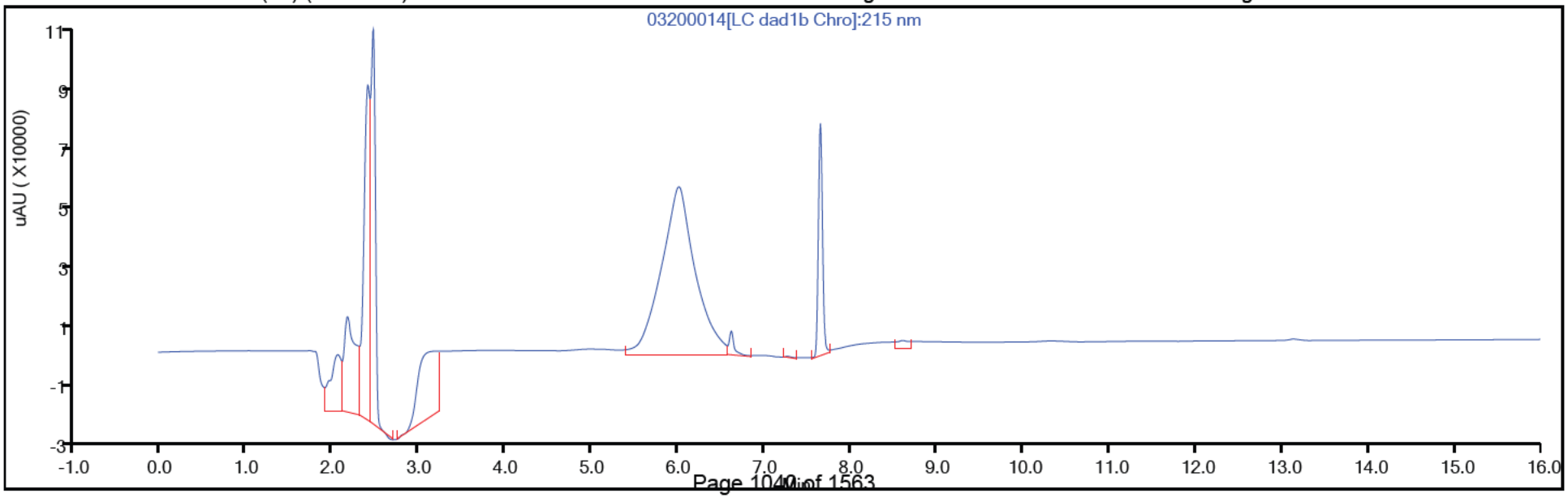
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240320-131364.b\03200014.d				
Injection Date:	20-Mar-2024 18:38:09	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-3-B DL	Lab Sample ID:	280-188555-3	Worklist Smp#:	14
Client ID:	FD-03062401				
Injection Vol:	100.0 ul	Dil. Factor:	50.0000	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



Report Date: 21-Mar-2024 12:36:22 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\03200014.D				
Lims ID:	280-188555-B-3-B DL				
Client ID:	FD-03062401				
Sample Type:	Client				
Inject. Date:	20-Mar-2024 18:38:09	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	50.0000		
Sample Info:	280-188555-B-3-B				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Mar-2024 12:36:17	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1668				

First Level Reviewer: LV5D Date: 20-Mar-2024 19:15:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0	0.00

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 | Lab Sample ID: 280-188555-4

Matrix: Solid | Lab File ID: 03190049.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.33(g) | Date Analyzed: 03/20/2024 07:52

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	39	U	97	39	13
99-65-0	1,3-Dinitrobenzene	39	U	97	39	16
618-87-1	3,5-Dinitroaniline	19	U	97	19	8.7
121-14-2	2,4-Dinitrotoluene	39	U	97	39	14
606-20-2	2,6-Dinitrotoluene	39	U	97	39	18
35572-78-2	2-Amino-4,6-dinitrotoluene	68	U	97	68	32
88-72-2	2-Nitrotoluene	97	U	190	97	46
99-08-1	3-Nitrotoluene	150	U	190	150	62
19406-51-0	4-Amino-2,6-dinitrotoluene	68	U	97	68	29
99-99-0	4-Nitrotoluene	97	U	190	97	35
98-95-3	Nitrobenzene	190	U	290	190	82
55-63-0	Nitroglycerin	680	U	1900	680	210
2691-41-0	HMX	68	U	97	68	22
78-11-5	PETN	970	U	1900	970	480
88-89-1	Picric acid	77	U J1	97	77	55
479-45-8	Tetryl	97	U	190	97	42
6629-29-4	2,4-diamino-6-nitrotoluene	970	U J1	1900	970	500
59229-75-3	2,6-diamino-4-nitrotoluene	970	U J1	1900	970	320

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190049.D
Lims ID: 280-188555-B-4-F
Client ID: X7-TP-C03-2436
Sample Type: Client
Inject. Date: 20-Mar-2024 07:52:53 ALS Bottle#: 49 Worklist Smp#: 49
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-F
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:00 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:27:13

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
1	Triamine Trinitrobenzene	1		2.444			ND	
2	2,6-diamino-4-nitrotoluene	1		6.496			ND	7
3	TNX	1		6.506			ND	
4	HMX	1		6.620			ND	
5	2,4-diamino-6-nitrotoluene	1		6.683			ND	
6	DNX	1		6.833			ND	
7	MNX	1		7.266			ND	
8	RDX	1	7.640	7.647	-0.007	1366	0.0125	
9	2,4,6-Trinitrophenol	1		7.874			ND	
$ 10	1,2-Dinitrobenzene	1	8.600	8.607	-0.007	32608	0.2514	
11	1,3,5-Trinitrobenzene	1		8.734			ND	
12	1,3-Dinitrobenzene	1		9.360			ND	
13	Nitrobenzene	1		9.727			ND	
14	3,5-Dinitroaniline	1		9.967			ND	
15	Tetryl	1		10.067			ND	
16	Nitroglycerin	2		10.533			ND	
17	2,4,6-Trinitrotoluene	1	10.933	10.967	-0.034	1858	0.008430	
18	4-Amino-2,6-dinitrotoluene	1		11.160			ND	
19	2-Amino-4,6-dinitrotoluene	1		11.420			ND	
20	2,6-Dinitrotoluene	1		11.560			ND	
21	2,4-Dinitrotoluene	1		11.740			ND	
22	o-Nitrotoluene	1		12.540			ND	
23	p-Nitrotoluene	1		12.960			ND	
24	m-Nitrotoluene	1		13.520			ND	
25	PETN	2		14.620			ND	
26	Ammonium Picrate	1		0.000			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

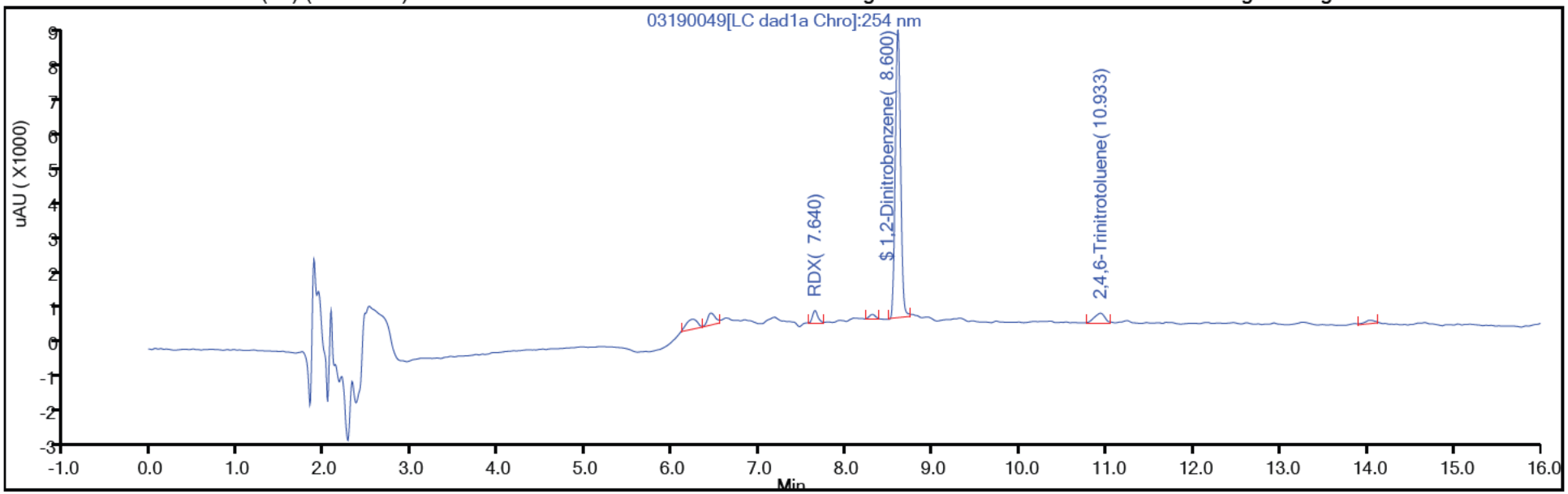
Report Date: 20-Mar-2024 12:29:01 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

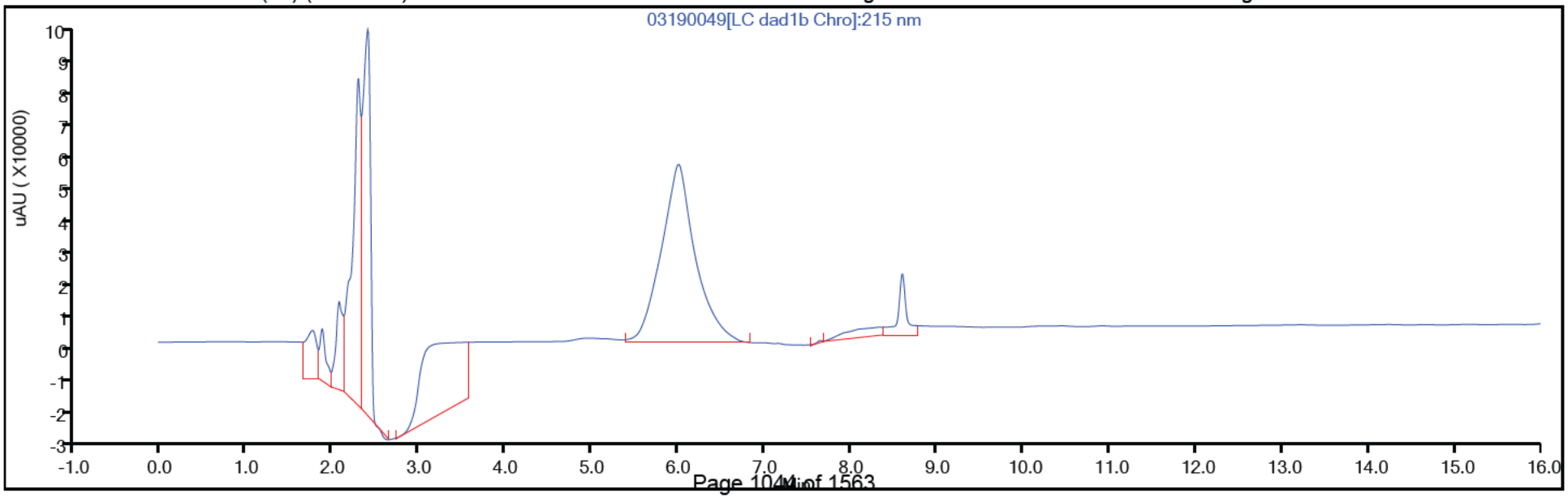
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190049.d

Injection Date:	20-Mar-2024 07:52:53	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-F	Lab Sample ID:	280-188555-4	Worklist Smp#:	49
Client ID:	X7-TP-C03-2436				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	49
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



Report Date: 20-Mar-2024 12:29:01 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190049.D				
Lims ID:	280-188555-B-4-F				
Client ID:	X7-TP-C03-2436				
Sample Type:	Client				
Inject. Date:	20-Mar-2024 07:52:53	ALS Bottle#:	49	Worklist Smp#:	49
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-4-F				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-Mar-2024 12:29:00	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1651				

First Level Reviewer: LV5D Date: 20-Mar-2024 12:27:13

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2514	100.58

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 | Lab Sample ID: 280-188555-4

Matrix: Solid | Lab File ID: 03200019.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.33(g) | Date Analyzed: 03/21/2024 00:28

Con. Extract Vol.: 40(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.: 646572 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	68	U	97	68	30
121-82-4	RDX	97	U M	190	97	42

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	*M*	78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200019.D
Lims ID: 280-188555-B-4-F
Client ID: X7-TP-C03-2436
Sample Type: Client
Inject. Date: 21-Mar-2024 00:28:07 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-F
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:17 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 16:16:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1		4.203			ND	7
2 2,4-diamino-6-nitrotoluene	1		4.783			ND	7
3 TNX	1		5.223			ND	
4 DNX	1		6.057			ND	U
6 HMX	1		6.649			ND	
7 MNX	1		7.530			ND	U
5 2,4,6-Trinitrophenol	1		8.449			ND	
8 RDX	1	8.750	8.842	-0.092	2192	0.0106	M
9 Nitrobenzene	1		11.422			ND	
$ 10 1,2-Dinitrobenzene	1	12.263	12.336	-0.073	62862	0.2448	M
11 3,5-Dinitroaniline	1		14.142			ND	U
12 1,3-Dinitrobenzene	1		14.456			ND	U
13 Nitroglycerin	2		14.896			ND	
14 o-Nitrotoluene	1		15.549			ND	7
15 p-Nitrotoluene	1		15.769			ND	
16 4-Amino-2,6-dinitrotoluene	1		16.249			ND	
17 m-Nitrotoluene	1		16.609			ND	U
18 2-Amino-4,6-dinitrotoluene	1		17.029			ND	
26 Triamine Trinitrobenzene	1		17.233			ND	
19 1,3,5-Trinitrobenzene	1		17.249			ND	U
20 2,6-Dinitrotoluene	1	18.310	18.376	-0.066	3902	0.0117	M
21 2,4-Dinitrotoluene	1		18.822			ND	
22 Tetryl	1		22.016			ND	
23 2,4,6-Trinitrotoluene	1		22.889			ND	7
24 PETN	2		24.036			ND	7
25 Ammonium Picrate	1		0.000			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

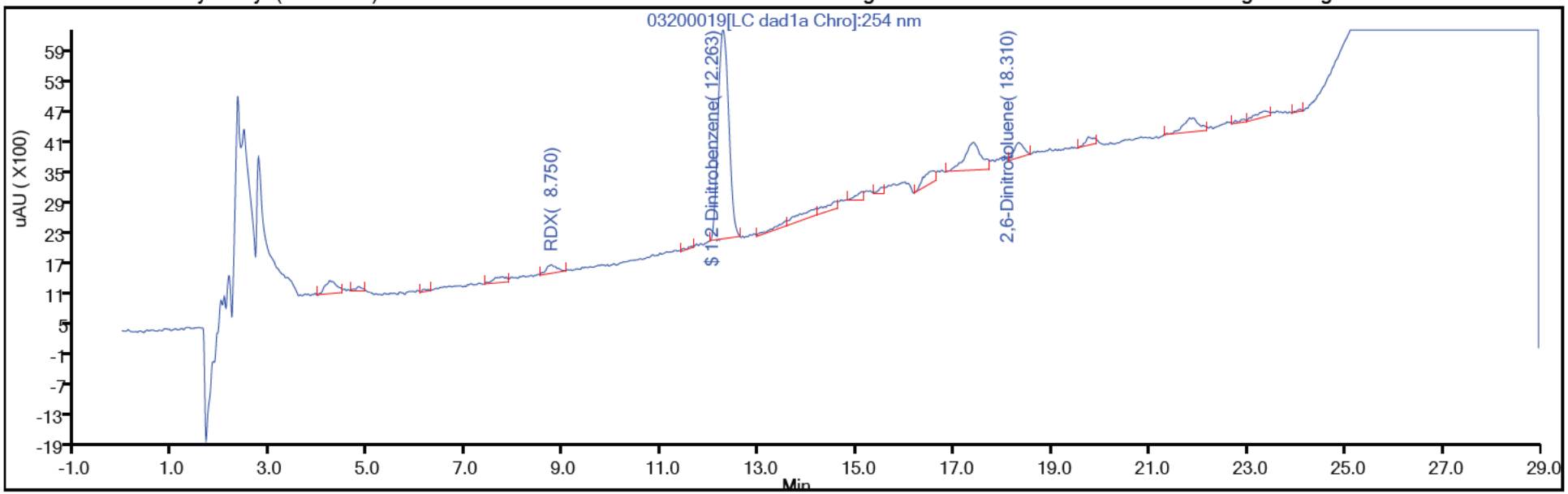
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 21-Mar-2024 16:20:18 Chrom Revision: 2.3 23-Feb-2024 16:51:14

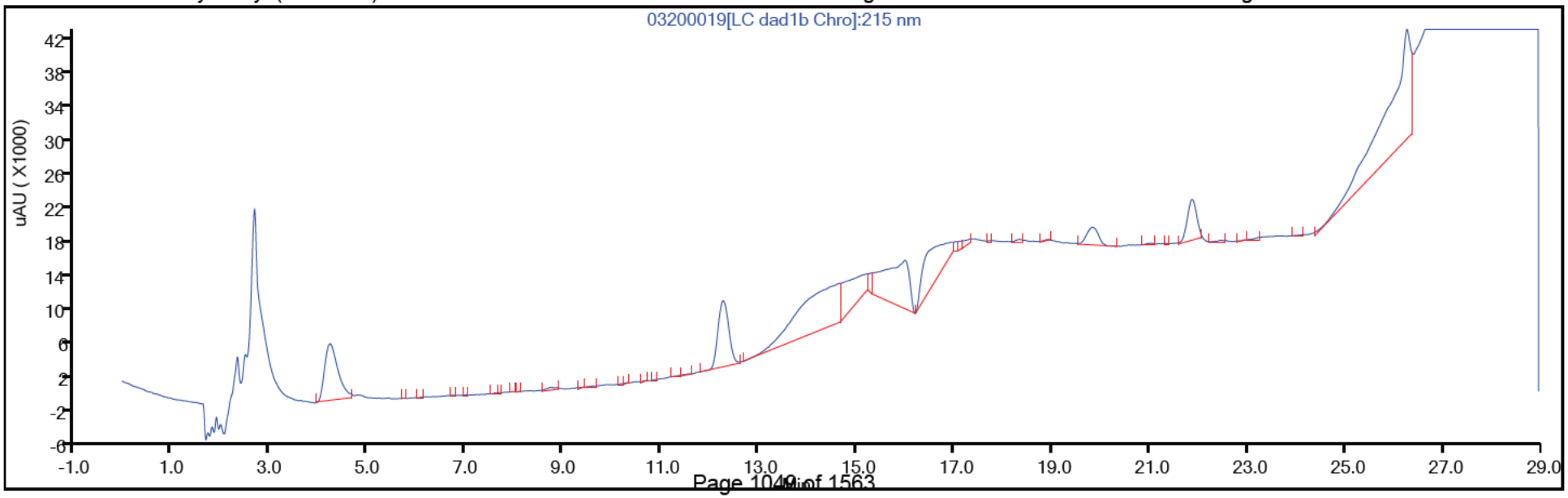
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200019.d				
Injection Date:	21-Mar-2024 00:28:07	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-F	Lab Sample ID:	280-188555-4	Worklist Smp#:	19
Client ID:	X7-TP-C03-2436				
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



Report Date: 21-Mar-2024 16:20:18 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200019.D
Lims ID: 280-188555-B-4-F
Client ID: X7-TP-C03-2436
Sample Type: Client
Inject. Date: 21-Mar-2024 00:28:07 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-F
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:17 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 16:16:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2448	97.93

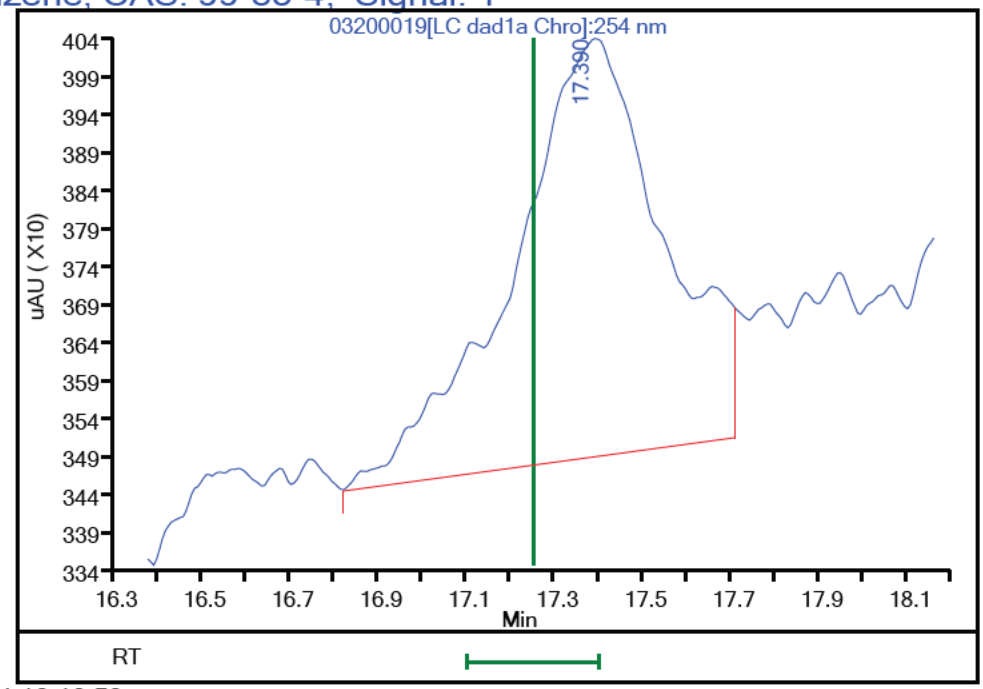
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200019.d				
Injection Date:	21-Mar-2024 00:28:07	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-F	Lab Sample ID:	280-188555-4		
Client ID:	X7-TP-C03-2436				
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 DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 17.39
Response: 12944
Amount: 0.031446



Reviewer: LV5D, 21-Mar-2024 16:16:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

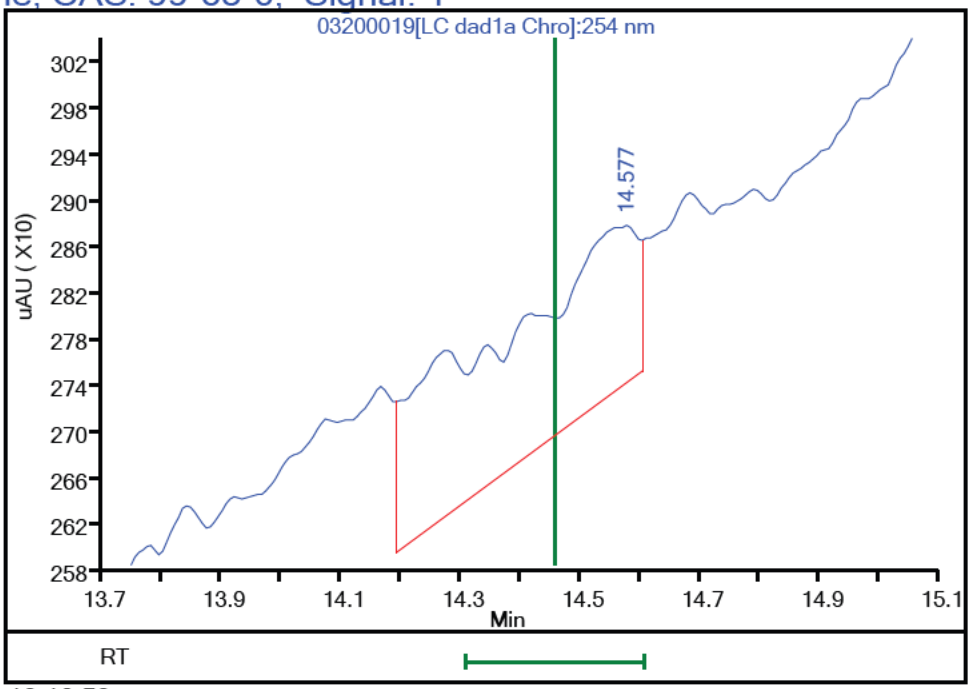
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200019.d				
Injection Date:	21-Mar-2024 00:28:07	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-F	Lab Sample ID:	280-188555-4		
Client ID:	X7-TP-C03-2436				
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 DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 14.58
Response: 3032
Amount: 0.005232



Reviewer: LV5D, 21-Mar-2024 16:16:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

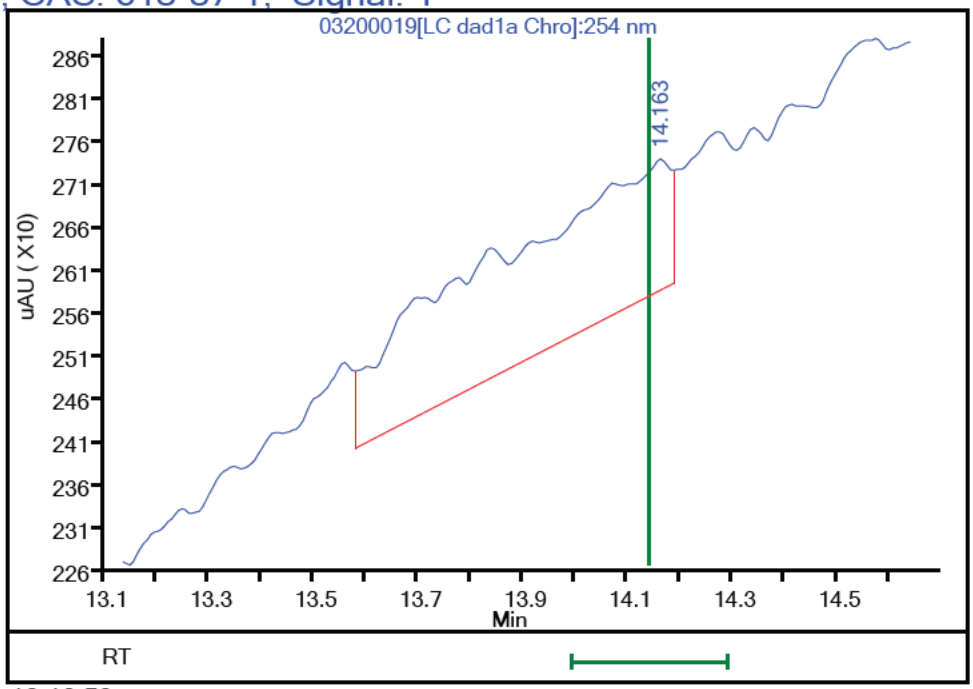
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200019.d				
Injection Date:	21-Mar-2024 00:28:07	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-F	Lab Sample ID:	280-188555-4		
Client ID:	X7-TP-C03-2436				
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 DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1, Signal: 1

RT: 14.16
Response: 4747
Amount: 0.010621



Reviewer: LV5D, 21-Mar-2024 16:16:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

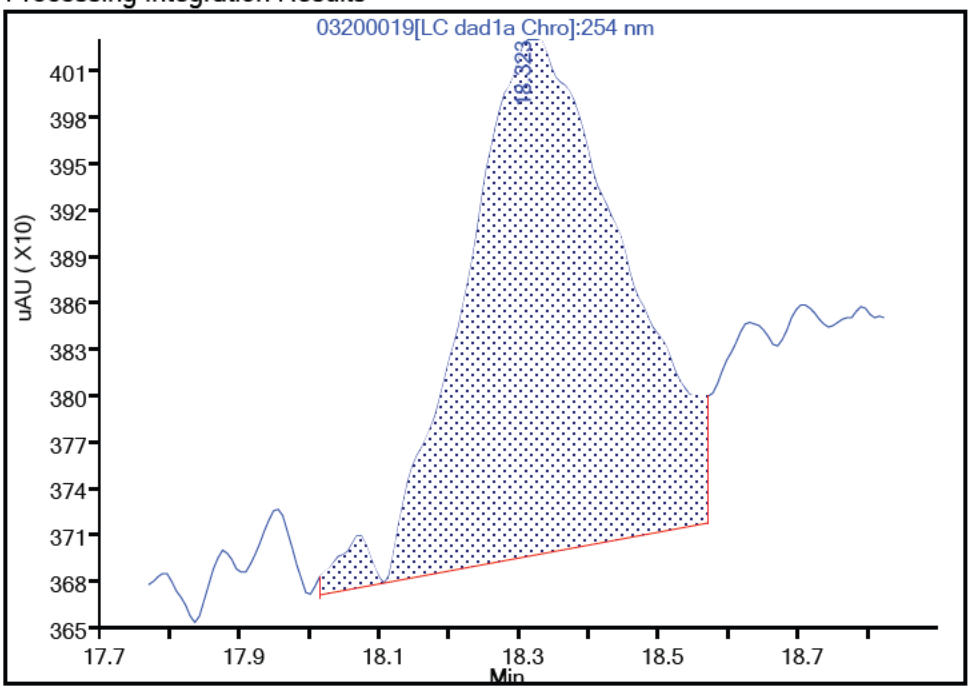
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200019.d				
Injection Date:	21-Mar-2024 00:28:07	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-F	Lab Sample ID:	280-188555-4		
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

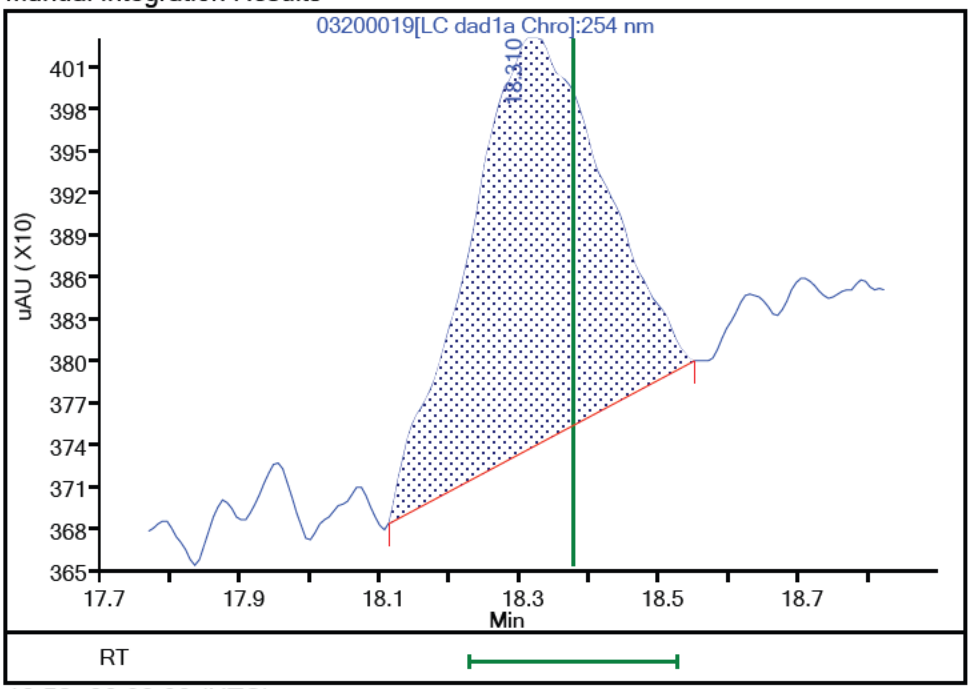
Processing Integration Results

RT: 18.32
Area: 5235
Amount: 0.016766
Amount Units: ug/ml



Manual Integration Results

RT: 18.31
Area: 3902
Amount: 0.011653
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:16:58 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

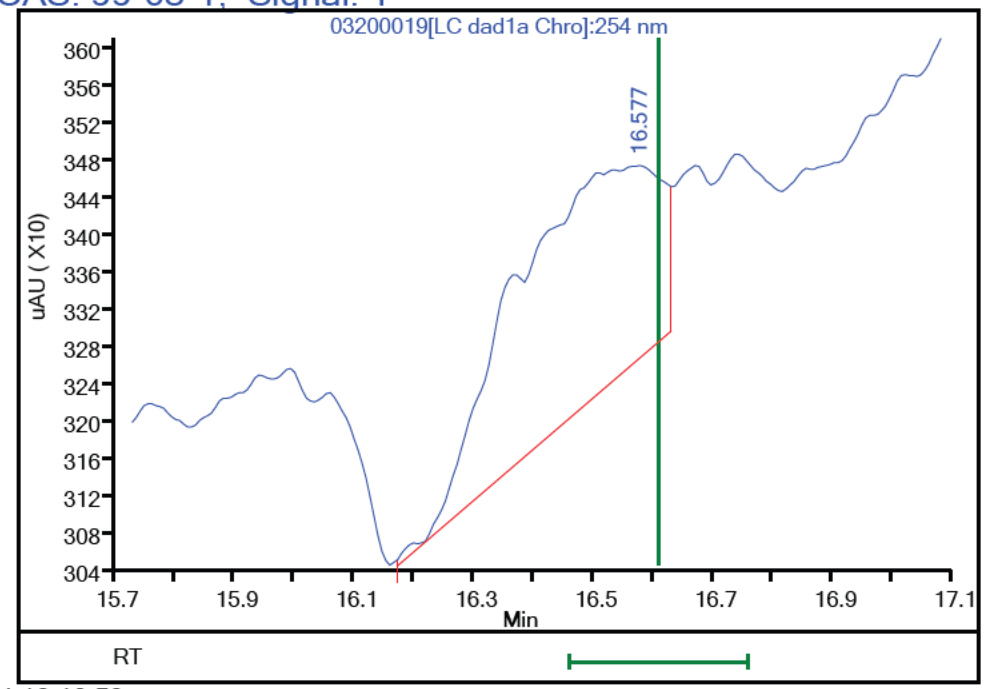
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200019.d				
Injection Date:	21-Mar-2024 00:28:07	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-F	Lab Sample ID:	280-188555-4		
Client ID:	X7-TP-C03-2436				
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 DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 16.58
Response: 4218
Amount: 0.011257



Reviewer: LV5D, 21-Mar-2024 16:16:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

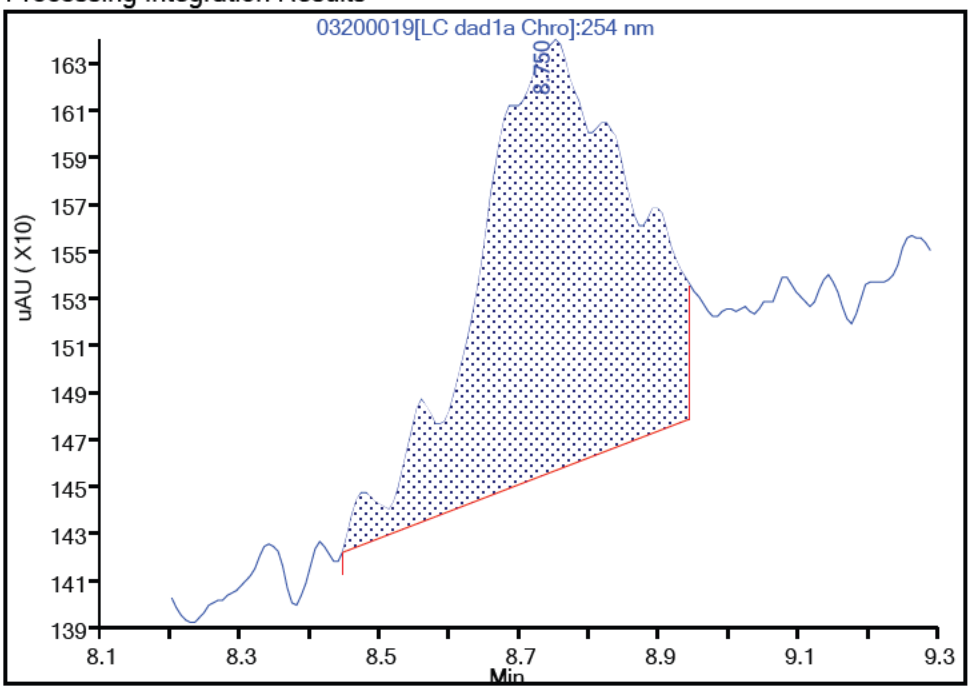
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200019.d				
Injection Date:	21-Mar-2024 00:28:07	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-F	Lab Sample ID:	280-188555-4		
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

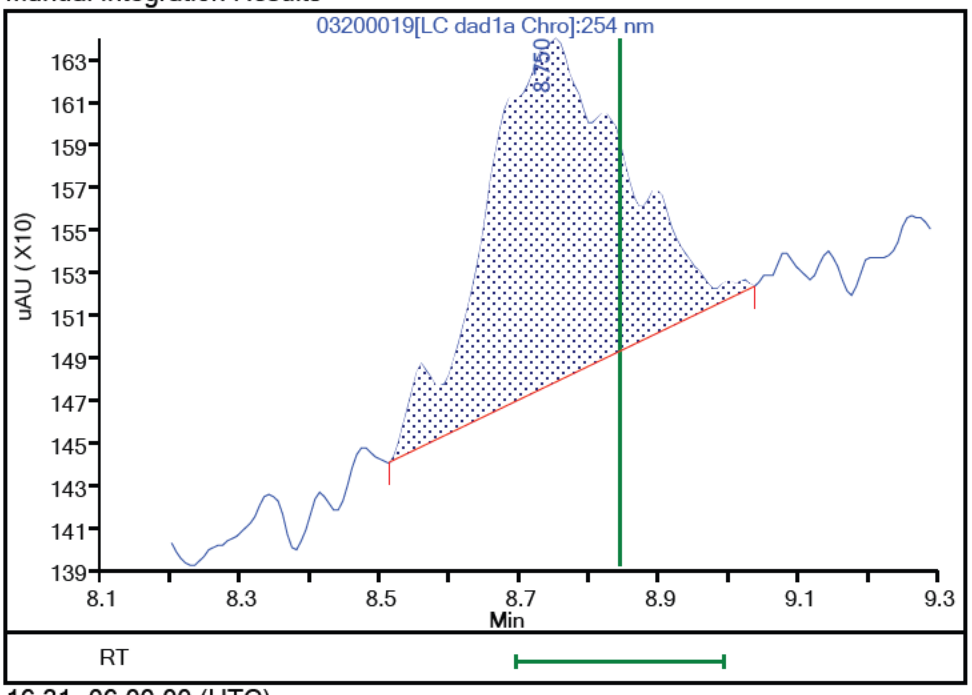
Processing Integration Results

RT: 8.75
Area: 2697
Amount: 0.012992
Amount Units: ug/ml



Manual Integration Results

RT: 8.75
Area: 2192
Amount: 0.010559
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:16:31 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

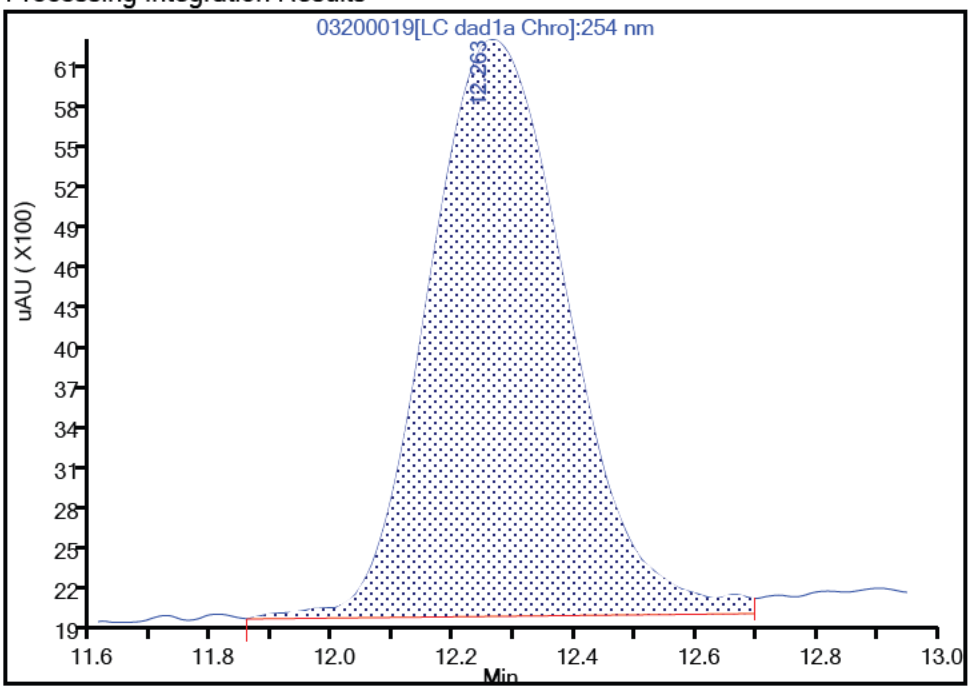
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200019.d				
Injection Date:	21-Mar-2024 00:28:07	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-F	Lab Sample ID:	280-188555-4		
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

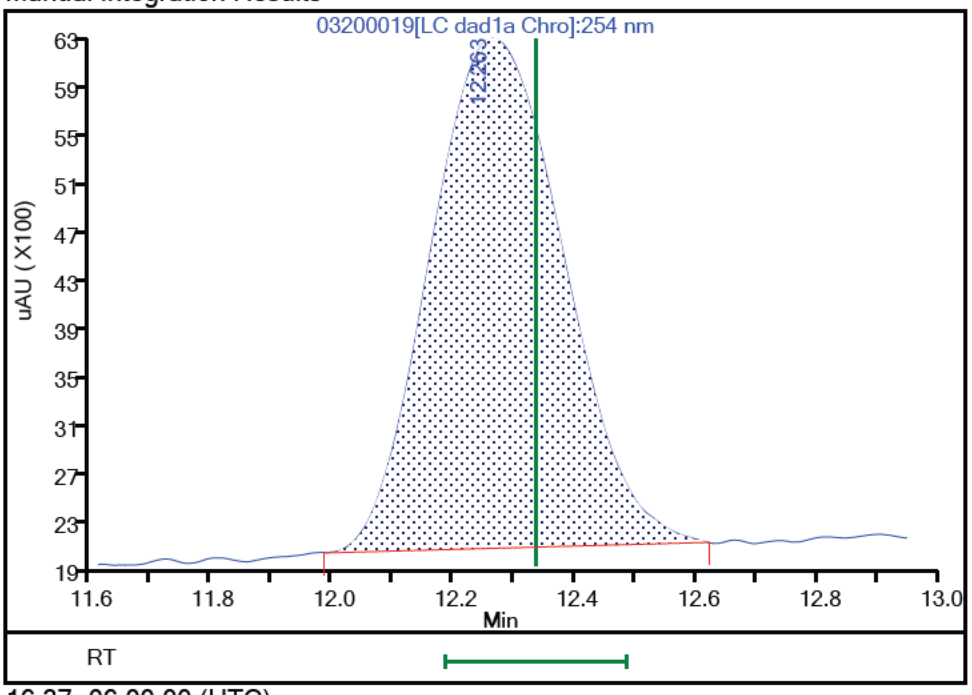
Processing Integration Results

RT: 12.26
Area: 67501
Amount: 0.262882
Amount Units: ug/ml



Manual Integration Results

RT: 12.26
Area: 62862
Amount: 0.244815
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:16:37 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 | Calibration End Date: 09/25/2023 23:30 | Calibration ID: 84932

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/18	09250018.D
Level 2	IC 280-627290/17	09250017.D
Level 3	IC 280-627290/16	09250016.D
Level 4	IC 280-627290/15	09250015.D
Level 5	IC 280-627290/14	09250014.D
Level 6	IC 280-627290/13	09250013.D
Level 7	IC 280-627290/12	09250012.D
Level 8	IC 280-627290/11	09250011.D
Level 9	IC 280-627290/10	09250010.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
TNX	5.278	5.285	5.289	5.281	5.291	5.285	5.261	5.260	5.185		5.141 - 5.441	5.268
DNX	6.124	6.131	6.135	6.127	6.144	6.131	6.108	6.107	6.025		5.994 - 6.294	6.115
HMX	6.771	6.771	6.782	6.767	6.791	6.778	6.761	6.760	6.698		6.641 - 6.941	6.764
MNX	7.624	7.618	7.629	7.621	7.644	7.625	7.608	7.600	7.525		7.494 - 7.794	7.610
Picric acid	+++++	8.678	8.689	8.654	8.664	8.618	8.568	8.540	8.458		8.514 - 8.814	8.609
RDX	9.011	9.005	9.022	9.001	9.038	9.011	8.988	8.987	8.911		8.888 - 9.188	8.997
Nitrobenzene	11.551	11.551	11.575	11.567	11.598	11.564	11.541	11.540	11.458		11.448 - 11.748	11.549
3,5-Dinitroaniline	14.364	14.338	14.375	14.367	14.378	14.351	14.321	14.327	14.278		14.228 - 14.528	14.344
1,3-Dinitrobenzene	14.664	14.638	14.669	14.661	14.671	14.651	14.614	14.627	14.558		14.521 - 14.821	14.639
Nitroglycerin	15.091	15.064	15.115	15.107	15.111	15.098	15.054	15.074	15.031		14.961 - 15.261	15.083
2-Nitrotoluene	15.697	15.684	15.742	15.721	15.738	15.718	15.667	15.687	15.645		15.588 - 15.888	15.700
4-Nitrotoluene	15.931	15.911	15.969	15.941	15.958	15.938	15.887	15.907	15.731		15.808 - 16.108	15.908
4-Amino-2,6-dinitrotoluene	16.437	16.424	16.475	16.461	16.478	16.451	16.394	16.420	16.365		16.328 - 16.628	16.434
3-Nitrotoluene	16.751	16.744	16.802	16.781	16.804	16.778	16.721	16.747	16.691		16.654 - 16.954	16.758
2-Amino-4,6-dinitrotoluene	17.237	17.224	17.282	17.254	17.284	17.251	17.201	17.220	17.191		17.134 - 17.434	17.238
1,3,5-Trinitrobenzene	17.451	17.444	17.489	17.467	17.498	17.471	17.427	17.447	17.385		17.348 - 17.648	17.453
2,6-Dinitrotoluene	18.557	18.524	18.589	18.567	18.598	18.564	18.514	18.534	18.485		18.448 - 18.748	18.548
2,4-Dinitrotoluene	19.017	18.984	19.042	19.021	19.051	19.018	18.974	18.987	18.938		18.901 - 19.201	19.004
Tetryl	22.224	22.191	22.235	22.247	22.244	22.211	22.181	22.207	22.171		22.094 - 22.394	22.212
2,4,6-Trinitrotoluene	23.091	23.045	23.089	23.107	23.104	23.071	23.041	23.074	23.031		22.954 - 23.254	23.073
PETN	24.184	24.171	24.215	24.227	24.211	24.205	24.174	24.200	24.165		24.061 - 24.361	24.195
1,2-Dinitrobenzene	12.491	12.484	12.522	12.514	12.538	12.504	12.481	12.487	12.418		12.388 - 12.688	12.493

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 Calibration End Date: 09/25/2023 23:30 Calibration ID: 84932

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/18	09250018.D
Level 2	IC 280-627290/17	09250017.D
Level 3	IC 280-627290/16	09250016.D
Level 4	IC 280-627290/15	09250015.D
Level 5	IC 280-627290/14	09250014.D
Level 6	IC 280-627290/13	09250013.D
Level 7	IC 280-627290/12	09250012.D
Level 8	IC 280-627290/11	09250011.D
Level 9	IC 280-627290/10	09250010.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	461815 386971 363369	439232 373382	395174 367864	375773 388097	Lin2	957.197858	374554.929							0.9990		0.9900
DNX	321079 286981 266689	310490 276766	295504 272356	279421 284871	Ave		288239.568				6.2		20.0			
HMX	187300 179432 168868	156250 172885	177940 173956	169980 174631	Ave		173471.302				4.9		20.0			
MNX	264010 265964 244927	269623 255820	281988 250402	258920 264764	Ave		261824.305				4.2		20.0			
Picric acid	+++++ 142912 136394	148000 140230	145400 143551	144480 146441	Ave		143426.054				2.6		20.0			
RDX	236600 208856 200608	202700 202463	207060 204396	201330 204269	Ave		207586.757				5.4		20.0			
Nitrobenzene	381000 376684 370304	344350 367558	371820 376931	379810 374071	Ave		371391.992				3.0		20.0			
3,5-Dinitroaniline	462200 427448 367838	403550 420503	409760 426466	420280 426959	Lin2	391.186606	410104.490							0.9970		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 Calibration End Date: 09/25/2023 23:30 Calibration ID: 84932

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
1,3-Dinitrobenzene	667900 570764 609314	558000 556443	550320 568996	563490 570540	Ave		579529.535				6.4		20.0			
Nitroglycerin	133480 123608 118790	129650 119635	122900 122194	125699 121979	Ave		124214.981				3.8		20.0			
2-Nitrotoluene	275300 244024 223277	270800 237488	255000 241927	237780 237729	Ave		247036.094				6.8		20.0			
4-Nitrotoluene	286200 214680 224139	258900 213293	233340 216681	224490 217115	Lin2	723.584713	216871.385							0.9990		0.9900
4-Amino-2,6-dinitrotoluene	398000 273612 265643	349200 268898	302300 273259	276790 272622	Lin2	1351.95034	269373.383							0.9990		0.9900
3-Nitrotoluene	385300 273744 266326	333950 269443	291580 272884	285160 271165	Lin2	1184.33387	269480.350							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	534900 393220 341806	409450 389805	413320 393520	391220 388664	Lin2	1423.09870	376274.684							0.9960		0.9900
1,3,5-Trinitrobenzene	415900 402060 432159	439000 393045	417600 396387	407530 400996	Ave		411630.771				3.9		20.0			
2,6-Dinitrotoluene	336000 266056 260065	335800 260443	254960 265649	265940 265199	Lin2	863.540612	260735.329							0.9960		0.9900
2,4-Dinitrotoluene	575300 543600 530117	562050 531333	546420 539851	537340 539776	Ave		545087.414				2.7		20.0			
Tetryl	361500 307496 296672	300850 298368	308000 304430	292480 305263	Ave		308339.878				6.7		20.0			
2,4,6-Trinitrotoluene	371200 396660 387636	326400 389068	405940 393427	397150 397391	Ave		384985.783				6.2		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 Calibration End Date: 09/25/2023 23:30 Calibration ID: 84932

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	115960 128038 128625	105375 128664	115184 130621	123328 131308	Ave		123011.399				7.3		20.0			
1,2-Dinitrobenzene	305200 258584 251560	220950 251193	256740 255347	255720 255664	Ave		256773.116				8.4		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 | Calibration End Date: 09/25/2023 23:30 | Calibration ID: 84932

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/18	09250018.D
Level 2	IC 280-627290/17	09250017.D
Level 3	IC 280-627290/16	09250016.D
Level 4	IC 280-627290/15	09250015.D
Level 5	IC 280-627290/14	09250014.D
Level 6	IC 280-627290/13	09250013.D
Level 7	IC 280-627290/12	09250012.D
Level 8	IC 280-627290/11	09250011.D
Level 9	IC 280-627290/10	09250010.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
TNX	Lin2	4632 149801	8811 258277	19818 389261	37690 911149	97033	0.0100 0.401	0.0201 0.702	0.0502 1.00	0.100 2.51	0.251
DNX	Ave	3214 110817	6216 190840	14790 285156	27970 667388	71817	0.0100 0.400	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250
HMX	Ave	1873 69154	3125 121769	8897 174631	16998 422170	44858	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
MNX	Ave	3081 119417	6293 204553	16454 308980	30216 714574	77595	0.0117 0.467	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292
Picric acid	Ave	+++++ 56092	2960 100486	7270 146441	14448 340985	35728	+++++ 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	2366 80985	4054 143077	10353 204269	20133 501519	52214	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	3810 147023	6887 263852	18591 374071	37981 925760	94171	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	4622 168201	8071 298526	20488 426959	42028 919595	106862	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	6679 222577	11160 398297	27516 570540	56349 1523284	142691	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	13348 478538	25930 855360	61450 1219790	125699 2969741	309021	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	2753 94995	5416 169349	12750 237729	23778 558193	61006	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Lin2	2862 85317	5178 151677	11667 217115	22449 560347	53670	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Lin2	3980 107559	6984 191281	15115 272622	27679 664108	68403	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Lin2	3853 107777	6679 191019	14579 271165	28516 665814	68436	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Lin2	5349	8189	20666	39122	98305	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.: 280-188555-1 | Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 | Calibration End Date: 09/25/2023 23:30 | Calibration ID: 84932

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
		155922	275464	388664	854516		0.400	0.700	1.00	2.50	
1,3,5-Trinitrobenzene	Ave	4159 157218	8780 277471	20880 400996	40753 1080397	100515	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,6-Dinitrotoluene	Lin2	3360 104177	6716 185954	12748 265199	26594 650162	66514	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	5753 212533	11241 377896	27321 539776	53734 1325292	135900	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	3615 119347	6017 213101	15400 305263	29248 741681	76874	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4,6-Trinitrotoluene	Ave	3712 155627	6528 275399	20297 397391	39715 969091	99165	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Ave	11596 514656	21075 914344	57592 1313083	123328 3215628	320094	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	3052 100477	4419 178743	12837 255664	25572 628901	64646	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\G2_LUNA\20230925-125782.b\09250010.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 25-Sep-2023 18:42:00 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*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:33 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 13:59:14

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.185	5.291	-0.106	911149	2.51	2.43	
4 DNX	1	6.025	6.144	-0.119	667388	2.50	2.32	
6 HMX	1	6.698	6.791	-0.093	422170	2.50	2.43	
7 MNX	1	7.525	7.644	-0.119	714574	2.92	2.73	
5 2,4,6-Trinitrophenol	1	8.458	8.664	-0.206	340985	2.50	2.38	
8 RDX	1	8.911	9.038	-0.127	501519	2.50	2.42	
9 Nitrobenzene	1	11.458	11.598	-0.140	925760	2.50	2.49	
$ 10 1,2-Dinitrobenzene	1	12.418	12.538	-0.120	628901	2.50	2.45	
11 3,5-Dinitroaniline	1	14.278	14.378	-0.100	919595	2.50	2.24	
12 1,3-Dinitrobenzene	1	14.558	14.671	-0.113	1523284	2.50	2.63	
13 Nitroglycerin	2	15.031	15.111	-0.080	2969741	25.0	23.9	
14 o-Nitrotoluene	1	15.645	15.738	-0.093	558193	2.50	2.26	M
15 p-Nitrotoluene	1	15.731	15.958	-0.227	560347	2.50	2.58	Ma
16 4-Amino-2,6-dinitrotoluene	1	16.365	16.478	-0.113	664108	2.50	2.46	
17 m-Nitrotoluene	1	16.691	16.804	-0.113	665814	2.50	2.47	
18 2-Amino-4,6-dinitrotoluene	1	17.191	17.284	-0.093	854516	2.50	2.27	
19 1,3,5-Trinitrobenzene	1	17.385	17.498	-0.113	1080397	2.50	2.62	
20 2,6-Dinitrotoluene	1	18.485	18.598	-0.113	650162	2.50	2.49	
21 2,4-Dinitrotoluene	1	18.938	19.051	-0.113	1325292	2.50	2.43	
22 Tetryl	1	22.171	22.244	-0.073	741681	2.50	2.41	
23 2,4,6-Trinitrotoluene	1	23.031	23.104	-0.073	969091	2.50	2.52	
24 PETN	2	24.165	24.211	-0.046	3215628	25.0	26.1	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00078	Amount Added: 250.00	Units: uL
8330 DMT_00015	Amount Added: 125.00	Units: uL

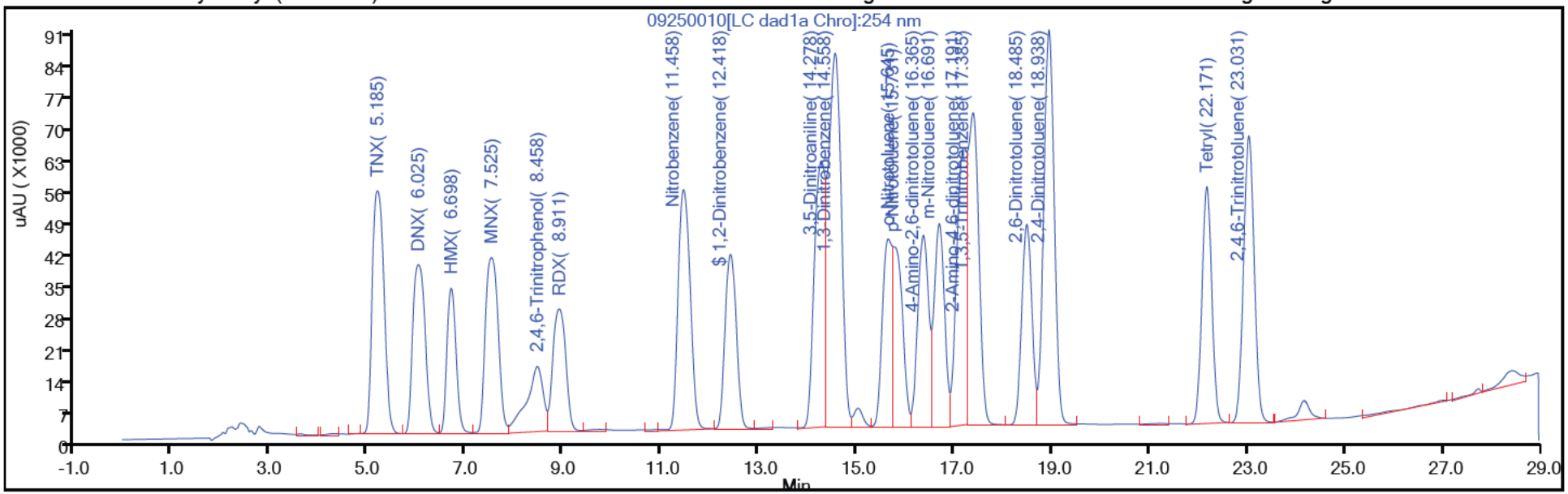
Report Date: 26-Sep-2023 15:25:33 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

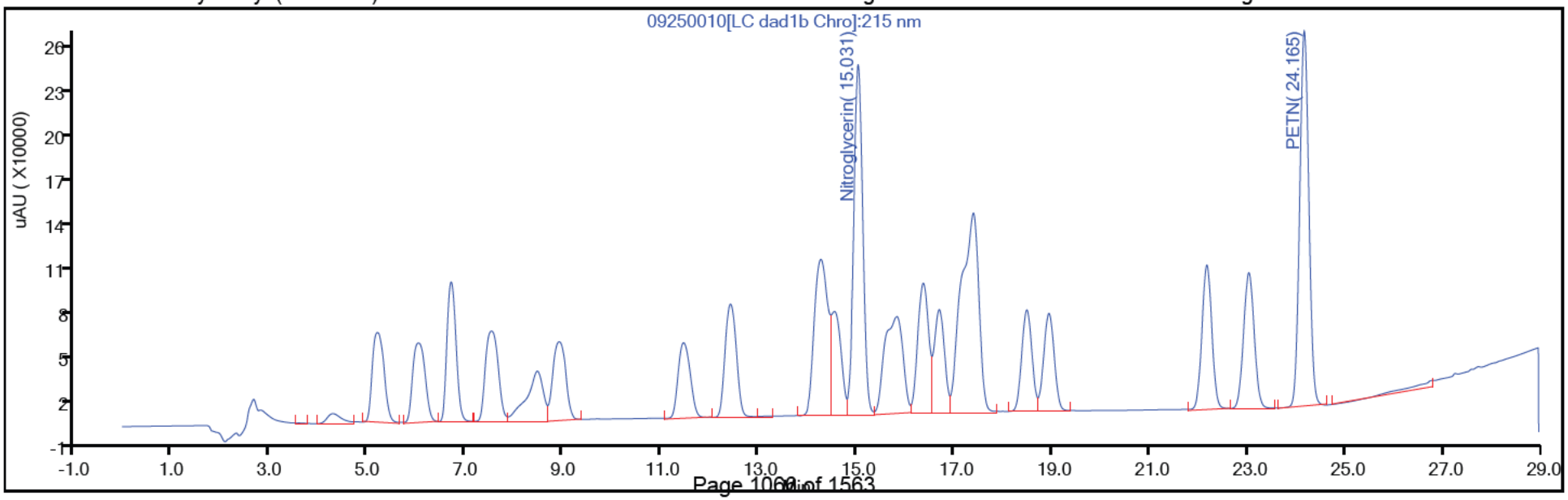
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250010.d

Injection Date:	25-Sep-2023 18:42:00	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



Manual Integration/User Assign Peak Report

Eurofins Denver

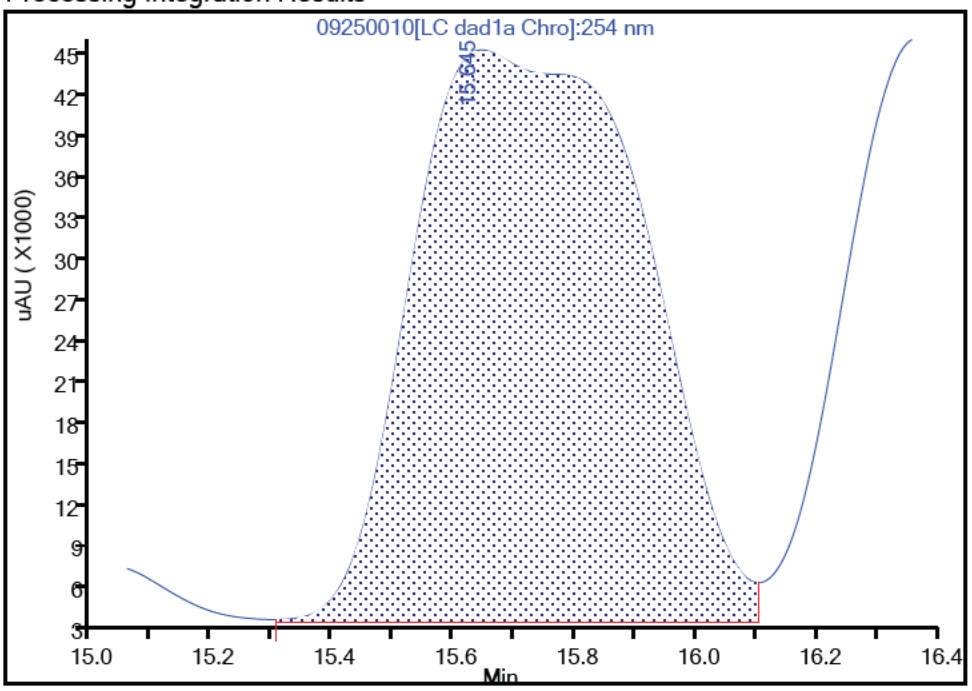
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250010.d				
Injection Date:	25-Sep-2023 18:42:00	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

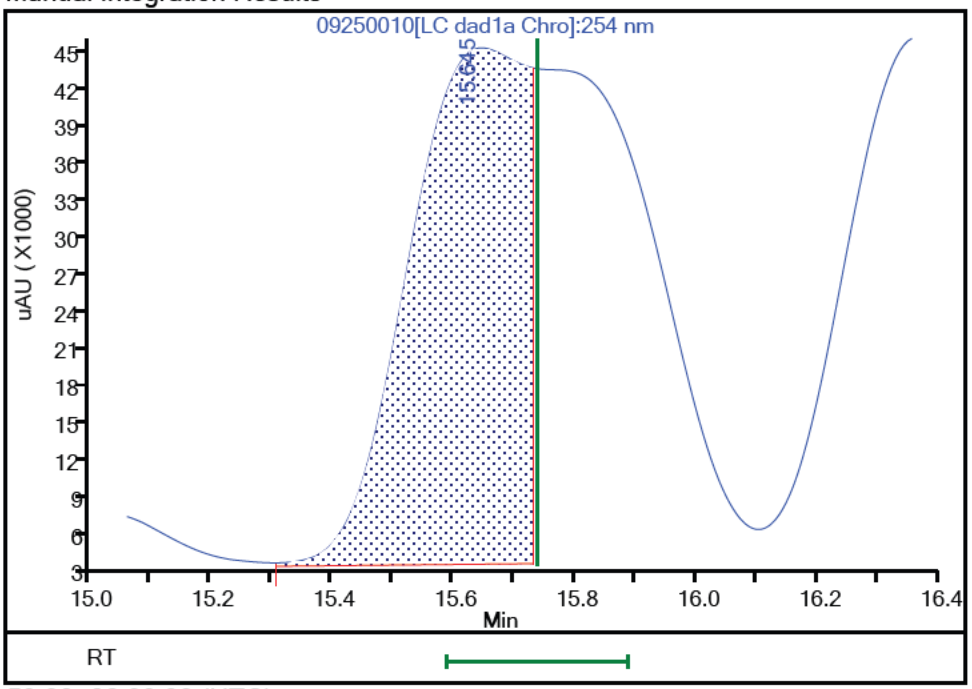
Processing Integration Results

RT: 15.64
Area: 1118542
Amount: 3.449139
Amount Units: ug/ml



Manual Integration Results

RT: 15.64
Area: 558193
Amount: 2.259561
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 13:59:00 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

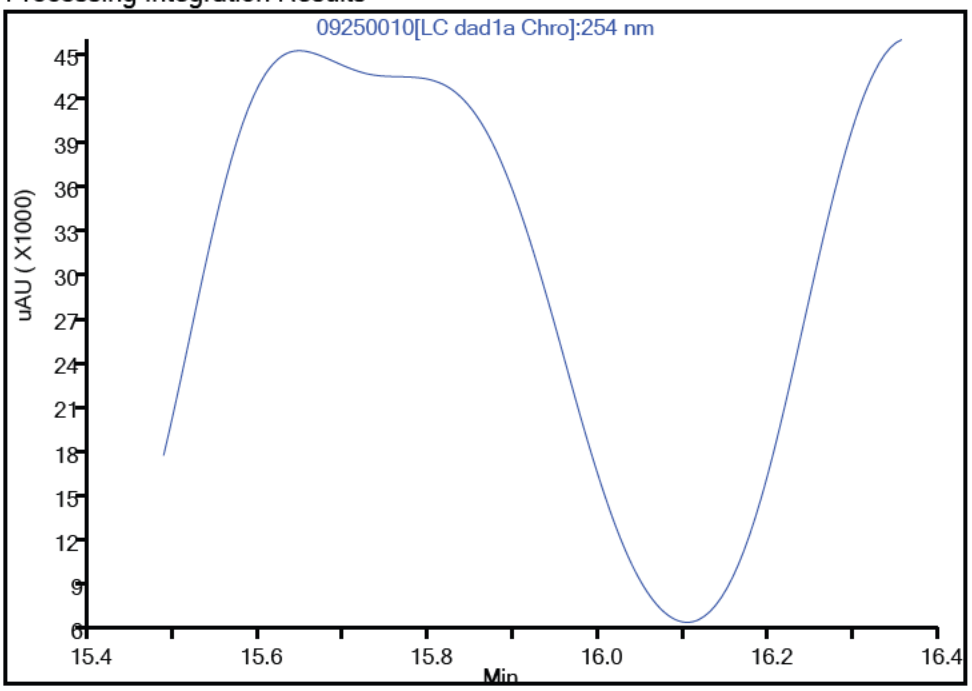
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250010.d				
Injection Date:	25-Sep-2023 18:42:00	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

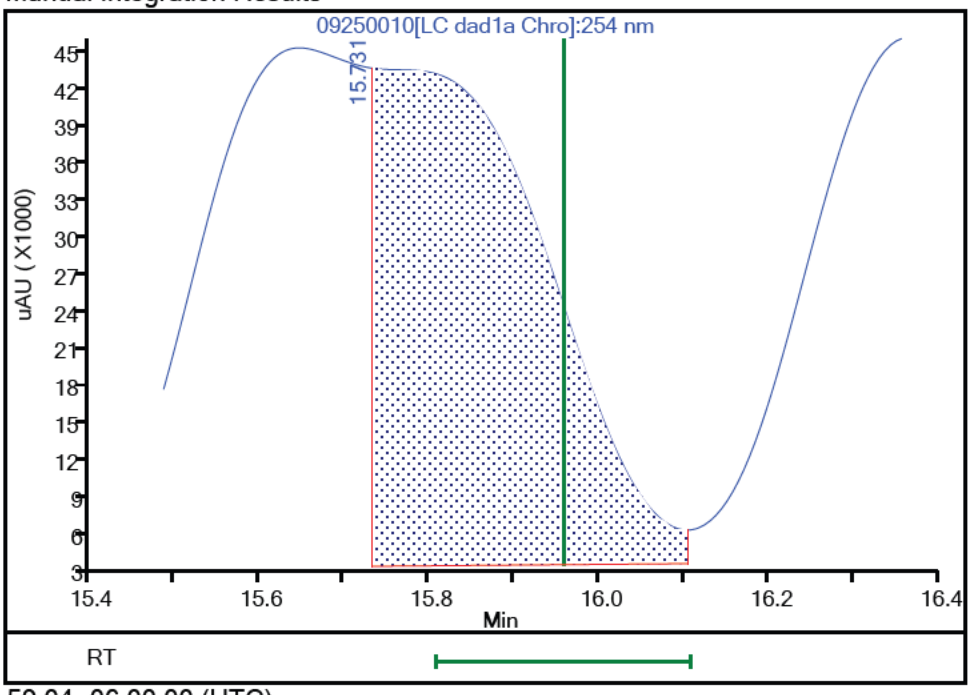
Not Detected
Expected RT: 15.96

Processing Integration Results



Manual Integration Results

RT: 15.73
Area: 560347
Amount: 2.580439
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 13:59:04 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250011.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 25-Sep-2023 19:17:58 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*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:34 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 13:59:25

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.260	5.291	-0.031	389261	1.00	1.04	
4 DNX	1	6.107	6.144	-0.037	285156	1.00	0.9893	
6 HMX	1	6.760	6.791	-0.031	174631	1.00	1.01	
7 MNX	1	7.600	7.644	-0.044	308980	1.17	1.18	
5 2,4,6-Trinitrophenol	1	8.540	8.664	-0.124	146441	1.00	1.02	
8 RDX	1	8.987	9.038	-0.051	204269	1.00	0.9840	
9 Nitrobenzene	1	11.540	11.598	-0.058	374071	1.00	1.01	
$ 10 1,2-Dinitrobenzene	1	12.487	12.538	-0.051	255664	1.00	1.00	
11 3,5-Dinitroaniline	1	14.327	14.378	-0.051	426959	1.00	1.04	
12 1,3-Dinitrobenzene	1	14.627	14.671	-0.044	570540	1.00	0.9845	
13 Nitroglycerin	2	15.074	15.111	-0.037	1219790	10.0	9.82	
14 o-Nitrotoluene	1	15.687	15.738	-0.051	237729	1.00	0.9623	
15 p-Nitrotoluene	1	15.907	15.958	-0.051	217115	1.00	1.00	
16 4-Amino-2,6-dinitrotoluene	1	16.420	16.478	-0.058	272622	1.00	1.01	
17 m-Nitrotoluene	1	16.747	16.804	-0.057	271165	1.00	1.00	
18 2-Amino-4,6-dinitrotoluene	1	17.220	17.284	-0.064	388664	1.00	1.03	
19 1,3,5-Trinitrobenzene	1	17.447	17.498	-0.051	400996	1.00	0.9742	
20 2,6-Dinitrotoluene	1	18.534	18.598	-0.064	265199	1.00	1.01	
21 2,4-Dinitrotoluene	1	18.987	19.051	-0.064	539776	1.00	0.99	
22 Tetryl	1	22.207	22.244	-0.037	305263	1.00	0.99	
23 2,4,6-Trinitrotoluene	1	23.074	23.104	-0.030	397391	1.00	1.03	
24 PETN	2	24.200	24.211	-0.011	1313083	10.0	10.7	

QC Flag Legend
Processing Flags

Reagents:

8330IntermStk_00078	Amount Added: 100.00	Units: uL
8330 DMT_00015	Amount Added: 50.00	Units: uL

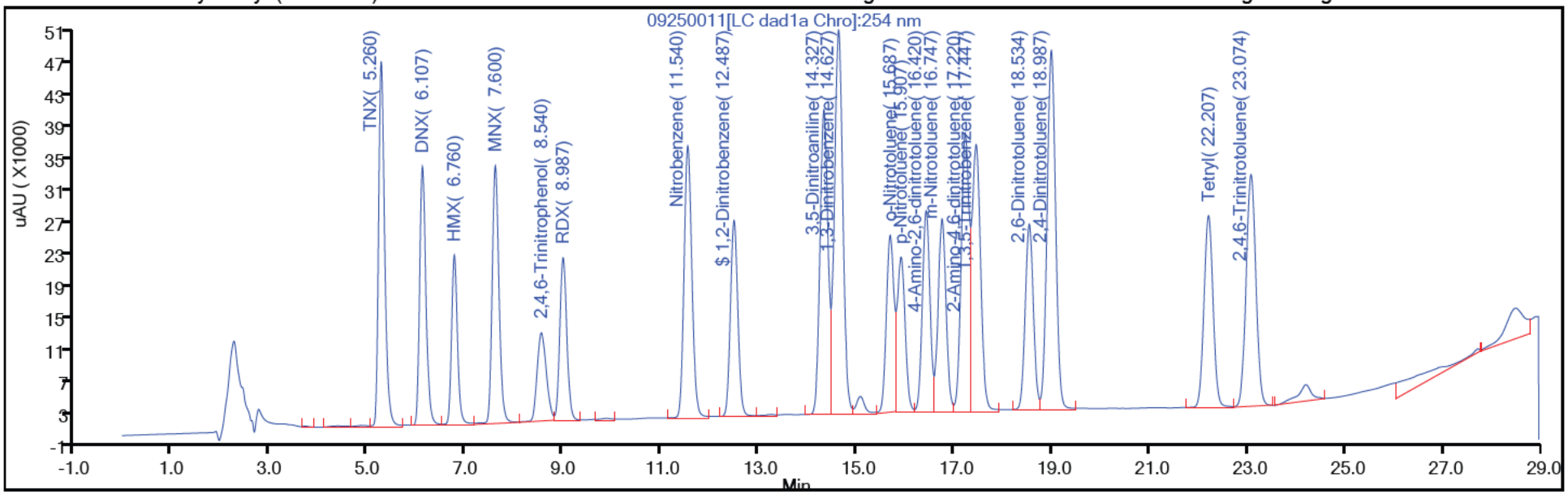
Report Date: 26-Sep-2023 15:25:34 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

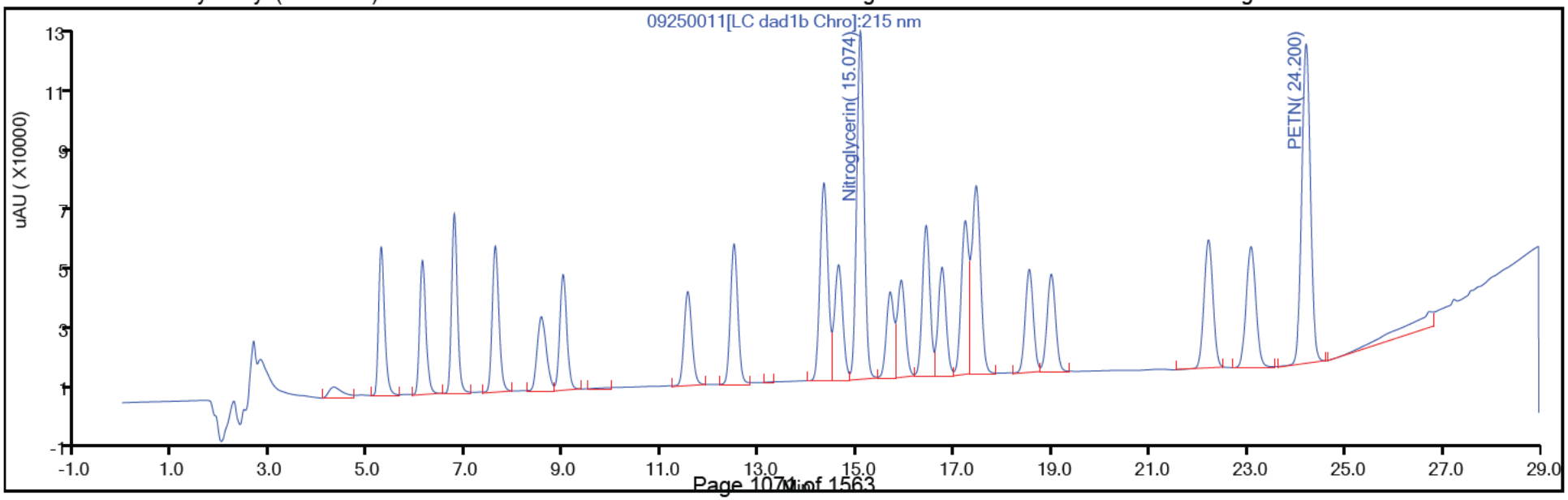
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250011.d

Injection Date:	25-Sep-2023 19:17:58	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
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250012.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 25-Sep-2023 19:53:55 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*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:34 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 13:59:35

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.261	5.291	-0.030	258277	0.7021	0.6870	
4 DNX	1	6.108	6.144	-0.036	190840	0.7007	0.6621	
6 HMX	1	6.761	6.791	-0.030	121769	0.7000	0.7020	
7 MNX	1	7.608	7.644	-0.036	204553	0.8169	0.7813	
5 2,4,6-Trinitrophenol	1	8.568	8.664	-0.096	100486	0.7000	0.7006	
8 RDX	1	8.988	9.038	-0.050	143077	0.7000	0.6892	
9 Nitrobenzene	1	11.541	11.598	-0.057	263852	0.7000	0.7104	
$ 10 1,2-Dinitrobenzene	1	12.481	12.538	-0.057	178743	0.7000	0.6961	
11 3,5-Dinitroaniline	1	14.321	14.378	-0.057	298526	0.7000	0.7270	
12 1,3-Dinitrobenzene	1	14.614	14.671	-0.057	398297	0.7000	0.6873	
13 Nitroglycerin	2	15.054	15.111	-0.057	855360	7.00	6.89	
14 o-Nitrotoluene	1	15.667	15.738	-0.071	169349	0.7000	0.6855	
15 p-Nitrotoluene	1	15.887	15.958	-0.071	151677	0.7000	0.6961	
16 4-Amino-2,6-dinitrotoluene	1	16.394	16.478	-0.084	191281	0.7000	0.7051	
17 m-Nitrotoluene	1	16.721	16.804	-0.083	191019	0.7000	0.7044	
18 2-Amino-4,6-dinitrotoluene	1	17.201	17.284	-0.083	275464	0.7000	0.7283	
19 1,3,5-Trinitrobenzene	1	17.427	17.498	-0.071	277471	0.7000	0.6741	
20 2,6-Dinitrotoluene	1	18.514	18.598	-0.084	185954	0.7000	0.7099	
21 2,4-Dinitrotoluene	1	18.974	19.051	-0.077	377896	0.7000	0.6933	
22 Tetryl	1	22.181	22.244	-0.063	213101	0.7000	0.6911	
23 2,4,6-Trinitrotoluene	1	23.041	23.104	-0.063	275399	0.7000	0.7153	
24 PETN	2	24.174	24.211	-0.037	914344	7.00	7.43	

QC Flag Legend
Processing Flags

Reagents:

8330IntermStk_00078	Amount Added:	70.00	Units: uL
8330 DMT_00015	Amount Added:	35.00	Units: uL

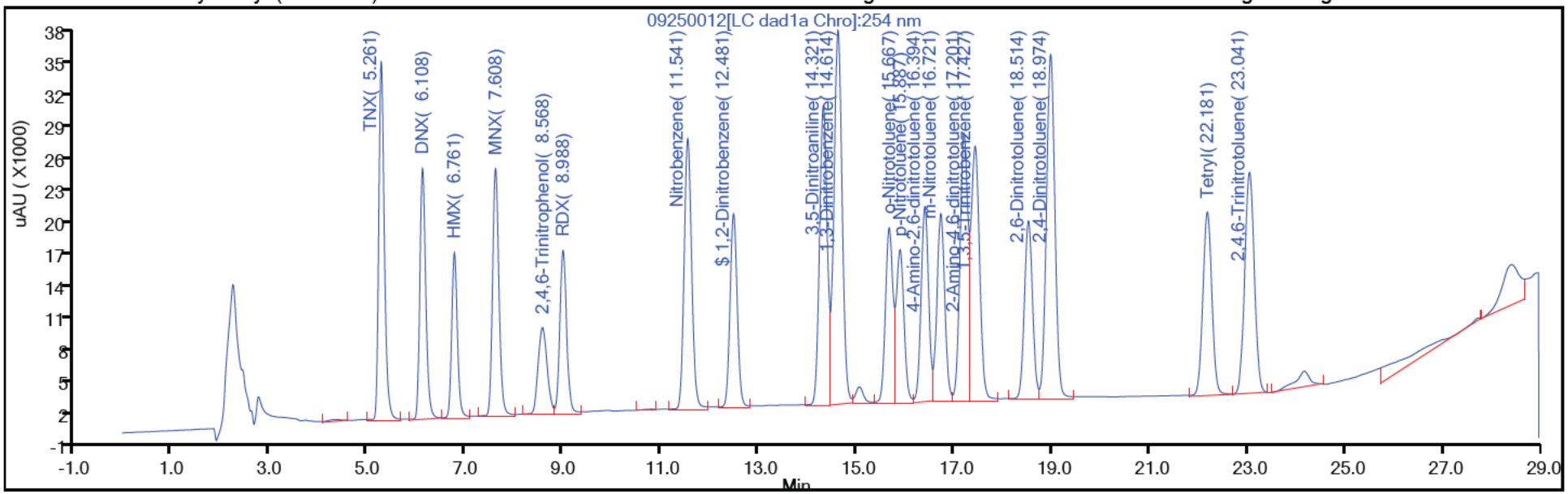
Report Date: 26-Sep-2023 15:25:35 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

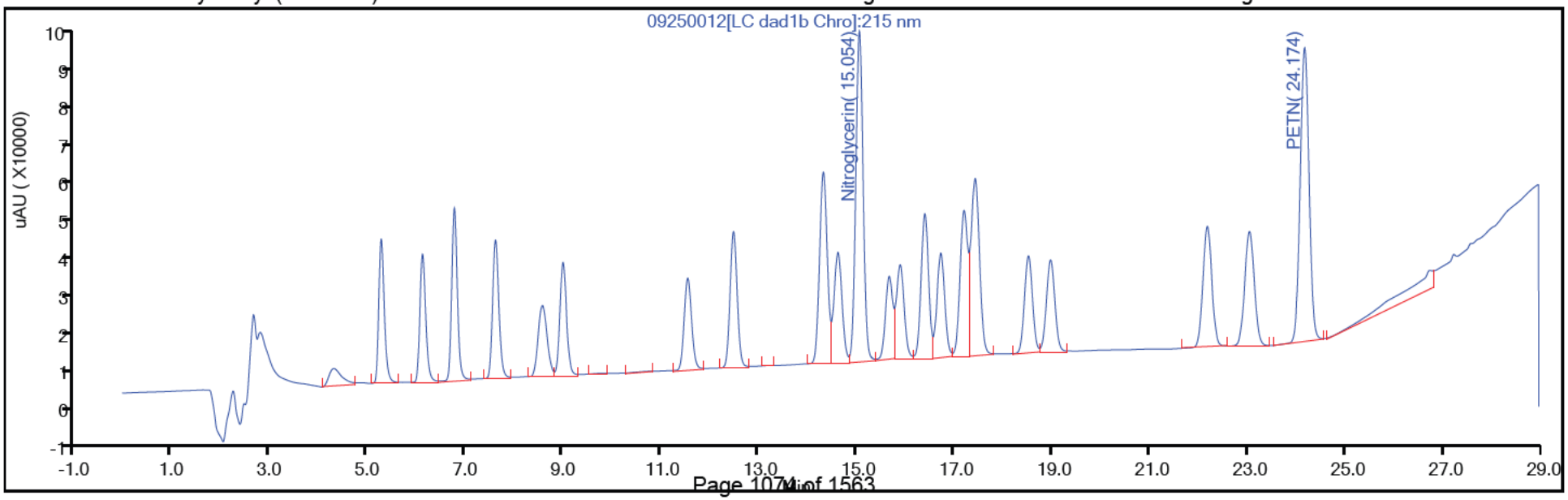
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250012.d

Injection Date:	25-Sep-2023 19:53:55	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
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250013.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 25-Sep-2023 20:29:56 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*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:35 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 13:59:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.285	5.291	-0.006	149801	0.4012	0.3974	
4 DNX	1	6.131	6.144	-0.013	110817	0.4004	0.3845	
6 HMX	1	6.778	6.791	-0.013	69154	0.4000	0.3986	
7 MNX	1	7.625	7.644	-0.019	119417	0.4668	0.4561	
5 2,4,6-Trinitrophenol	1	8.618	8.664	-0.046	56092	0.4000	0.3911	
8 RDX	1	9.011	9.038	-0.027	80985	0.4000	0.3901	
9 Nitrobenzene	1	11.564	11.598	-0.034	147023	0.4000	0.3959	
$ 10 1,2-Dinitrobenzene	1	12.504	12.538	-0.034	100477	0.4000	0.3913	
11 3,5-Dinitroaniline	1	14.351	14.378	-0.027	168201	0.4000	0.4092	
12 1,3-Dinitrobenzene	1	14.651	14.671	-0.020	222577	0.4000	0.3841	
13 Nitroglycerin	2	15.098	15.111	-0.013	478538	4.00	3.85	
14 o-Nitrotoluene	1	15.718	15.738	-0.020	94995	0.4000	0.3845	
15 p-Nitrotoluene	1	15.938	15.958	-0.020	85317	0.4000	0.3901	
16 4-Amino-2,6-dinitrotoluene	1	16.451	16.478	-0.027	107559	0.4000	0.3943	
17 m-Nitrotoluene	1	16.778	16.804	-0.026	107777	0.4000	0.3955	
18 2-Amino-4,6-dinitrotoluene	1	17.251	17.284	-0.033	155922	0.4000	0.4106	
19 1,3,5-Trinitrobenzene	1	17.471	17.498	-0.027	157218	0.4000	0.3819	
20 2,6-Dinitrotoluene	1	18.564	18.598	-0.034	104177	0.4000	0.3962	
21 2,4-Dinitrotoluene	1	19.018	19.051	-0.033	212533	0.4000	0.3899	
22 Tetryl	1	22.211	22.244	-0.033	119347	0.4000	0.3871	
23 2,4,6-Trinitrotoluene	1	23.071	23.104	-0.033	155627	0.4000	0.4042	
24 PETN	2	24.205	24.211	-0.006	514656	4.00	4.18	

QC Flag Legend
Processing Flags

Reagents:

8330IntermStk_00078	Amount Added:	40.00	Units: uL
8330 DMT_00015	Amount Added:	20.00	Units: uL

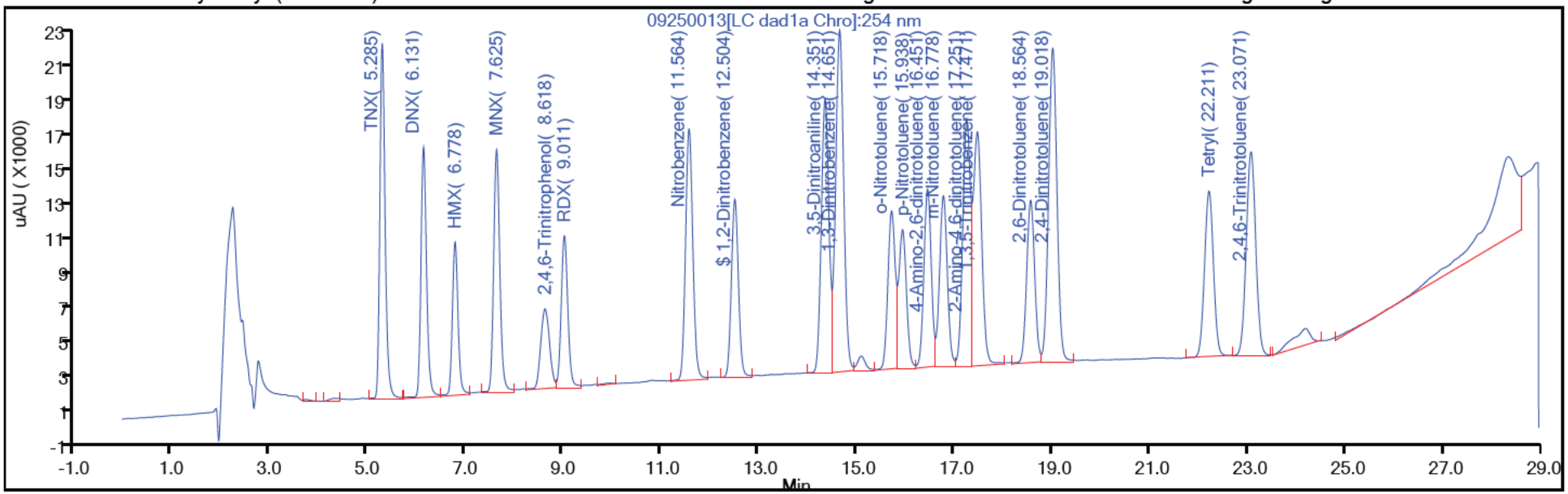
Report Date: 26-Sep-2023 15:25:35 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

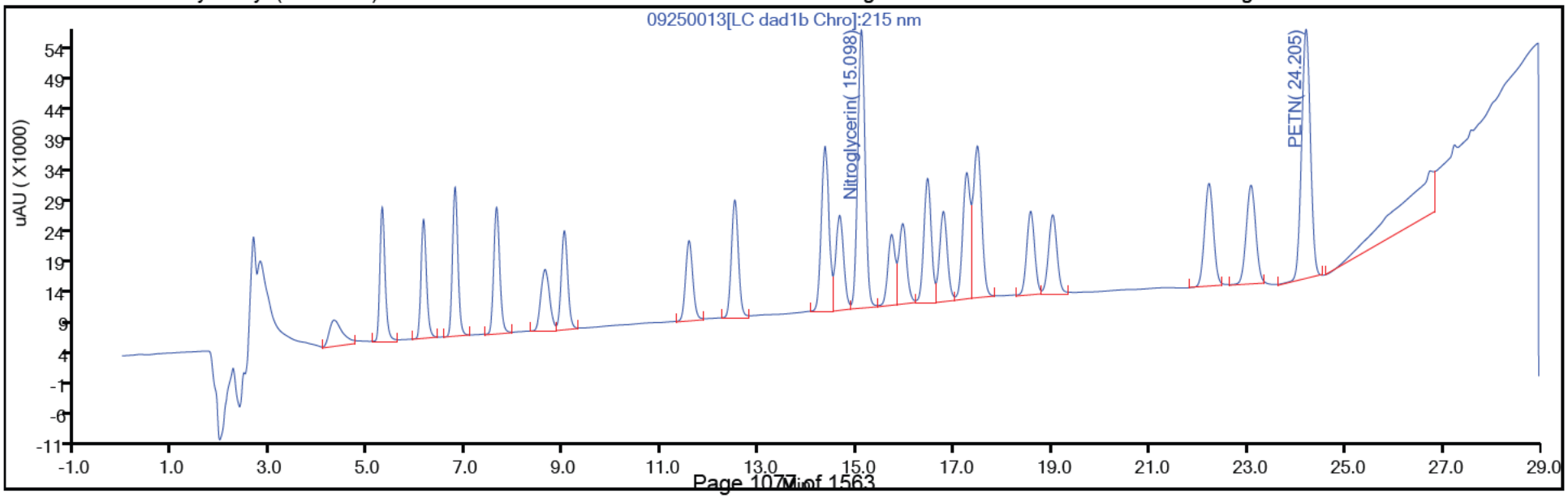
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250013.d

Injection Date:	25-Sep-2023 20:29:56	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
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250014.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 25-Sep-2023 21:05:56 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*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:36 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:00:00

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.291	5.291	0.000	97033	0.2508	0.2565	
4 DNX	1	6.144	6.144	0.000	71817	0.2503	0.2492	
6 HMX	1	6.791	6.791	0.000	44858	0.2500	0.2586	
7 MNX	1	7.644	7.644	0.000	77595	0.2918	0.2964	
5 2,4,6-Trinitrophenol	1	8.664	8.664	0.000	35728	0.2500	0.2491	
8 RDX	1	9.038	9.038	0.000	52214	0.2500	0.2515	
9 Nitrobenzene	1	11.598	11.598	0.000	94171	0.2500	0.2536	
$ 10 1,2-Dinitrobenzene	1	12.538	12.538	0.000	64646	0.2500	0.2518	
11 3,5-Dinitroaniline	1	14.378	14.378	0.000	106862	0.2500	0.2596	
12 1,3-Dinitrobenzene	1	14.671	14.671	0.000	142691	0.2500	0.2462	
13 Nitroglycerin	2	15.111	15.111	0.000	309021	2.50	2.49	
14 o-Nitrotoluene	1	15.738	15.738	0.000	61006	0.2500	0.2470	
15 p-Nitrotoluene	1	15.958	15.958	0.000	53670	0.2500	0.2441	
16 4-Amino-2,6-dinitrotoluene	1	16.478	16.478	0.000	68403	0.2500	0.2489	
17 m-Nitrotoluene	1	16.804	16.804	0.000	68436	0.2500	0.2496	
18 2-Amino-4,6-dinitrotoluene	1	17.284	17.284	0.000	98305	0.2500	0.2575	
19 1,3,5-Trinitrobenzene	1	17.498	17.498	0.000	100515	0.2500	0.2442	
20 2,6-Dinitrotoluene	1	18.598	18.598	0.000	66514	0.2500	0.2518	
21 2,4-Dinitrotoluene	1	19.051	19.051	0.000	135900	0.2500	0.2493	
22 Tetryl	1	22.244	22.244	0.000	76874	0.2500	0.2493	
23 2,4,6-Trinitrotoluene	1	23.104	23.104	0.000	99165	0.2500	0.2576	
24 PETN	2	24.211	24.211	0.000	320094	2.50	2.60	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	25.00	Units: uL
8330 DMT_00015	Amount Added:	12.50	Units: uL

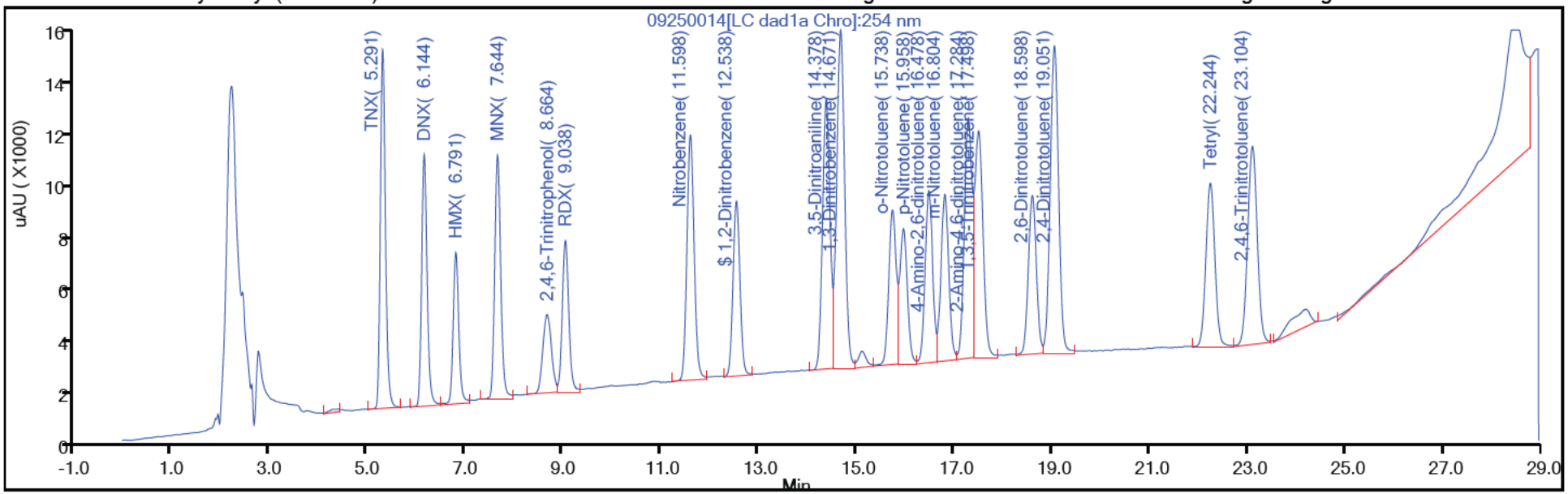
Report Date: 26-Sep-2023 15:25:36 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

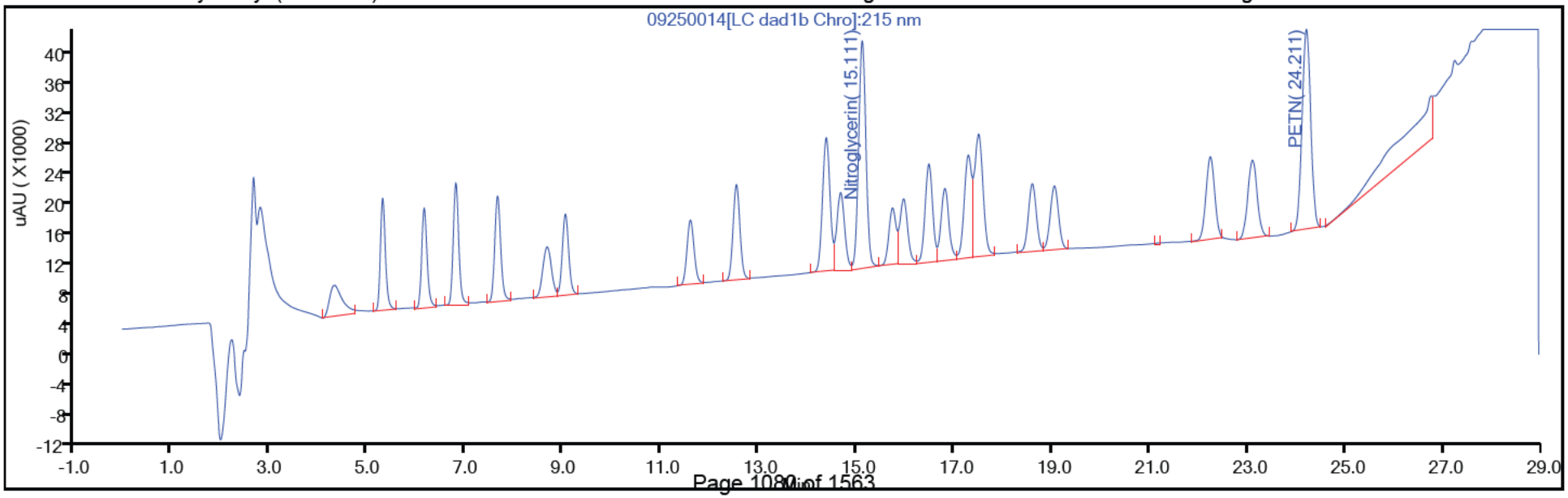
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250014.d

Injection Date:	25-Sep-2023 21:05:56	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



Manual Integration/User Assign Peak Report

Eurofins Denver

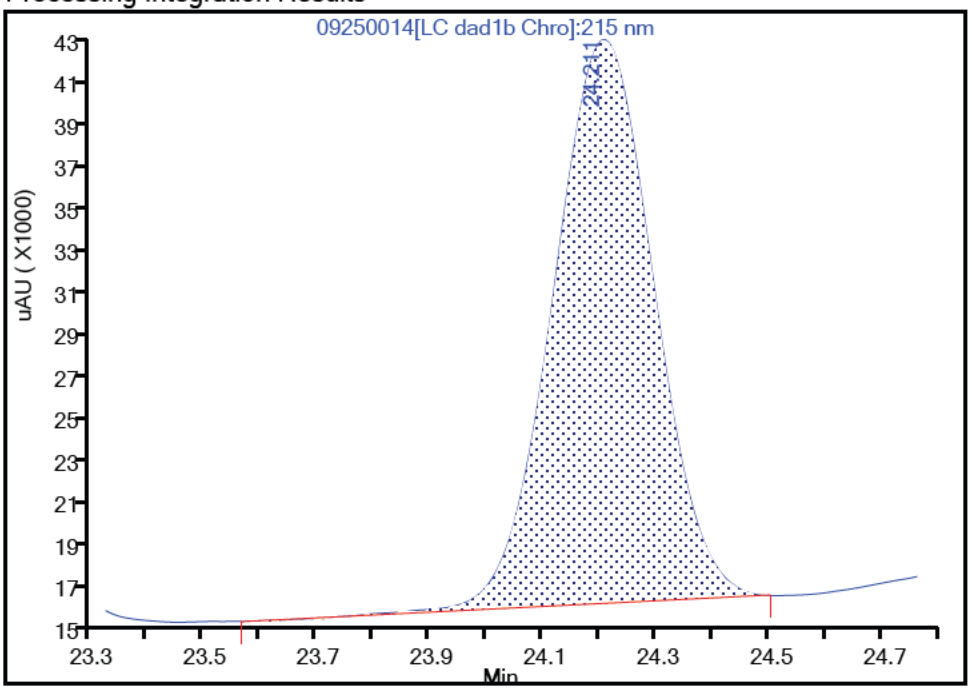
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250014.d				
Injection Date:	25-Sep-2023 21:05:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

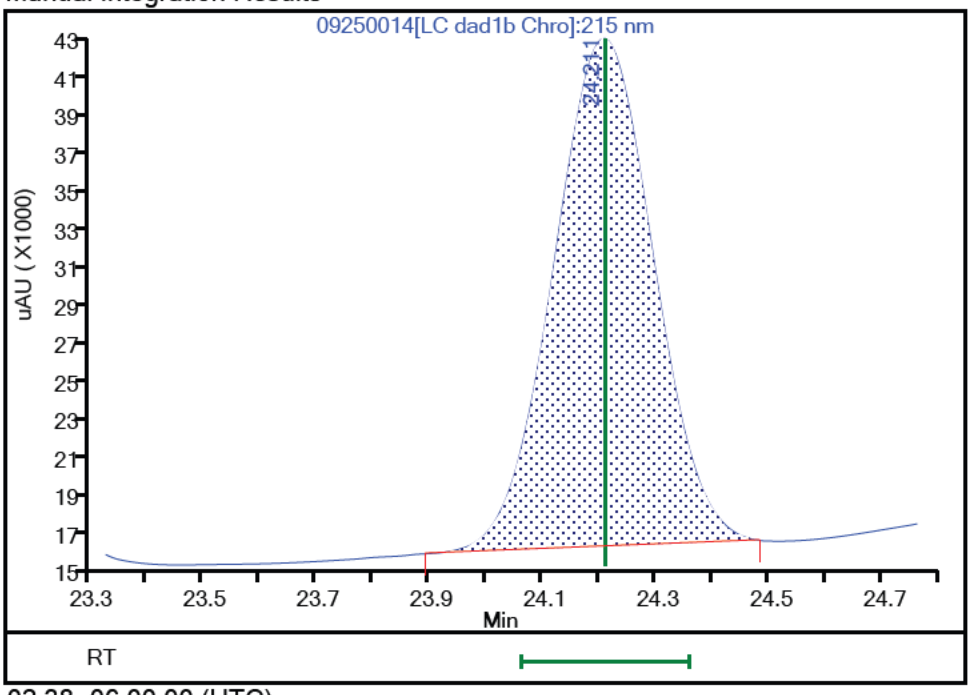
Processing Integration Results

RT: 24.21
Area: 325069
Amount: 2.564843
Amount Units: ug/ml



Manual Integration Results

RT: 24.21
Area: 320094
Amount: 2.602149
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:02:38 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250015.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 25-Sep-2023 21:42:00 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*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:36 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:00:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.281	5.291	-0.010	37690	0.1003	0.0981	
4 DNX	1	6.127	6.144	-0.017	27970	0.1001	0.0970	M
6 HMX	1	6.767	6.791	-0.024	16998	0.1000	0.0980	M
7 MNX	1	7.621	7.644	-0.023	30216	0.1167	0.1154	M
5 2,4,6-Trinitrophenol	1	8.654	8.664	-0.010	14448	0.1000	0.1007	M
8 RDX	1	9.001	9.038	-0.037	20133	0.1000	0.0970	M
9 Nitrobenzene	1	11.567	11.598	-0.031	37981	0.1000	0.1023	
$ 10 1,2-Dinitrobenzene	1	12.514	12.538	-0.024	25572	0.1000	0.0996	
11 3,5-Dinitroaniline	1	14.367	14.378	-0.011	42028	0.1000	0.1015	
12 1,3-Dinitrobenzene	1	14.661	14.671	-0.010	56349	0.1000	0.0972	
13 Nitroglycerin	2	15.107	15.111	-0.004	125699	1.00	1.01	
14 o-Nitrotoluene	1	15.721	15.738	-0.017	23778	0.1000	0.0963	
15 p-Nitrotoluene	1	15.941	15.958	-0.017	22449	0.1000	0.1002	
16 4-Amino-2,6-dinitrotoluene	1	16.461	16.478	-0.017	27679	0.1000	0.0977	
17 m-Nitrotoluene	1	16.781	16.804	-0.023	28516	0.1000	0.1014	
18 2-Amino-4,6-dinitrotoluene	1	17.254	17.284	-0.030	39122	0.1000	0.1002	
19 1,3,5-Trinitrobenzene	1	17.467	17.498	-0.031	40753	0.1000	0.0990	
20 2,6-Dinitrotoluene	1	18.567	18.598	-0.031	26594	0.1000	0.0987	
21 2,4-Dinitrotoluene	1	19.021	19.051	-0.030	53734	0.1000	0.0986	
22 Tetryl	1	22.247	22.244	0.003	29248	0.1000	0.0949	
23 2,4,6-Trinitrotoluene	1	23.107	23.104	0.003	39715	0.1000	0.1032	
24 PETN	2	24.227	24.211	0.016	123328	1.00	1.00	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added: 10.00	Units: uL
8330 DMT_00015	Amount Added: 5.00	Units: uL

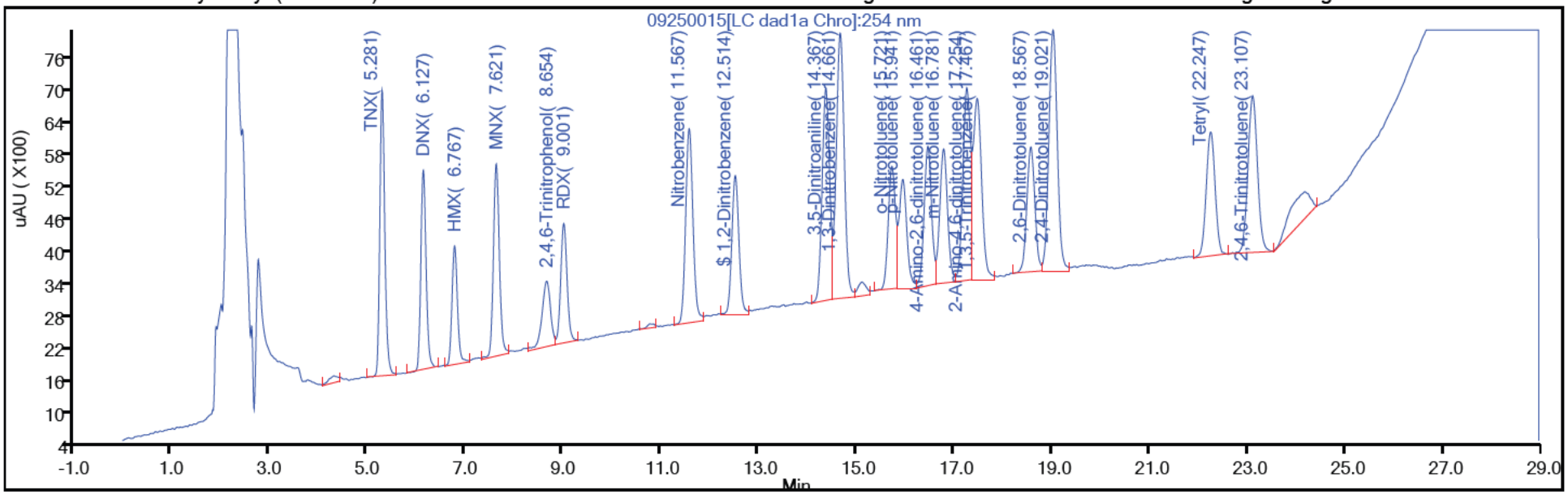
Report Date: 26-Sep-2023 15:25:37 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

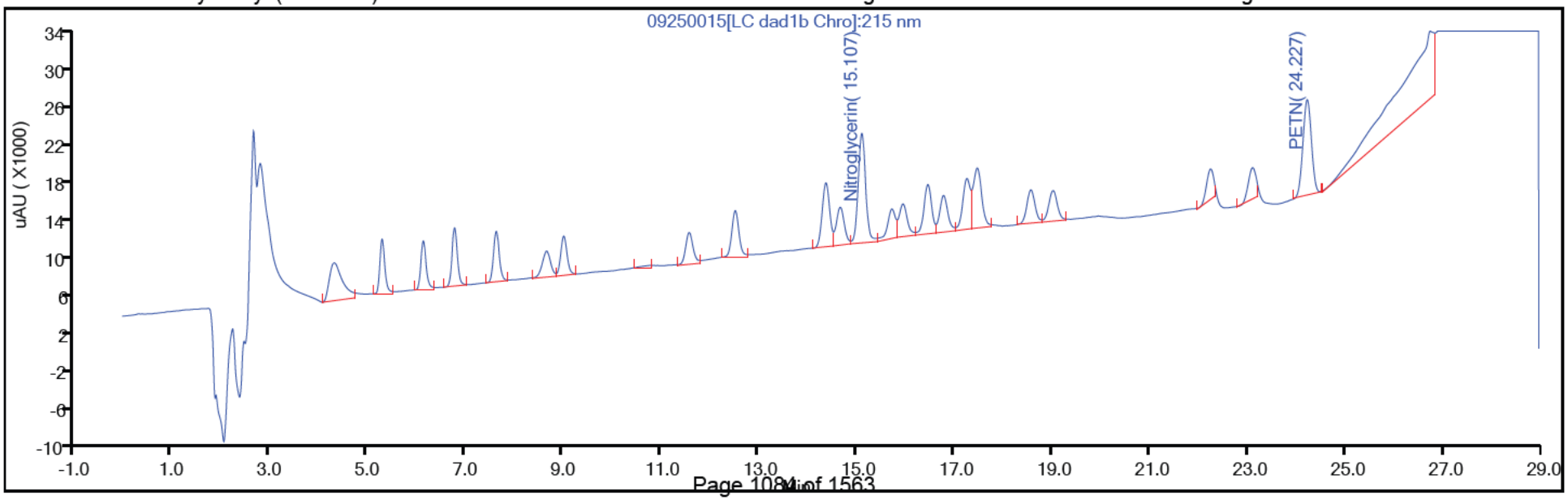
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250015.d

Injection Date:	25-Sep-2023 21:42:00	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



Manual Integration/User Assign Peak Report

Eurofins Denver

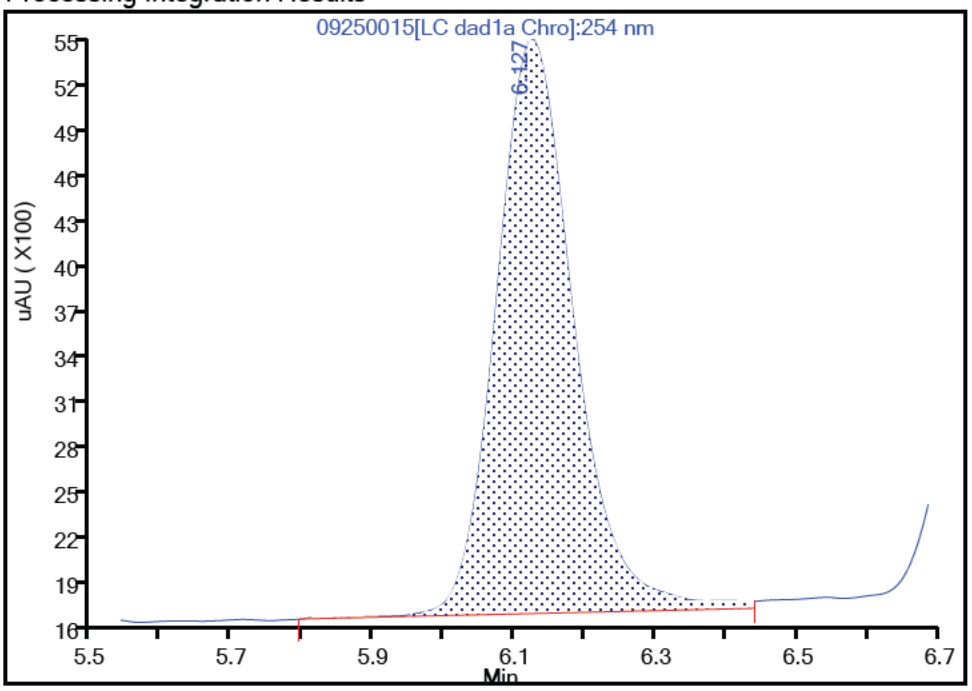
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250015.d
Injection Date: 25-Sep-2023 21:42:00 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

4 DNX, CAS: 80251-29-2

Signal: 1

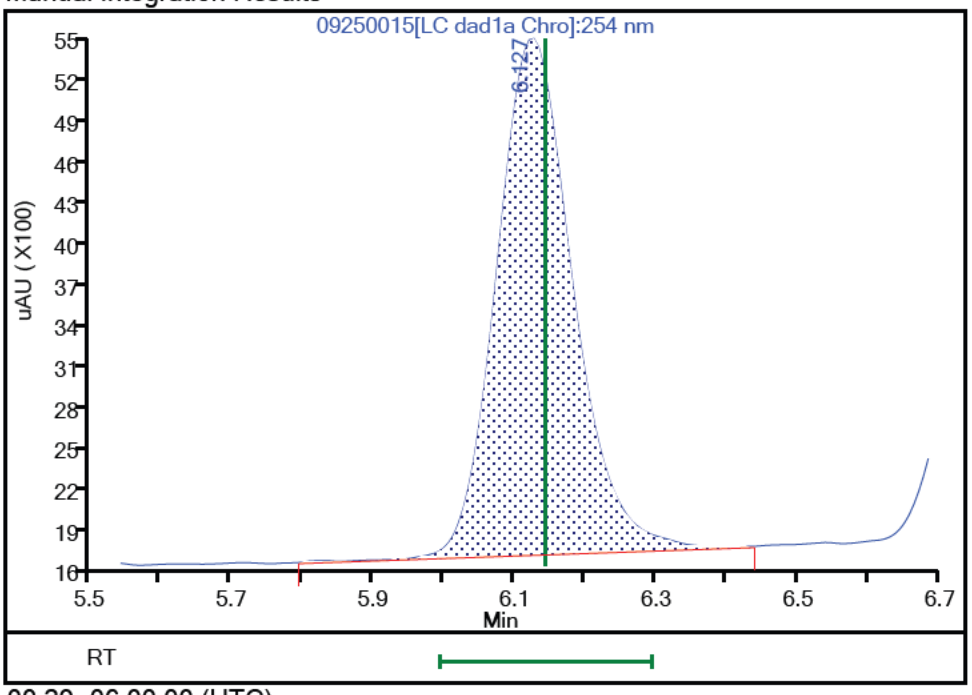
Processing Integration Results

RT: 6.13
Area: 28494
Amount: 0.098487
Amount Units: ug/ml



Manual Integration Results

RT: 6.13
Area: 27970
Amount: 0.097037
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:00:29 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

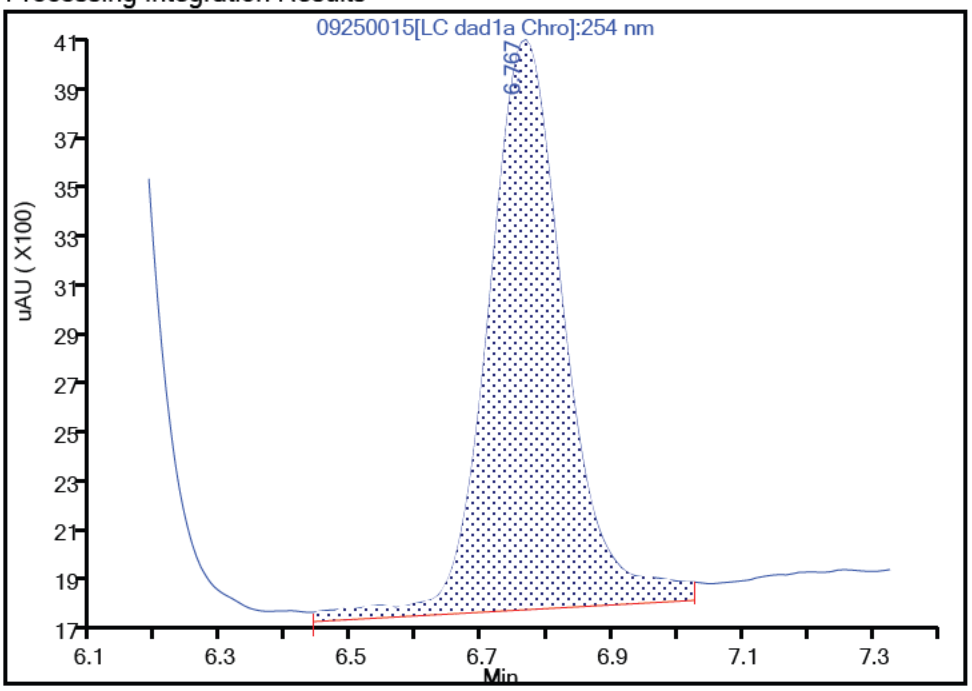
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250015.d
Injection Date: 25-Sep-2023 21:42:00 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

6 HMX, CAS: 2691-41-0

Signal: 1

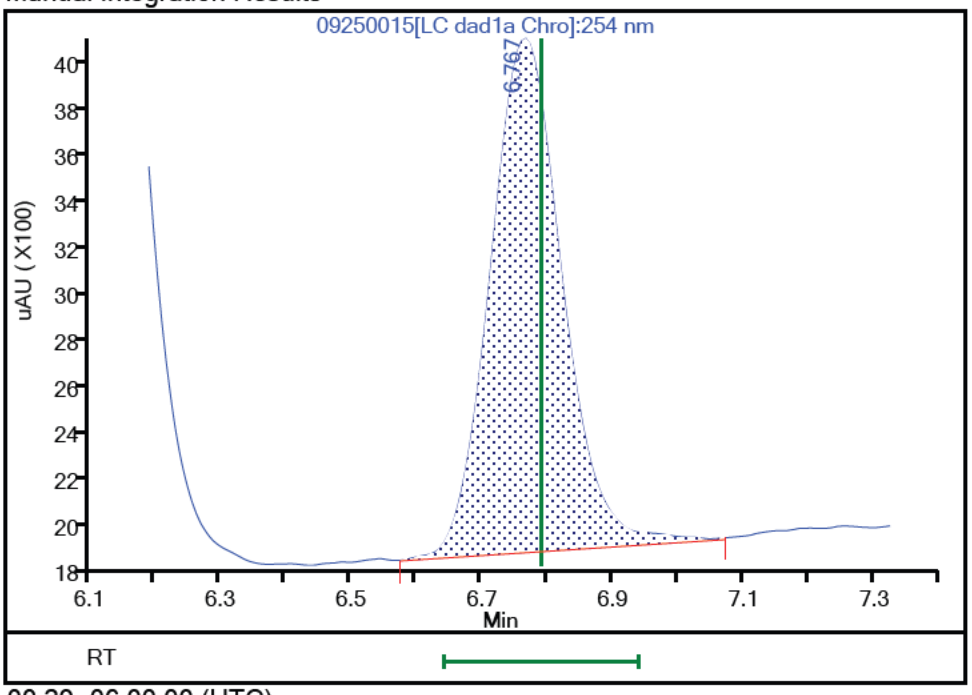
Processing Integration Results

RT: 6.77
Area: 18519
Amount: 0.096909
Amount Units: ug/ml



Manual Integration Results

RT: 6.77
Area: 16998
Amount: 0.097987
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:00:29 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

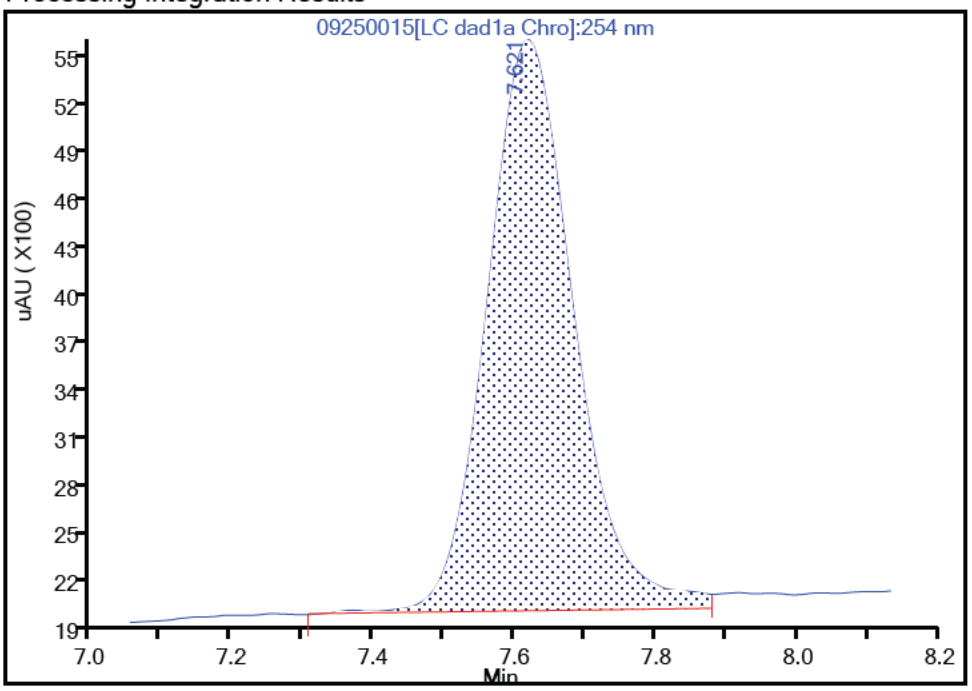
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250015.d
Injection Date: 25-Sep-2023 21:42:00 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

7 MNX, CAS: 5755-27-1

Signal: 1

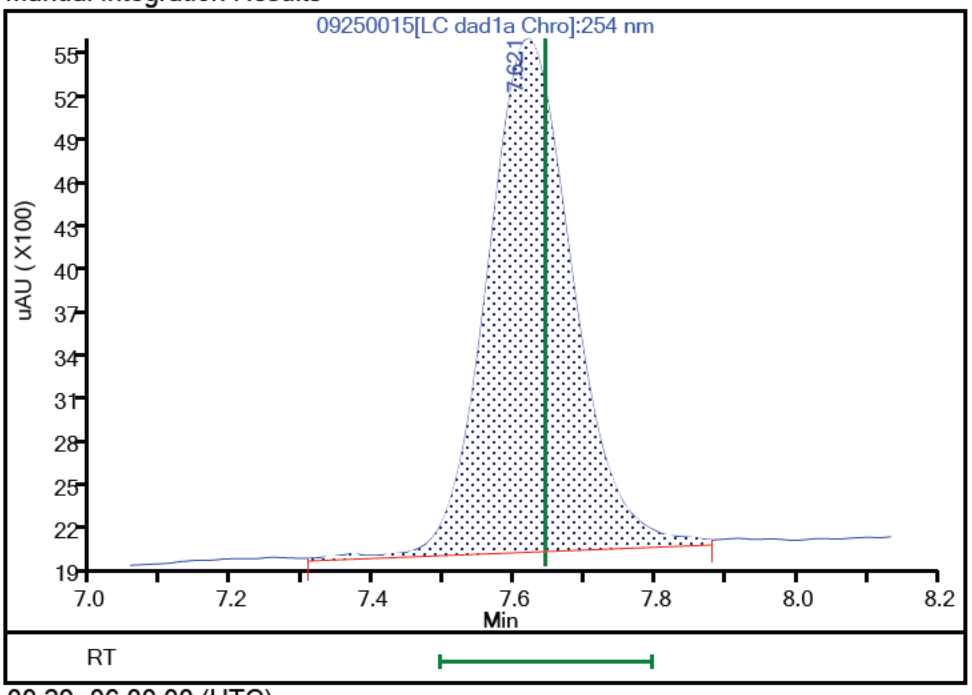
Processing Integration Results

RT: 7.62
Area: 30801
Amount: 0.109447
Amount Units: ug/ml



Manual Integration Results

RT: 7.62
Area: 30216
Amount: 0.115406
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:00:29 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

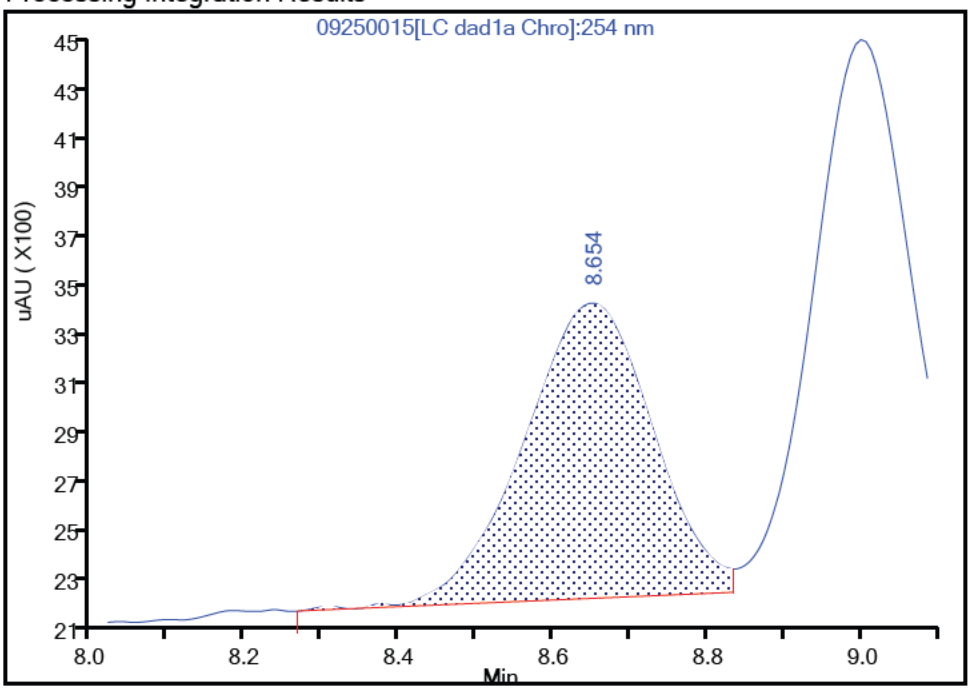
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250015.d				
Injection Date:	25-Sep-2023 21:42:00	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

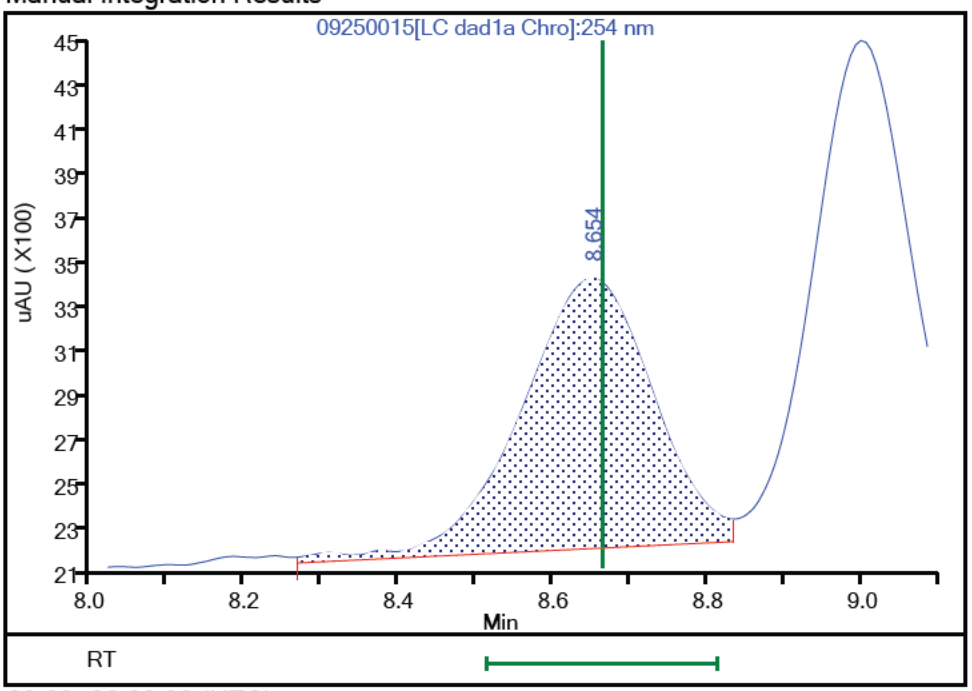
Processing Integration Results

RT: 8.65
Area: 13989
Amount: 0.094739
Amount Units: ug/ml



Manual Integration Results

RT: 8.65
Area: 14448
Amount: 0.100735
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:00:29 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

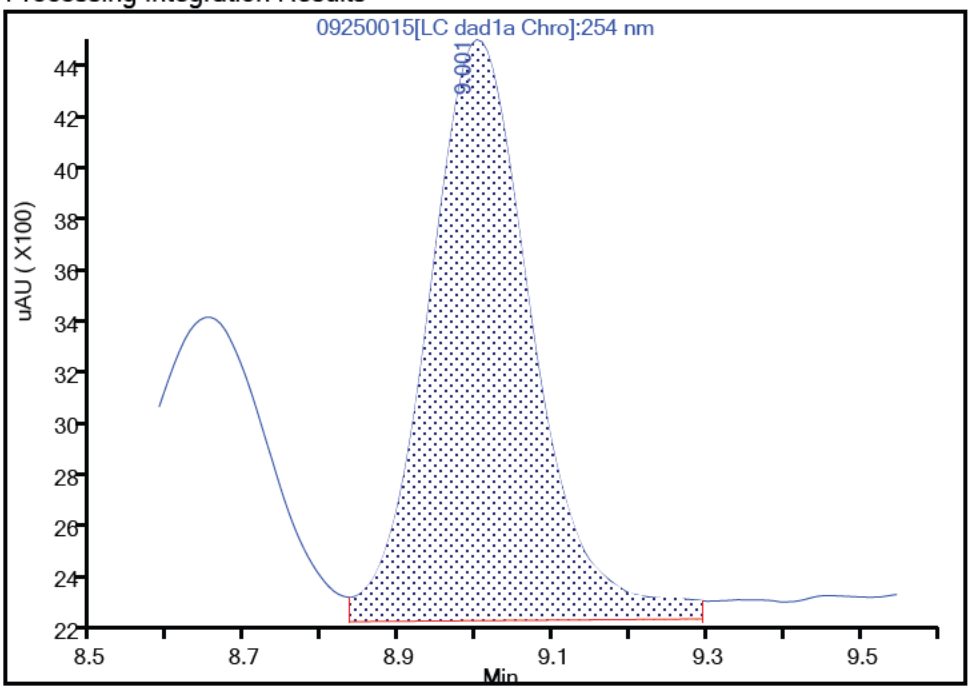
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250015.d
Injection Date: 25-Sep-2023 21:42:00 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

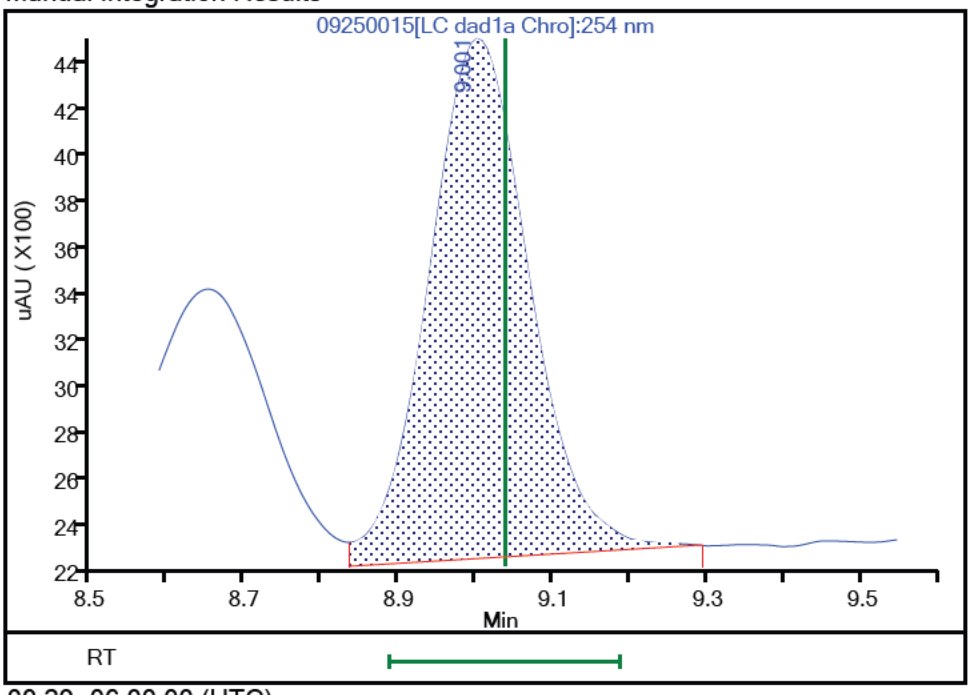
Processing Integration Results

RT: 9.00
Area: 21030
Amount: 0.094840
Amount Units: ug/ml



Manual Integration Results

RT: 9.00
Area: 20133
Amount: 0.096986
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:00:29 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

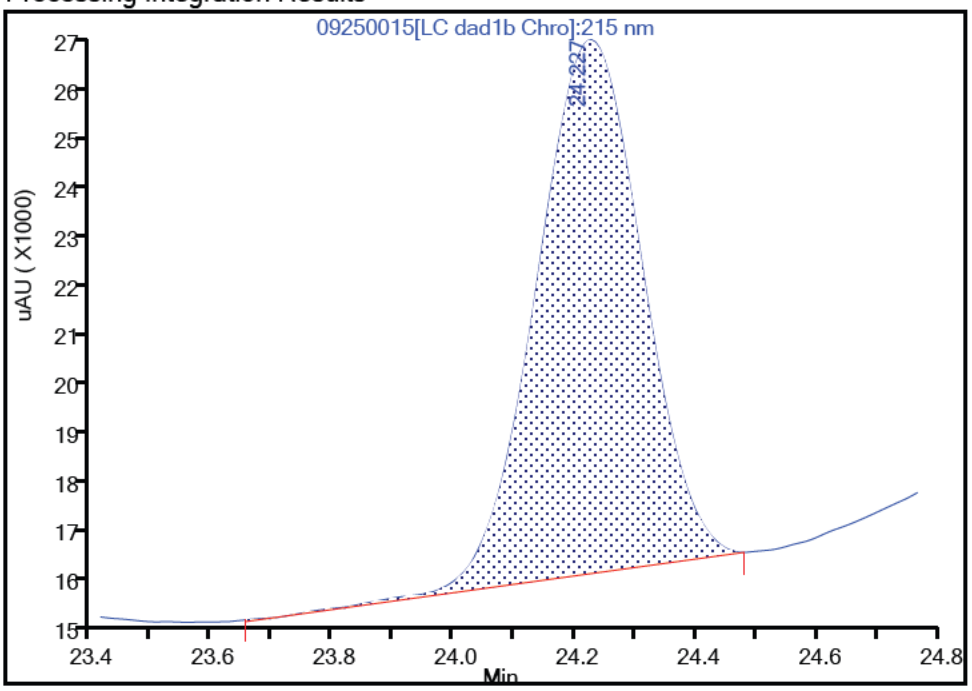
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250015.d				
Injection Date:	25-Sep-2023 21:42:00	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

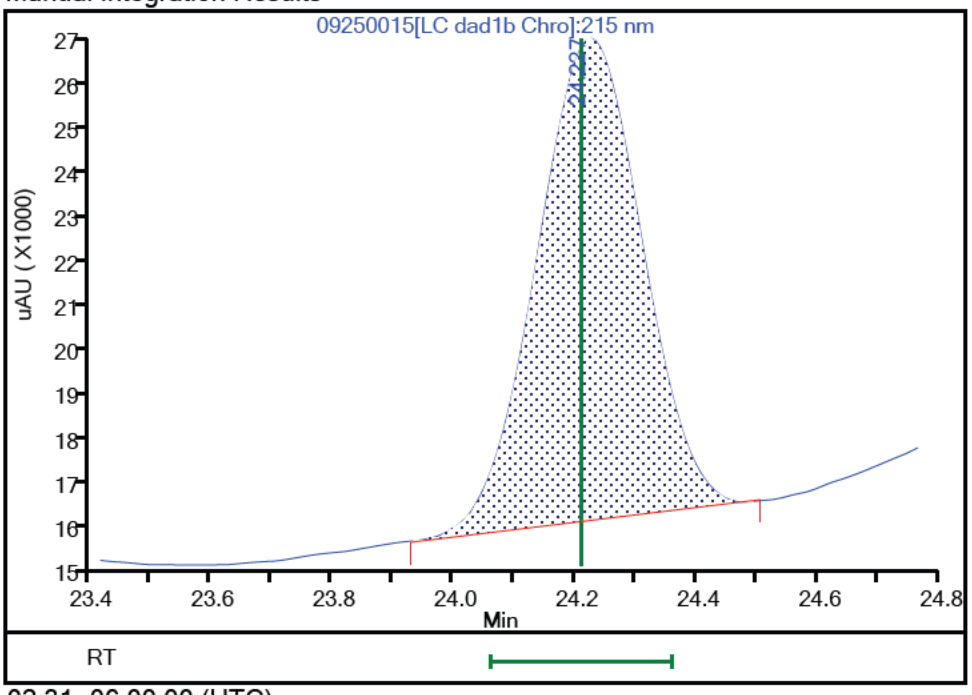
Processing Integration Results

RT: 24.23
Area: 124775
Amount: 0.983246
Amount Units: ug/ml



Manual Integration Results

RT: 24.23
Area: 123328
Amount: 1.002574
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:02:31 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Report Date: 26-Sep-2023 15:25:37 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250016.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 25-Sep-2023 22:18:06 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*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:37 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:01:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.289	5.291	-0.002	19818	0.0502	0.0504	
4 DNX	1	6.135	6.144	-0.009	14790	0.0501	0.0513	M
6 HMX	1	6.782	6.791	-0.009	8897	0.0500	0.0513	M
7 MNX	1	7.629	7.644	-0.015	16454	0.0584	0.0628	M
5 2,4,6-Trinitrophenol	1	8.689	8.664	0.025	7270	0.0500	0.0507	M
8 RDX	1	9.022	9.038	-0.016	10353	0.0500	0.0499	M
9 Nitrobenzene	1	11.575	11.598	-0.023	18591	0.0500	0.0501	
$ 10 1,2-Dinitrobenzene	1	12.522	12.538	-0.016	12837	0.0500	0.0500	
11 3,5-Dinitroaniline	1	14.375	14.378	-0.003	20488	0.0500	0.0490	
12 1,3-Dinitrobenzene	1	14.669	14.671	-0.002	27516	0.0500	0.0475	
13 Nitroglycerin	2	15.115	15.111	0.004	61450	0.5000	0.4947	
14 o-Nitrotoluene	1	15.742	15.738	0.004	12750	0.0500	0.0516	
15 p-Nitrotoluene	1	15.969	15.958	0.011	11667	0.0500	0.0505	
16 4-Amino-2,6-dinitrotoluene	1	16.475	16.478	-0.003	15115	0.0500	0.0511	
17 m-Nitrotoluene	1	16.802	16.804	-0.002	14579	0.0500	0.0497	
18 2-Amino-4,6-dinitrotoluene	1	17.282	17.284	-0.002	20666	0.0500	0.0511	
19 1,3,5-Trinitrobenzene	1	17.489	17.498	-0.009	20880	0.0500	0.0507	
20 2,6-Dinitrotoluene	1	18.589	18.598	-0.009	12748	0.0500	0.0456	
21 2,4-Dinitrotoluene	1	19.042	19.051	-0.009	27321	0.0500	0.0501	
22 Tetryl	1	22.235	22.244	-0.009	15400	0.0500	0.0499	
23 2,4,6-Trinitrotoluene	1	23.089	23.104	-0.015	20297	0.0500	0.0527	
24 PETN	2	24.215	24.211	0.004	57592	0.5000	0.4682	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	5.00	Units: uL
8330 DMT_00015	Amount Added:	2.50	Units: uL

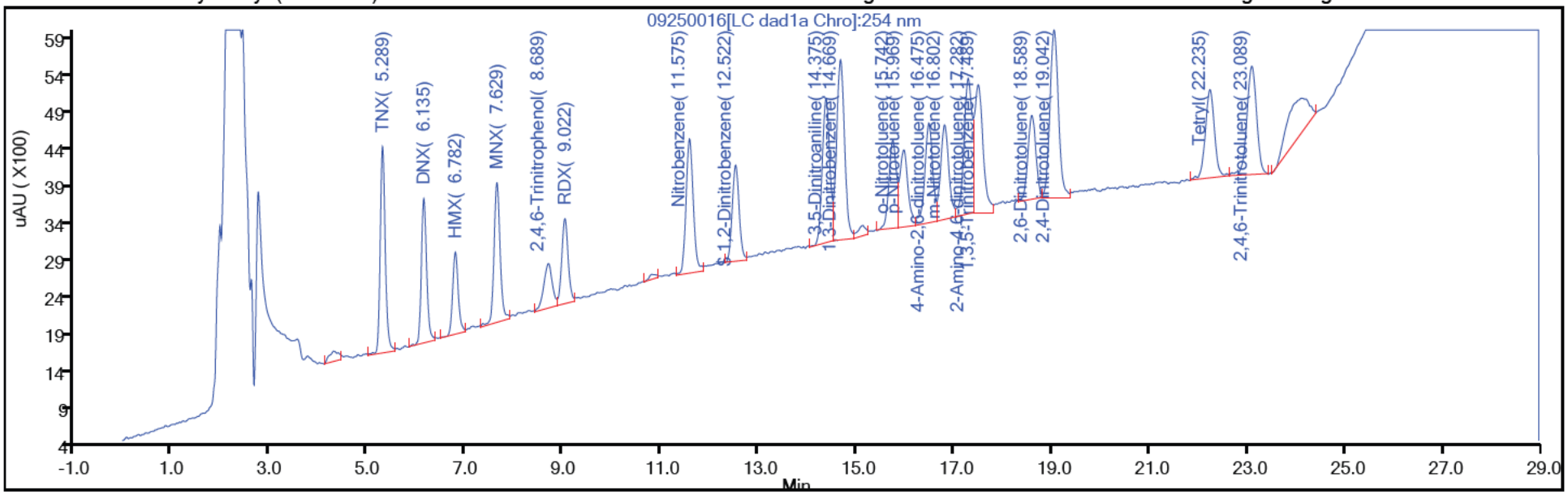
Report Date: 26-Sep-2023 15:25:37 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

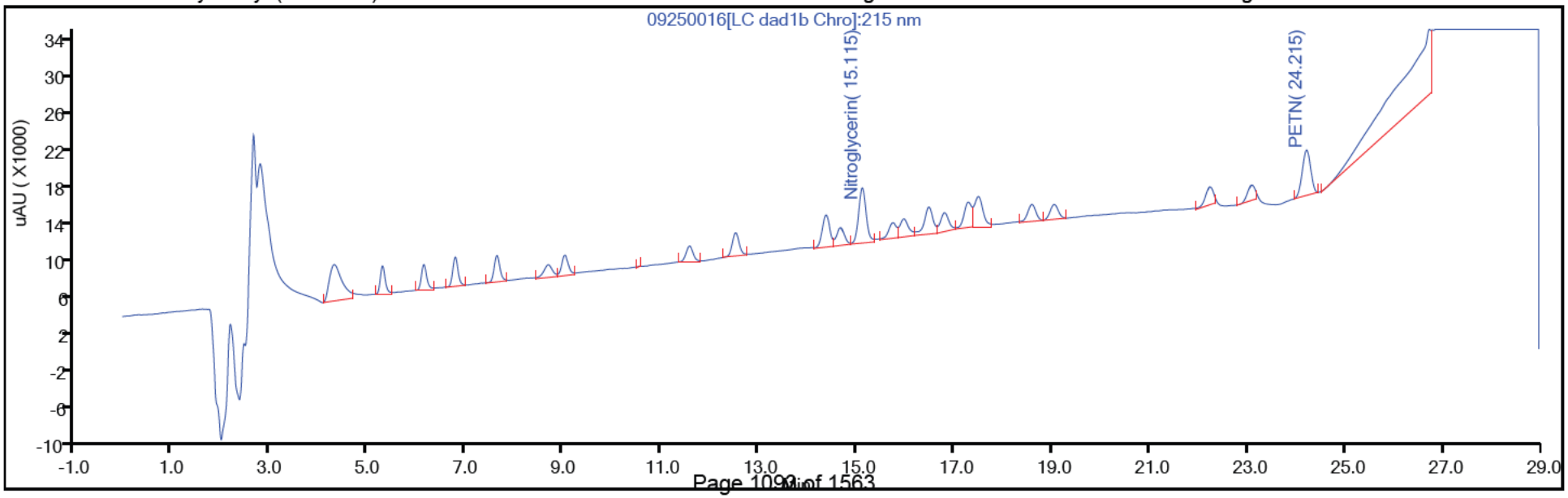
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250016.d

Injection Date:	25-Sep-2023 22:18:06	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



Manual Integration/User Assign Peak Report

Eurofins Denver

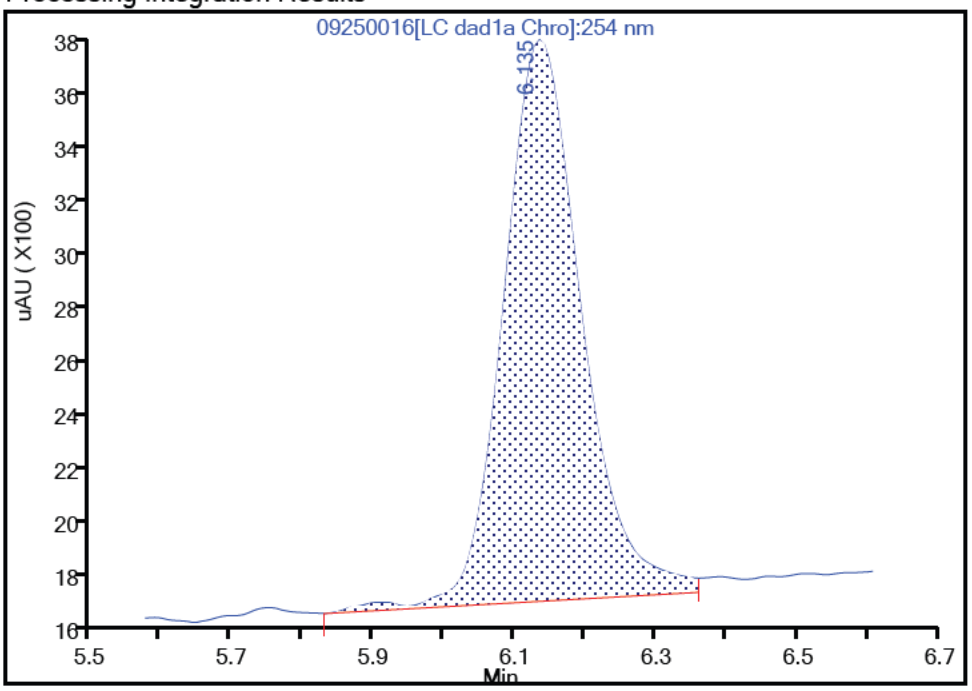
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250016.d				
Injection Date:	25-Sep-2023 22:18:06	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

4 DNX, CAS: 80251-29-2

Signal: 1

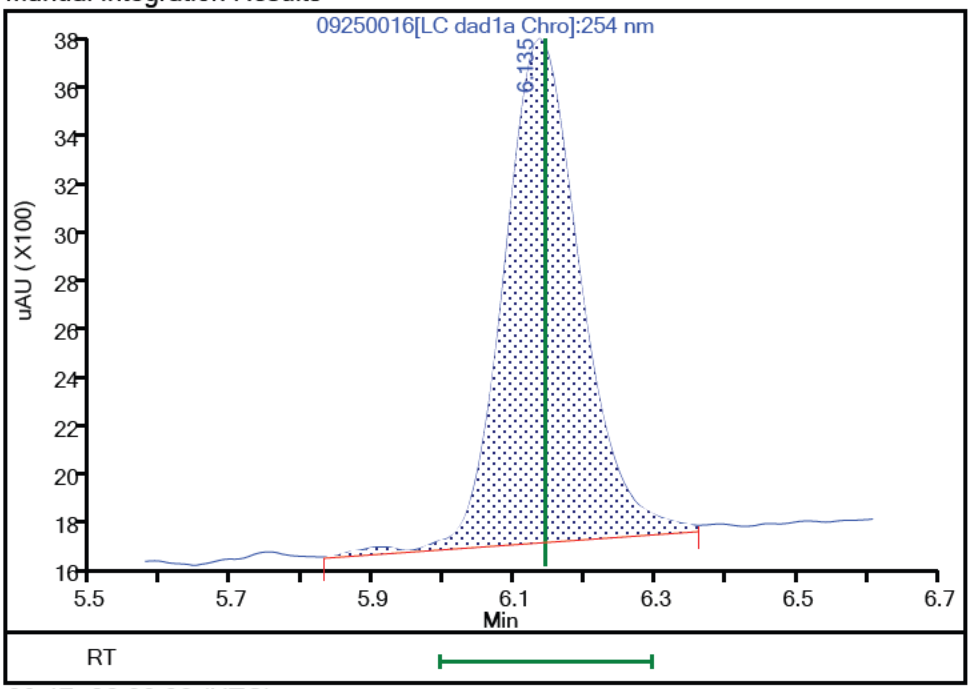
Processing Integration Results

RT: 6.14
Area: 15014
Amount: 0.051999
Amount Units: ug/ml



Manual Integration Results

RT: 6.14
Area: 14790
Amount: 0.051311
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:00:47 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

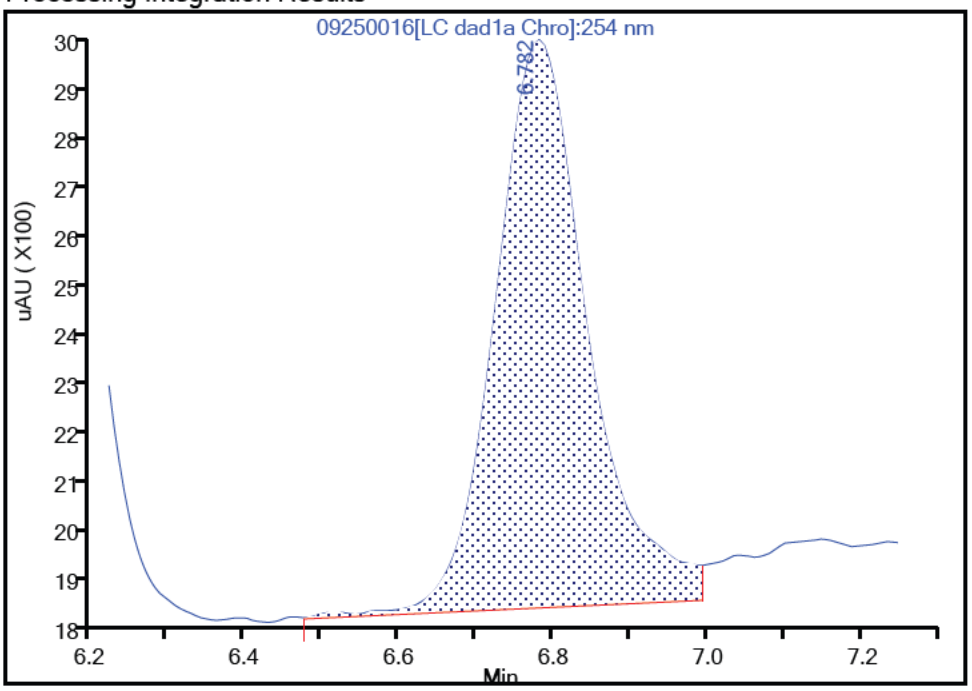
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250016.d
Injection Date: 25-Sep-2023 22:18:06 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

6 HMX, CAS: 2691-41-0

Signal: 1

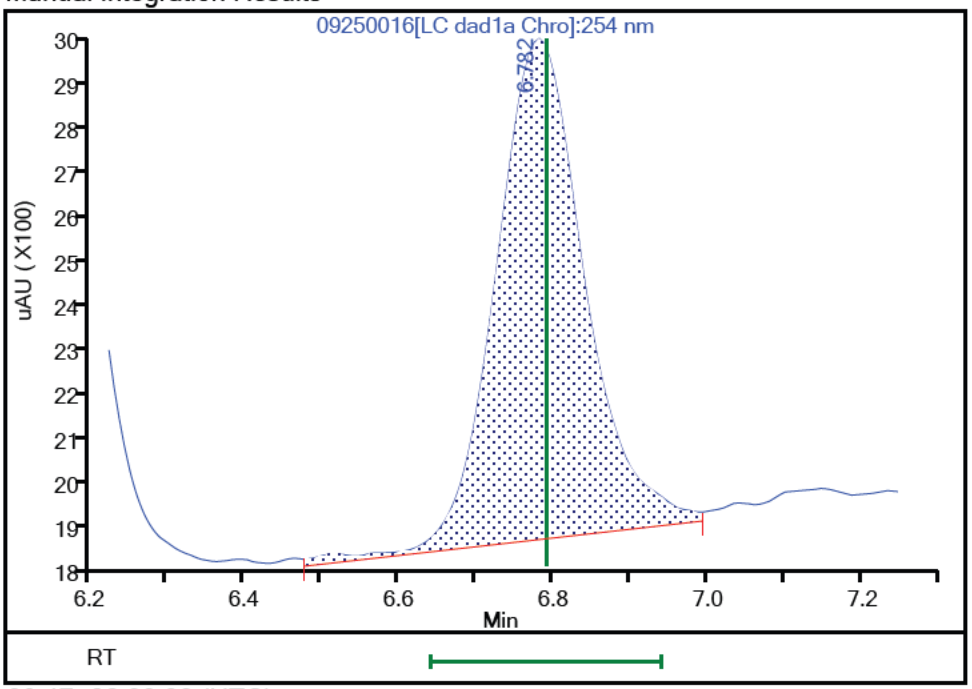
Processing Integration Results

RT: 6.78
Area: 9443
Amount: 0.049856
Amount Units: ug/ml



Manual Integration Results

RT: 6.78
Area: 8897
Amount: 0.051288
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:00:47 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

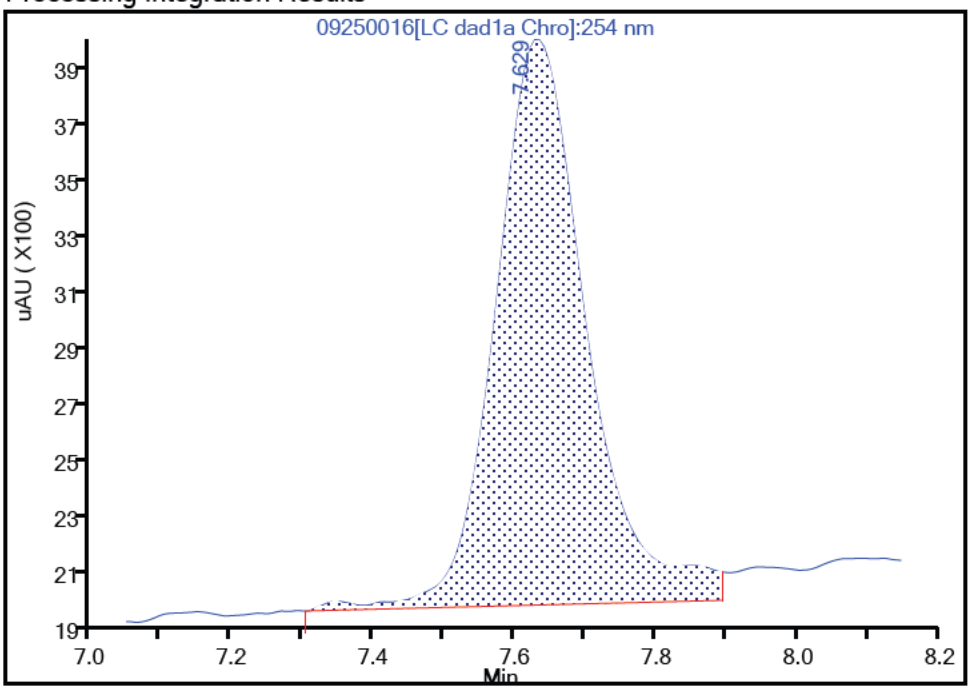
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250016.d				
Injection Date:	25-Sep-2023 22:18:06	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

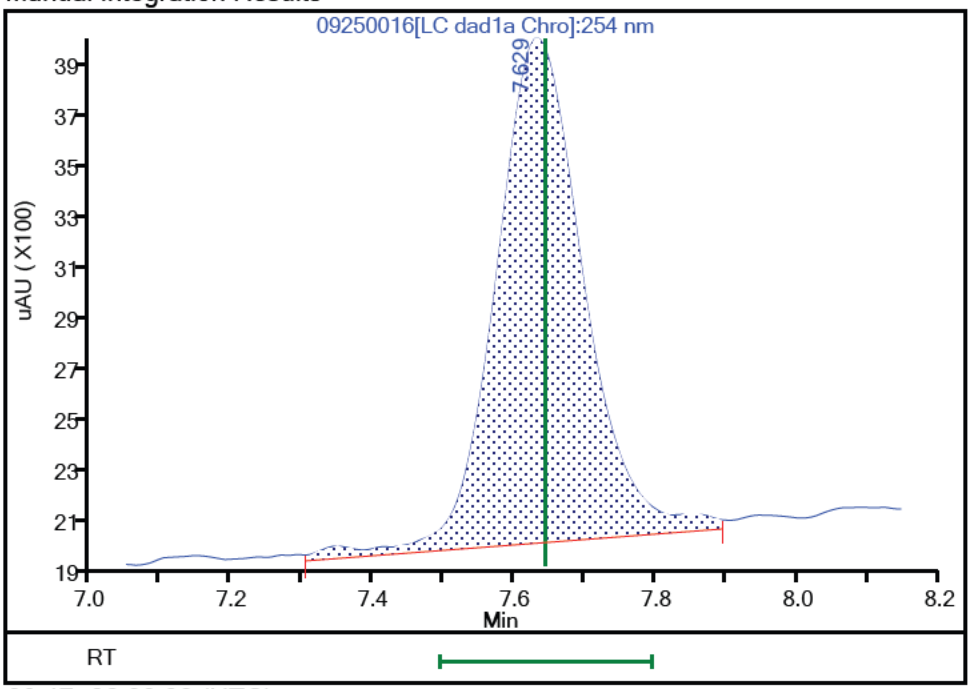
Processing Integration Results

RT: 7.63
Area: 17112
Amount: 0.060926
Amount Units: ug/ml



Manual Integration Results

RT: 7.63
Area: 16454
Amount: 0.062844
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:00:47 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

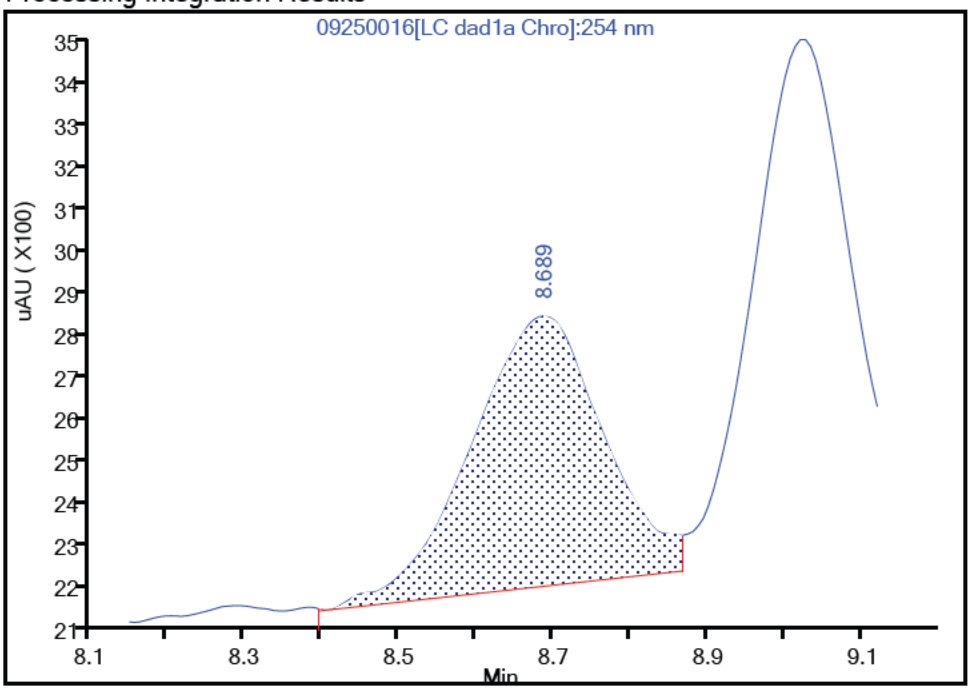
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250016.d				
Injection Date:	25-Sep-2023 22:18:06	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

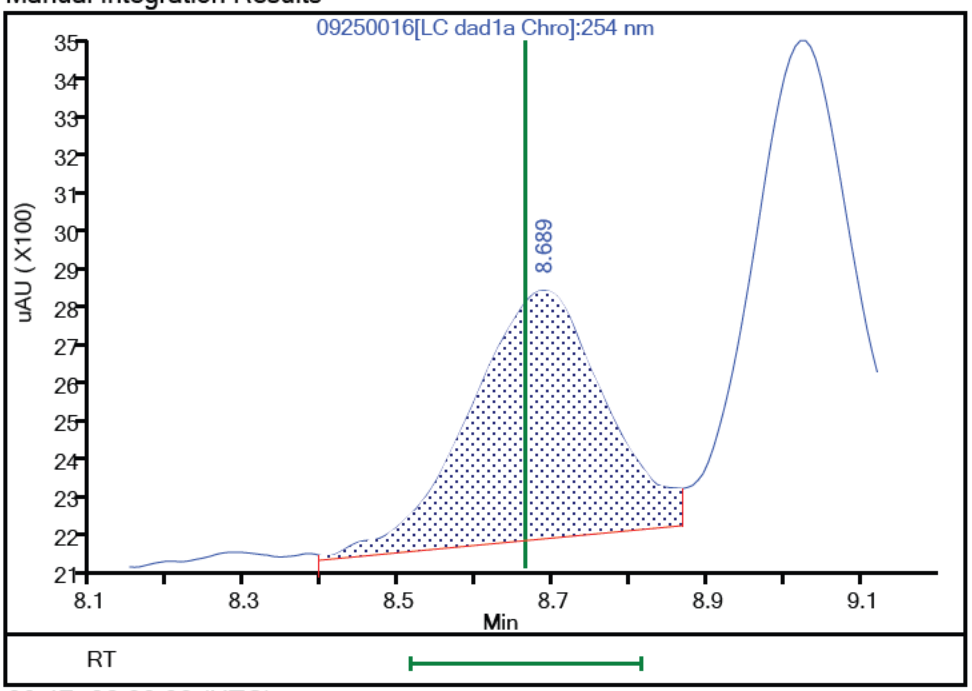
Processing Integration Results

RT: 8.69
Area: 7028
Amount: 0.047432
Amount Units: ug/ml



Manual Integration Results

RT: 8.69
Area: 7270
Amount: 0.050688
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:00:47 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

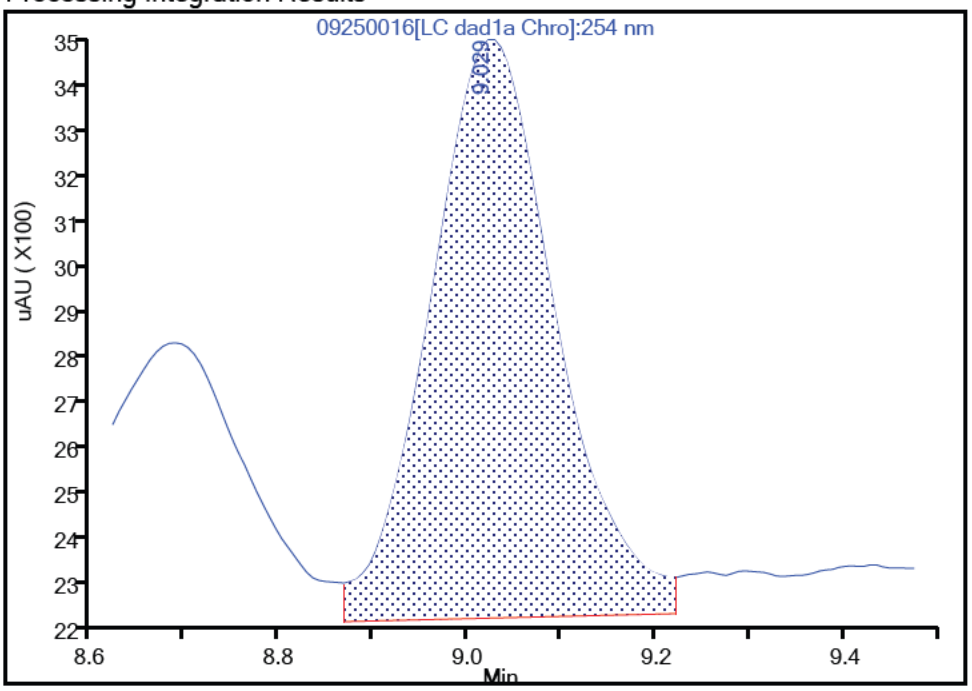
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250016.d				
Injection Date:	25-Sep-2023 22:18:06	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

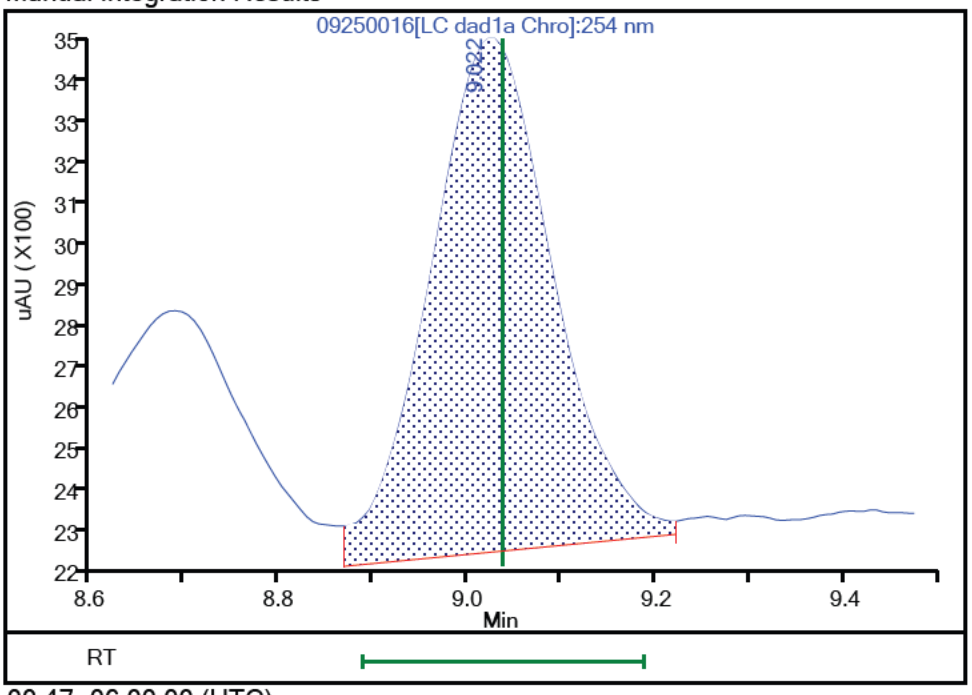
Processing Integration Results

RT: 9.03
Area: 10724
Amount: 0.048581
Amount Units: ug/ml



Manual Integration Results

RT: 9.02
Area: 10353
Amount: 0.049873
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:00:47 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

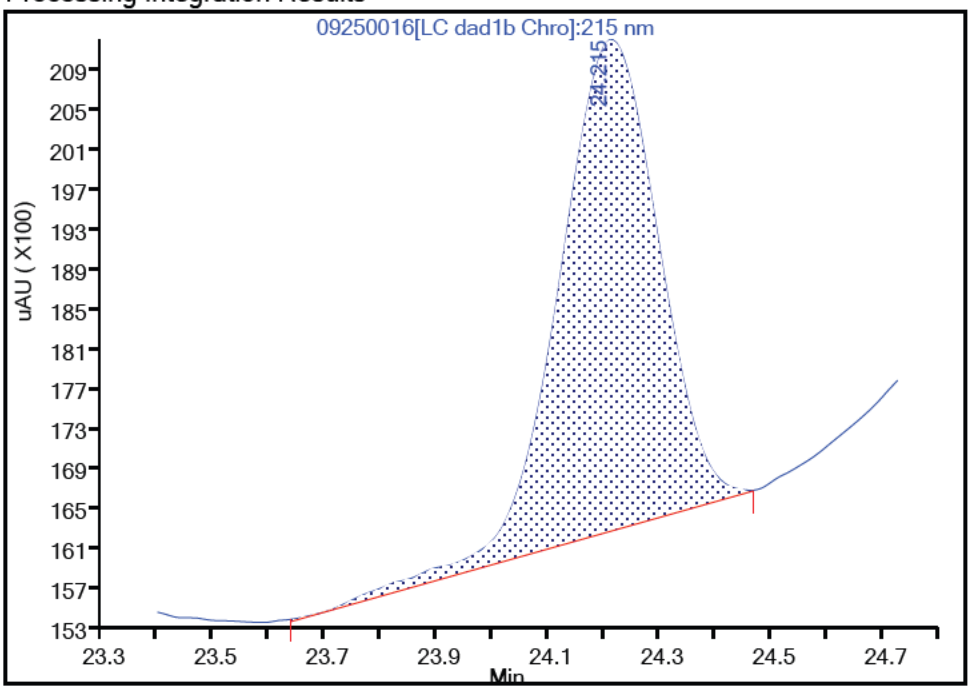
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250016.d				
Injection Date:	25-Sep-2023 22:18:06	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

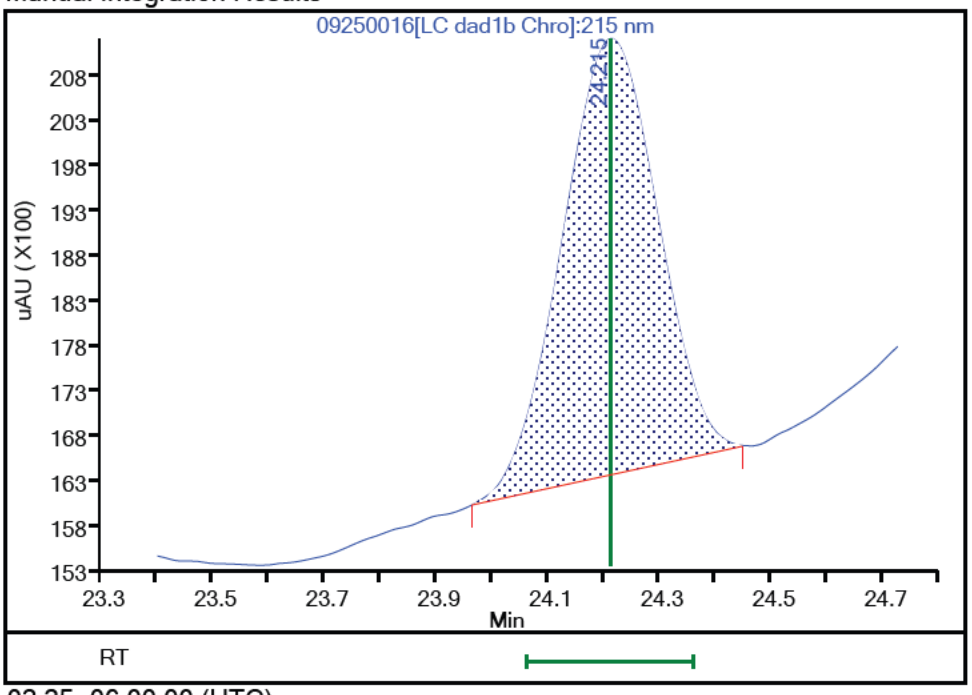
Processing Integration Results

RT: 24.22
Area: 61882
Amount: 0.484004
Amount Units: ug/ml



Manual Integration Results

RT: 24.22
Area: 57592
Amount: 0.468184
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:02:25 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250017.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 25-Sep-2023 22:54:10 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*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:38 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 15:24:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.285	5.291	-0.006	8811	0.0201	0.0210	
4 DNX	1	6.131	6.144	-0.013	6216	0.0200	0.0216	
6 HMX	1	6.771	6.791	-0.020	3125	0.0200	0.0180	M
7 MNX	1	7.618	7.644	-0.026	6293	0.0233	0.0240	M
5 2,4,6-Trinitrophenol	1	8.678	8.664	0.014	2960	0.0200	0.0206	M
8 RDX	1	9.005	9.038	-0.033	4054	0.0200	0.0195	M
9 Nitrobenzene	1	11.551	11.598	-0.047	6887	0.0200	0.0185	M
$ 10 1,2-Dinitrobenzene	1	12.484	12.538	-0.054	4419	0.0200	0.0172	M
11 3,5-Dinitroaniline	1	14.338	14.378	-0.040	8071	0.0200	0.0187	M
12 1,3-Dinitrobenzene	1	14.638	14.671	-0.033	11160	0.0200	0.0193	M
13 Nitroglycerin	2	15.064	15.111	-0.047	25930	0.2000	0.2088	
14 o-Nitrotoluene	1	15.684	15.738	-0.054	5416	0.0200	0.0219	M
15 p-Nitrotoluene	1	15.911	15.958	-0.047	5178	0.0200	0.0205	M
16 4-Amino-2,6-dinitrotoluene	1	16.424	16.478	-0.054	6984	0.0200	0.0209	M
17 m-Nitrotoluene	1	16.744	16.804	-0.060	6679	0.0200	0.0204	M
18 2-Amino-4,6-dinitrotoluene	1	17.224	17.284	-0.060	8189	0.0200	0.0180	M
19 1,3,5-Trinitrobenzene	1	17.444	17.498	-0.054	8780	0.0200	0.0213	M
20 2,6-Dinitrotoluene	1	18.524	18.598	-0.074	6716	0.0200	0.0224	M
21 2,4-Dinitrotoluene	1	18.984	19.051	-0.067	11241	0.0200	0.0206	M
22 Tetryl	1	22.191	22.244	-0.053	6017	0.0200	0.0195	
23 2,4,6-Trinitrotoluene	1	23.045	23.104	-0.059	6528	0.0200	0.0170	
24 PETN	2	24.171	24.211	-0.040	21075	0.2000	0.1713	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	2.00	Units: uL
8330 DMT_00015	Amount Added:	1.00	Units: uL

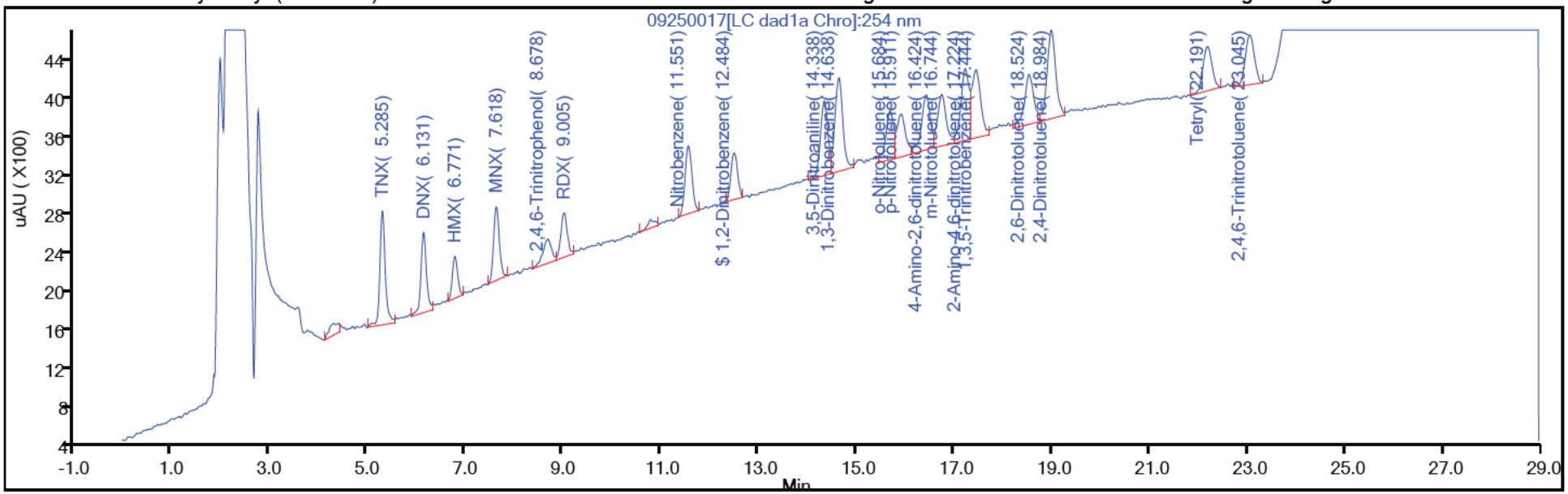
Report Date: 26-Sep-2023 15:25:38 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

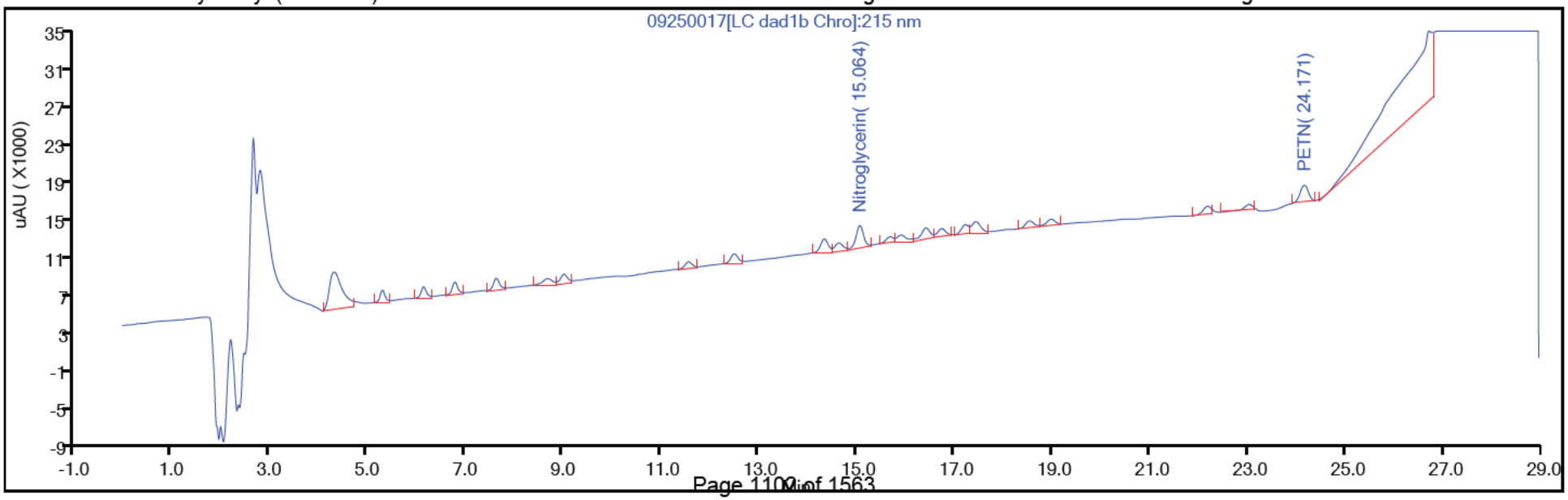
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d

Injection Date:	25-Sep-2023 22:54:10	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



Manual Integration/User Assign Peak Report

Eurofins Denver

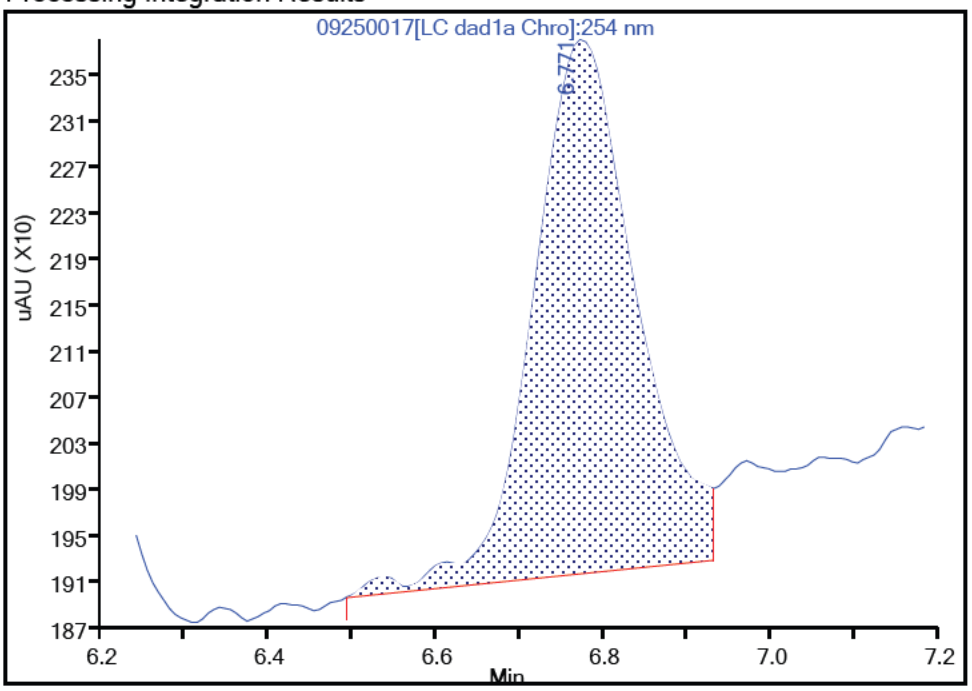
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

6 HMX, CAS: 2691-41-0

Signal: 1

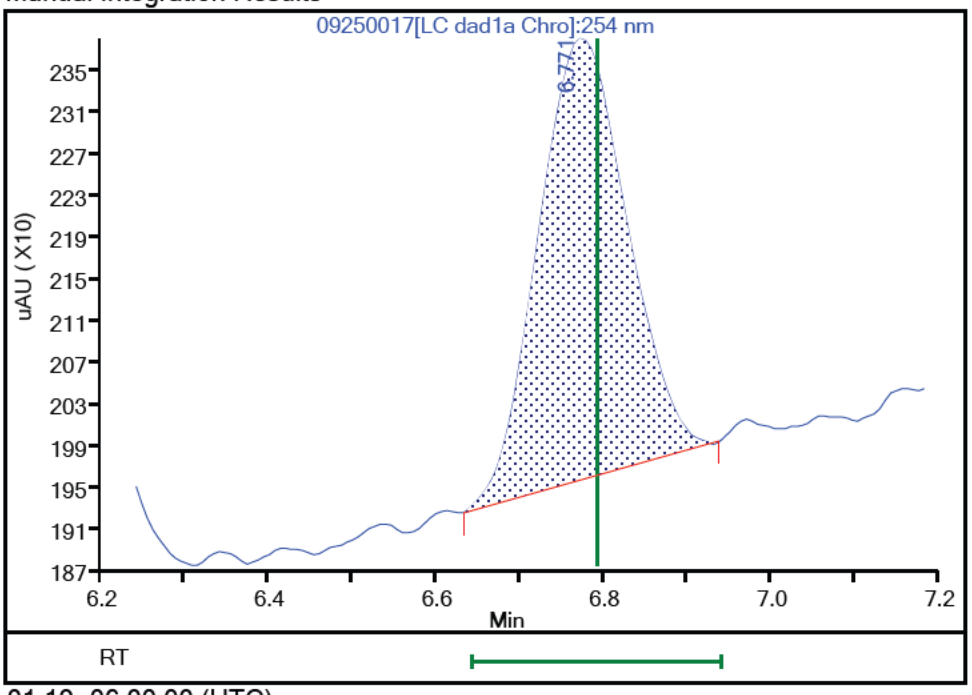
Processing Integration Results

RT: 6.77
Area: 3947
Amount: 0.020973
Amount Units: ug/ml



Manual Integration Results

RT: 6.77
Area: 3125
Amount: 0.018015
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:19 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

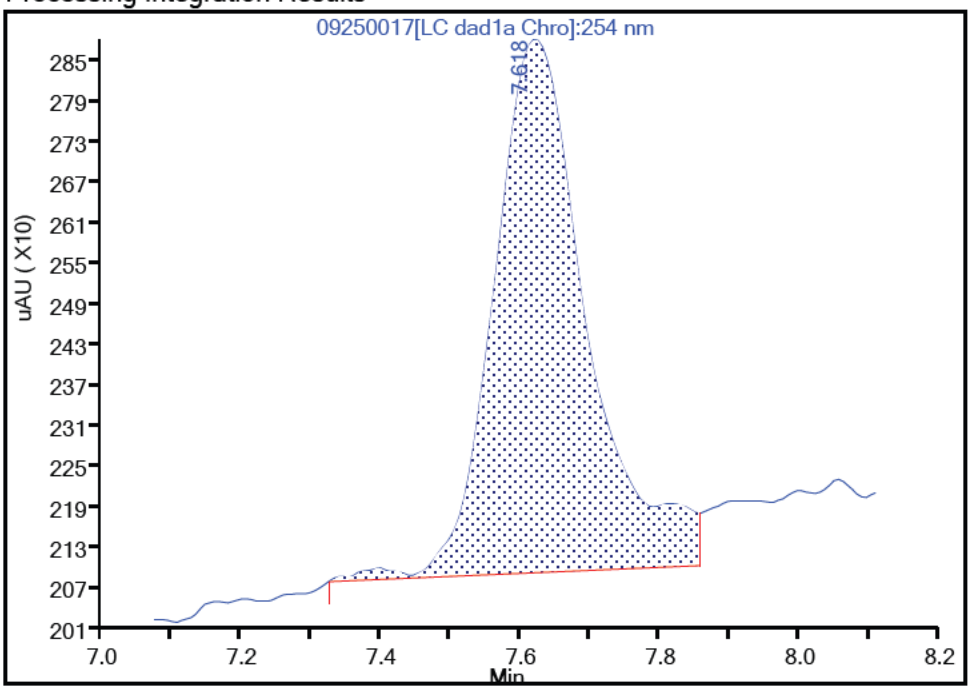
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

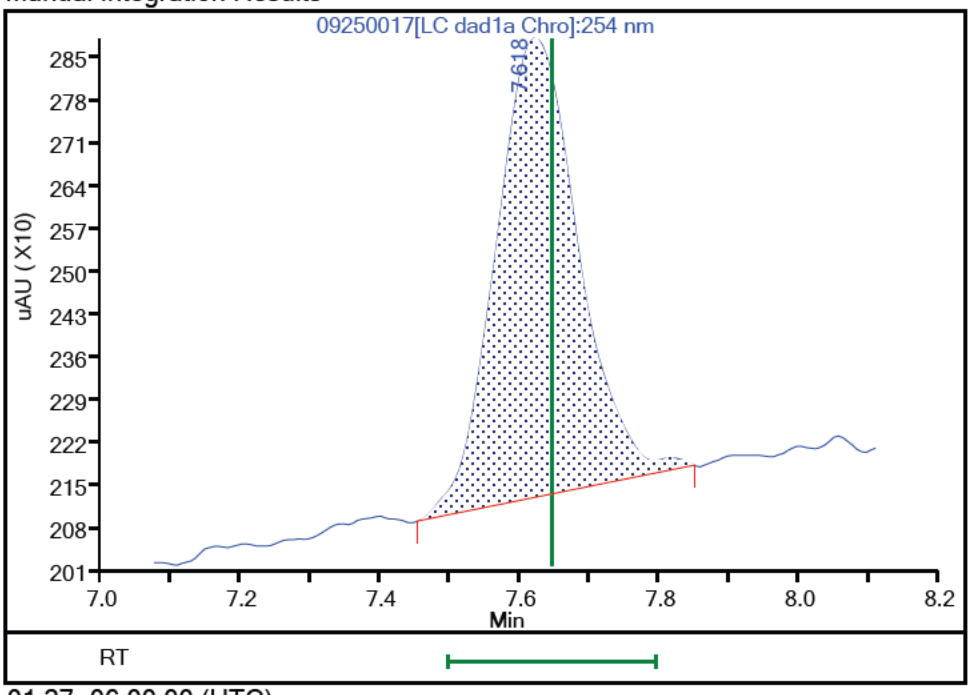
Processing Integration Results

RT: 7.62
Area: 7438
Amount: 0.026601
Amount Units: ug/ml



Manual Integration Results

RT: 7.62
Area: 6293
Amount: 0.024035
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:27 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

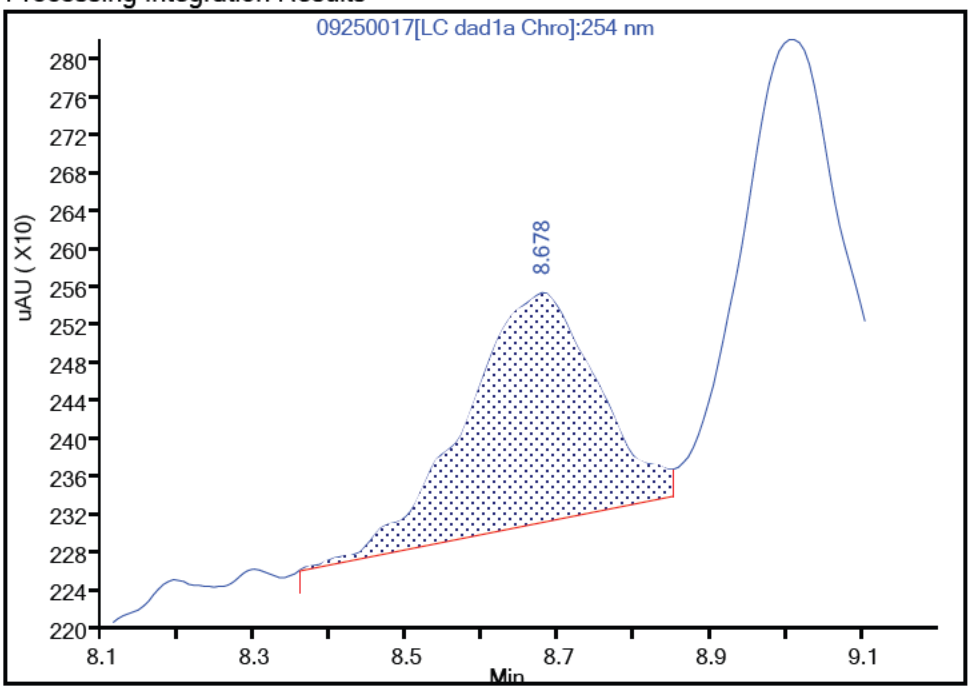
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

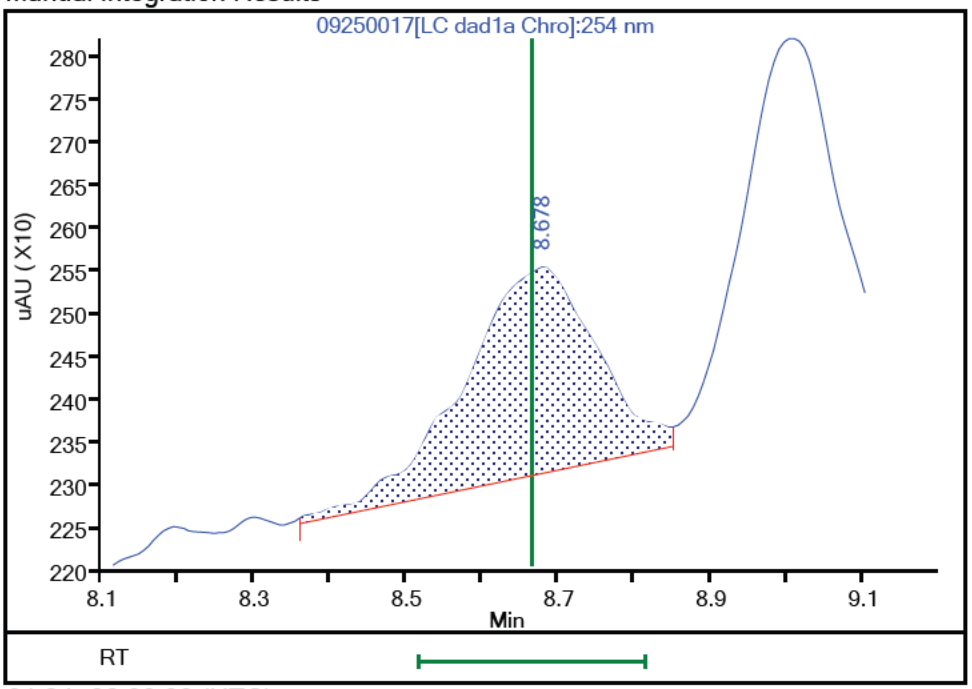
Processing Integration Results

RT: 8.68
Area: 2901
Amount: 0.019508
Amount Units: ug/ml



Manual Integration Results

RT: 8.68
Area: 2960
Amount: 0.020638
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:34 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

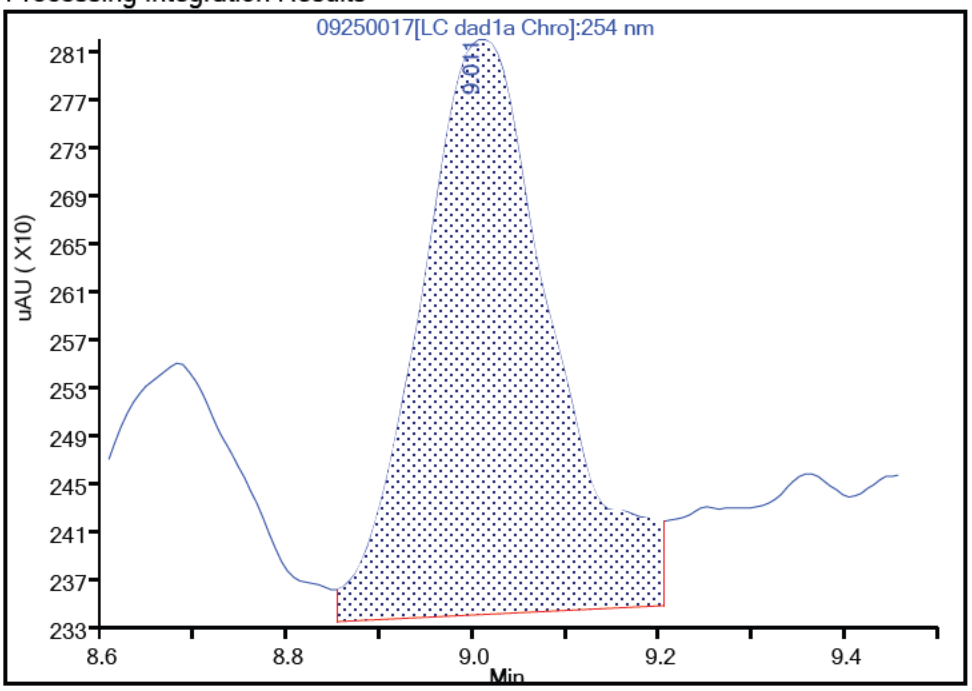
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

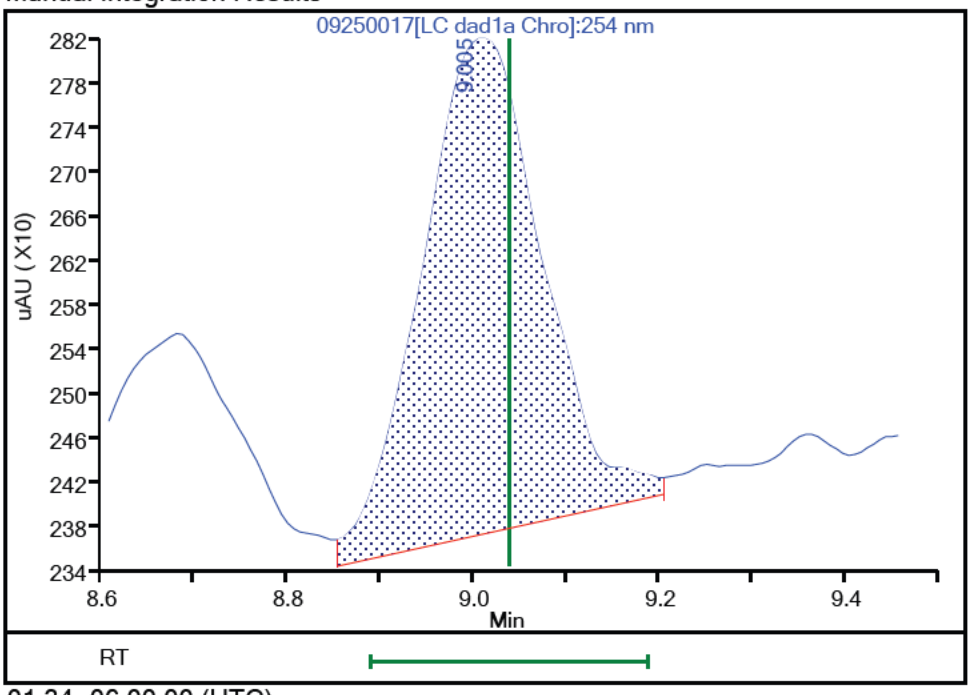
Processing Integration Results

RT: 9.01
Area: 4690
Amount: 0.021326
Amount Units: ug/ml



Manual Integration Results

RT: 9.00
Area: 4054
Amount: 0.019529
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

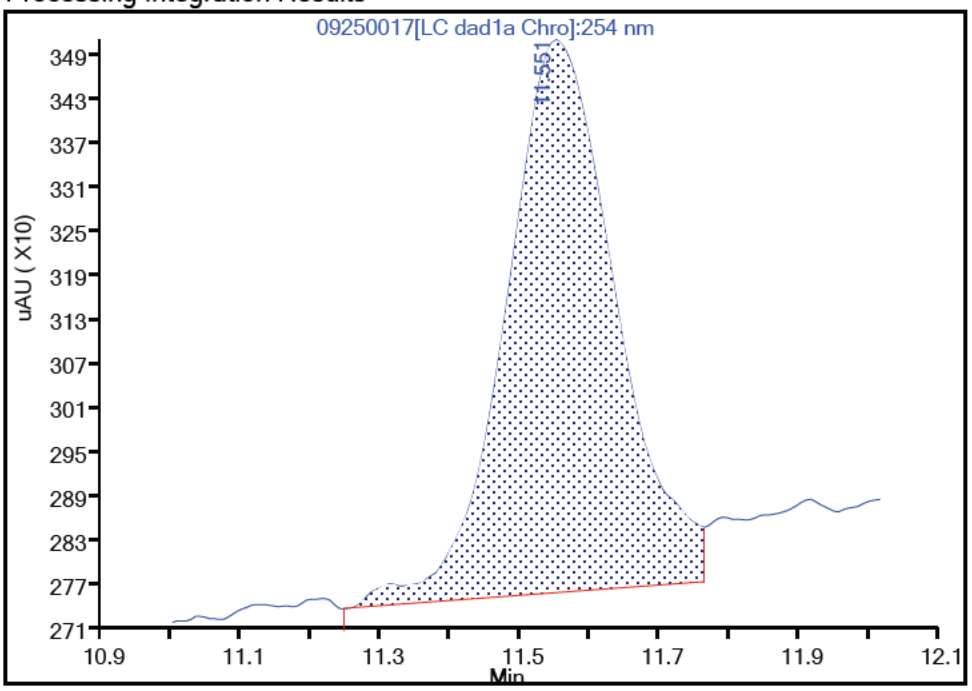
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

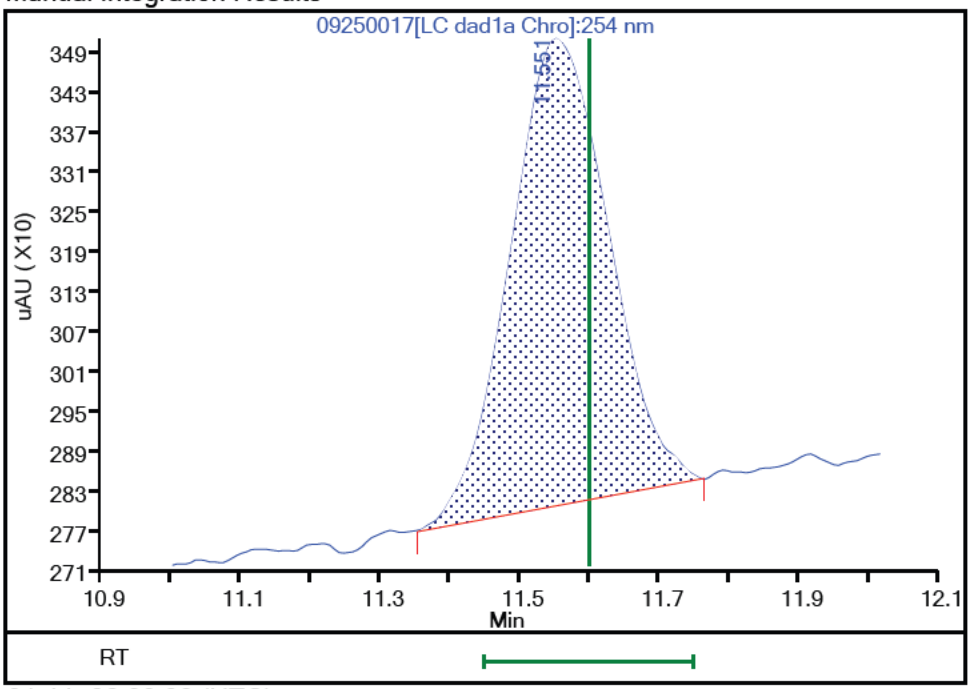
Processing Integration Results

RT: 11.55
Area: 8238
Amount: 0.021302
Amount Units: ug/ml



Manual Integration Results

RT: 11.55
Area: 6887
Amount: 0.018544
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:44 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

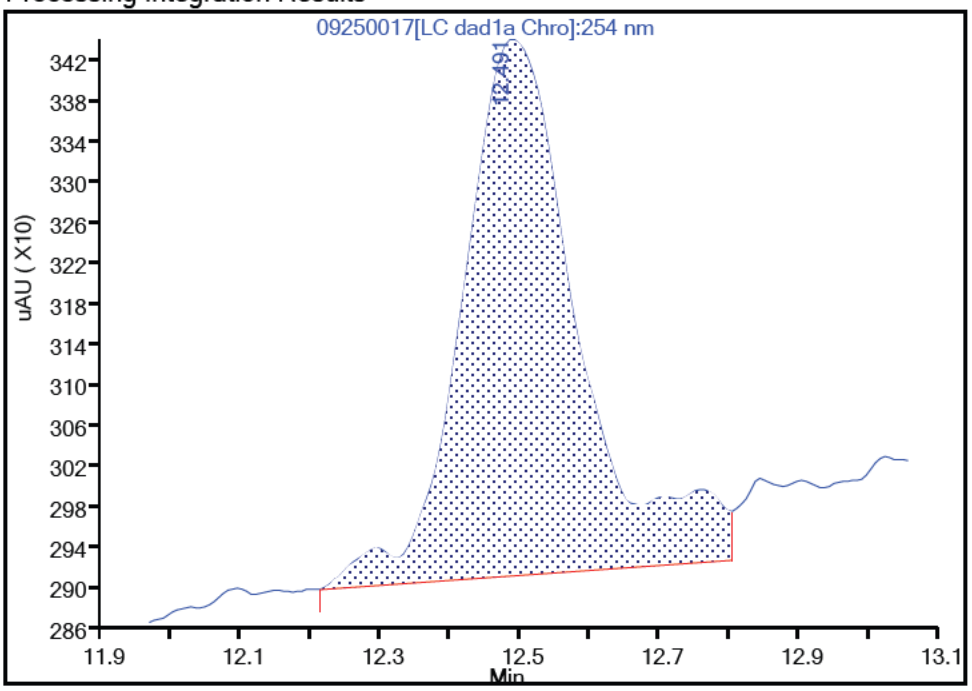
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

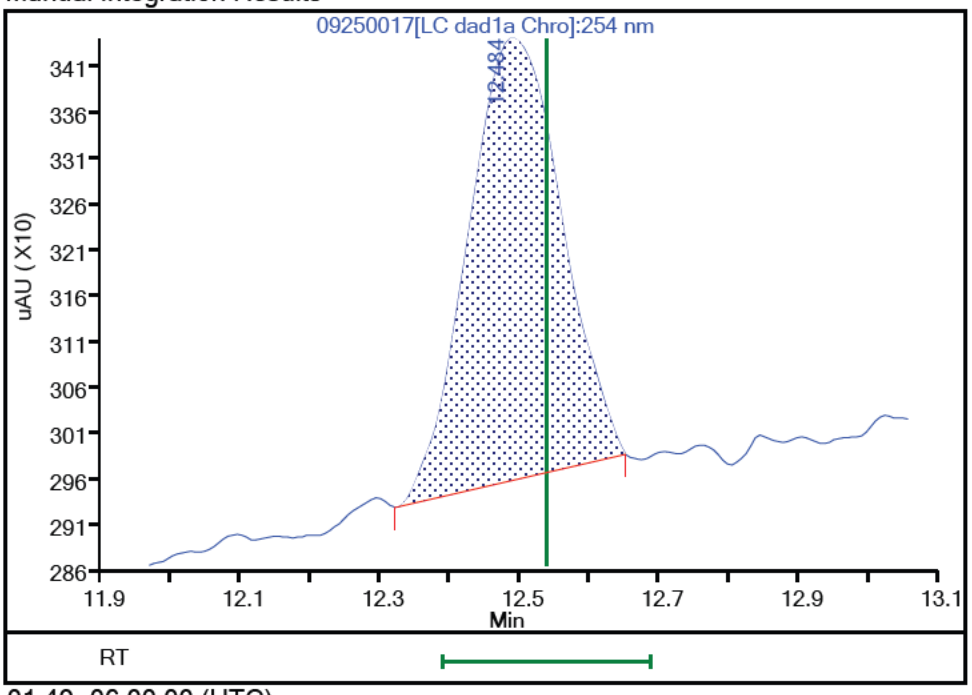
Processing Integration Results

RT: 12.49
Area: 6053
Amount: 0.022429
Amount Units: ug/ml



Manual Integration Results

RT: 12.48
Area: 4419
Amount: 0.017210
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:49 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

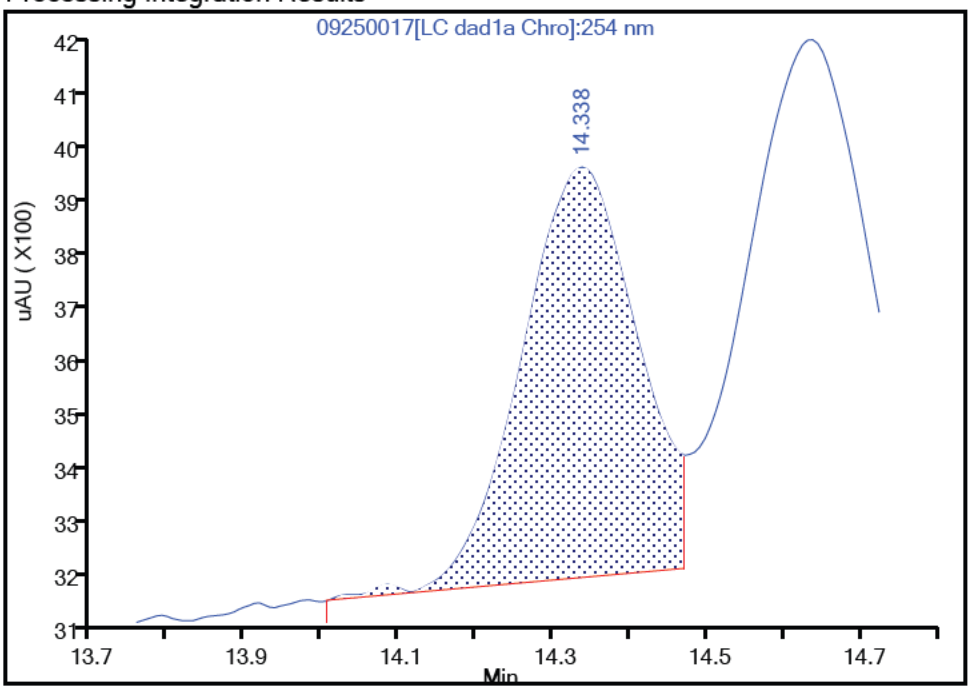
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

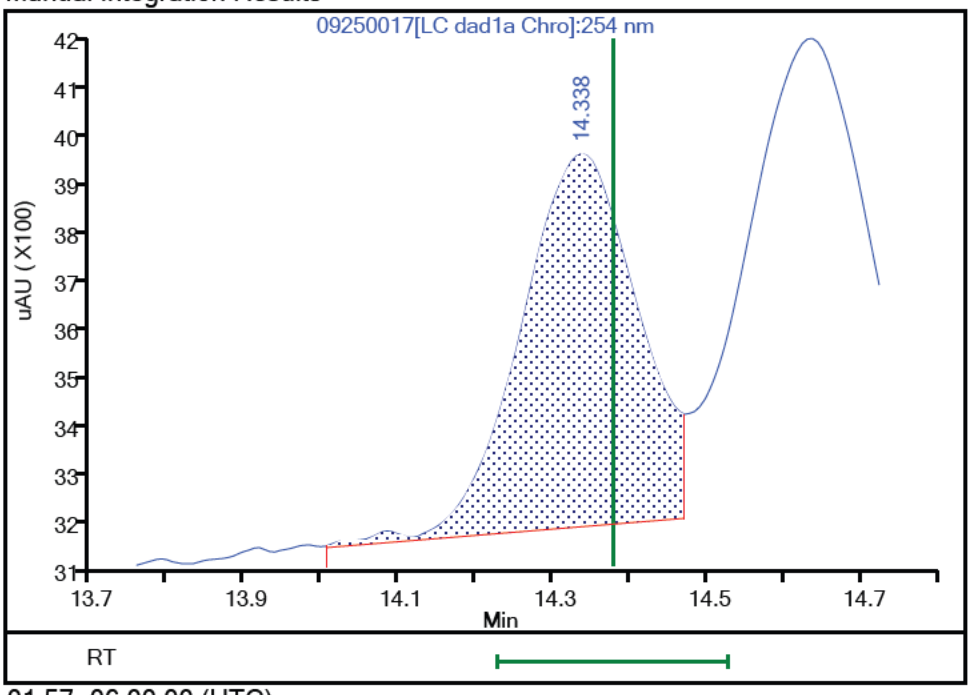
Processing Integration Results

RT: 14.34
Area: 7945
Amount: 0.018887
Amount Units: ug/ml



Manual Integration Results

RT: 14.34
Area: 8071
Amount: 0.018726
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:57 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

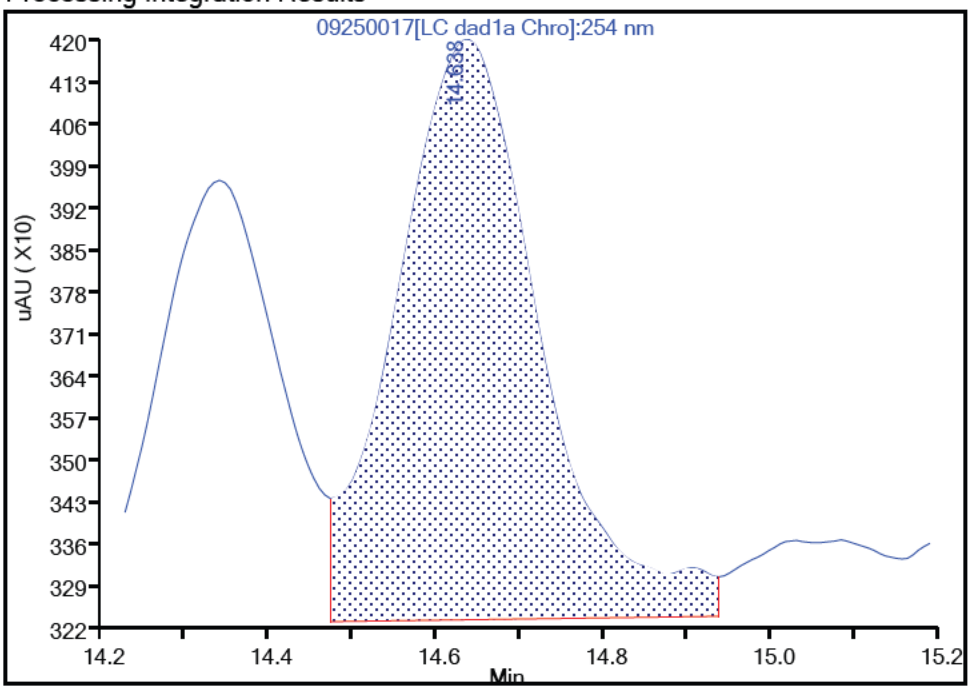
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

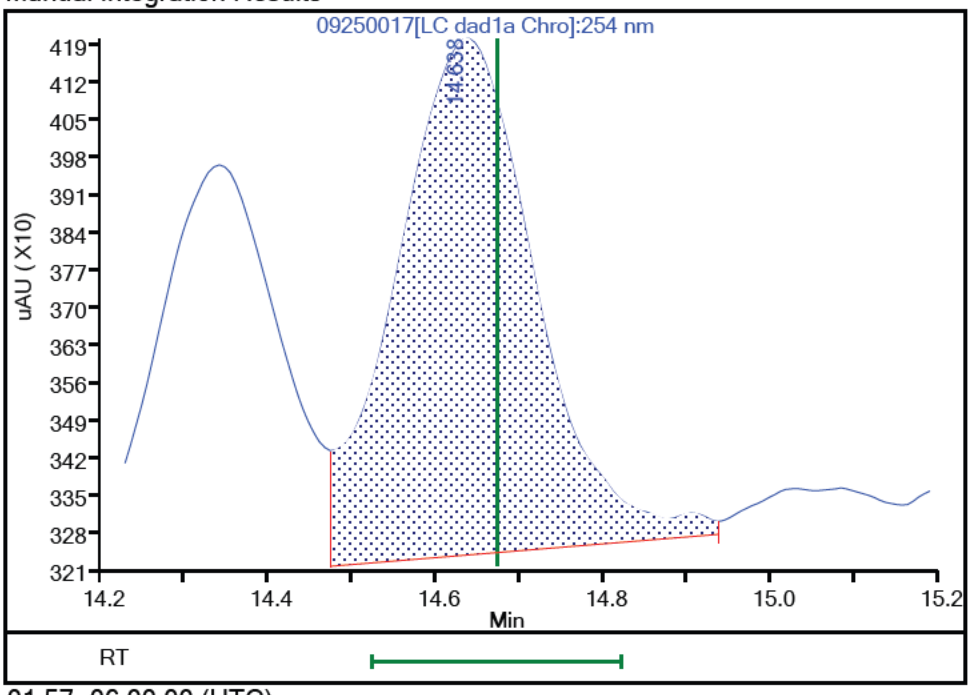
Processing Integration Results

RT: 14.64
Area: 11664
Amount: 0.019906
Amount Units: ug/ml



Manual Integration Results

RT: 14.64
Area: 11160
Amount: 0.019257
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:57 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

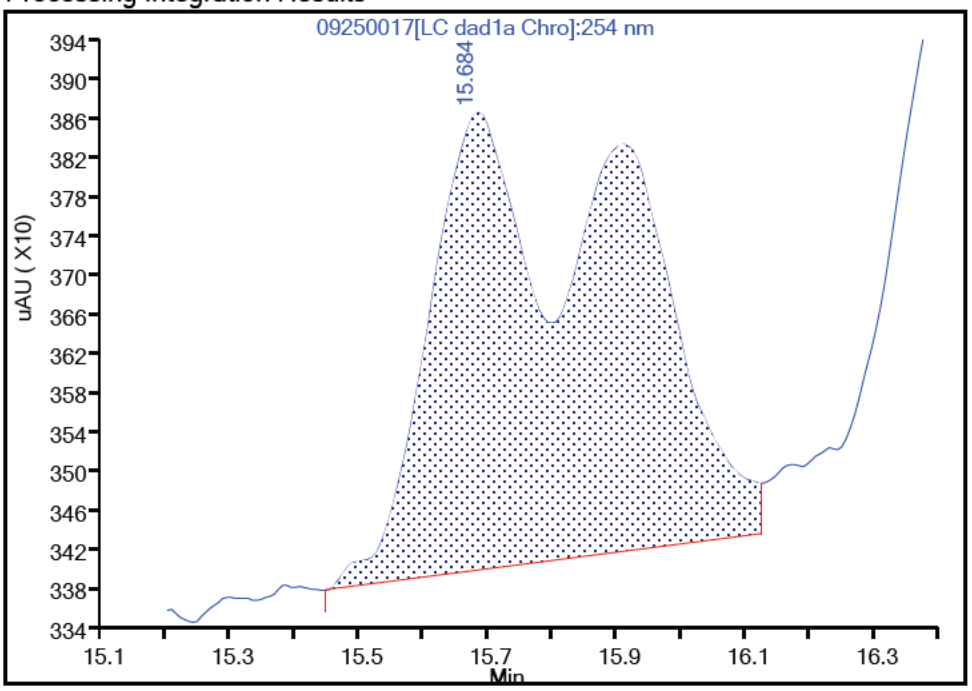
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

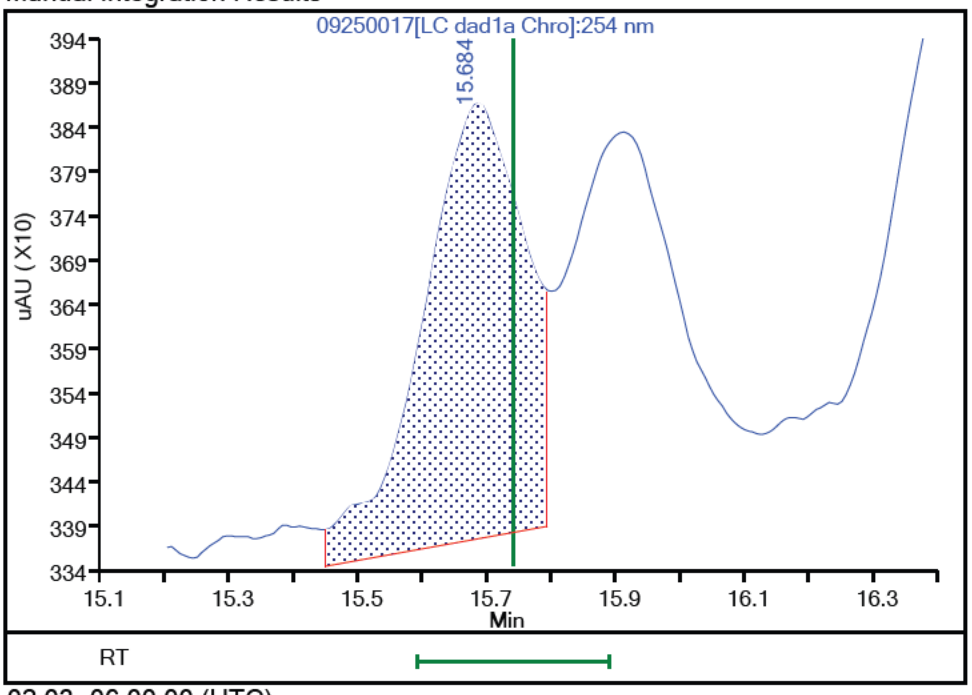
Processing Integration Results

RT: 15.68
Area: 9578
Amount: 0.027034
Amount Units: ug/ml



Manual Integration Results

RT: 15.68
Area: 5416
Amount: 0.021924
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:02:03 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

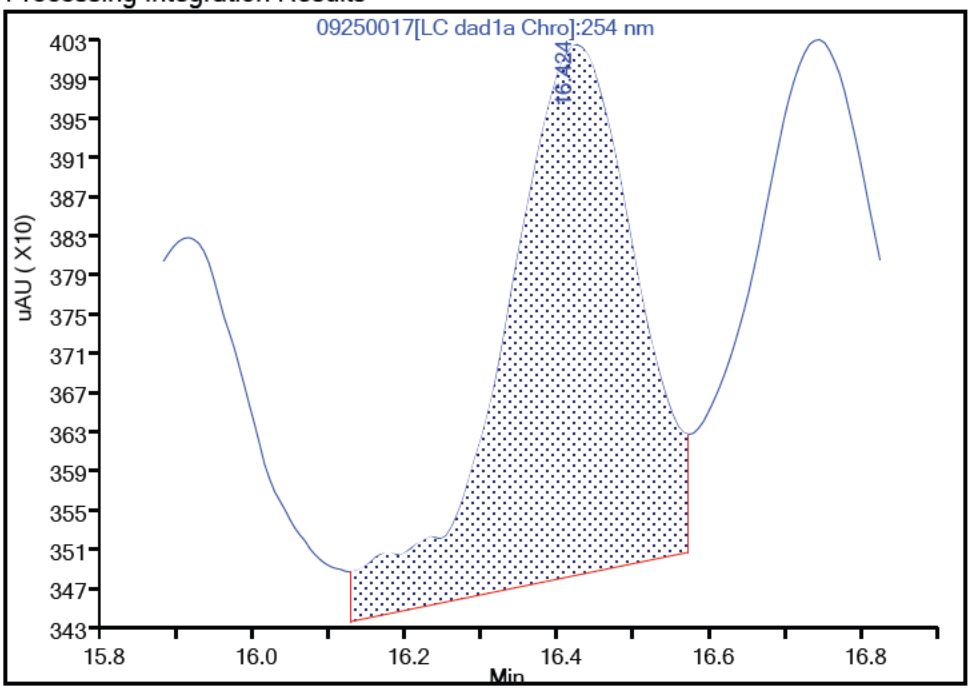
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

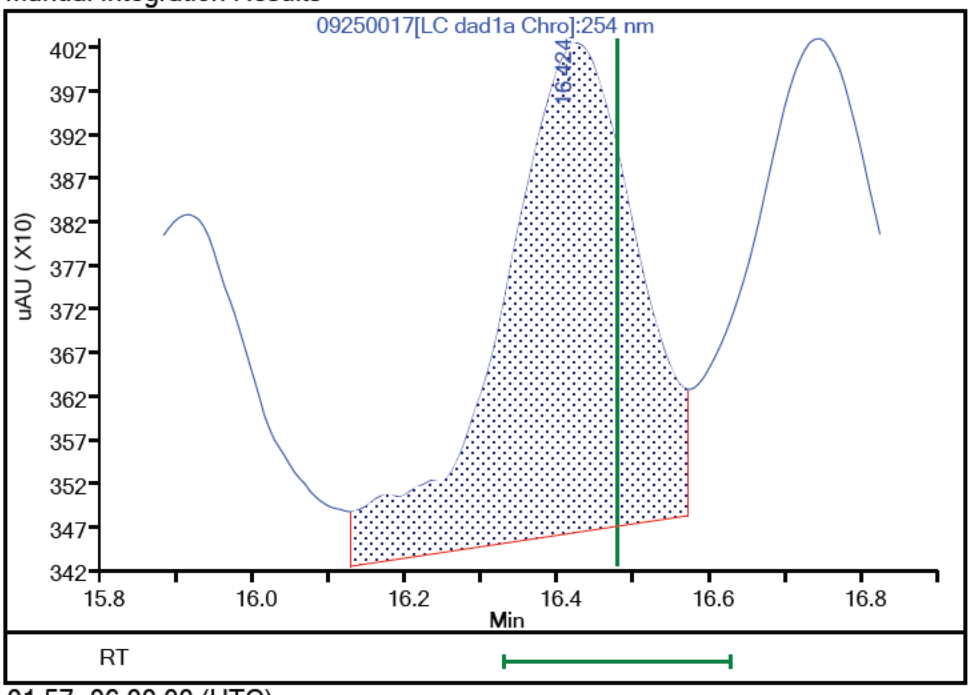
Processing Integration Results

RT: 16.42
Area: 6515
Amount: 0.022799
Amount Units: ug/ml



Manual Integration Results

RT: 16.42
Area: 6984
Amount: 0.020908
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

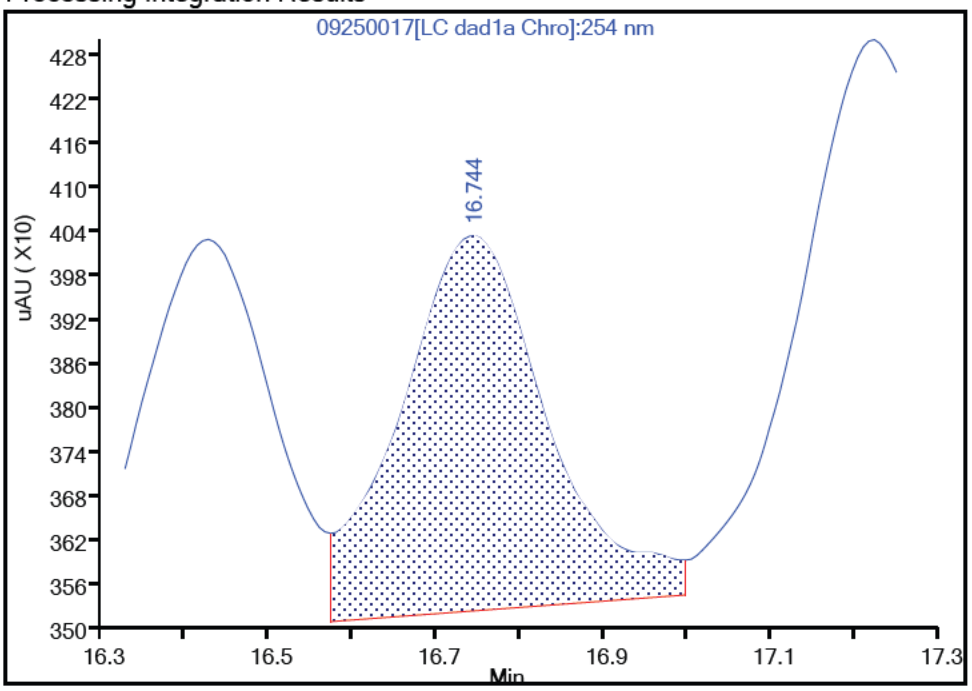
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

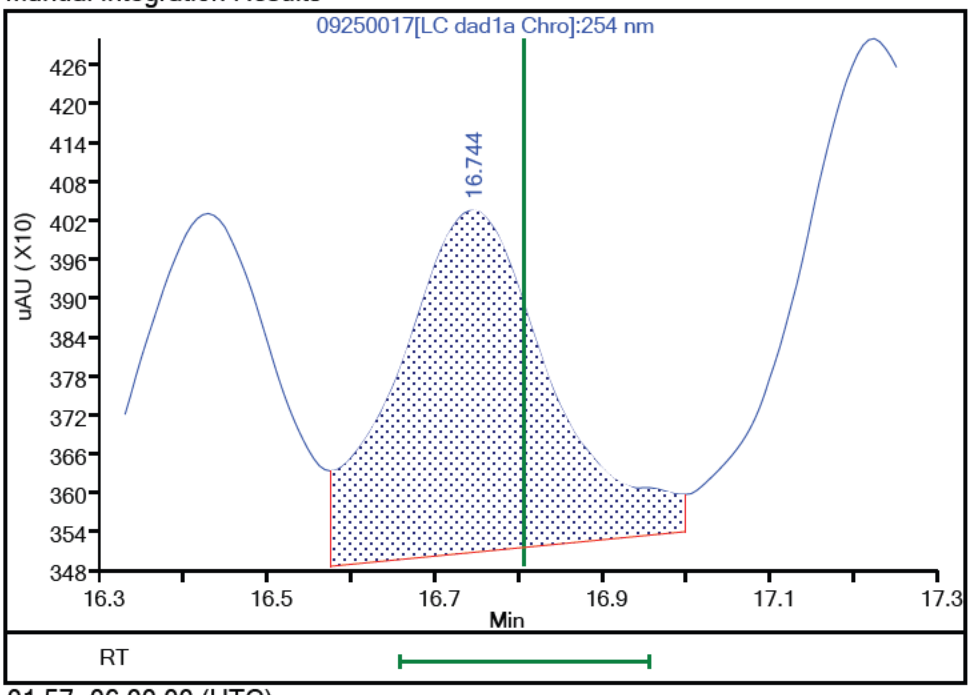
Processing Integration Results

RT: 16.74
Area: 6231
Amount: 0.022324
Amount Units: ug/ml



Manual Integration Results

RT: 16.74
Area: 6679
Amount: 0.020390
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

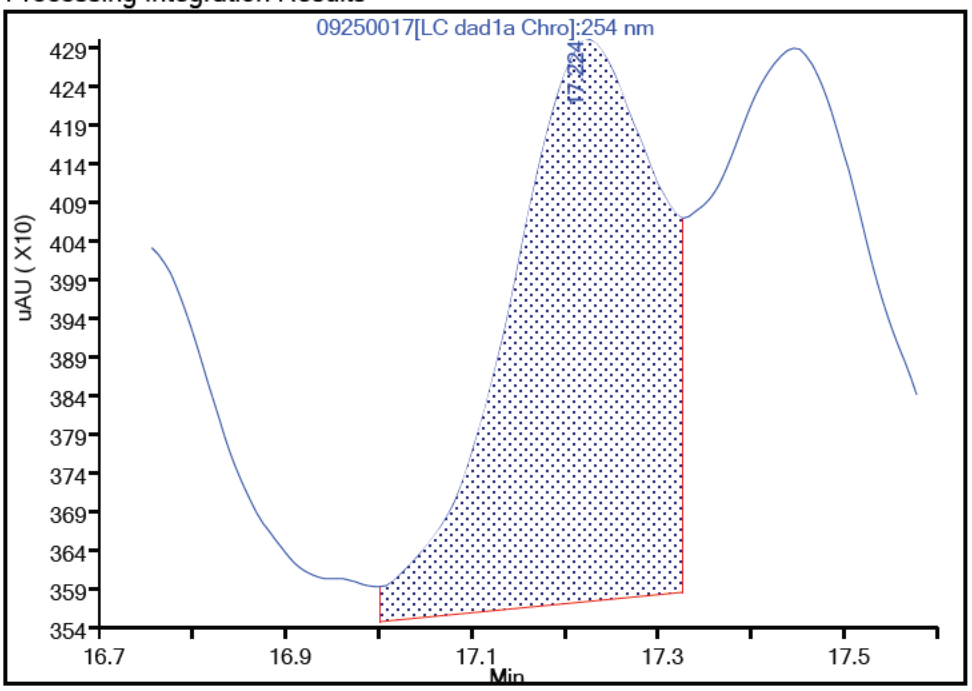
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

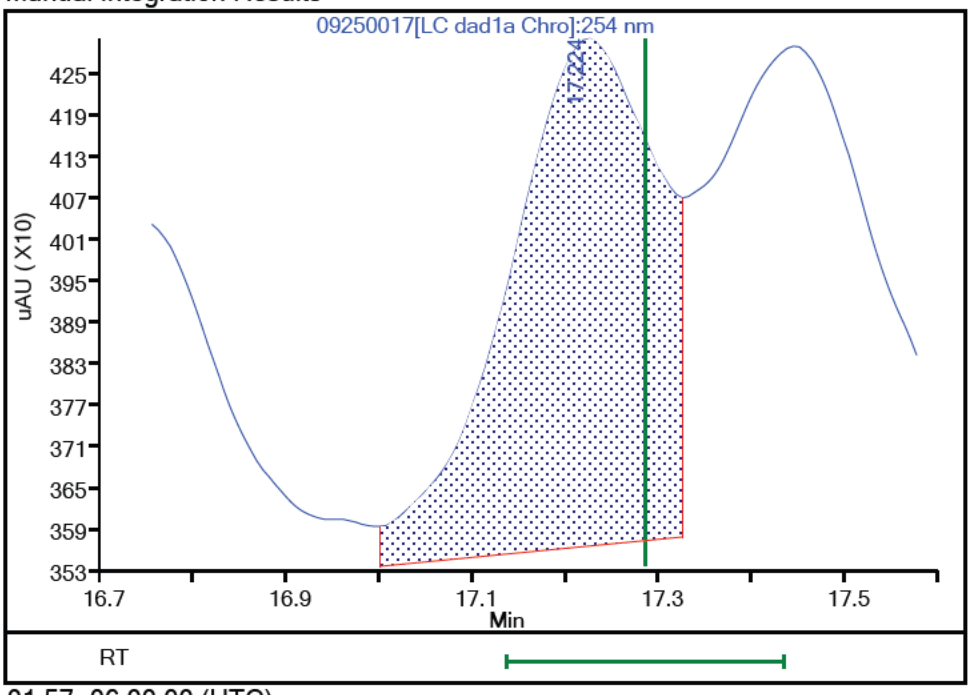
Processing Integration Results

RT: 17.22
Area: 8032
Amount: 0.012641
Amount Units: ug/ml



Manual Integration Results

RT: 17.22
Area: 8189
Amount: 0.017981
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

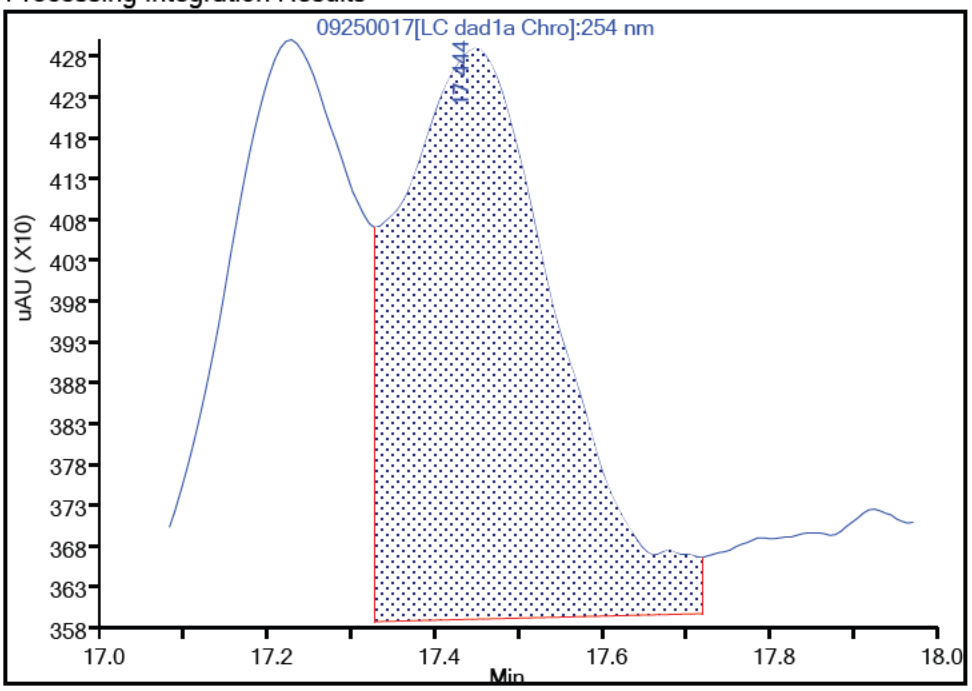
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

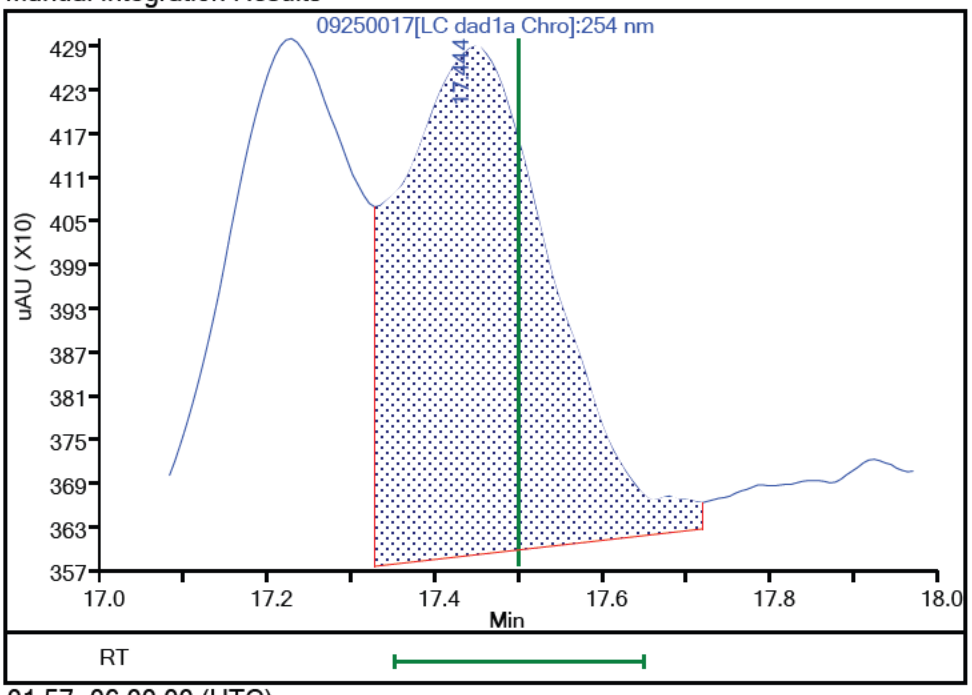
Processing Integration Results

RT: 17.44
Area: 9098
Amount: 0.022025
Amount Units: ug/ml



Manual Integration Results

RT: 17.44
Area: 8780
Amount: 0.021330
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

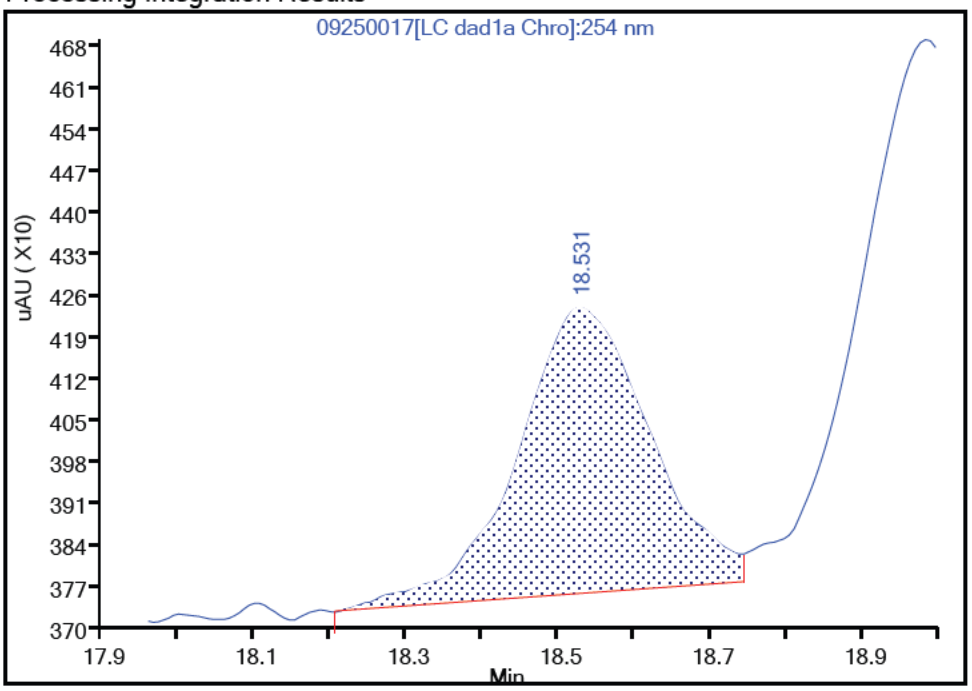
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

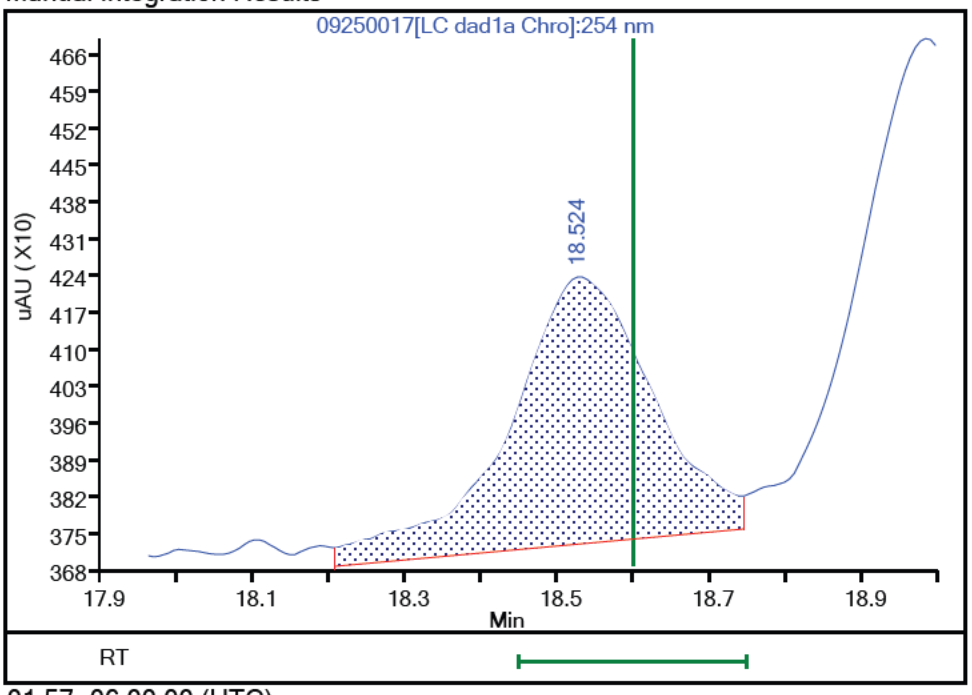
Processing Integration Results

RT: 18.53
Area: 5922
Amount: 0.021510
Amount Units: ug/ml



Manual Integration Results

RT: 18.52
Area: 6716
Amount: 0.022446
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

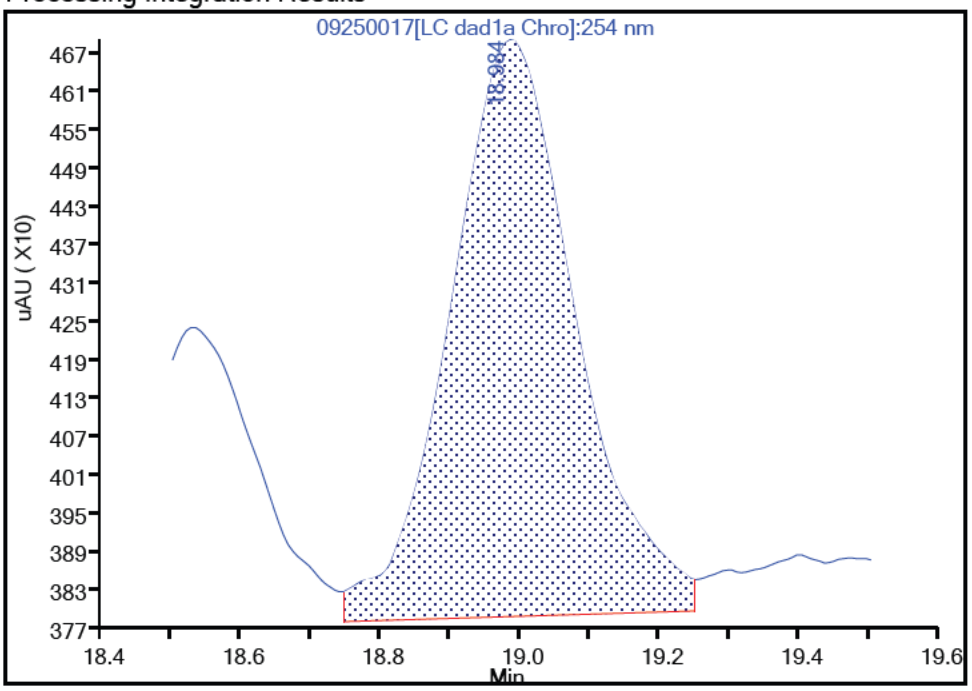
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d
Injection Date: 25-Sep-2023 22:54:10 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

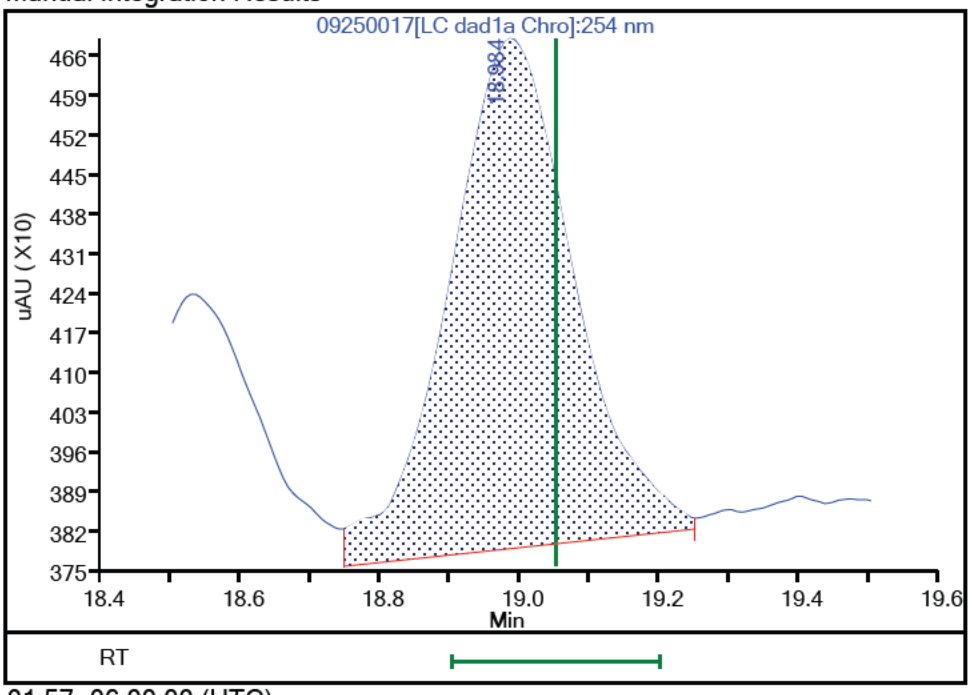
Processing Integration Results

RT: 18.98
Area: 11484
Amount: 0.020690
Amount Units: ug/ml



Manual Integration Results

RT: 18.98
Area: 11241
Amount: 0.020622
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:01:57 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

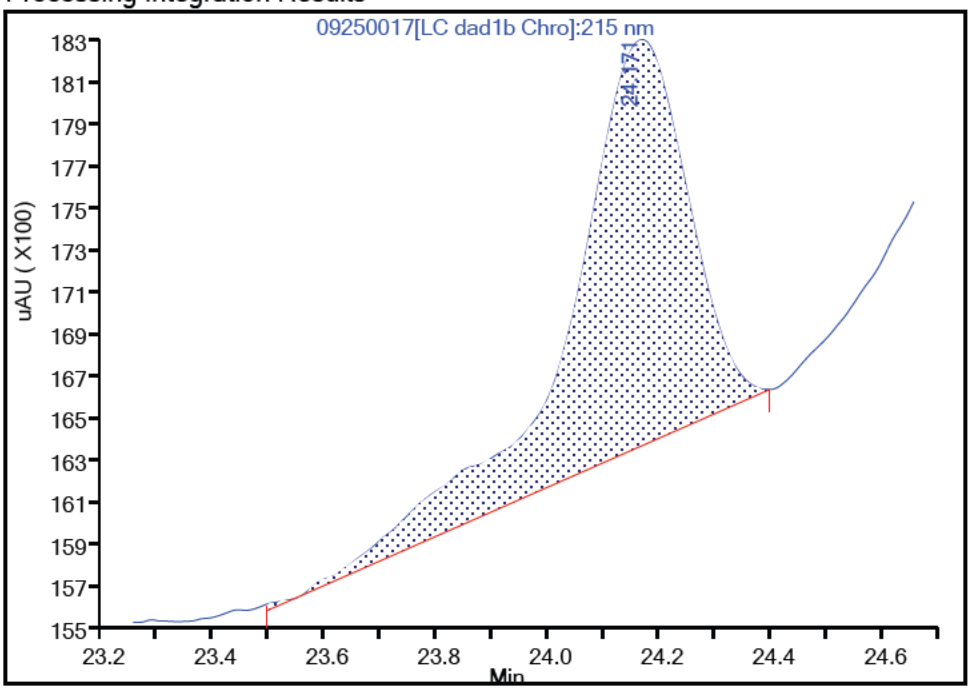
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250017.d				
Injection Date:	25-Sep-2023 22:54:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

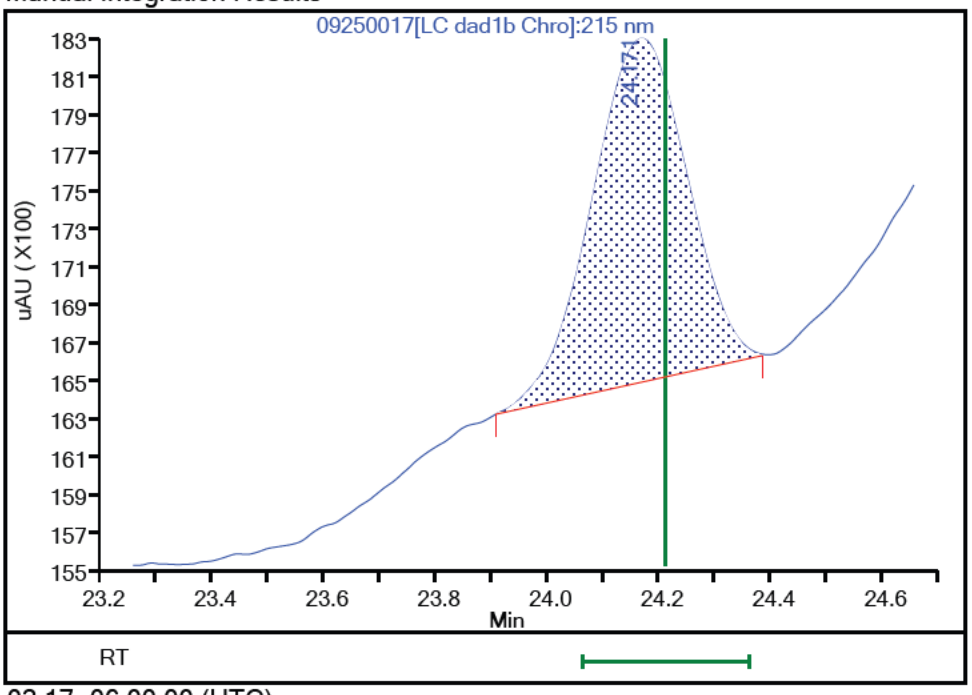
Processing Integration Results

RT: 24.17
Area: 27964
Amount: 0.212361
Amount Units: ug/ml



Manual Integration Results

RT: 24.17
Area: 21075
Amount: 0.171326
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:02:17 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250018.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 25-Sep-2023 23:30:18 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*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:39 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 15:25:08

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.278	5.291	-0.013	4632	0.0100	0.009811	
4 DNX	1	6.124	6.144	-0.020	3214	0.0100	0.0112	
6 HMX	1	6.771	6.791	-0.020	1873	0.0100	0.0108	M
7 MNX	1	7.624	7.644	-0.020	3081	0.0117	0.0118	M
5 2,4,6-Trinitrophenol	1	8.698	8.664	0.034	1867	0.0100	0.0130	M
8 RDX	1	9.011	9.038	-0.027	2366	0.0100	0.0114	M
9 Nitrobenzene	1	11.551	11.598	-0.047	3810	0.0100	0.0103	M
$ 10 1,2-Dinitrobenzene	1	12.491	12.538	-0.047	3052	0.0100	0.0119	M
11 3,5-Dinitroaniline	1	14.364	14.378	-0.014	4622	0.0100	0.0103	M
12 1,3-Dinitrobenzene	1	14.664	14.671	-0.007	6679	0.0100	0.0115	M
13 Nitroglycerin	2	15.091	15.111	-0.020	13348	0.1000	0.1075	
14 o-Nitrotoluene	1	15.697	15.738	-0.041	2753	0.0100	0.0111	M
15 p-Nitrotoluene	1	15.931	15.958	-0.027	2862	0.0100	0.009860	M
16 4-Amino-2,6-dinitrotoluene	1	16.437	16.478	-0.041	3980	0.0100	0.009756	M
17 m-Nitrotoluene	1	16.751	16.804	-0.053	3853	0.0100	0.0099	M
18 2-Amino-4,6-dinitrotoluene	1	17.237	17.284	-0.047	5349	0.0100	0.0104	M
19 1,3,5-Trinitrobenzene	1	17.451	17.498	-0.047	4159	0.0100	0.0101	M
20 2,6-Dinitrotoluene	1	18.557	18.598	-0.041	3360	0.0100	0.009575	M
21 2,4-Dinitrotoluene	1	19.017	19.051	-0.034	5753	0.0100	0.0106	M
22 Tetryl	1	22.224	22.244	-0.020	3615	0.0100	0.0117	
23 2,4,6-Trinitrotoluene	1	23.091	23.104	-0.013	3712	0.0100	0.009642	
24 PETN	2	24.184	24.211	-0.027	11596	0.1000	0.0943	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	1.00	Units: uL
8330 DMT_00015	Amount Added:	0.50	Units: uL

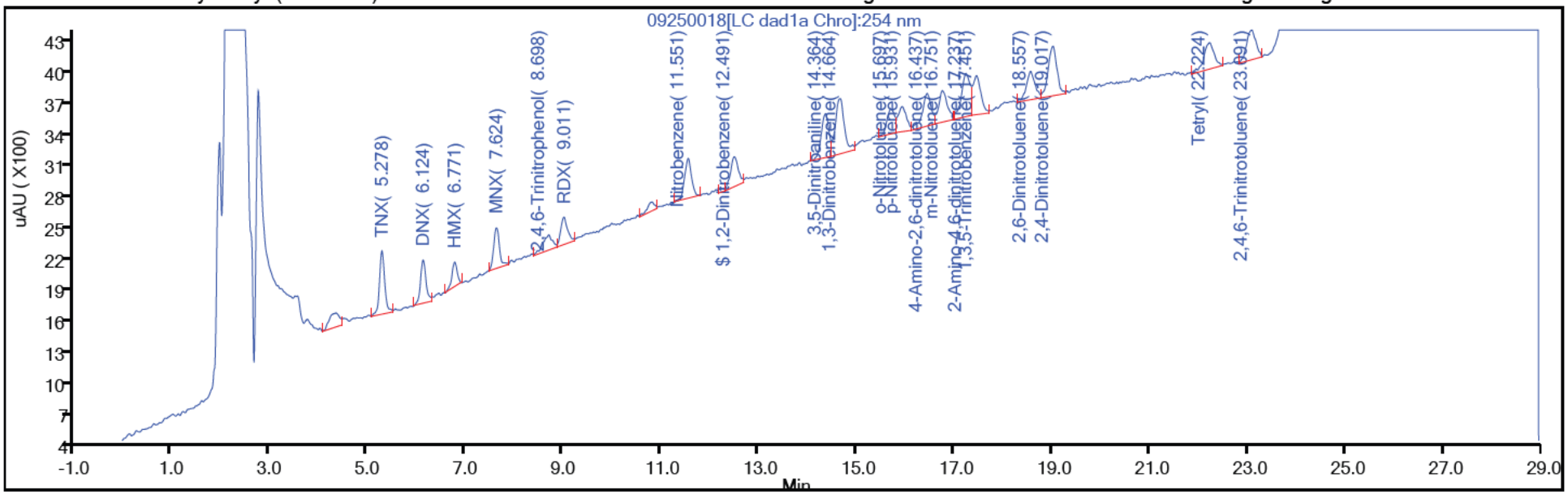
Report Date: 26-Sep-2023 15:25:39 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

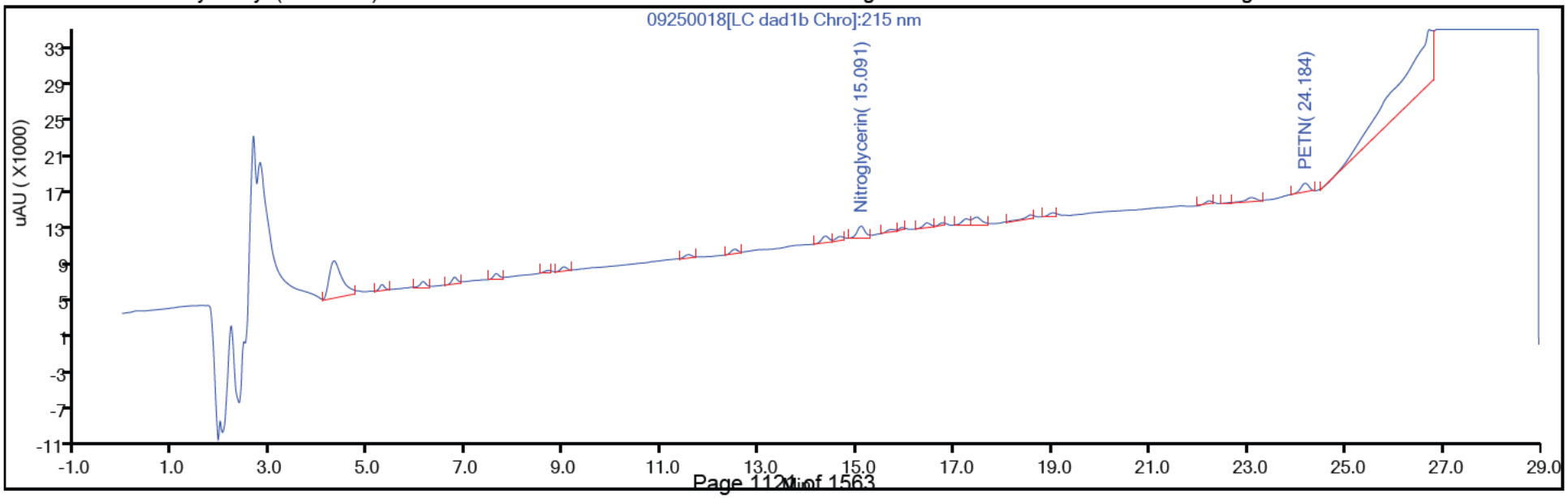
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d

Injection Date:	25-Sep-2023 23:30:18	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



Manual Integration/User Assign Peak Report

Eurofins Denver

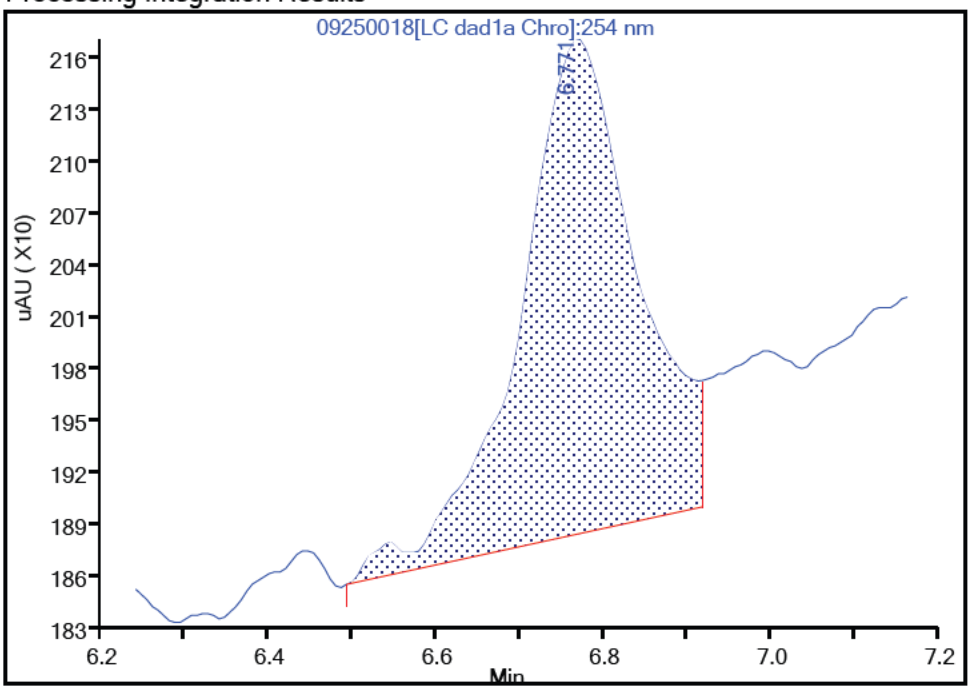
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

6 HMX, CAS: 2691-41-0

Signal: 1

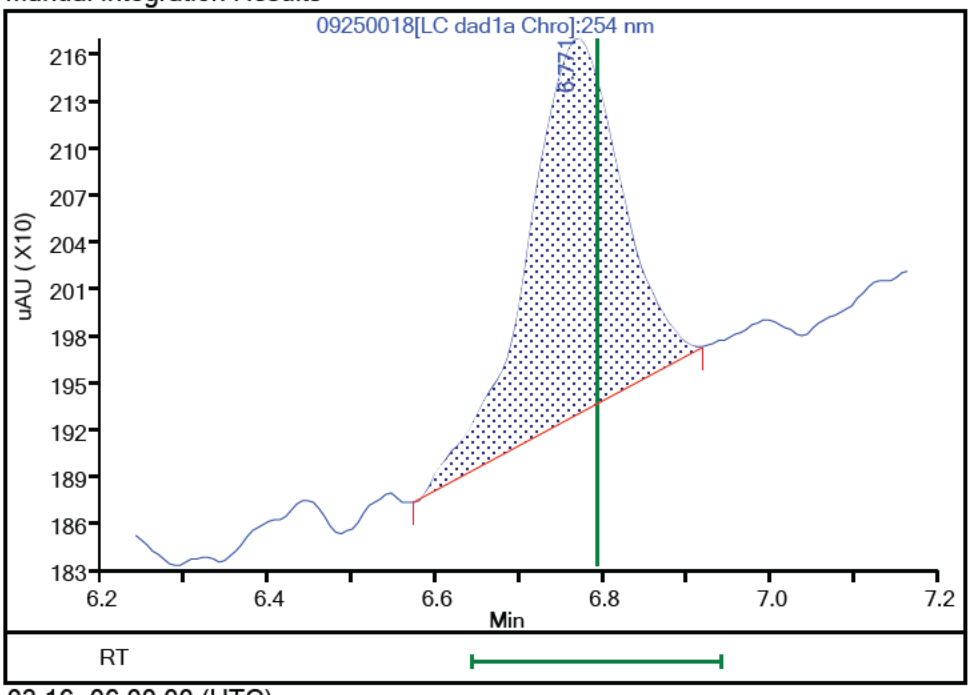
Processing Integration Results

RT: 6.77
Area: 2787
Amount: 0.015178
Amount Units: ug/ml



Manual Integration Results

RT: 6.77
Area: 1873
Amount: 0.010797
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:03:16 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

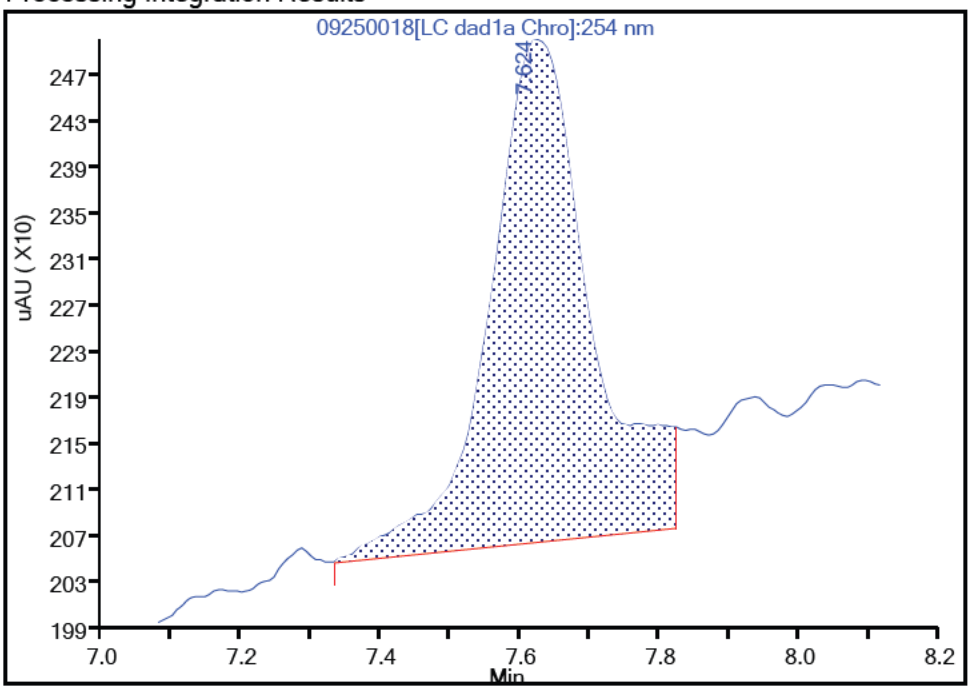
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d
Injection Date: 25-Sep-2023 23:30:18 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

7 MNX, CAS: 5755-27-1

Signal: 1

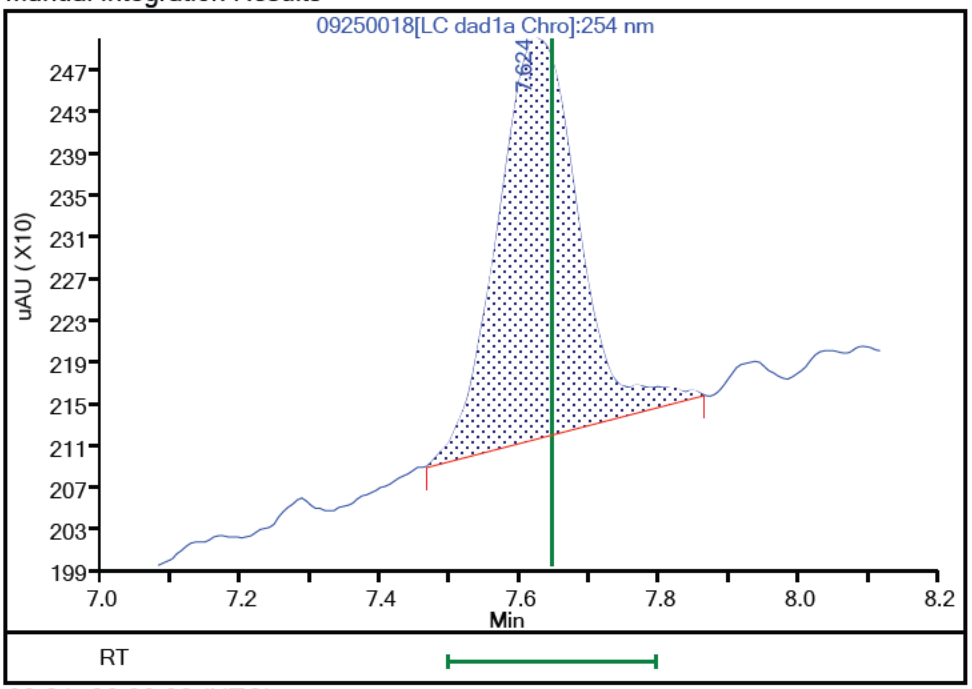
Processing Integration Results

RT: 7.62
Area: 4377
Amount: 0.015965
Amount Units: ug/ml



Manual Integration Results

RT: 7.62
Area: 3081
Amount: 0.011767
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:03:21 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

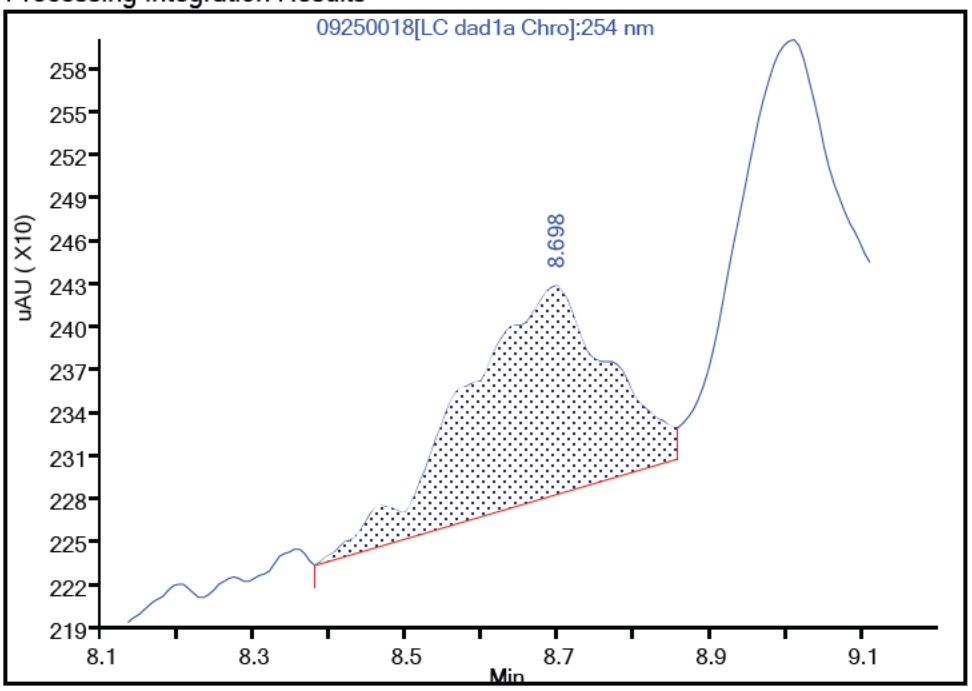
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

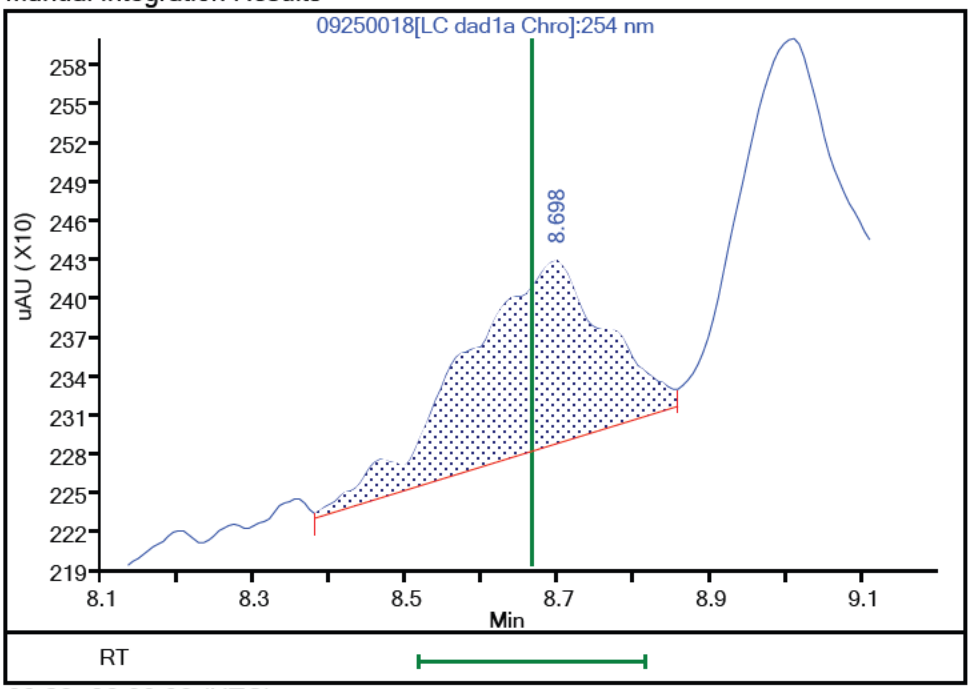
Processing Integration Results

RT: 8.70
Area: 1939
Amount: 0.013010
Amount Units: ug/ml



Manual Integration Results

RT: 8.70
Area: 1867
Amount: 0.013017
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:03:29 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

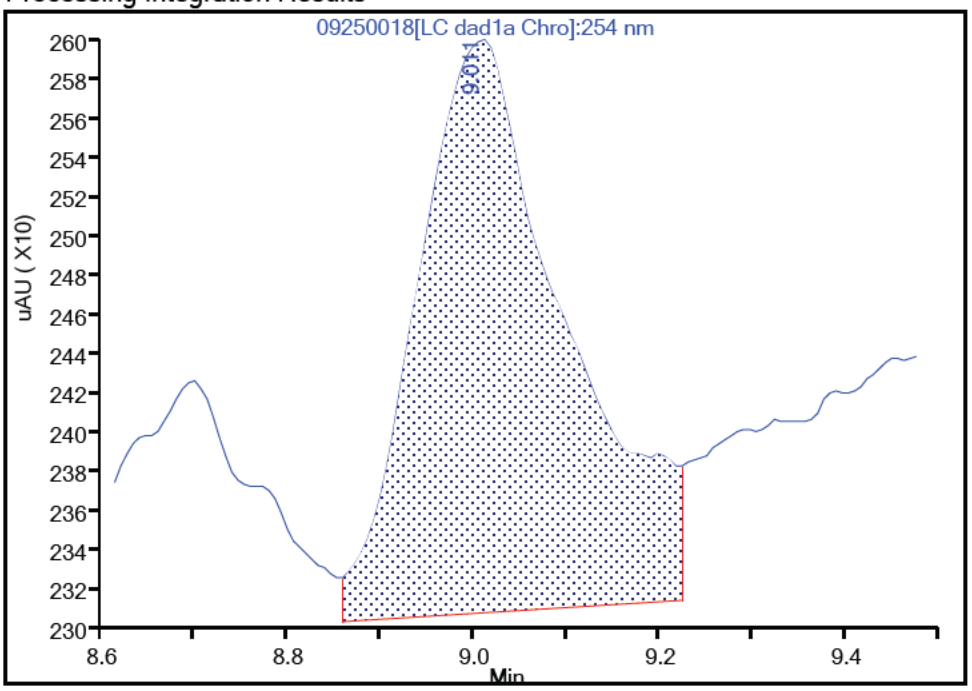
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

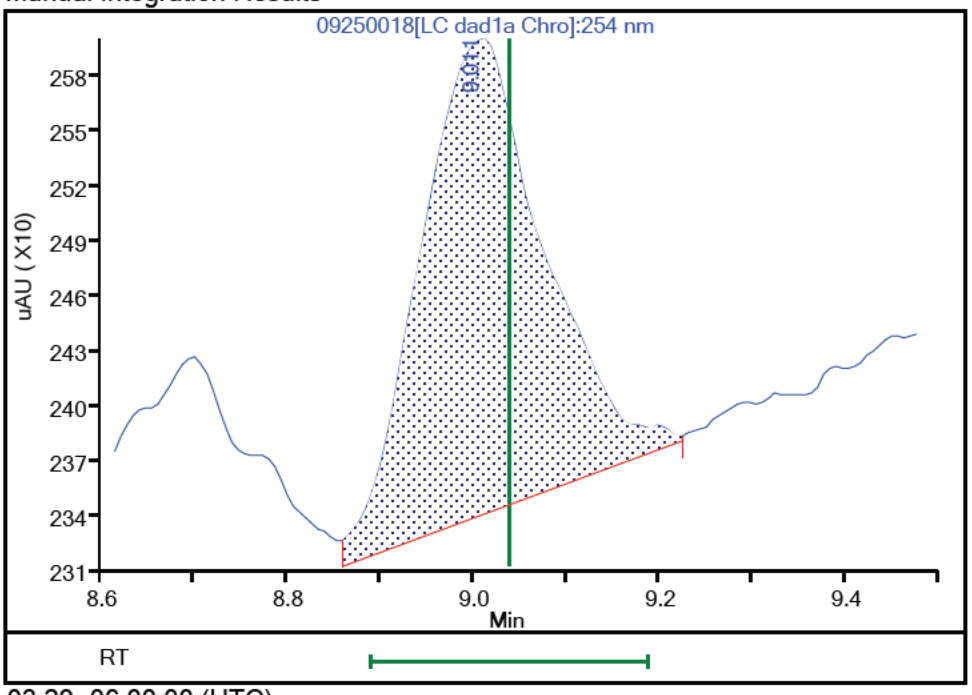
Processing Integration Results

RT: 9.01
Area: 3158
Amount: 0.014594
Amount Units: ug/ml



Manual Integration Results

RT: 9.01
Area: 2366
Amount: 0.011398
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:03:29 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

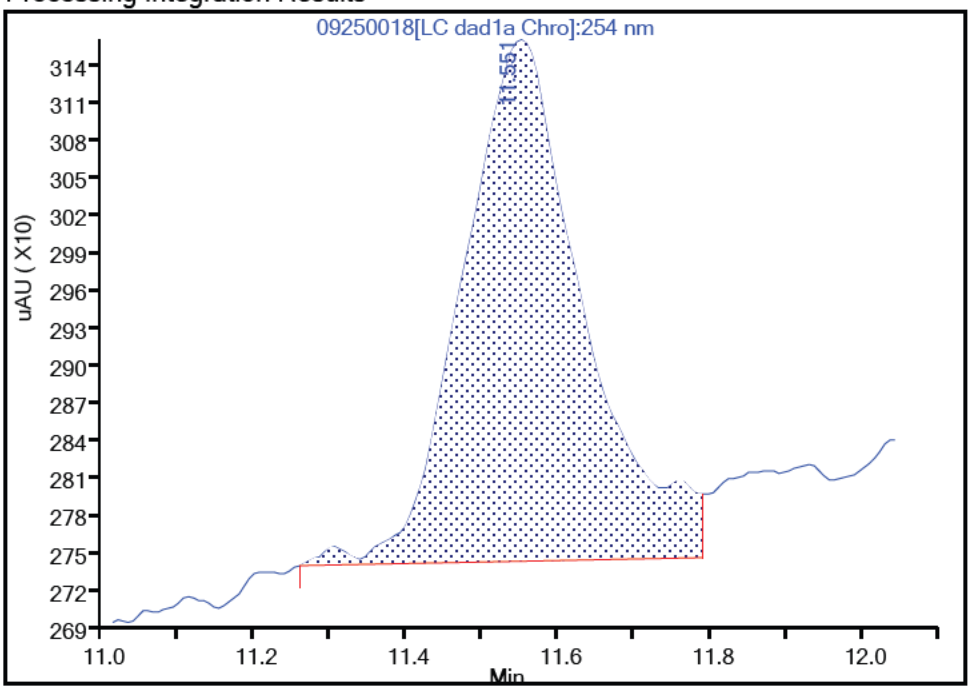
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

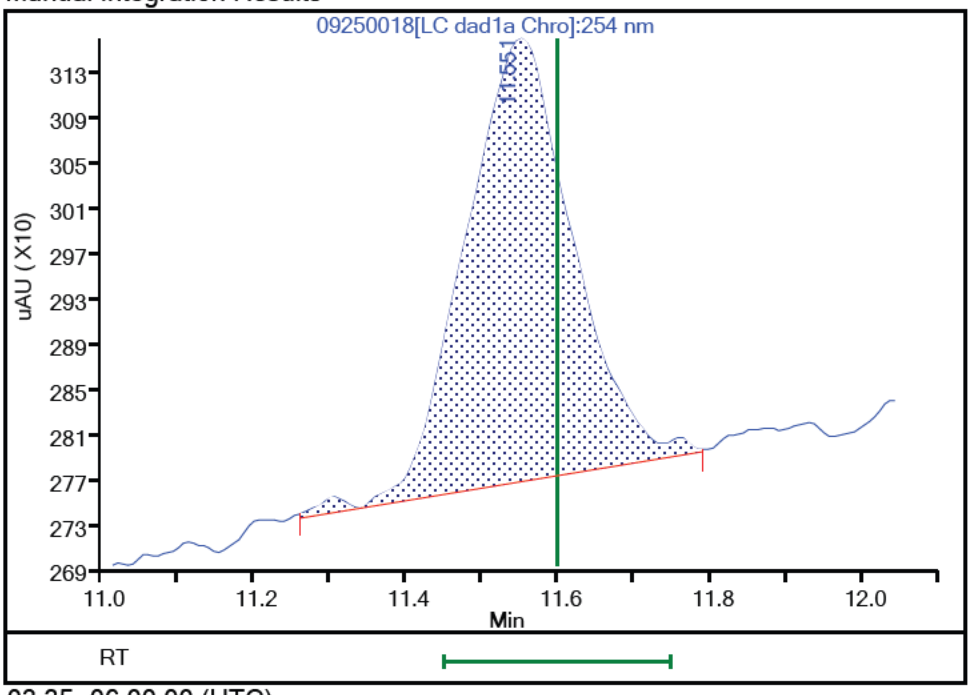
Processing Integration Results

RT: 11.55
Area: 4514
Amount: 0.011904
Amount Units: ug/ml



Manual Integration Results

RT: 11.55
Area: 3810
Amount: 0.010259
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:03:35 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

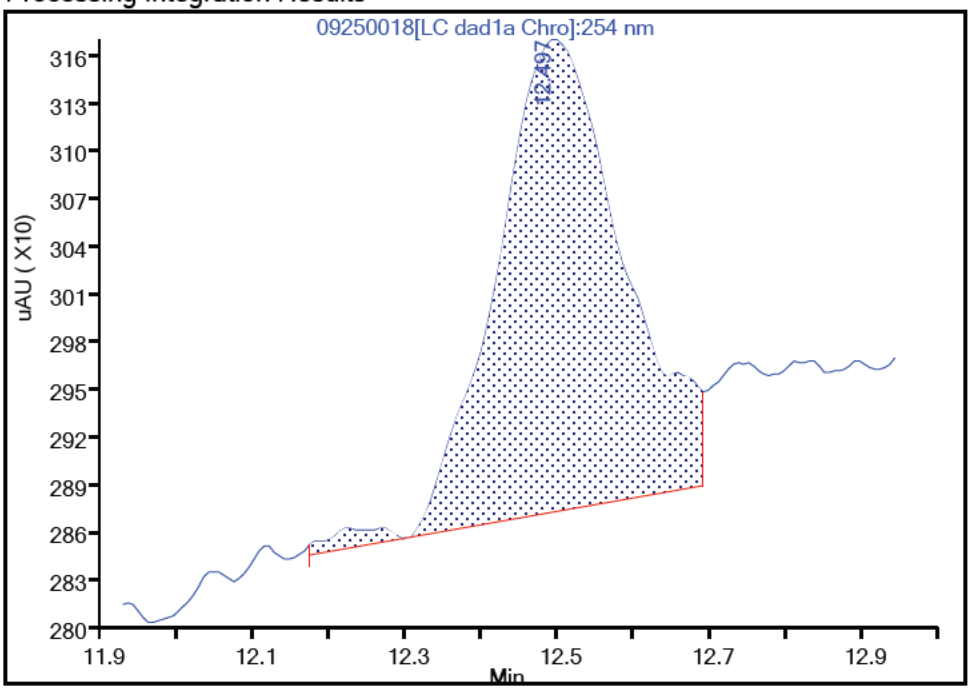
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

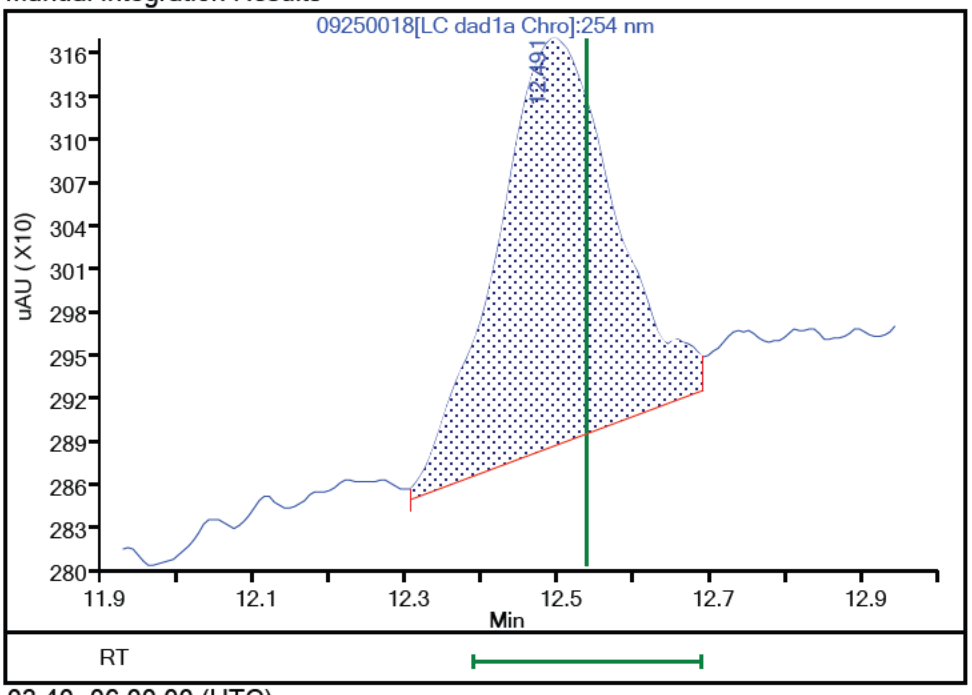
Processing Integration Results

RT: 12.50
Area: 3414
Amount: 0.013091
Amount Units: ug/ml



Manual Integration Results

RT: 12.49
Area: 3052
Amount: 0.011886
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:03:40 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

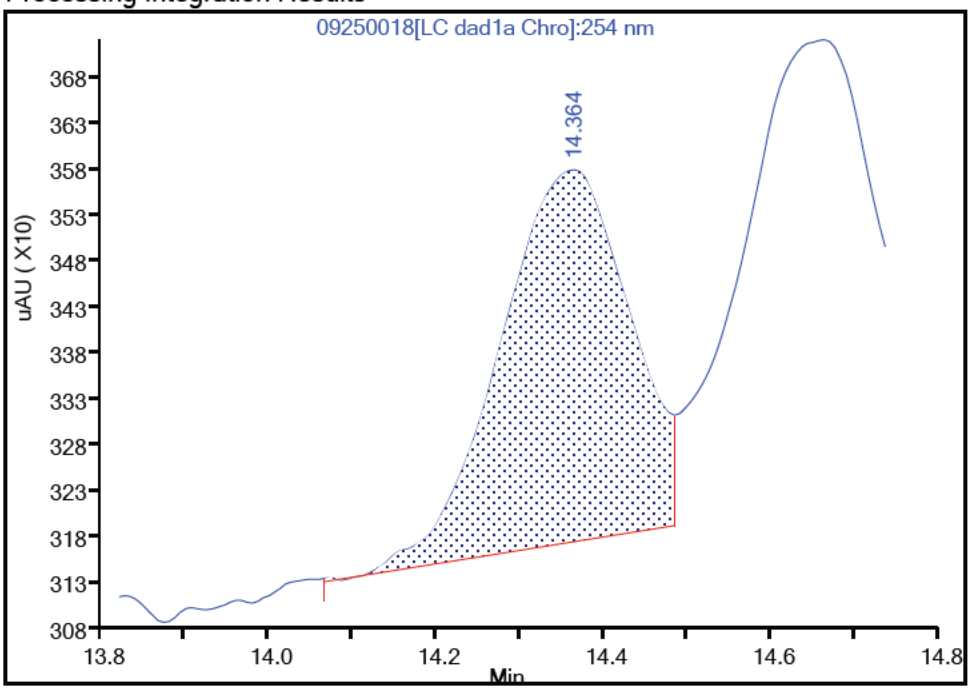
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

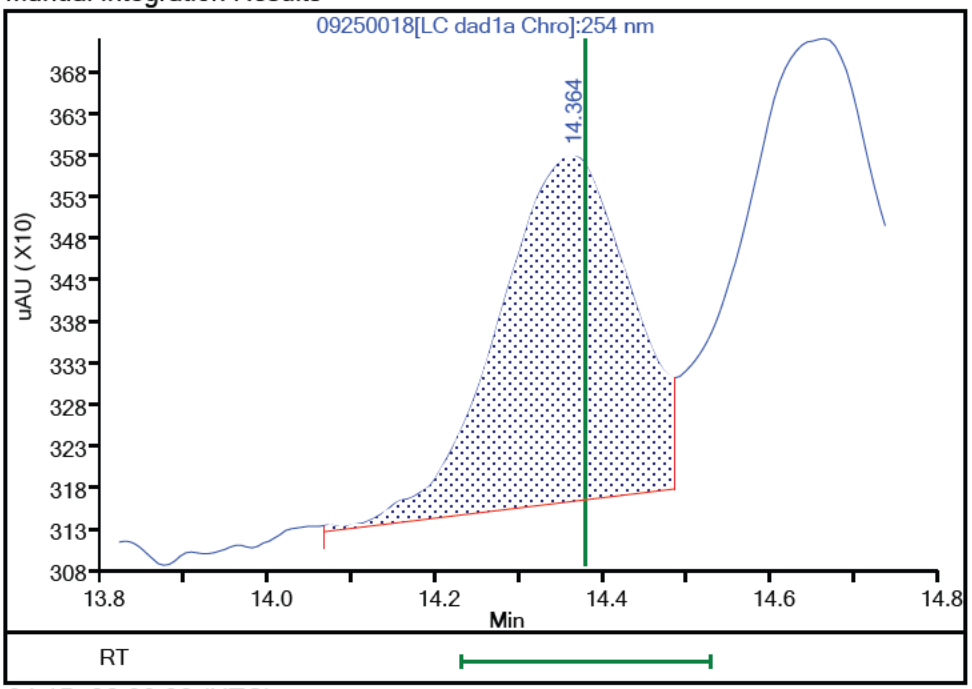
Processing Integration Results

RT: 14.36
Area: 4396
Amount: 0.010206
Amount Units: ug/ml



Manual Integration Results

RT: 14.36
Area: 4622
Amount: 0.010316
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:04:15 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

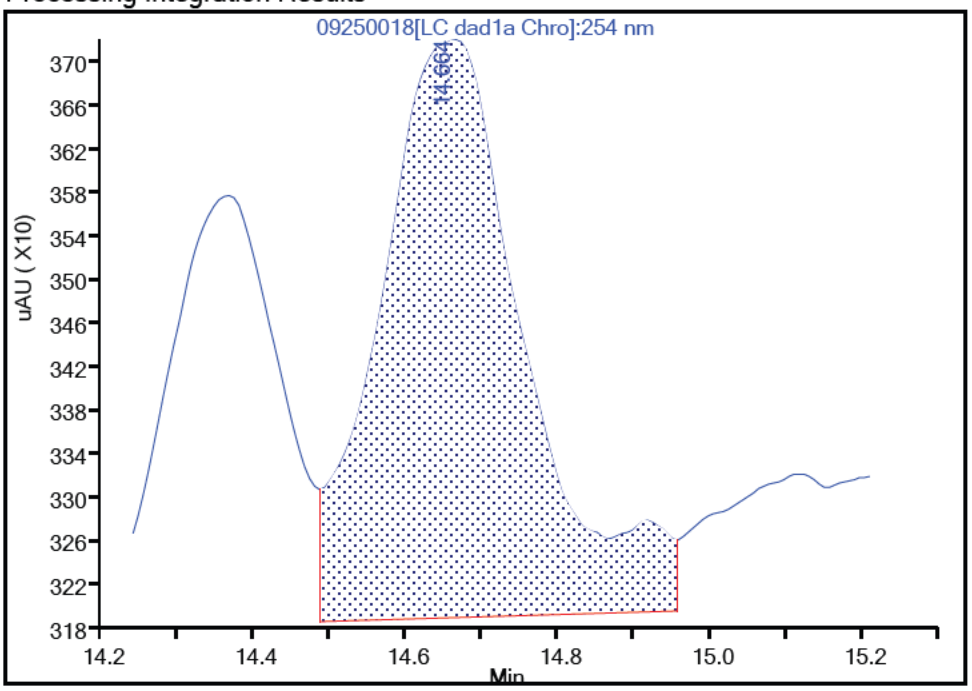
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

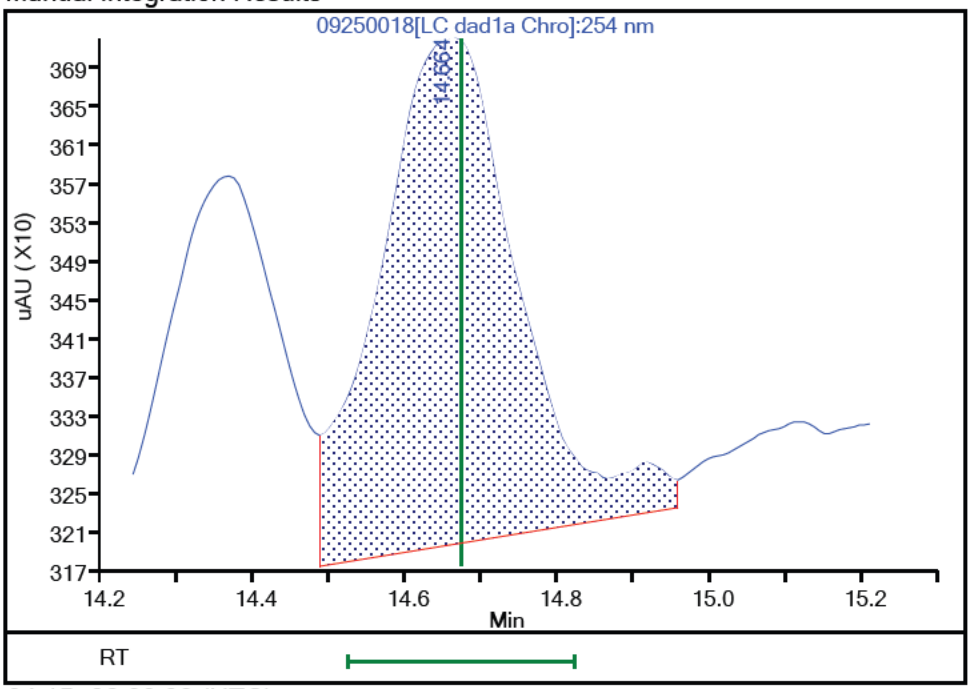
Processing Integration Results

RT: 14.66
Area: 7005
Amount: 0.012012
Amount Units: ug/ml



Manual Integration Results

RT: 14.66
Area: 6679
Amount: 0.011525
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:04:15 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

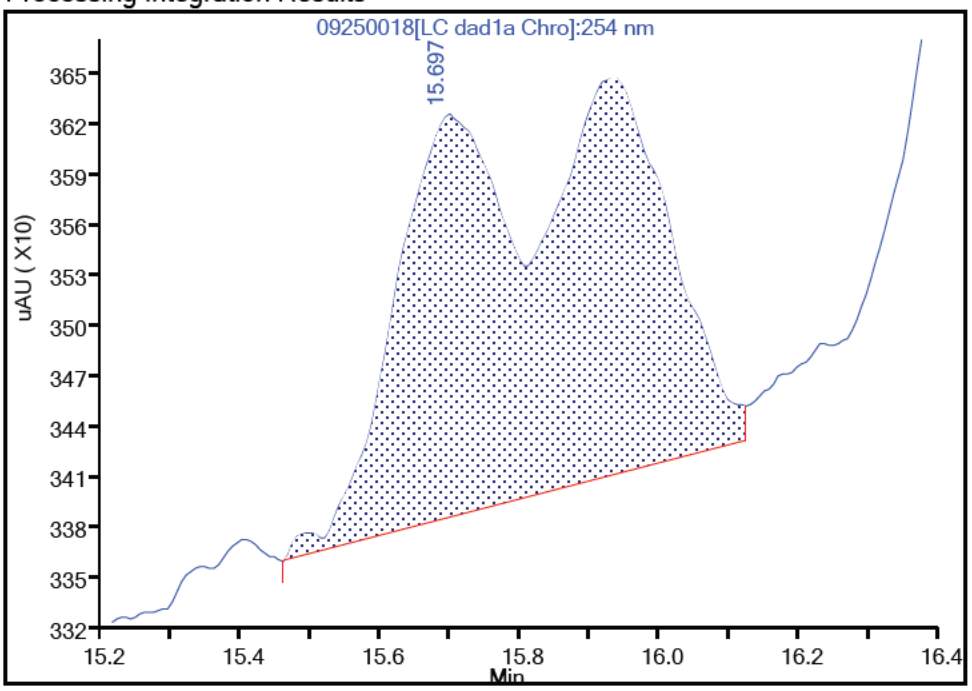
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

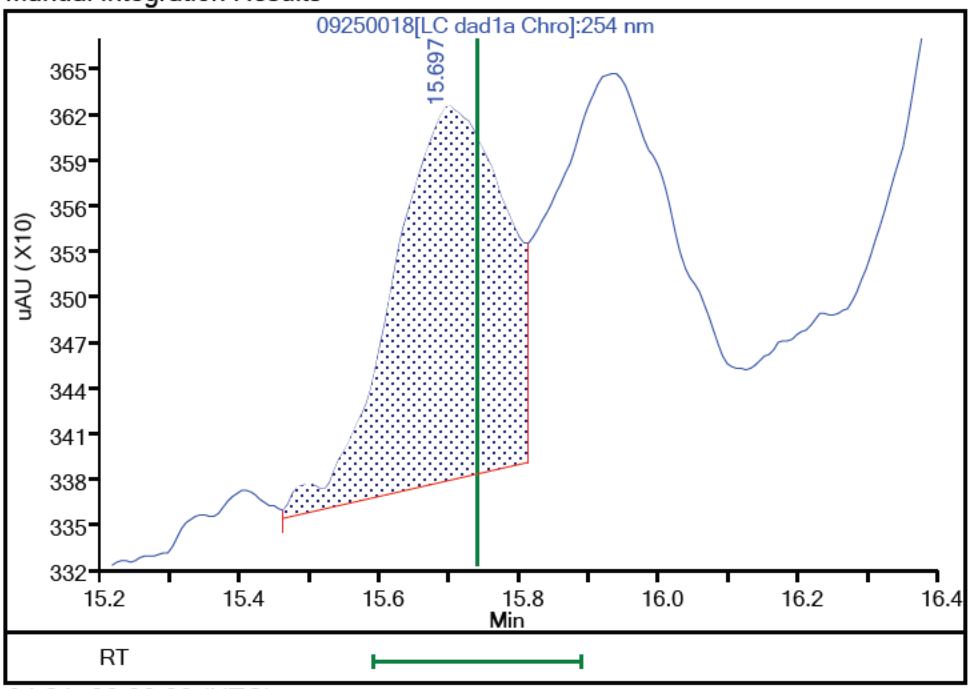
Processing Integration Results

RT: 15.70
Area: 5384
Amount: 0.013586
Amount Units: ug/ml



Manual Integration Results

RT: 15.70
Area: 2753
Amount: 0.011144
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:04:21 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

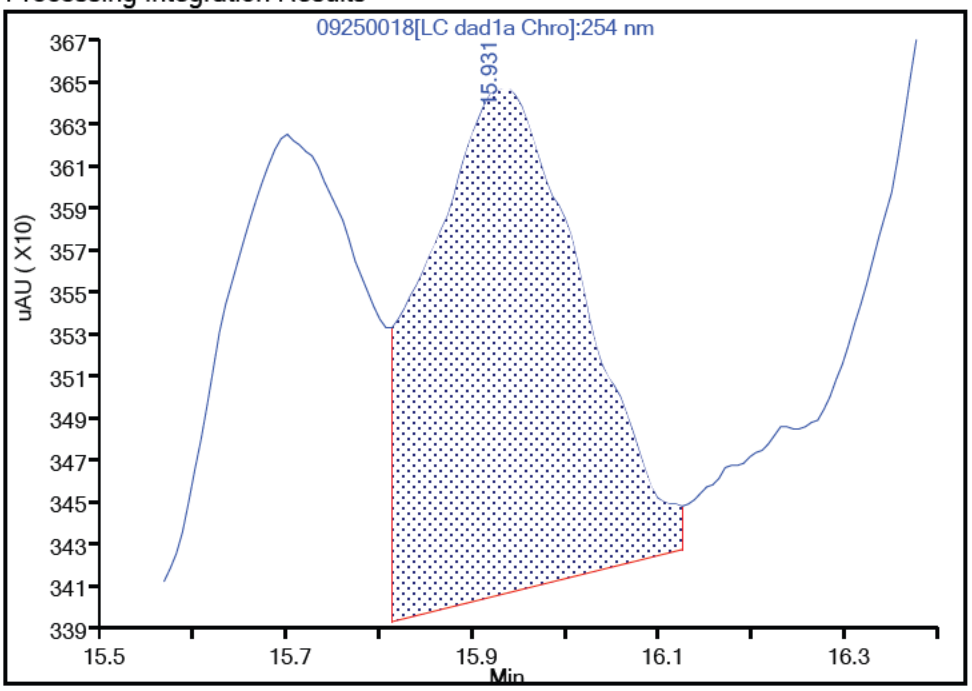
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d
Injection Date: 25-Sep-2023 23:30:18 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

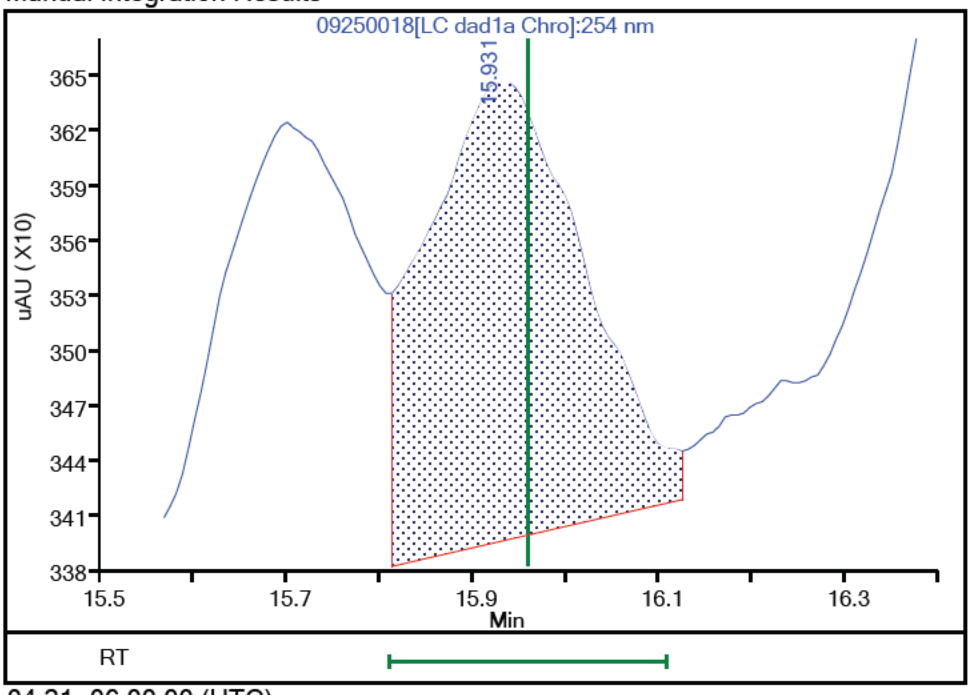
Processing Integration Results

RT: 15.93
Area: 2750
Amount: 0.011913
Amount Units: ug/ml



Manual Integration Results

RT: 15.93
Area: 2862
Amount: 0.009860
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:04:21 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

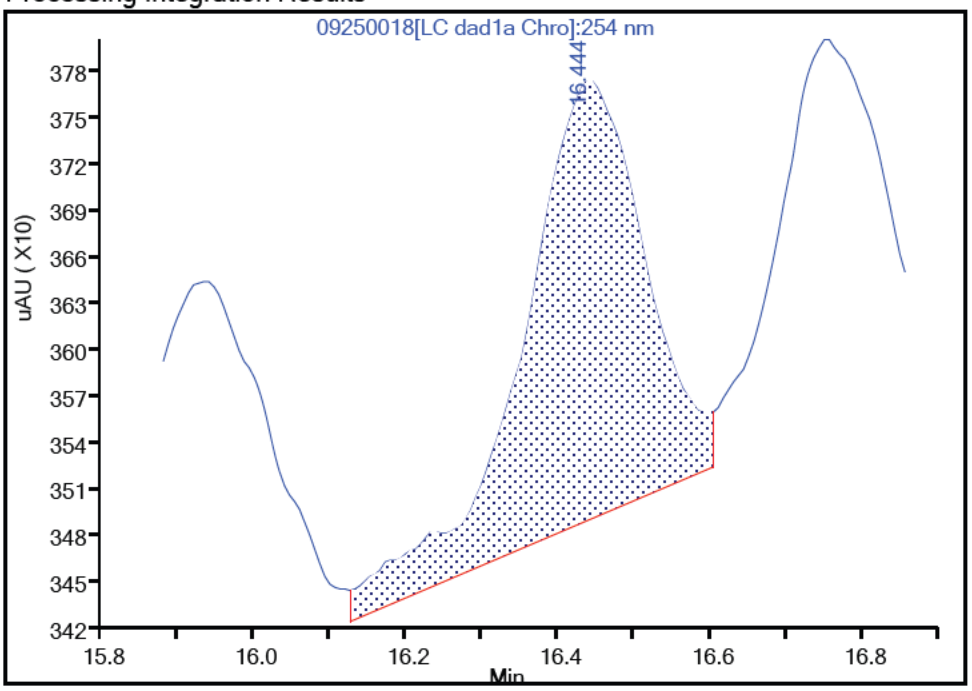
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

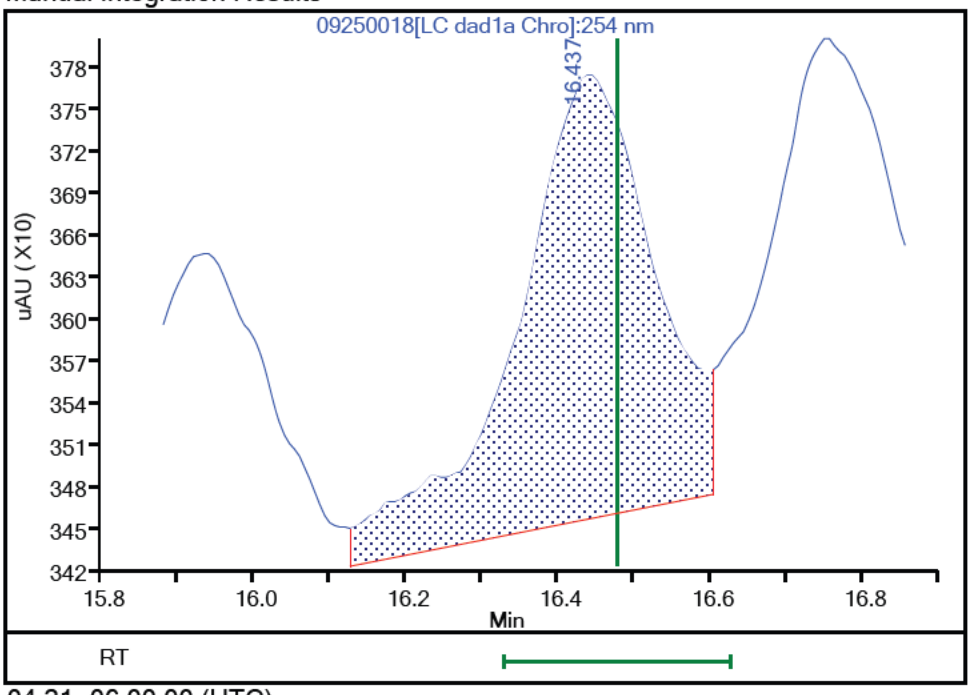
Processing Integration Results

RT: 16.44
Area: 3130
Amount: 0.010854
Amount Units: ug/ml



Manual Integration Results

RT: 16.44
Area: 3980
Amount: 0.009756
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:04:21 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

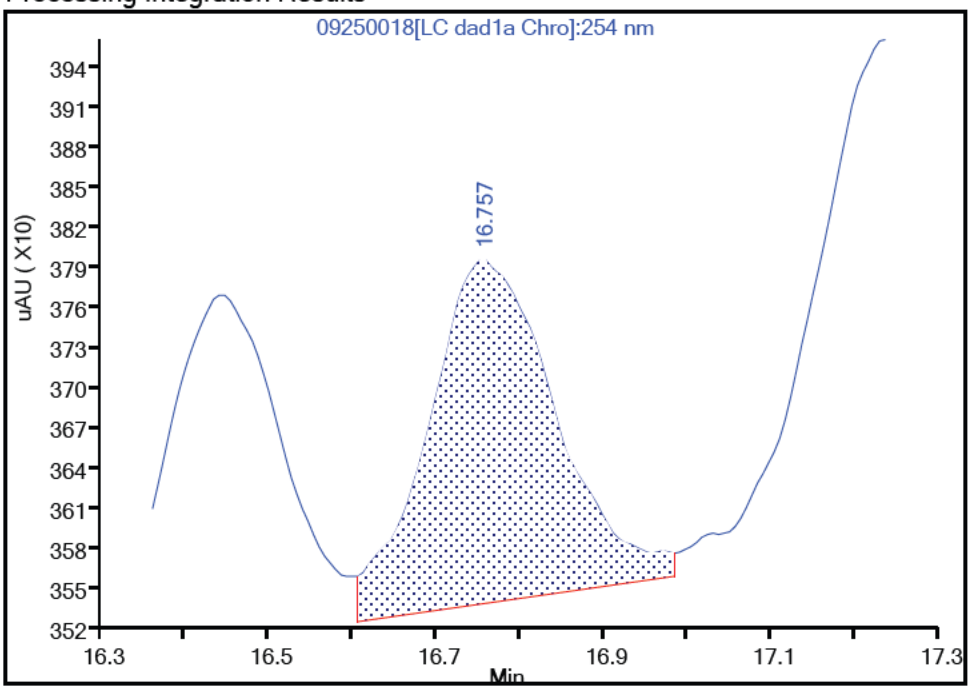
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d
Injection Date: 25-Sep-2023 23:30:18 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

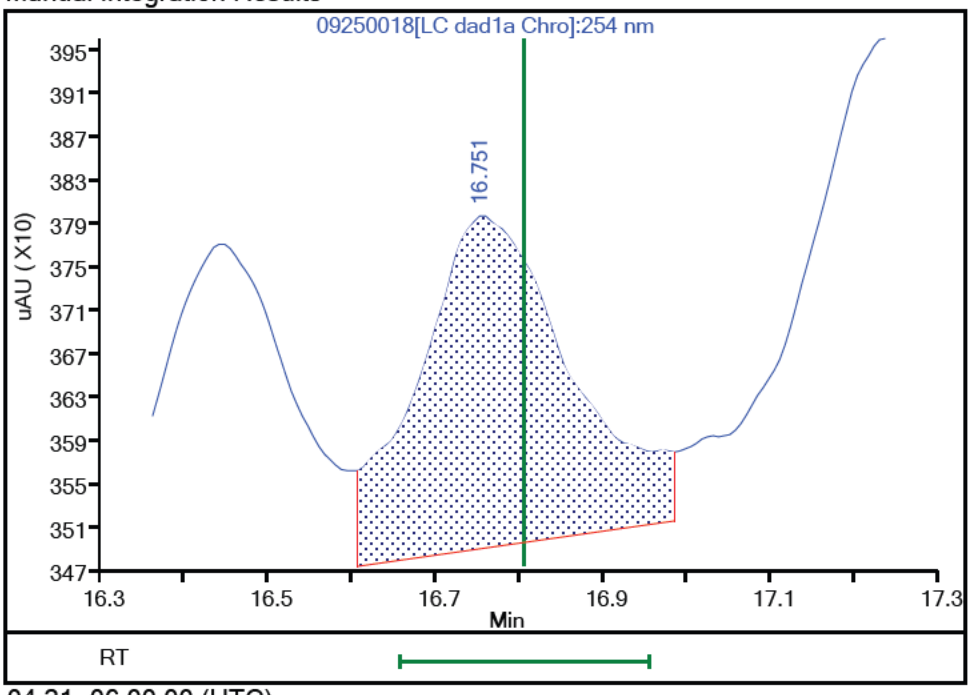
Processing Integration Results

RT: 16.76
Area: 2702
Amount: 0.009595
Amount Units: ug/ml



Manual Integration Results

RT: 16.75
Area: 3853
Amount: 0.009903
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:04:21 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

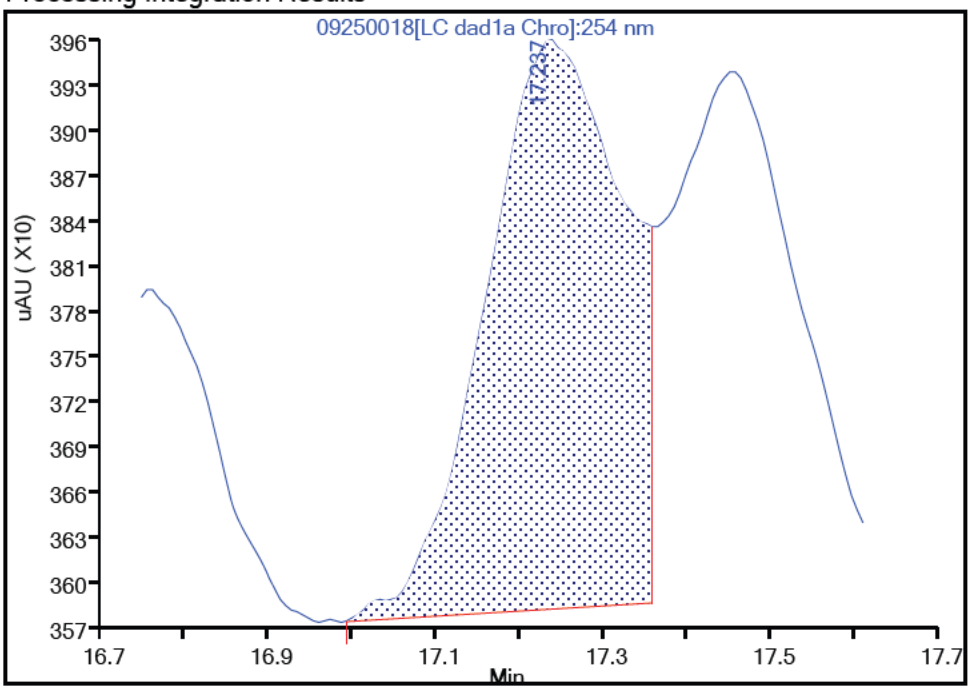
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

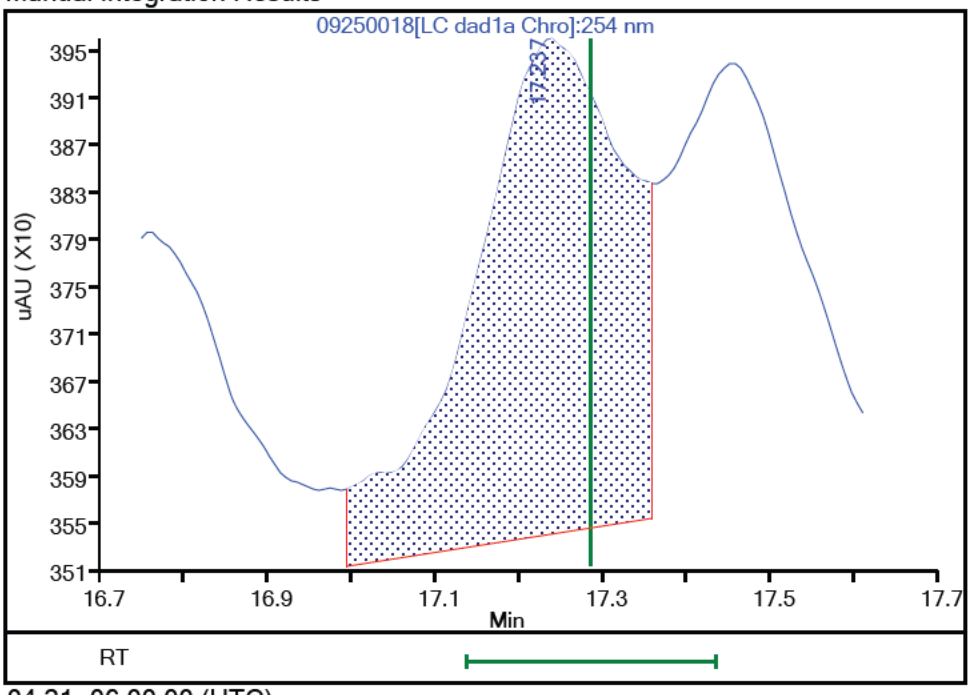
Processing Integration Results

RT: 17.24
Area: 4249
Amount: 0.010785
Amount Units: ug/ml



Manual Integration Results

RT: 17.24
Area: 5349
Amount: 0.010434
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:04:21 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

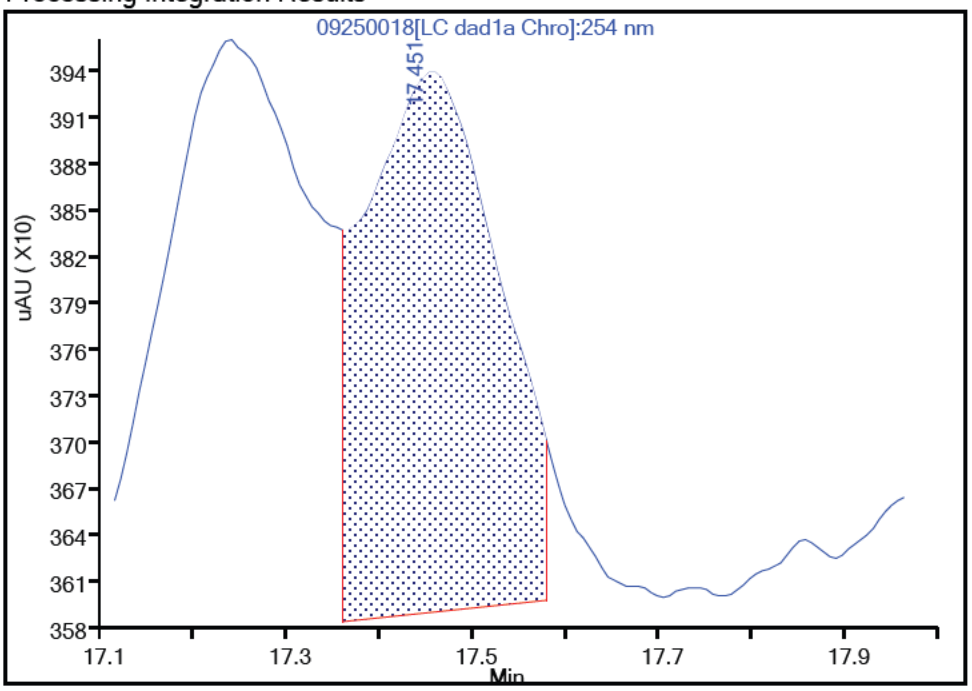
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

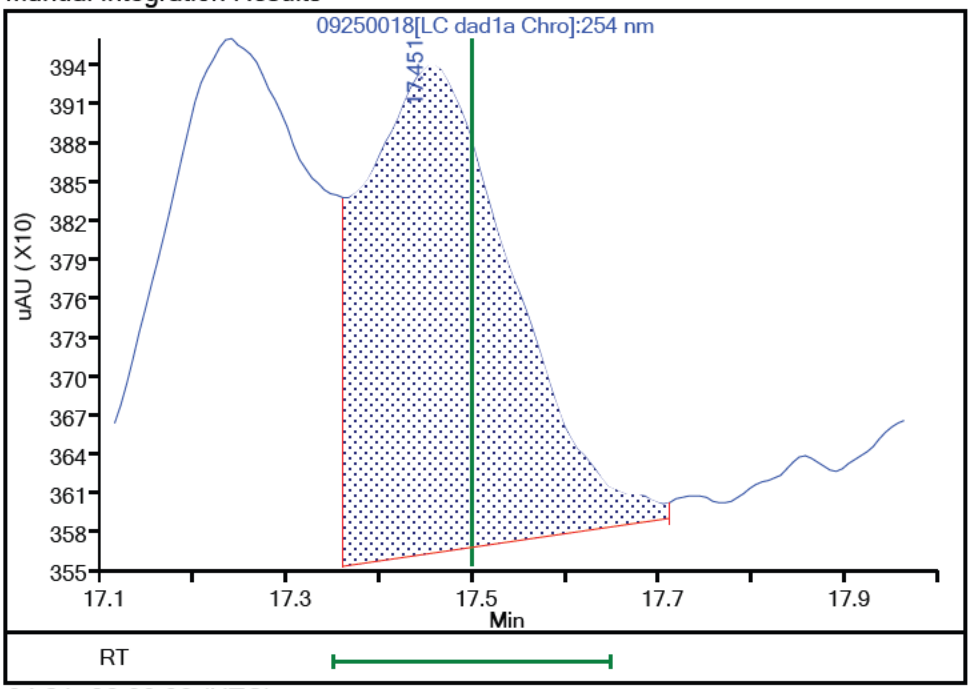
Processing Integration Results

RT: 17.45
Area: 3459
Amount: 0.008565
Amount Units: ug/ml



Manual Integration Results

RT: 17.45
Area: 4159
Amount: 0.010104
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:04:21 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

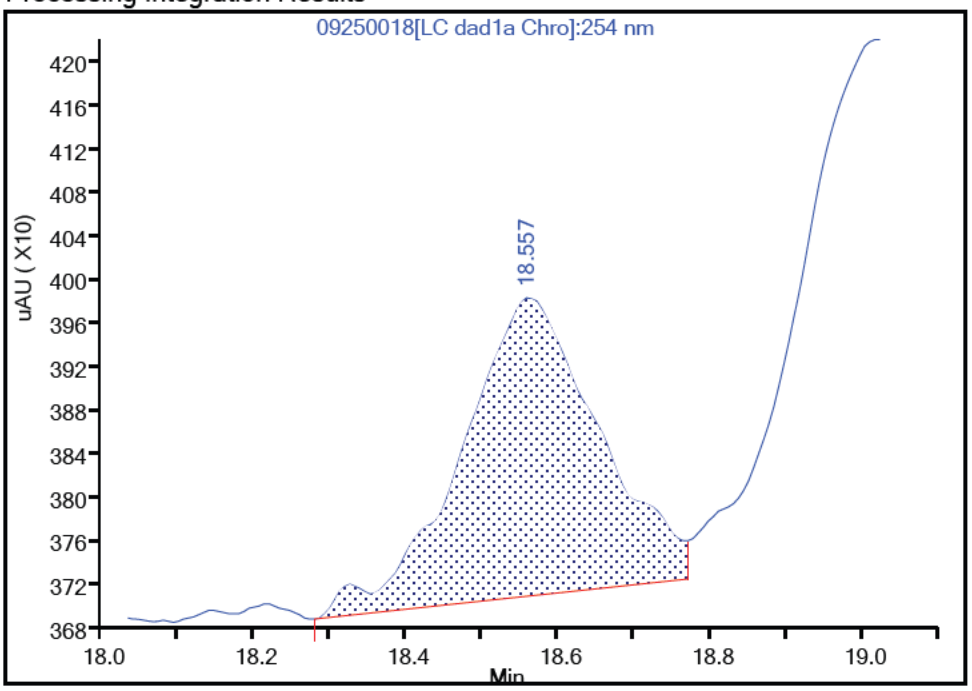
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d
Injection Date: 25-Sep-2023 23:30:18 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

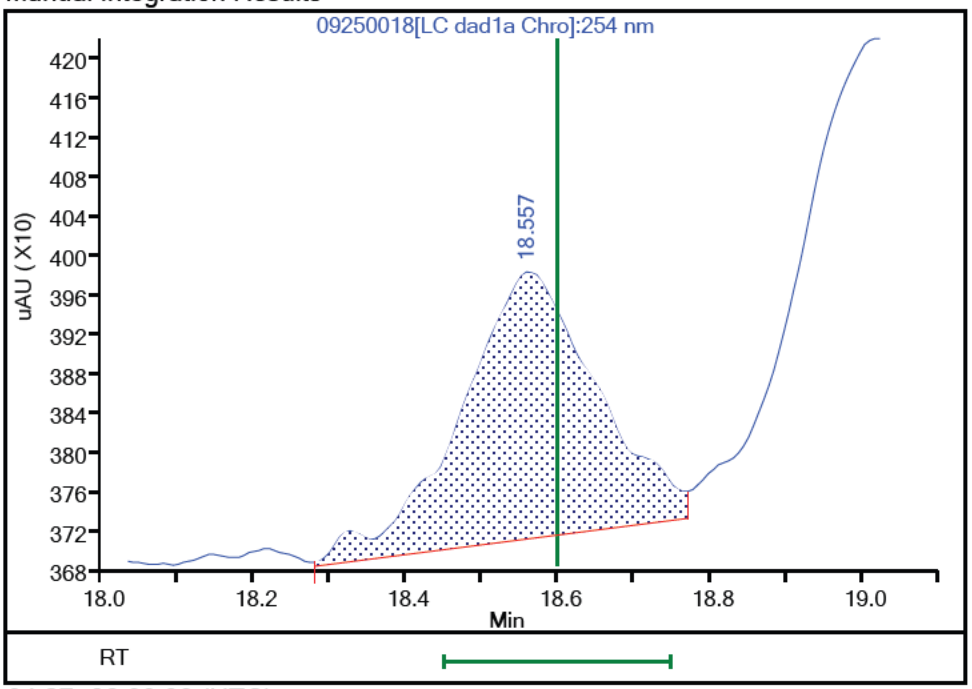
Processing Integration Results

RT: 18.56
Area: 3434
Amount: 0.012276
Amount Units: ug/ml



Manual Integration Results

RT: 18.56
Area: 3360
Amount: 0.009575
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:04:27 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

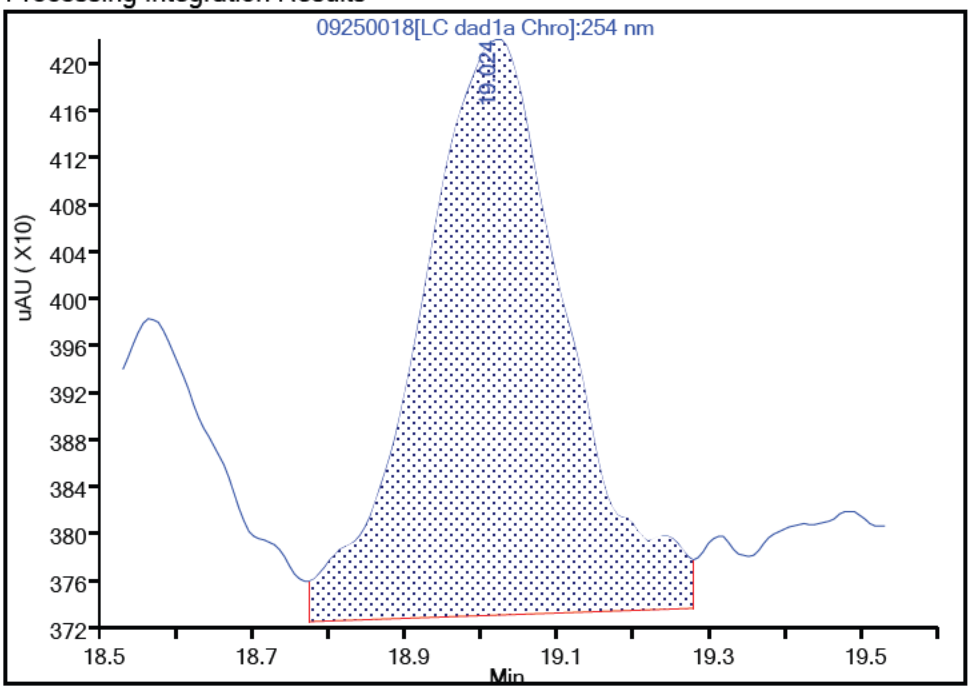
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

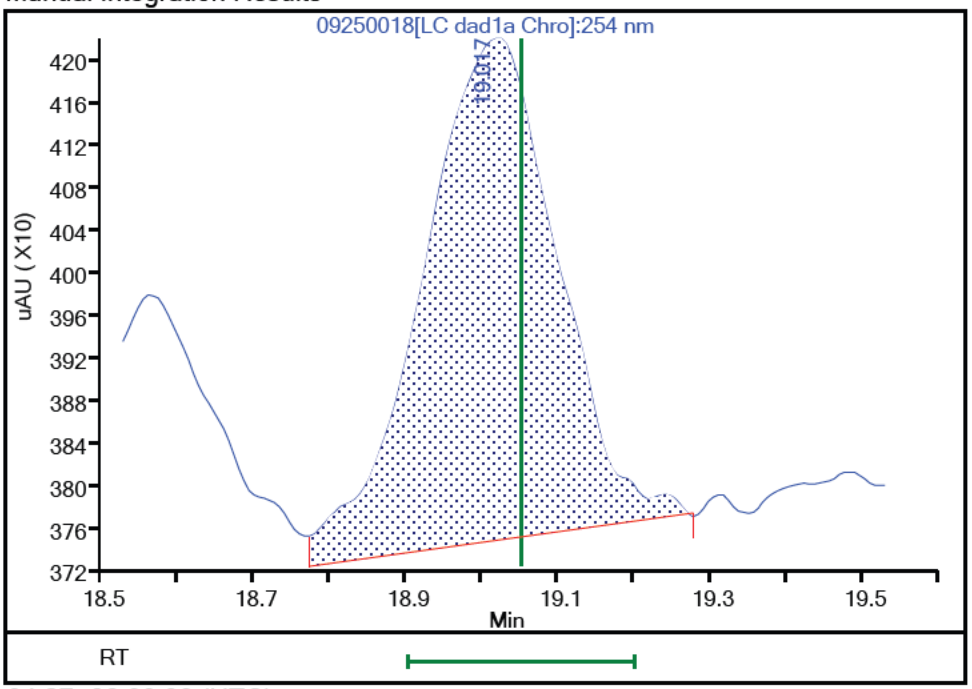
Processing Integration Results

RT: 19.02
Area: 6528
Amount: 0.011790
Amount Units: ug/ml



Manual Integration Results

RT: 19.02
Area: 5753
Amount: 0.010554
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:04:27 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

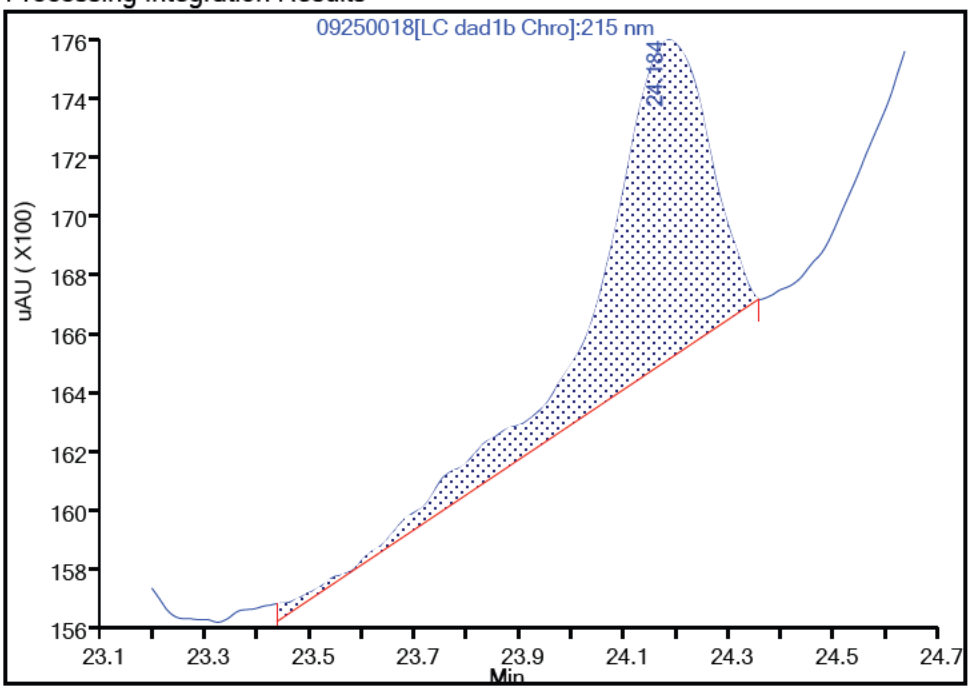
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250018.d				
Injection Date:	25-Sep-2023 23:30:18	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

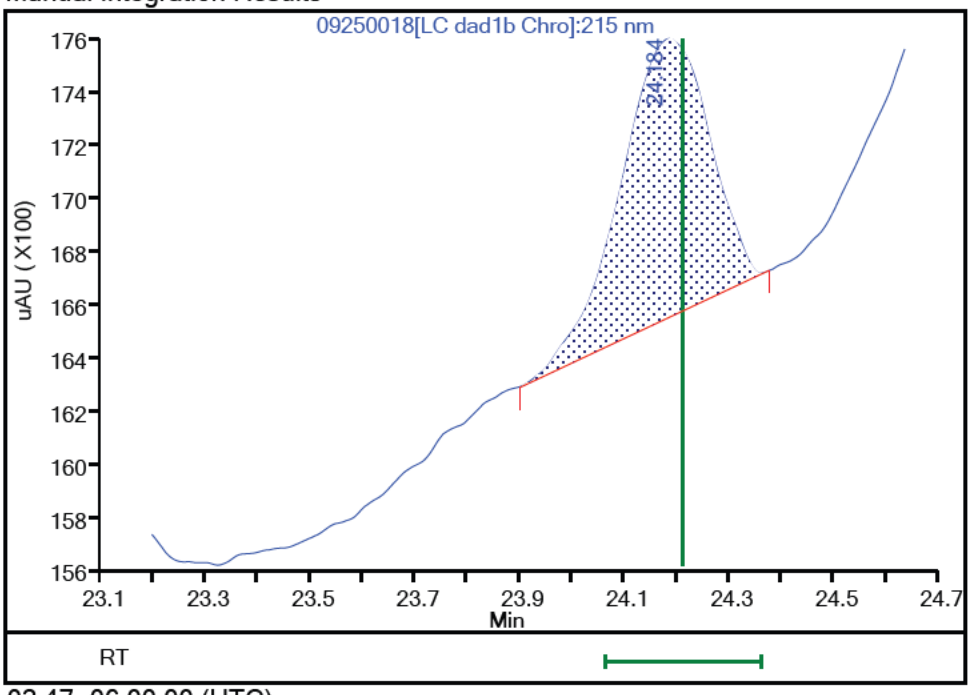
Processing Integration Results

RT: 24.18
Area: 14753
Amount: 0.116607
Amount Units: ug/ml



Manual Integration Results

RT: 24.18
Area: 11596
Amount: 0.094268
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:02:47 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Calibration / TNX

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

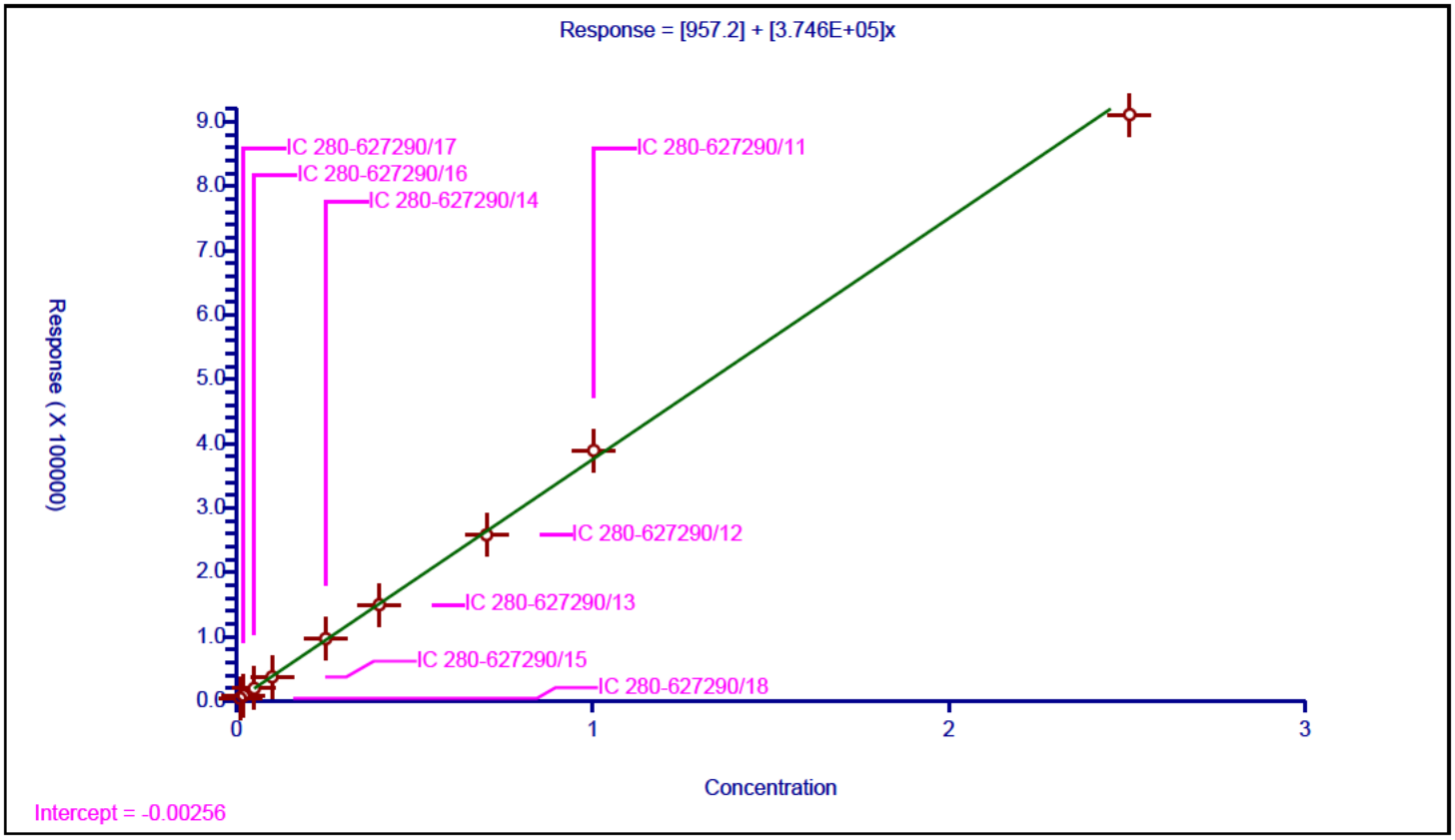
Curve Coefficients

Intercept:	957.2
Slope:	3.746E+05

Error Coefficients

Standard Error:	12200
Relative Standard Error:	3.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01003	4632.0			461814.556331	Y
2	IC 280-627290/17	0.02006	8811.0			439232.303091	Y
3	IC 280-627290/16	0.05015	19818.0			395174.47657	Y
4	IC 280-627290/15	0.1003	37690.0			375772.681954	Y
5	IC 280-627290/14	0.25075	97033.0			386971.08674	Y
6	IC 280-627290/13	0.4012	149801.0			373382.352941	Y
7	IC 280-627290/12	0.7021	258277.0			367863.552201	Y
8	IC 280-627290/11	1.003	389261.0			388096.70987	Y
9	IC 280-627290/10	2.5075	911149.0			363369.491525	Y



Calibration / DNX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

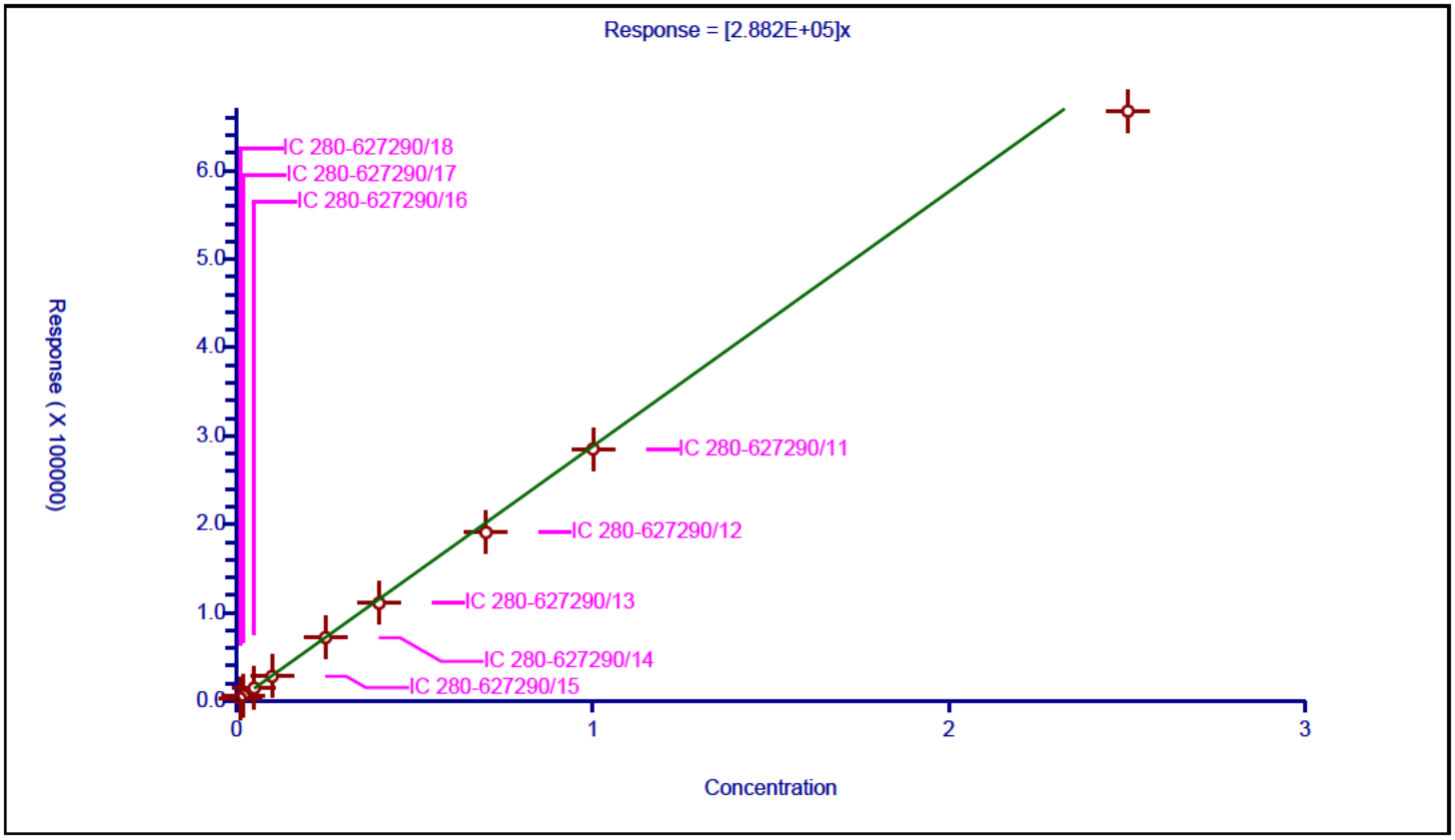
Curve Coefficients

Intercept:	0
Slope:	2.882E+05

Error Coefficients

Standard Error:	19600
Relative Standard Error:	6.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01001	3214.0			321078.921079	Y
2	IC 280-627290/17	0.02002	6216.0			310489.51049	Y
3	IC 280-627290/16	0.05005	14790.0			295504.495504	Y
4	IC 280-627290/15	0.1001	27970.0			279420.579421	Y
5	IC 280-627290/14	0.25025	71817.0			286981.018981	Y
6	IC 280-627290/13	0.4004	110817.0			276765.734266	Y
7	IC 280-627290/12	0.7007	190840.0			272356.215213	Y
8	IC 280-627290/11	1.001	285156.0			284871.128871	Y
9	IC 280-627290/10	2.5025	667388.0			266688.511489	Y



Calibration / HMX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

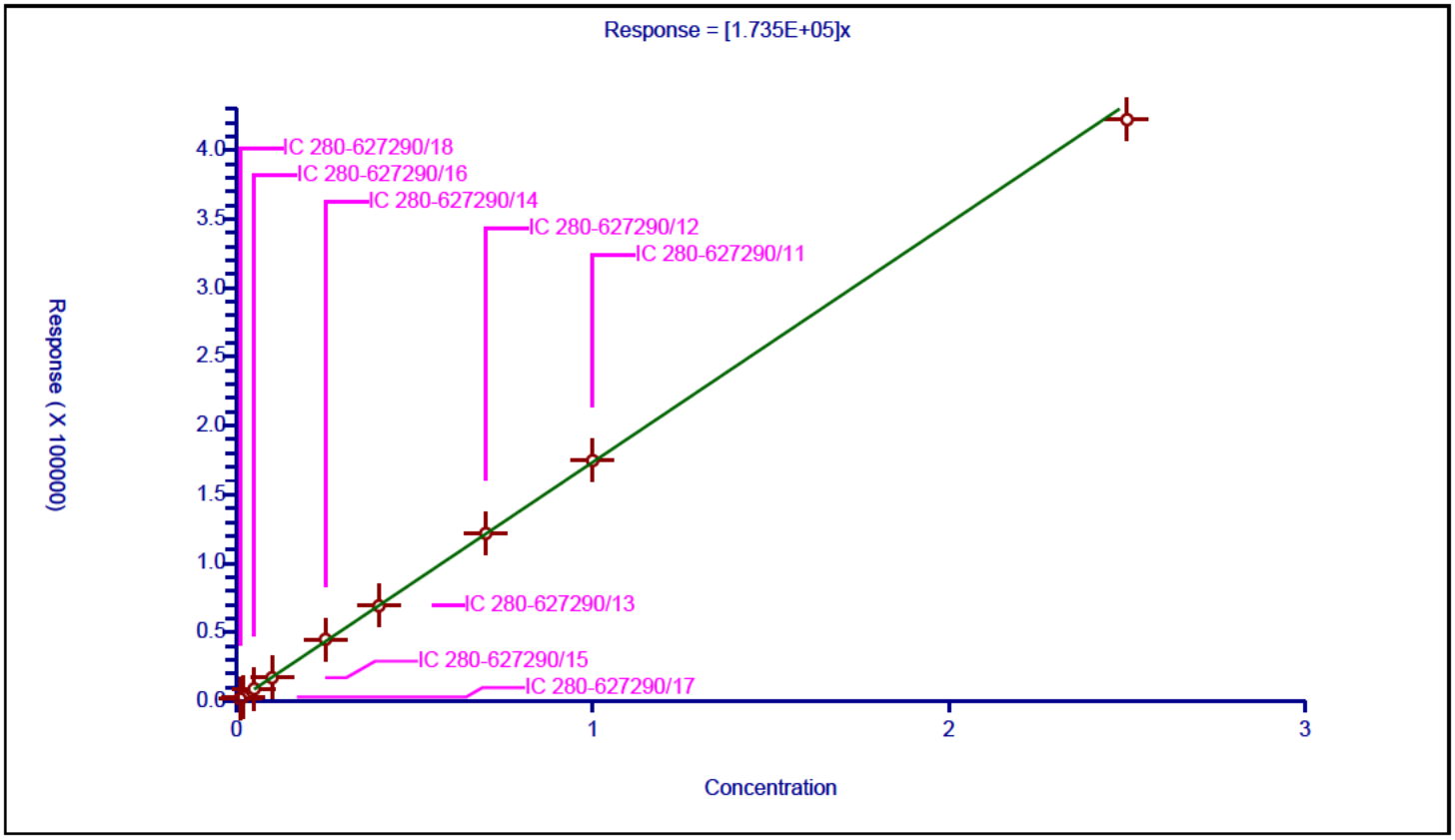
Curve Coefficients

Intercept:	0
Slope:	1.735E+05

Error Coefficients

Standard Error:	4130
Relative Standard Error:	4.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	1873.0			187300.0	Y
2	IC 280-627290/17	0.02	3125.0			156250.0	Y
3	IC 280-627290/16	0.05	8897.0			177940.0	Y
4	IC 280-627290/15	0.1	16998.0			169980.0	Y
5	IC 280-627290/14	0.25	44858.0			179432.0	Y
6	IC 280-627290/13	0.4	69154.0			172885.0	Y
7	IC 280-627290/12	0.7	121769.0			173955.714286	Y
8	IC 280-627290/11	1.0	174631.0			174631.0	Y
9	IC 280-627290/10	2.5	422170.0			168868.0	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

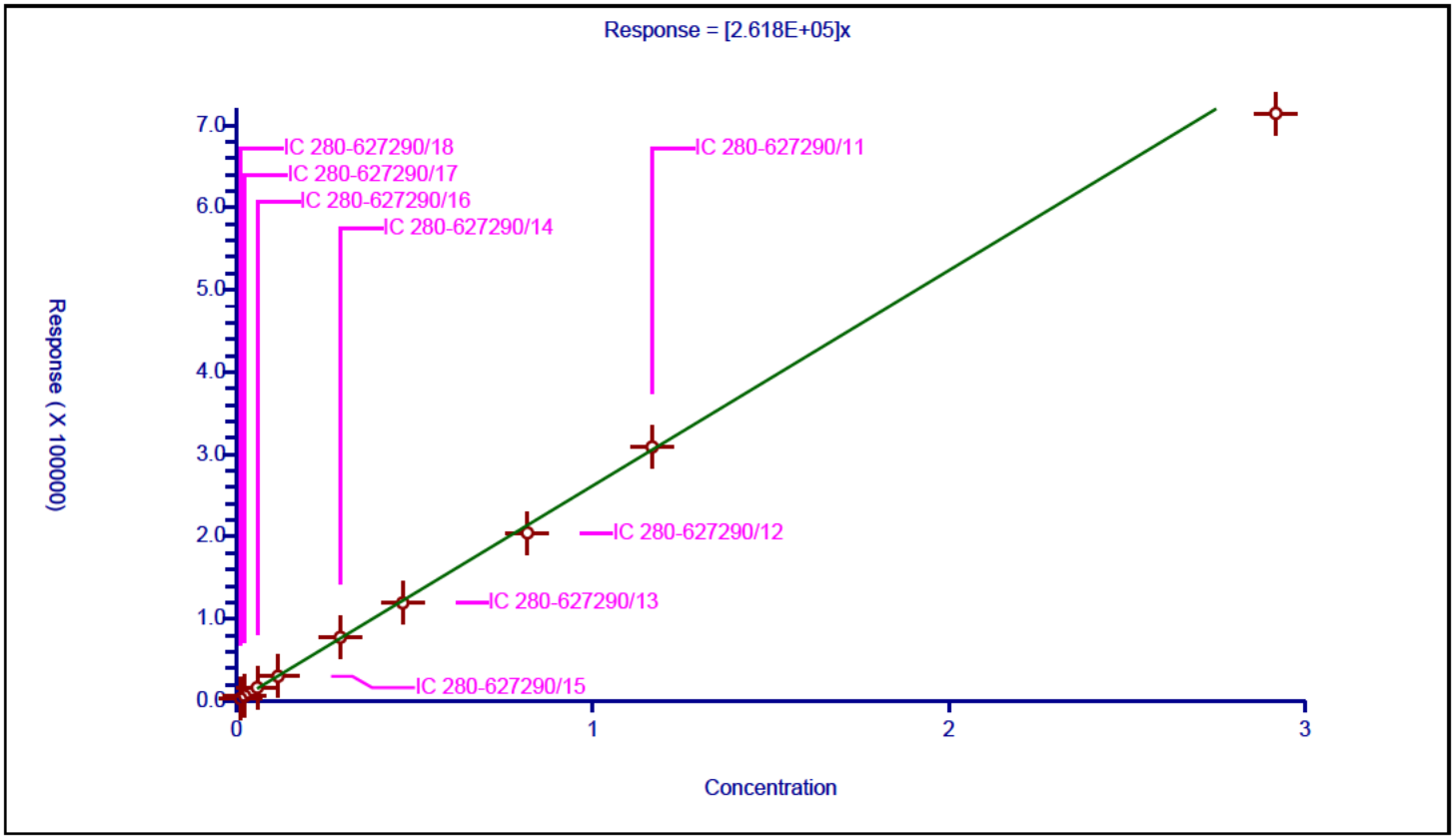
Curve Coefficients

Intercept:	0
Slope:	2.618E+05

Error Coefficients

Standard Error:	17800
Relative Standard Error:	4.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01167	3081.0			264010.282776	Y
2	IC 280-627290/17	0.02334	6293.0			269622.964867	Y
3	IC 280-627290/16	0.05835	16454.0			281988.003428	Y
4	IC 280-627290/15	0.1167	30216.0			258920.308483	Y
5	IC 280-627290/14	0.29175	77595.0			265964.010283	Y
6	IC 280-627290/13	0.4668	119417.0			255820.479863	Y
7	IC 280-627290/12	0.8169	204553.0			250401.517934	Y
8	IC 280-627290/11	1.167	308980.0			264764.353042	Y
9	IC 280-627290/10	2.9175	714574.0			244926.820908	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

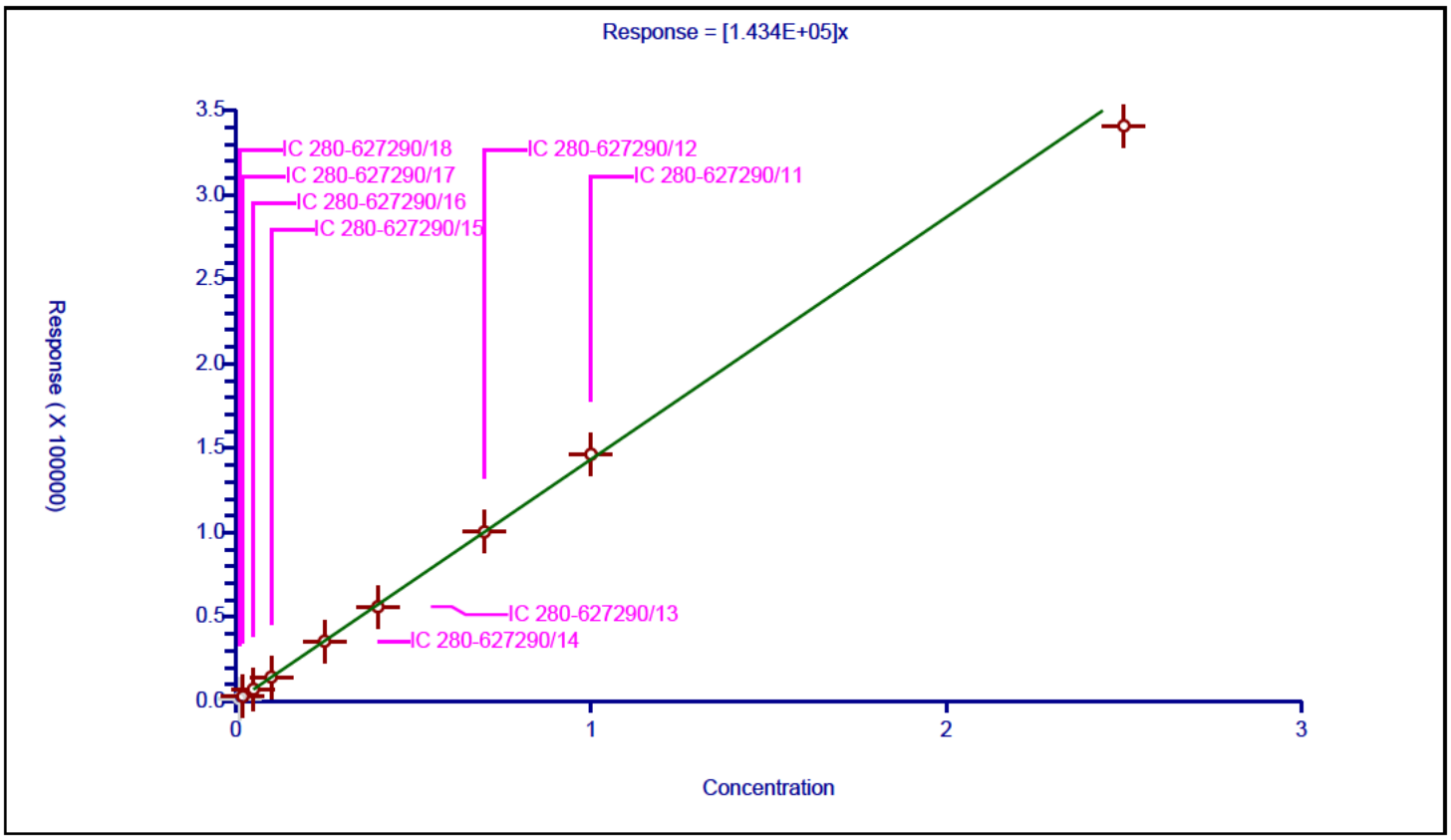
Curve Coefficients

Intercept:	0
Slope:	1.434E+05

Error Coefficients

Standard Error:	6760
Relative Standard Error:	2.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	1867.0			186700.0	N
2	IC 280-627290/17	0.02	2960.0			148000.0	Y
3	IC 280-627290/16	0.05	7270.0			145400.0	Y
4	IC 280-627290/15	0.1	14448.0			144480.0	Y
5	IC 280-627290/14	0.25	35728.0			142912.0	Y
6	IC 280-627290/13	0.4	56092.0			140230.0	Y
7	IC 280-627290/12	0.7	100486.0			143551.428571	Y
8	IC 280-627290/11	1.0	146441.0			146441.0	Y
9	IC 280-627290/10	2.5	340985.0			136394.0	Y



Calibration / RDX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

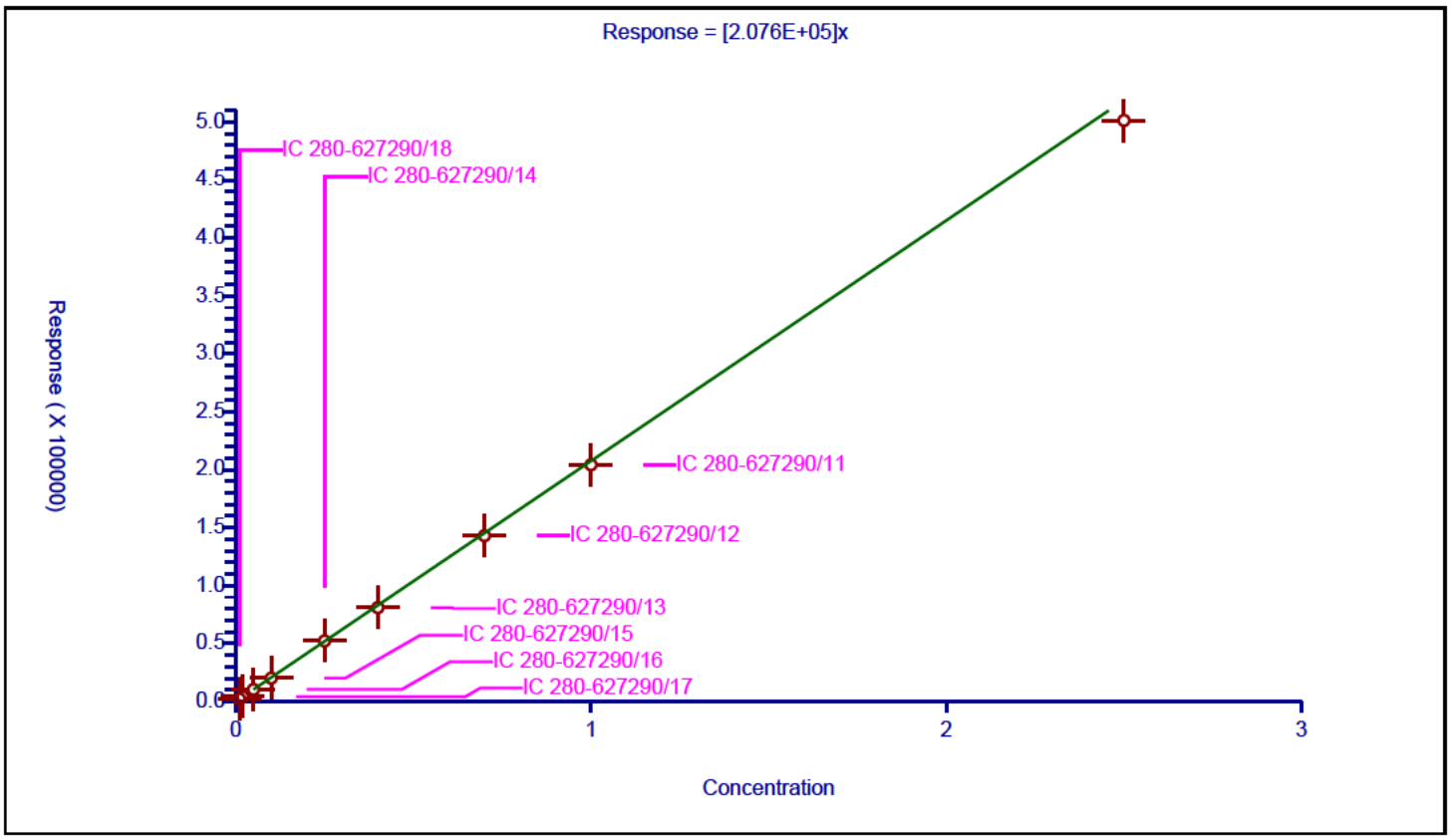
Curve Coefficients

Intercept:	0
Slope:	2.076E+05

Error Coefficients

Standard Error:	6380
Relative Standard Error:	5.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	2366.0			236600.0	Y
2	IC 280-627290/17	0.02	4054.0			202700.0	Y
3	IC 280-627290/16	0.05	10353.0			207060.0	Y
4	IC 280-627290/15	0.1	20133.0			201330.0	Y
5	IC 280-627290/14	0.25	52214.0			208856.0	Y
6	IC 280-627290/13	0.4	80985.0			202462.5	Y
7	IC 280-627290/12	0.7	143077.0			204395.714286	Y
8	IC 280-627290/11	1.0	204269.0			204269.0	Y
9	IC 280-627290/10	2.5	501519.0			200607.6	Y



Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

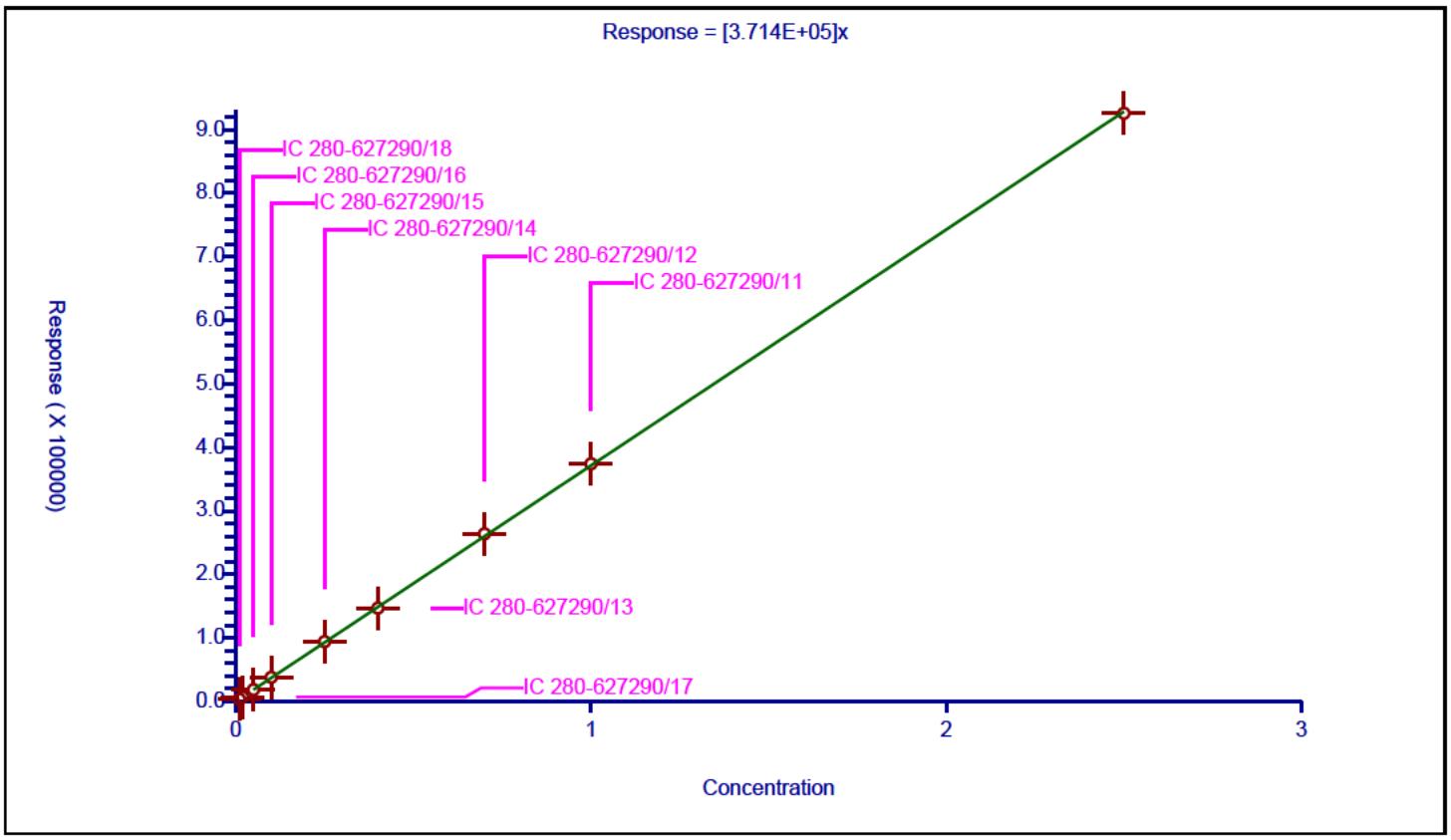
Curve Coefficients

Intercept:	0
Slope:	3.714E+05

Error Coefficients

Standard Error:	2080
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	3810.0			381000.0	Y
2	IC 280-627290/17	0.02	6887.0			344350.0	Y
3	IC 280-627290/16	0.05	18591.0			371820.0	Y
4	IC 280-627290/15	0.1	37981.0			379810.0	Y
5	IC 280-627290/14	0.25	94171.0			376684.0	Y
6	IC 280-627290/13	0.4	147023.0			367557.5	Y
7	IC 280-627290/12	0.7	263852.0			376931.428571	Y
8	IC 280-627290/11	1.0	374071.0			374071.0	Y
9	IC 280-627290/10	2.5	925760.0			370304.0	Y



Calibration / 1,2-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

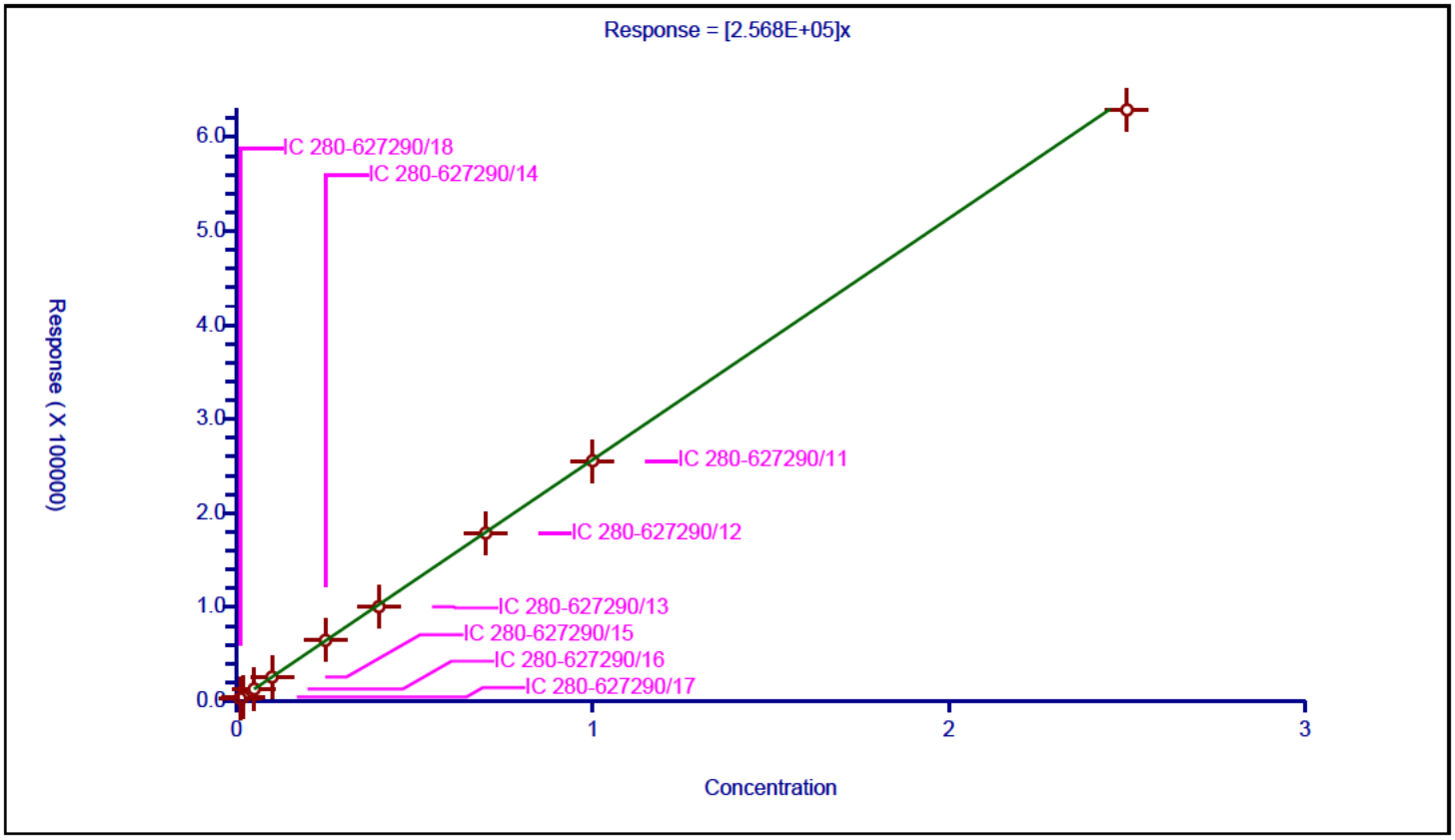
Curve Coefficients

Intercept:	0
Slope:	2.568E+05

Error Coefficients

Standard Error:	4720
Relative Standard Error:	8.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	3052.0			305200.0	Y
2	IC 280-627290/17	0.02	4419.0			220950.0	Y
3	IC 280-627290/16	0.05	12837.0			256740.0	Y
4	IC 280-627290/15	0.1	25572.0			255720.0	Y
5	IC 280-627290/14	0.25	64646.0			258584.0	Y
6	IC 280-627290/13	0.4	100477.0			251192.5	Y
7	IC 280-627290/12	0.7	178743.0			255347.142857	Y
8	IC 280-627290/11	1.0	255664.0			255664.0	Y
9	IC 280-627290/10	2.5	628901.0			251560.4	Y



Calibration / 3,5-Dinitroaniline

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

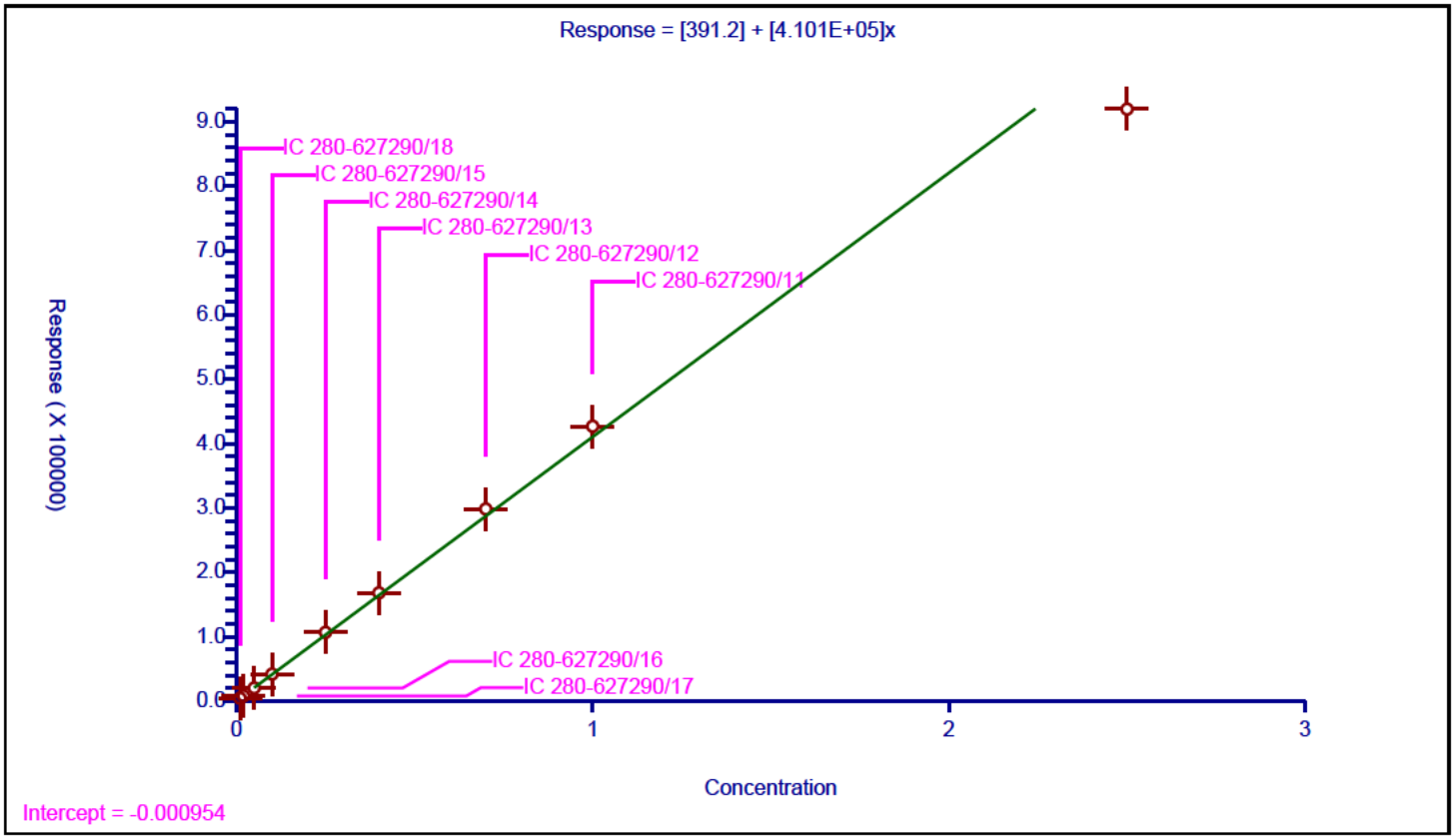
Curve Coefficients

Intercept:	391.2
Slope:	4.101E+05

Error Coefficients

Standard Error:	40800
Relative Standard Error:	5.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	4622.0			462200.0	Y
2	IC 280-627290/17	0.02	8071.0			403550.0	Y
3	IC 280-627290/16	0.05	20488.0			409760.0	Y
4	IC 280-627290/15	0.1	42028.0			420280.0	Y
5	IC 280-627290/14	0.25	106862.0			427448.0	Y
6	IC 280-627290/13	0.4	168201.0			420502.5	Y
7	IC 280-627290/12	0.7	298526.0			426465.714286	Y
8	IC 280-627290/11	1.0	426959.0			426959.0	Y
9	IC 280-627290/10	2.5	919595.0			367838.0	Y



Calibration / 1,3-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

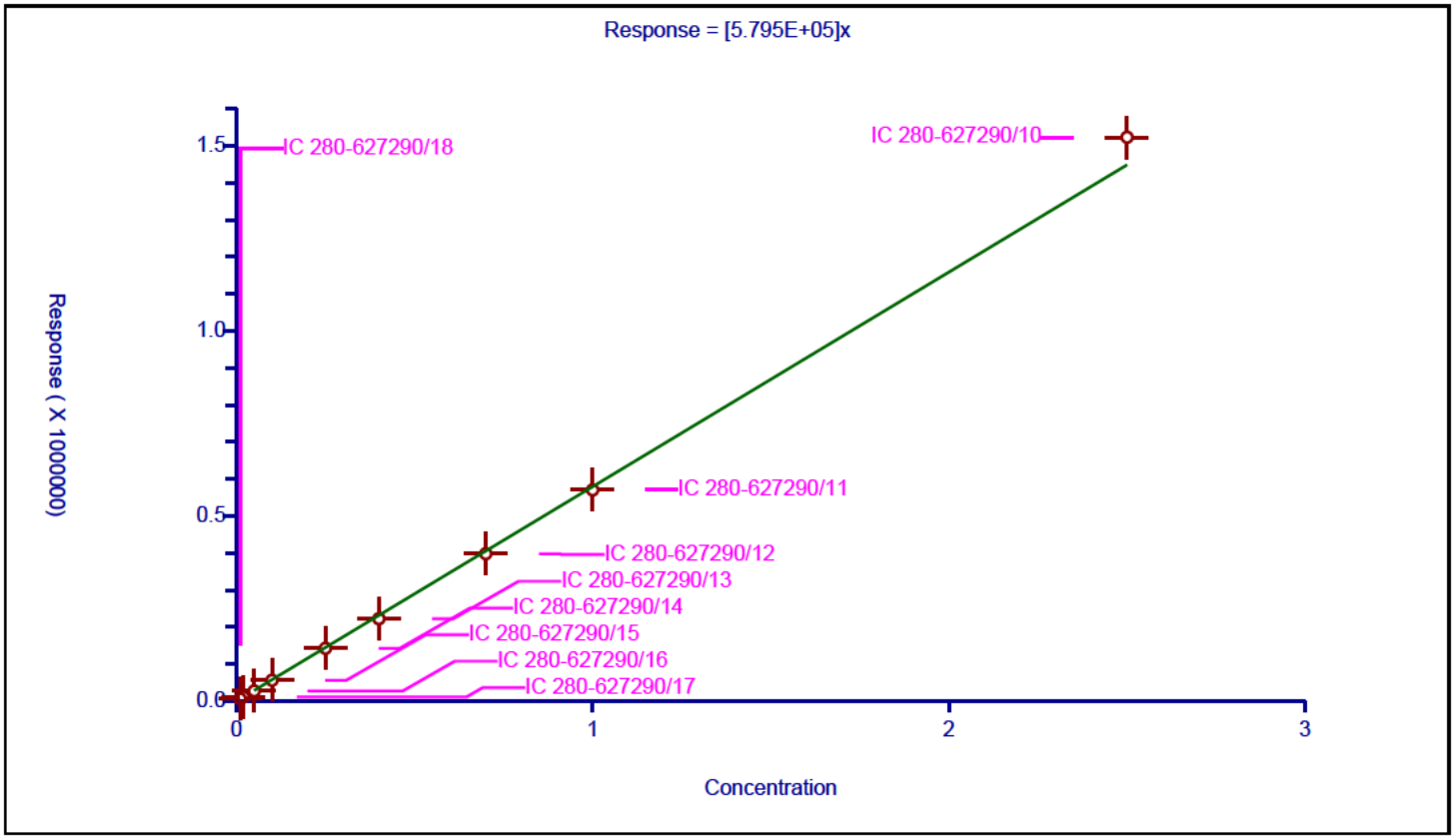
Curve Coefficients

Intercept:	0
Slope:	5.795E+05

Error Coefficients

Standard Error:	26900
Relative Standard Error:	6.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	6679.0			667900.0	Y
2	IC 280-627290/17	0.02	11160.0			558000.0	Y
3	IC 280-627290/16	0.05	27516.0			550320.0	Y
4	IC 280-627290/15	0.1	56349.0			563490.0	Y
5	IC 280-627290/14	0.25	142691.0			570764.0	Y
6	IC 280-627290/13	0.4	222577.0			556442.5	Y
7	IC 280-627290/12	0.7	398297.0			568995.714286	Y
8	IC 280-627290/11	1.0	570540.0			570540.0	Y
9	IC 280-627290/10	2.5	1523284.0			609313.6	Y



Calibration / Nitroglycerin

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

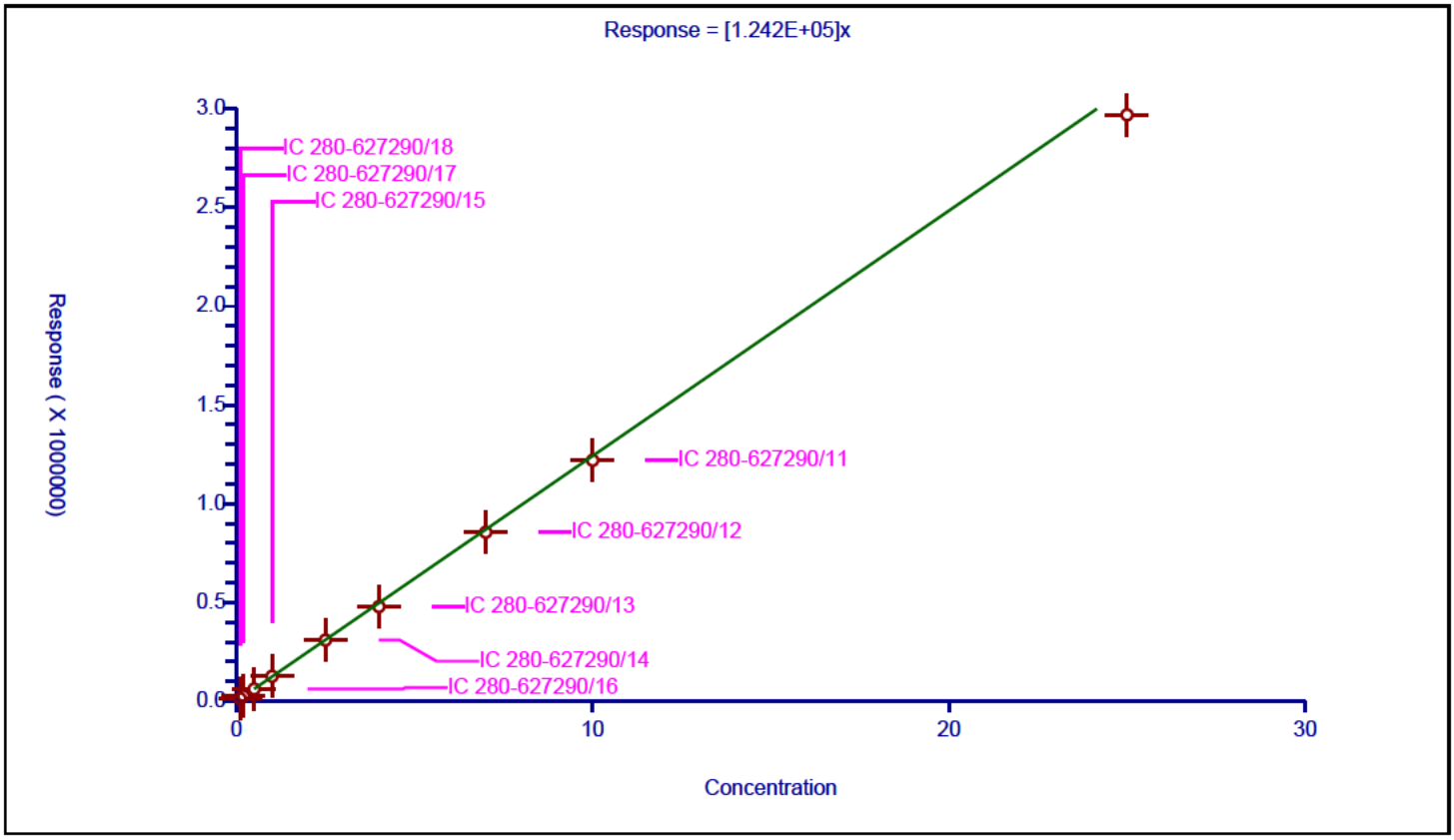
Curve Coefficients

Intercept:	0
Slope:	1.242E+05

Error Coefficients

Standard Error:	49300
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.1	13348.0			133480.0	Y
2	IC 280-627290/17	0.2	25930.0			129650.0	Y
3	IC 280-627290/16	0.5	61450.0			122900.0	Y
4	IC 280-627290/15	1.0	125699.0			125699.0	Y
5	IC 280-627290/14	2.5	309021.0			123608.4	Y
6	IC 280-627290/13	4.0	478538.0			119634.5	Y
7	IC 280-627290/12	7.0	855360.0			122194.285714	Y
8	IC 280-627290/11	10.0	1219790.0			121979.0	Y
9	IC 280-627290/10	25.0	2969741.0			118789.64	Y



Calibration / o-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

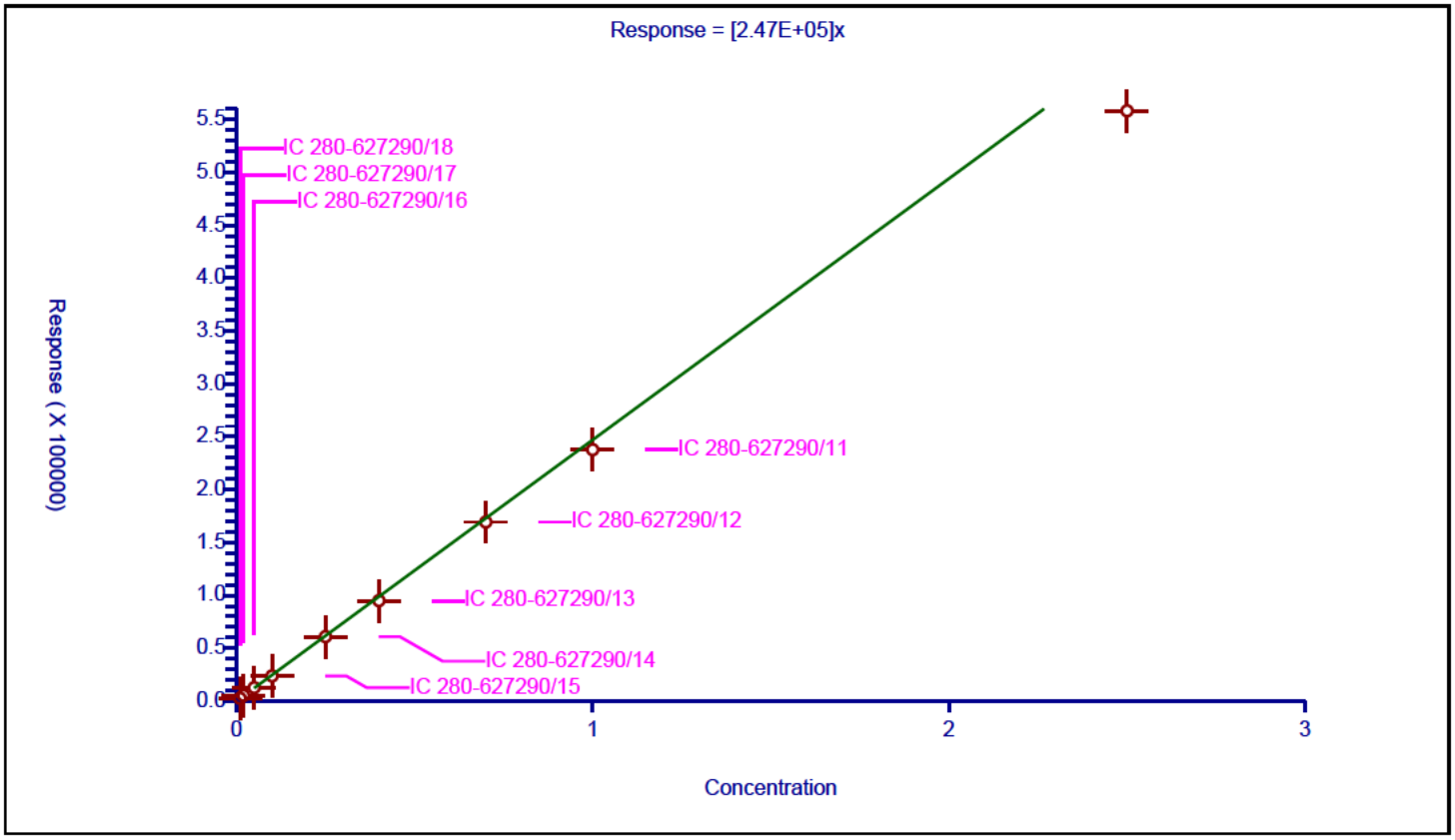
Curve Coefficients

Intercept:	0
Slope:	2.47E+05

Error Coefficients

Standard Error:	21300
Relative Standard Error:	6.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	2753.0			275300.0	Y
2	IC 280-627290/17	0.02	5416.0			270800.0	Y
3	IC 280-627290/16	0.05	12750.0			255000.0	Y
4	IC 280-627290/15	0.1	23778.0			237780.0	Y
5	IC 280-627290/14	0.25	61006.0			244024.0	Y
6	IC 280-627290/13	0.4	94995.0			237487.5	Y
7	IC 280-627290/12	0.7	169349.0			241927.142857	Y
8	IC 280-627290/11	1.0	237729.0			237729.0	Y
9	IC 280-627290/10	2.5	558193.0			223277.2	Y



Calibration / p-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

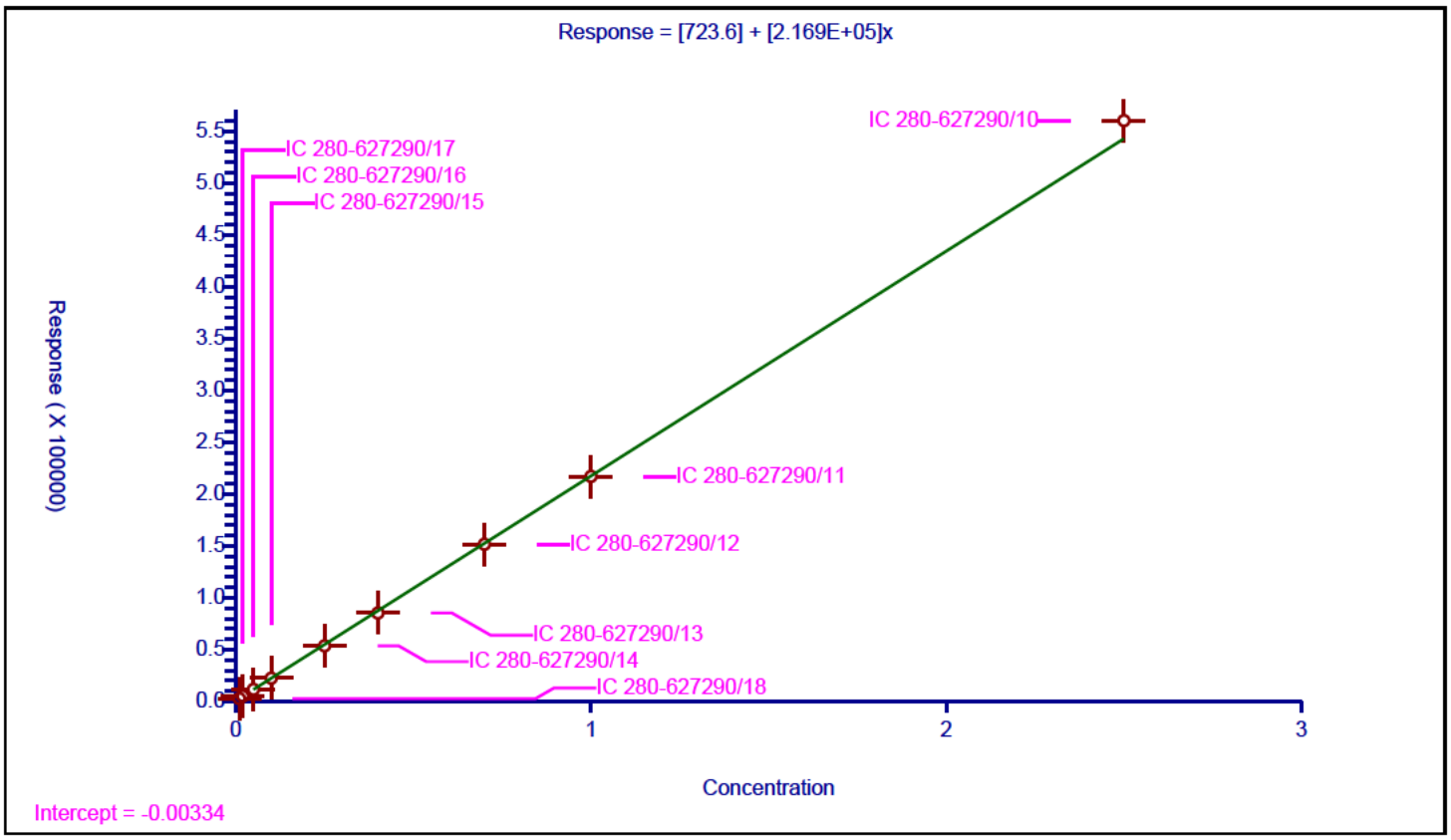
Curve Coefficients

Intercept:	723.6
Slope:	2.169E+05

Error Coefficients

Standard Error:	6670
Relative Standard Error:	2.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	2862.0			286200.0	Y
2	IC 280-627290/17	0.02	5178.0			258900.0	Y
3	IC 280-627290/16	0.05	11667.0			233340.0	Y
4	IC 280-627290/15	0.1	22449.0			224490.0	Y
5	IC 280-627290/14	0.25	53670.0			214680.0	Y
6	IC 280-627290/13	0.4	85317.0			213292.5	Y
7	IC 280-627290/12	0.7	151677.0			216681.428571	Y
8	IC 280-627290/11	1.0	217115.0			217115.0	Y
9	IC 280-627290/10	2.5	560347.0			224138.8	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

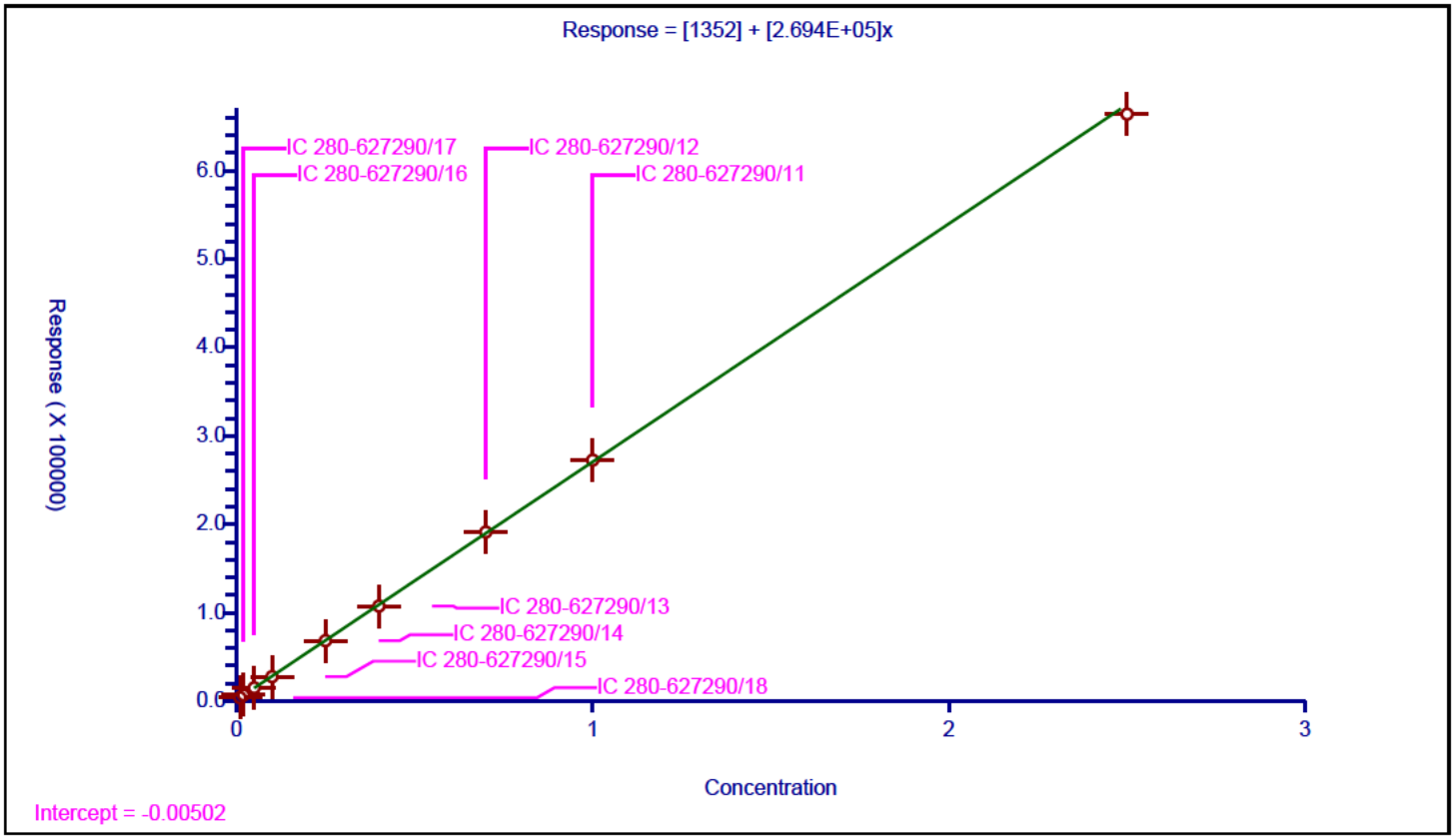
Curve Coefficients

Intercept:	1352
Slope:	2.694E+05

Error Coefficients

Standard Error:	4180
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	3980.0			398000.0	Y
2	IC 280-627290/17	0.02	6984.0			349200.0	Y
3	IC 280-627290/16	0.05	15115.0			302300.0	Y
4	IC 280-627290/15	0.1	27679.0			276790.0	Y
5	IC 280-627290/14	0.25	68403.0			273612.0	Y
6	IC 280-627290/13	0.4	107559.0			268897.5	Y
7	IC 280-627290/12	0.7	191281.0			273258.571429	Y
8	IC 280-627290/11	1.0	272622.0			272622.0	Y
9	IC 280-627290/10	2.5	664108.0			265643.2	Y



Calibration / m-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

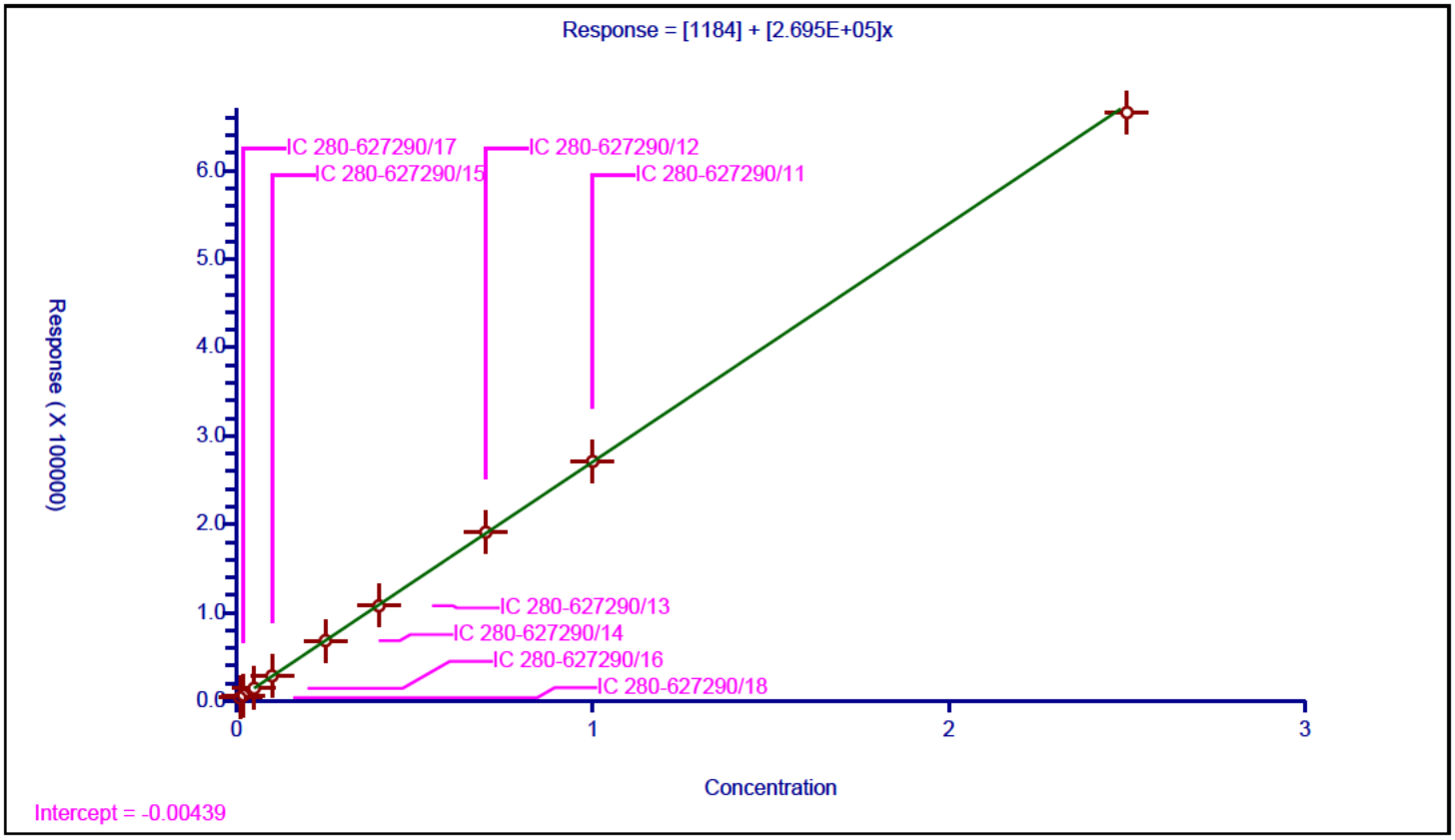
Curve Coefficients

Intercept:	1184
Slope:	2.695E+05

Error Coefficients

Standard Error:	3500
Relative Standard Error:	1.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	3853.0			385300.0	Y
2	IC 280-627290/17	0.02	6679.0			333950.0	Y
3	IC 280-627290/16	0.05	14579.0			291580.0	Y
4	IC 280-627290/15	0.1	28516.0			285160.0	Y
5	IC 280-627290/14	0.25	68436.0			273744.0	Y
6	IC 280-627290/13	0.4	107777.0			269442.5	Y
7	IC 280-627290/12	0.7	191019.0			272884.285714	Y
8	IC 280-627290/11	1.0	271165.0			271165.0	Y
9	IC 280-627290/10	2.5	665814.0			266325.6	Y



Calibration / 2-Amino-4,6-dinitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

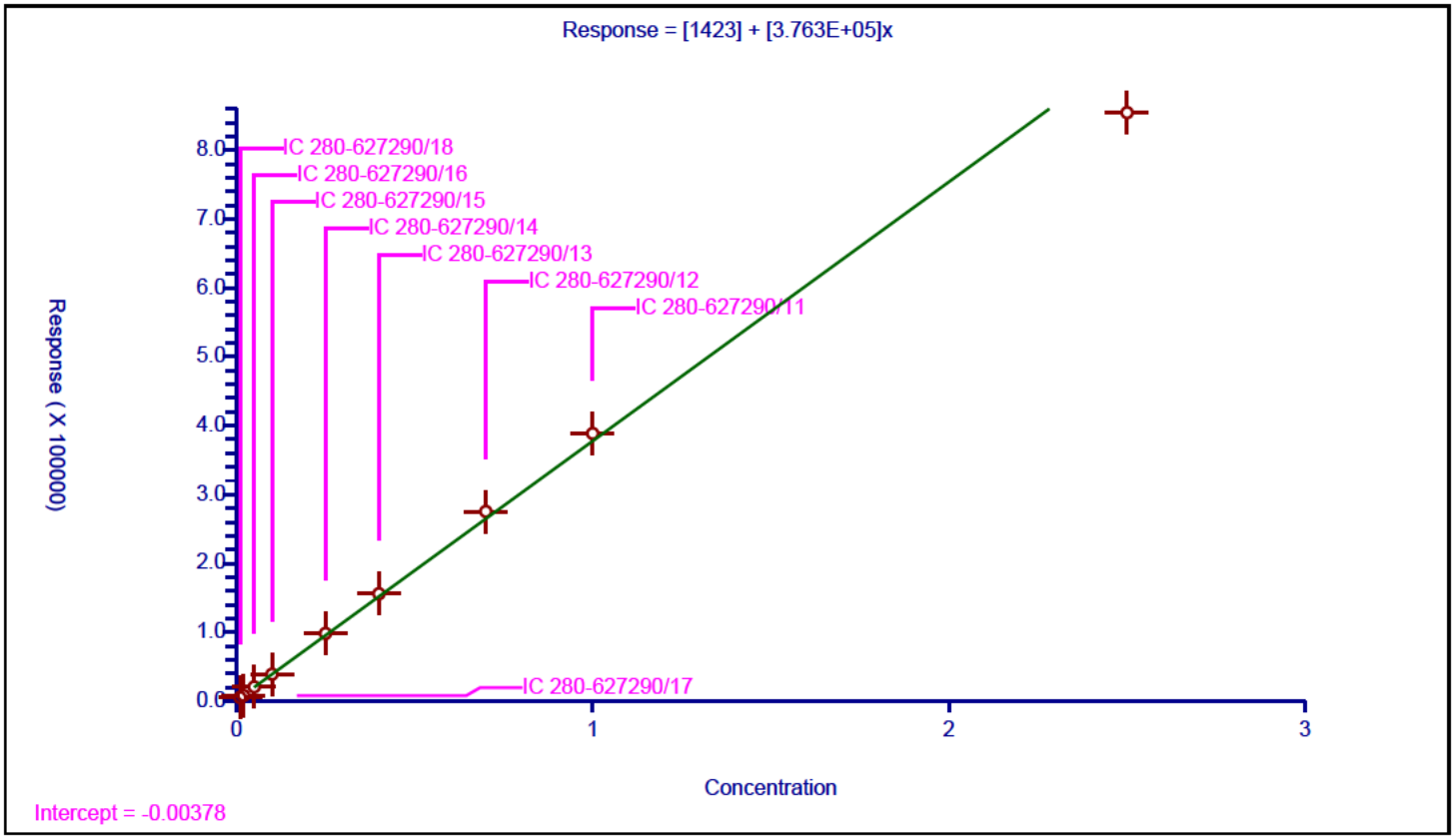
Curve Coefficients

Intercept:	1423
Slope:	3.763E+05

Error Coefficients

Standard Error:	33700
Relative Standard Error:	6.0
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	5349.0			534900.0	Y
2	IC 280-627290/17	0.02	8189.0			409450.0	Y
3	IC 280-627290/16	0.05	20666.0			413320.0	Y
4	IC 280-627290/15	0.1	39122.0			391220.0	Y
5	IC 280-627290/14	0.25	98305.0			393220.0	Y
6	IC 280-627290/13	0.4	155922.0			389805.0	Y
7	IC 280-627290/12	0.7	275464.0			393520.0	Y
8	IC 280-627290/11	1.0	388664.0			388664.0	Y
9	IC 280-627290/10	2.5	854516.0			341806.4	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

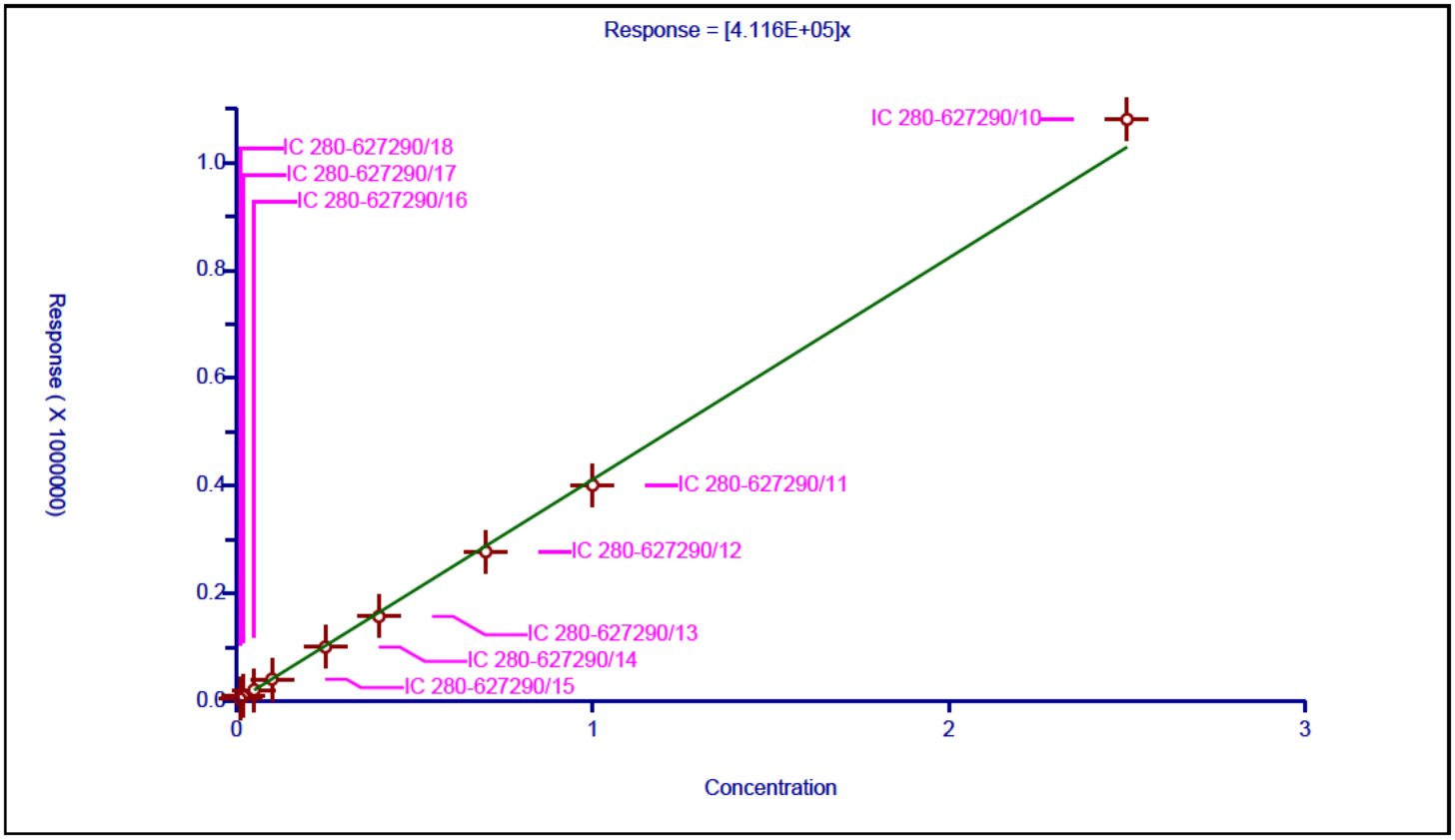
Curve Coefficients

Intercept:	0
Slope:	4.116E+05

Error Coefficients

Standard Error:	19100
Relative Standard Error:	3.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	4159.0			415900.0	Y
2	IC 280-627290/17	0.02	8780.0			439000.0	Y
3	IC 280-627290/16	0.05	20880.0			417600.0	Y
4	IC 280-627290/15	0.1	40753.0			407530.0	Y
5	IC 280-627290/14	0.25	100515.0			402060.0	Y
6	IC 280-627290/13	0.4	157218.0			393045.0	Y
7	IC 280-627290/12	0.7	277471.0			396387.142857	Y
8	IC 280-627290/11	1.0	400996.0			400996.0	Y
9	IC 280-627290/10	2.5	1080397.0			432158.8	Y



Calibration / 2,6-Dinitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

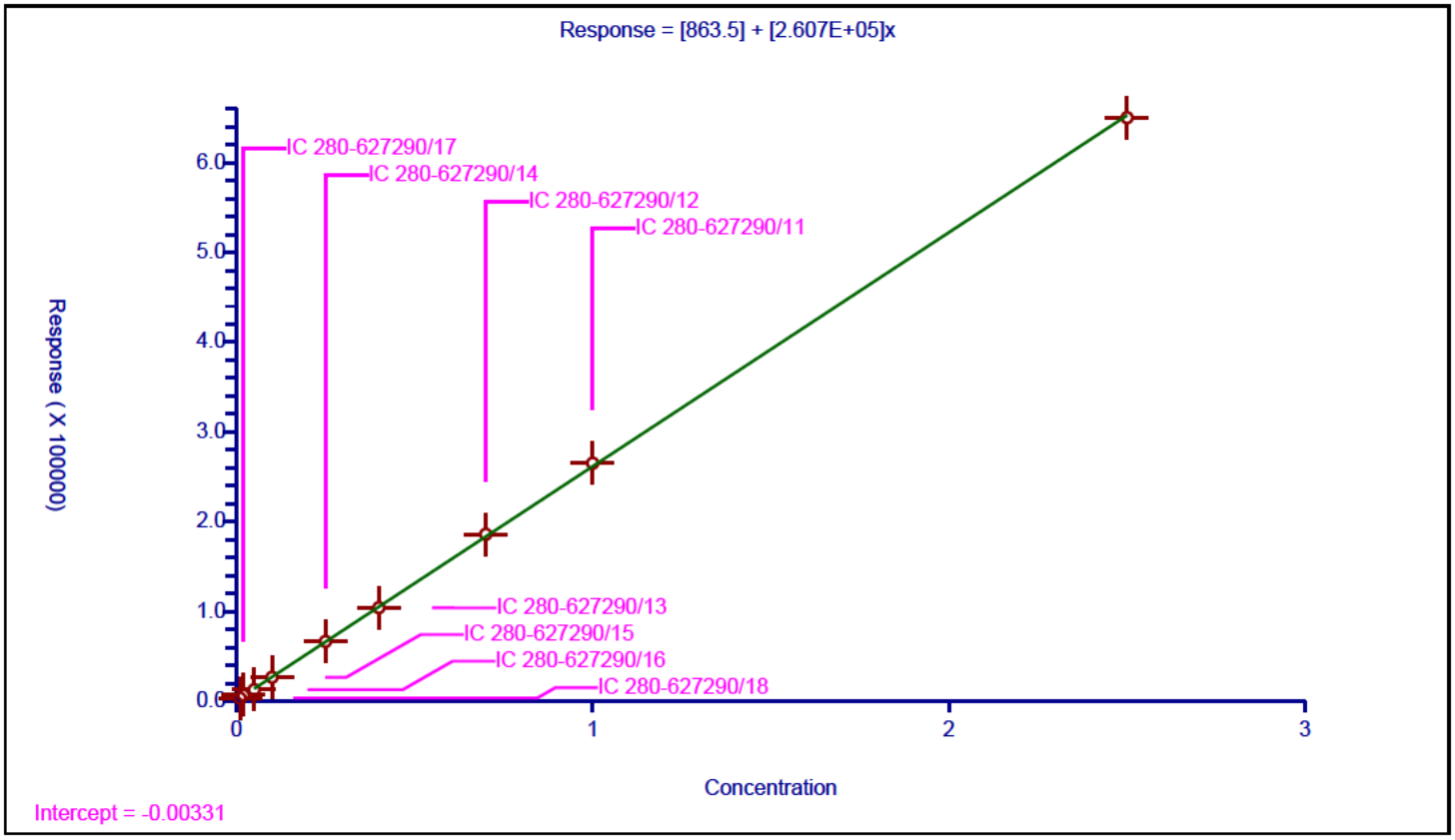
Curve Coefficients

Intercept:	863.5
Slope:	2.607E+05

Error Coefficients

Standard Error:	2040
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	3360.0			336000.0	Y
2	IC 280-627290/17	0.02	6716.0			335800.0	Y
3	IC 280-627290/16	0.05	12748.0			254960.0	Y
4	IC 280-627290/15	0.1	26594.0			265940.0	Y
5	IC 280-627290/14	0.25	66514.0			266056.0	Y
6	IC 280-627290/13	0.4	104177.0			260442.5	Y
7	IC 280-627290/12	0.7	185954.0			265648.571429	Y
8	IC 280-627290/11	1.0	265199.0			265199.0	Y
9	IC 280-627290/10	2.5	650162.0			260064.8	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

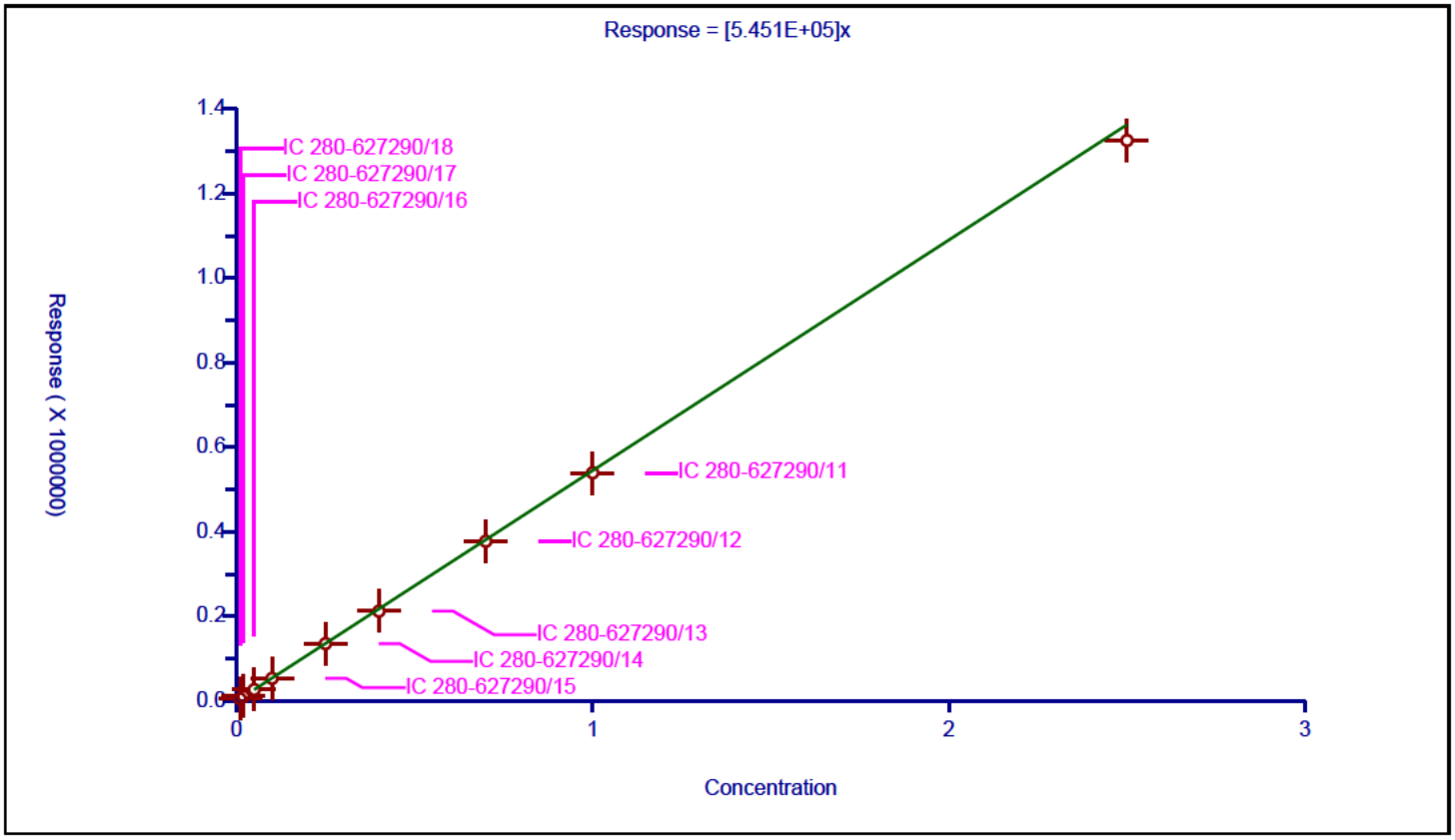
Curve Coefficients

Intercept:	0
Slope:	5.451E+05

Error Coefficients

Standard Error:	13600
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	5753.0			575300.0	Y
2	IC 280-627290/17	0.02	11241.0			562050.0	Y
3	IC 280-627290/16	0.05	27321.0			546420.0	Y
4	IC 280-627290/15	0.1	53734.0			537340.0	Y
5	IC 280-627290/14	0.25	135900.0			543600.0	Y
6	IC 280-627290/13	0.4	212533.0			531332.5	Y
7	IC 280-627290/12	0.7	377896.0			539851.428571	Y
8	IC 280-627290/11	1.0	539776.0			539776.0	Y
9	IC 280-627290/10	2.5	1325292.0			530116.8	Y



Calibration / Tetryl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

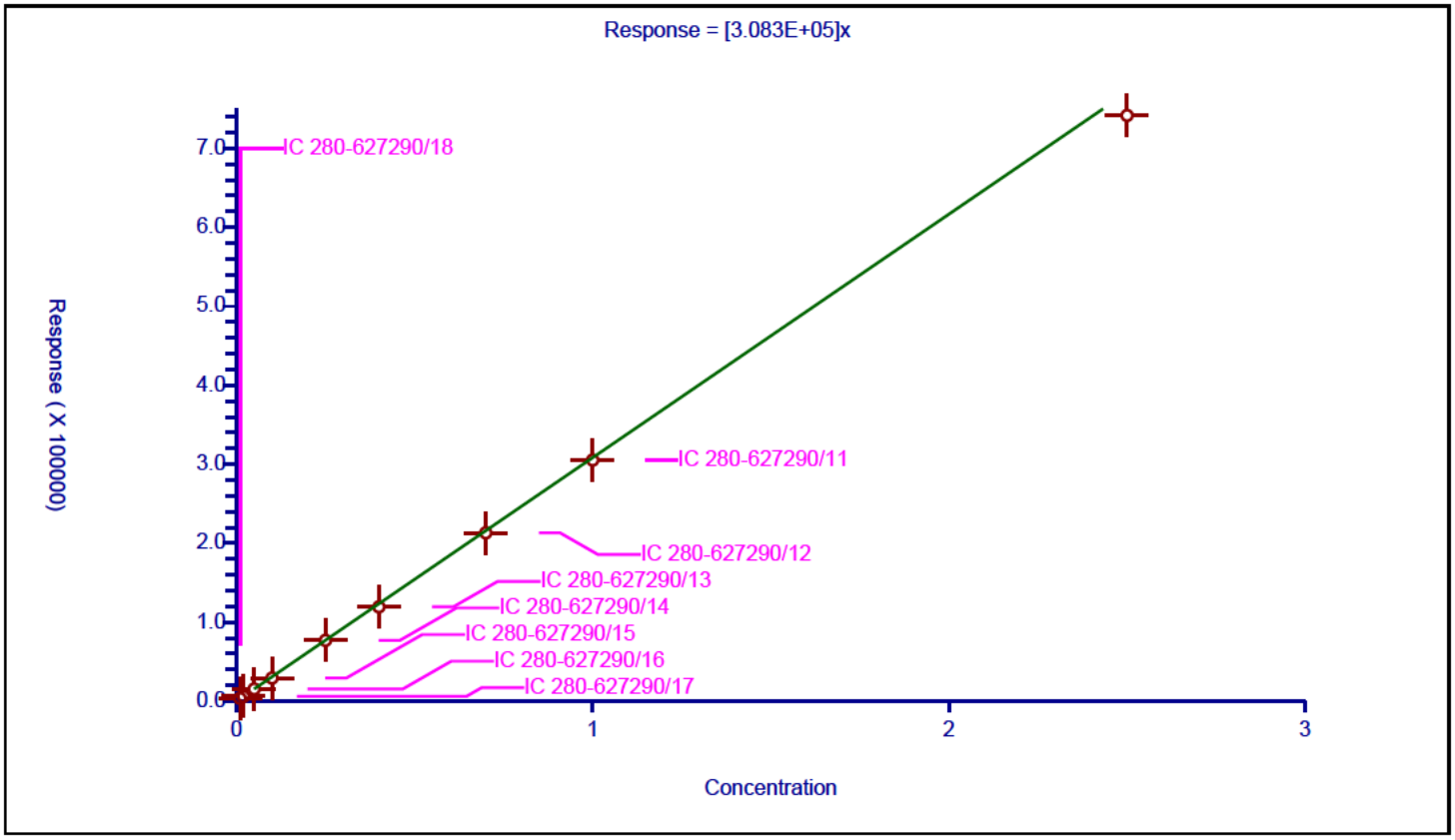
Curve Coefficients

Intercept:	0
Slope:	3.083E+05

Error Coefficients

Standard Error:	10500
Relative Standard Error:	6.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	3615.0			361500.0	Y
2	IC 280-627290/17	0.02	6017.0			300850.0	Y
3	IC 280-627290/16	0.05	15400.0			308000.0	Y
4	IC 280-627290/15	0.1	29248.0			292480.0	Y
5	IC 280-627290/14	0.25	76874.0			307496.0	Y
6	IC 280-627290/13	0.4	119347.0			298367.5	Y
7	IC 280-627290/12	0.7	213101.0			304430.0	Y
8	IC 280-627290/11	1.0	305263.0			305263.0	Y
9	IC 280-627290/10	2.5	741681.0			296672.4	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

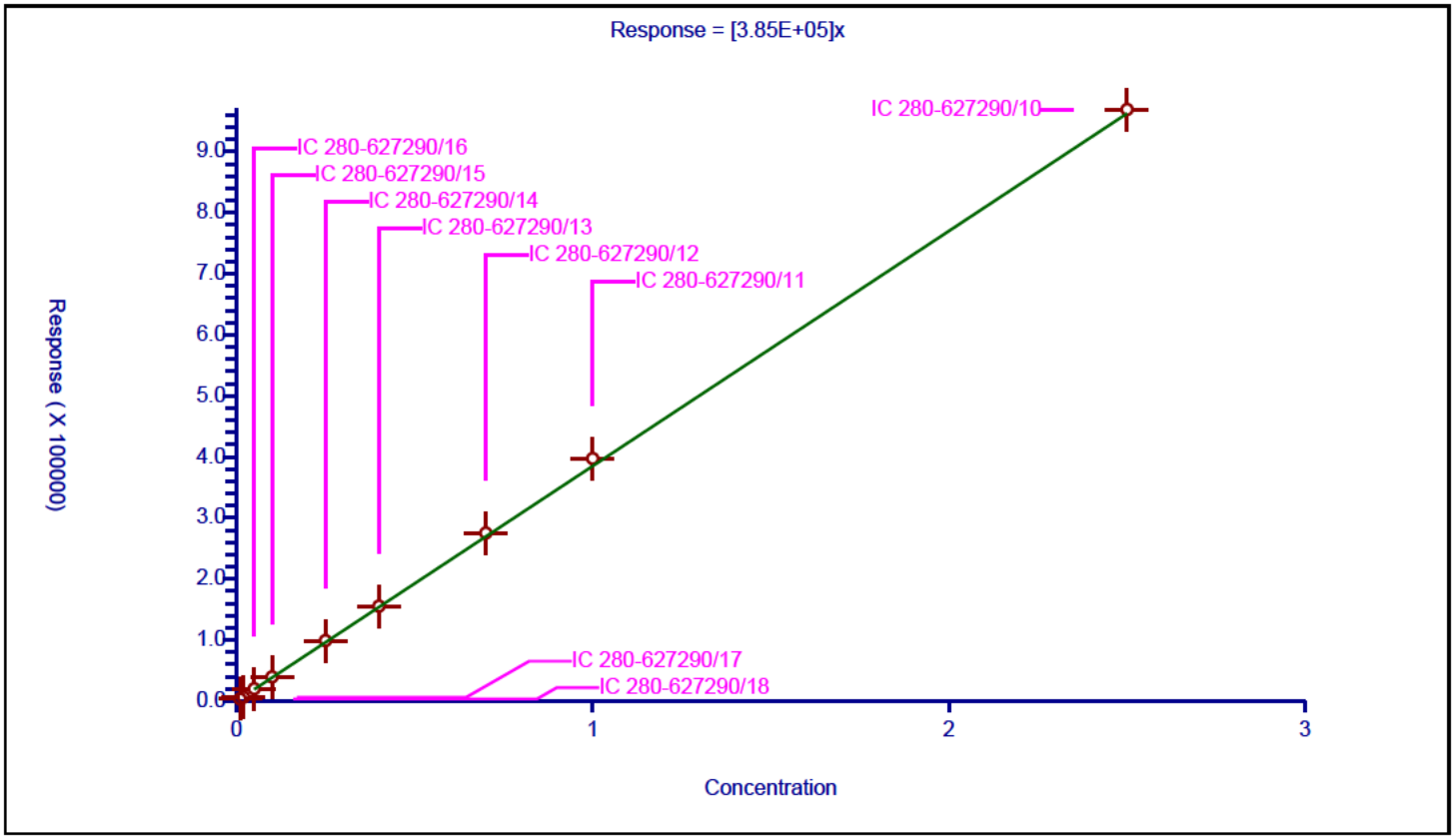
Curve Coefficients

Intercept:	0
Slope:	3.85E+05

Error Coefficients

Standard Error:	5570
Relative Standard Error:	6.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.01	3712.0			371200.0	Y
2	IC 280-627290/17	0.02	6528.0			326400.0	Y
3	IC 280-627290/16	0.05	20297.0			405940.0	Y
4	IC 280-627290/15	0.1	39715.0			397150.0	Y
5	IC 280-627290/14	0.25	99165.0			396660.0	Y
6	IC 280-627290/13	0.4	155627.0			389067.5	Y
7	IC 280-627290/12	0.7	275399.0			393427.142857	Y
8	IC 280-627290/11	1.0	397391.0			397391.0	Y
9	IC 280-627290/10	2.5	969091.0			387636.4	Y



Calibration / PETN

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

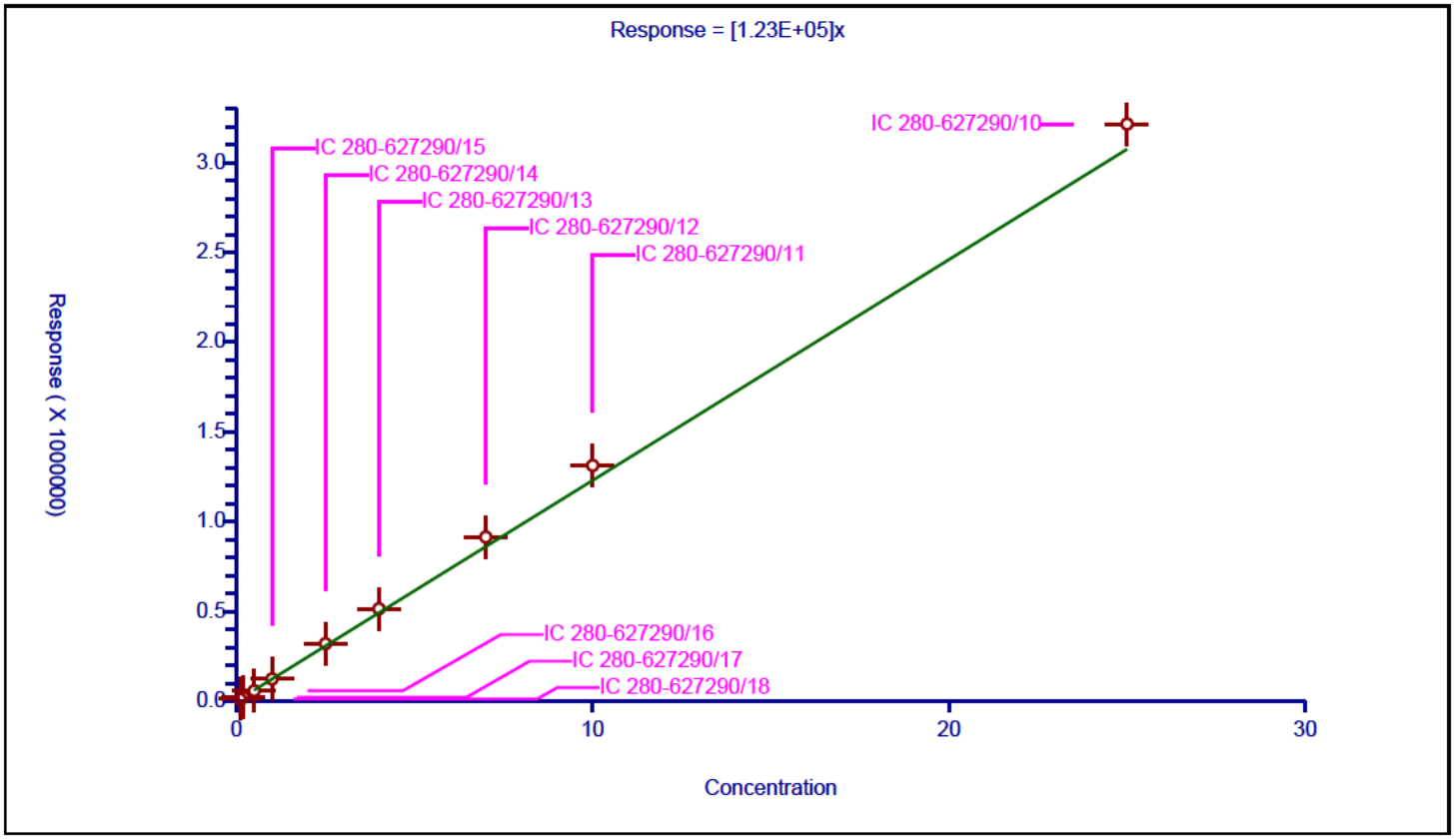
Curve Coefficients

Intercept:	0
Slope:	1.23E+05

Error Coefficients

Standard Error:	61400
Relative Standard Error:	7.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/18	0.1	11596.0			115960.0	Y
2	IC 280-627290/17	0.2	21075.0			105375.0	Y
3	IC 280-627290/16	0.5	57592.0			115184.0	Y
4	IC 280-627290/15	1.0	123328.0			123328.0	Y
5	IC 280-627290/14	2.5	320094.0			128037.6	Y
6	IC 280-627290/13	4.0	514656.0			128664.0	Y
7	IC 280-627290/12	7.0	914344.0			130620.571429	Y
8	IC 280-627290/11	10.0	1313083.0			131308.3	Y
9	IC 280-627290/10	25.0	3215628.0			128625.12	Y



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2023 00:42 | Calibration End Date: 09/26/2023 04:54 | Calibration ID: 84933

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/27	09250027.D
Level 2	IC 280-627290/26	09250026.D
Level 3	IC 280-627290/25	09250025.D
Level 4	IC 280-627290/24	09250024.D
Level 5	IC 280-627290/23	09250023.D
Level 6	IC 280-627290/22	09250022.D
Level 7	IC 280-627290/21	09250021.D
Level 8	IC 280-627290/20	09250020.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	+++++	+++++	4.227	4.223	4.230	4.219	4.214	4.200			4.080 - 4.380	4.219
2,4-diamino-6-nitrotoluene	+++++	+++++	4.807	4.803	4.810	4.813	4.814	4.847			4.660 - 4.960	4.816

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2023 00:42 Calibration End Date: 09/26/2023 04:54 Calibration ID: 84933

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/27	09250027.D
Level 2	IC 280-627290/26	09250026.D
Level 3	IC 280-627290/25	09250025.D
Level 4	IC 280-627290/24	09250024.D
Level 5	IC 280-627290/23	09250023.D
Level 6	IC 280-627290/22	09250022.D
Level 7	IC 280-627290/21	09250021.D
Level 8	IC 280-627290/20	09250020.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
2,6-diamino-4-nitrotoluene	+++++ 387758	+++++ 369949	381960 389304	391204 405683	Ave		387642.812				3.0		20.0			
2,4-diamino-6-nitrotoluene	+++++ 237655	+++++ 227633	239310 240760	238144 220192	Ave		233948.976				3.5		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.: 280-188555-1 | Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2023 00:42 | Calibration End Date: 09/26/2023 04:54 | Calibration ID: 84933

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/27	09250027.D
Level 2	IC 280-627290/26	09250026.D
Level 3	IC 280-627290/25	09250025.D
Level 4	IC 280-627290/24	09250024.D
Level 5	IC 280-627290/23	09250023.D
Level 6	IC 280-627290/22	09250022.D
Level 7	IC 280-627290/21	09250021.D
Level 8	IC 280-627290/20	09250020.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Ave	+++++ 258964	+++++ 389304	38196 1014207	97801	155103	+++++ 0.700	+++++ 1.00	0.100 2.50	0.250	0.400
2,4-diamino-6-nitrotoluene	Ave	+++++ 159343	+++++ 240760	23931 550480	59536	95062	+++++ 0.700	+++++ 1.00	0.100 2.50	0.250	0.400

Curve Type Legend:
Ave = Average

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250020.D
Lims ID: IC ADD 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 26-Sep-2023 00:42:39 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 8
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub19

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:40 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:14:16

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.200	4.230	-0.030	1014207	2.50	2.62	a
2 2,4-diamino-6-nitrotoluene	1	4.847	4.810	0.037	550480	2.50	2.35	

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

8330_ADDs_00037 Amount Added: 125.00 Units: uL

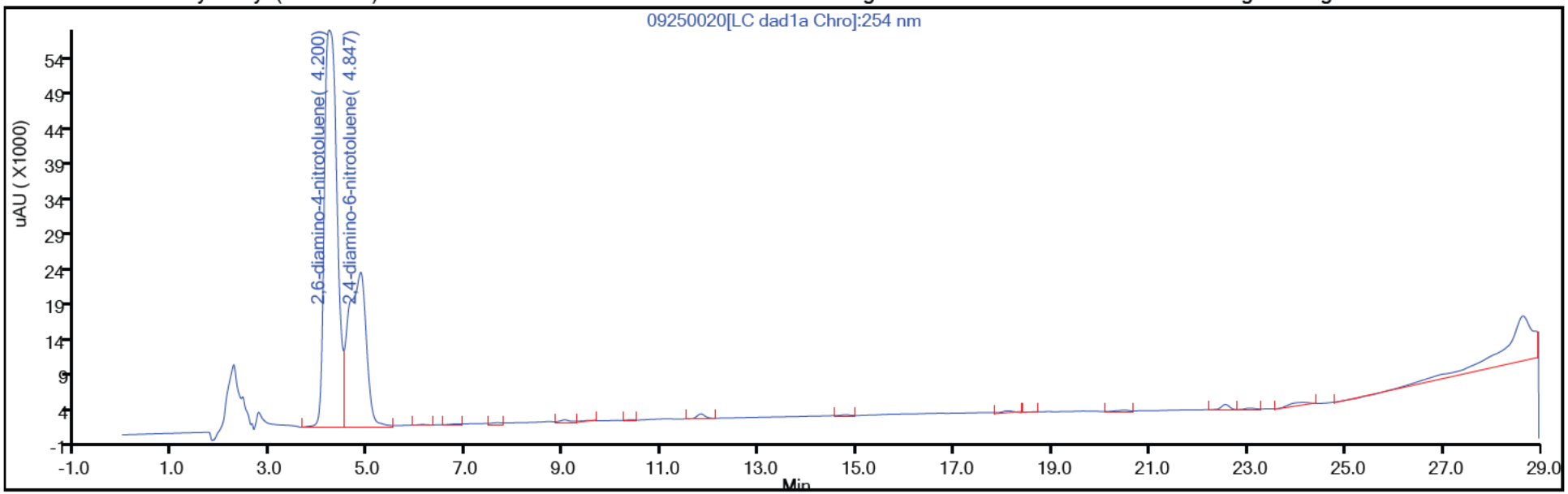
Report Date: 26-Sep-2023 15:25:40 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

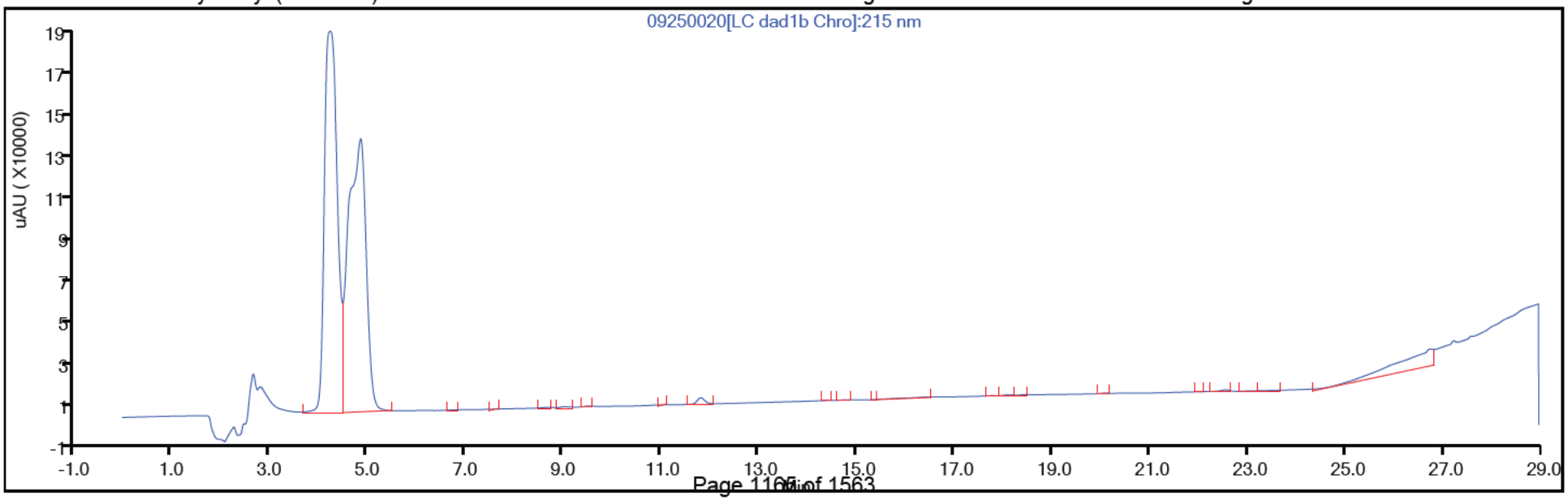
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250020.d

Injection Date:	26-Sep-2023 00:42:39	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC ADD 8			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	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



Manual Integration/User Assign Peak Report

Eurofins Denver

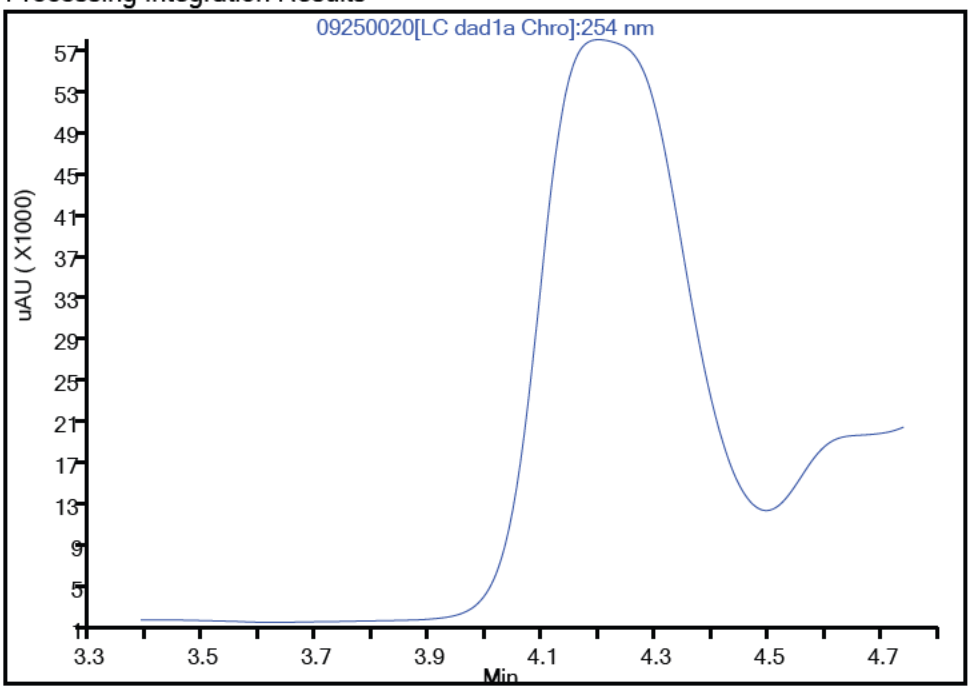
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250020.d				
Injection Date:	26-Sep-2023 00:42:39	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC ADD 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

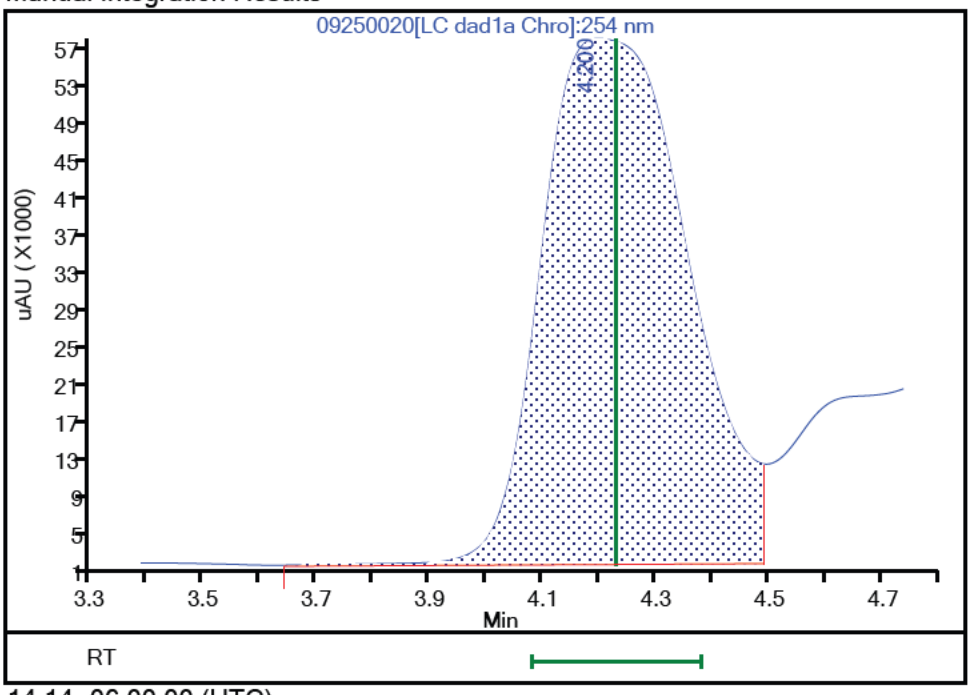
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.20
Area: 1014207
Amount: 2.616344
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:14:14 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250021.D
Lims ID: IC ADD 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 26-Sep-2023 01:18:41 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 7
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub19

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:41 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:14:19

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.214	4.230	-0.016	389304	1.00	1.00	a
2 2,4-diamino-6-nitrotoluene	1	4.814	4.810	0.004	240760	1.00	1.03	

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

8330_ADDs_00037 Amount Added: 50.00 Units: uL

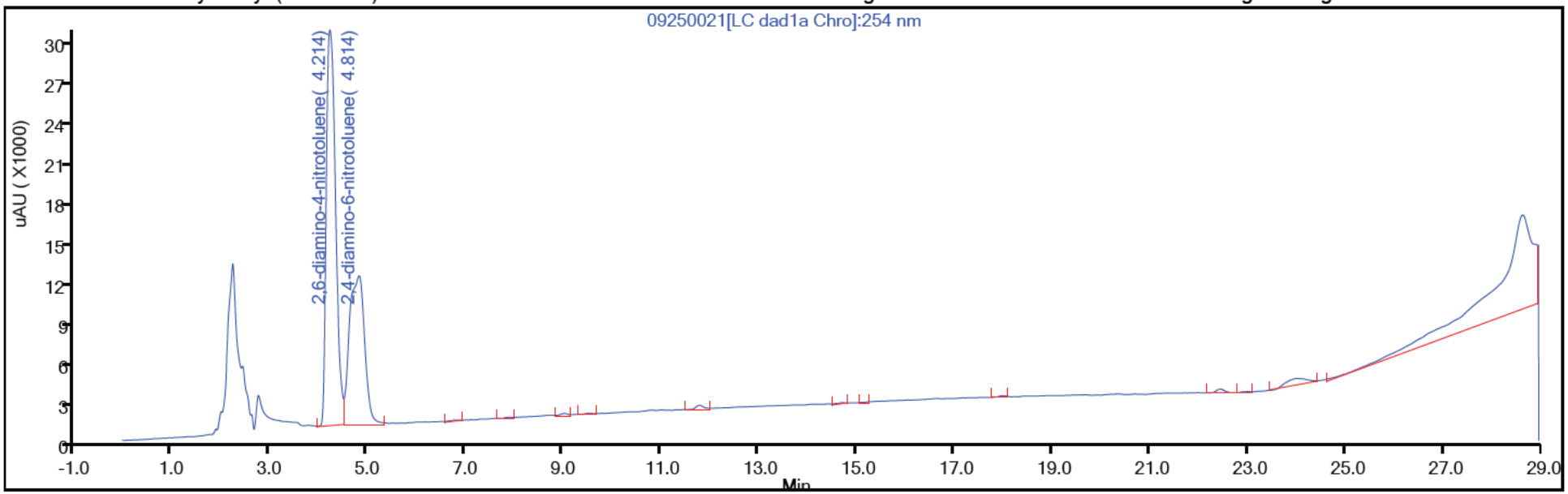
Report Date: 26-Sep-2023 15:25:41 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

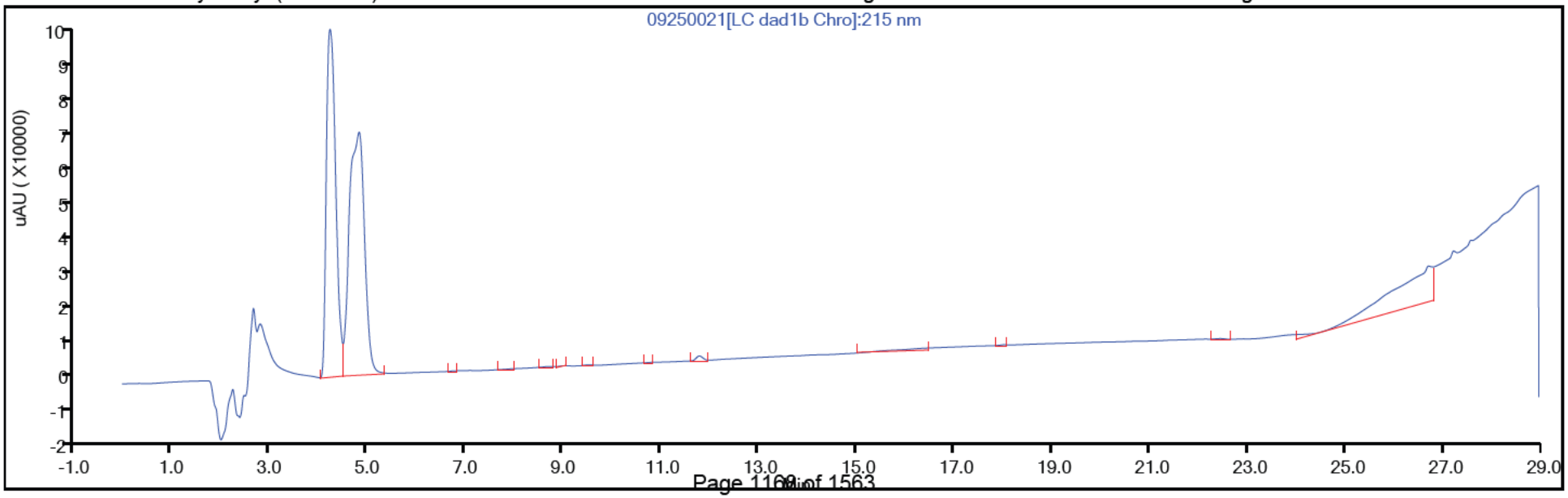
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250021.d

Injection Date:	26-Sep-2023 01:18:41	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC ADD 7			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	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



Manual Integration/User Assign Peak Report

Eurofins Denver

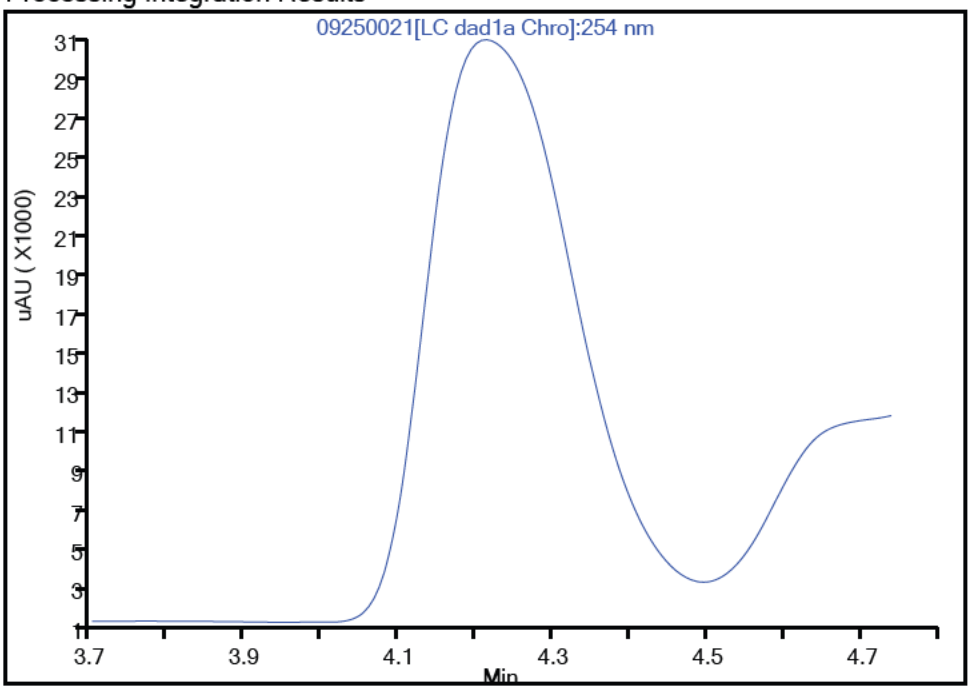
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250021.d				
Injection Date:	26-Sep-2023 01:18:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC ADD 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

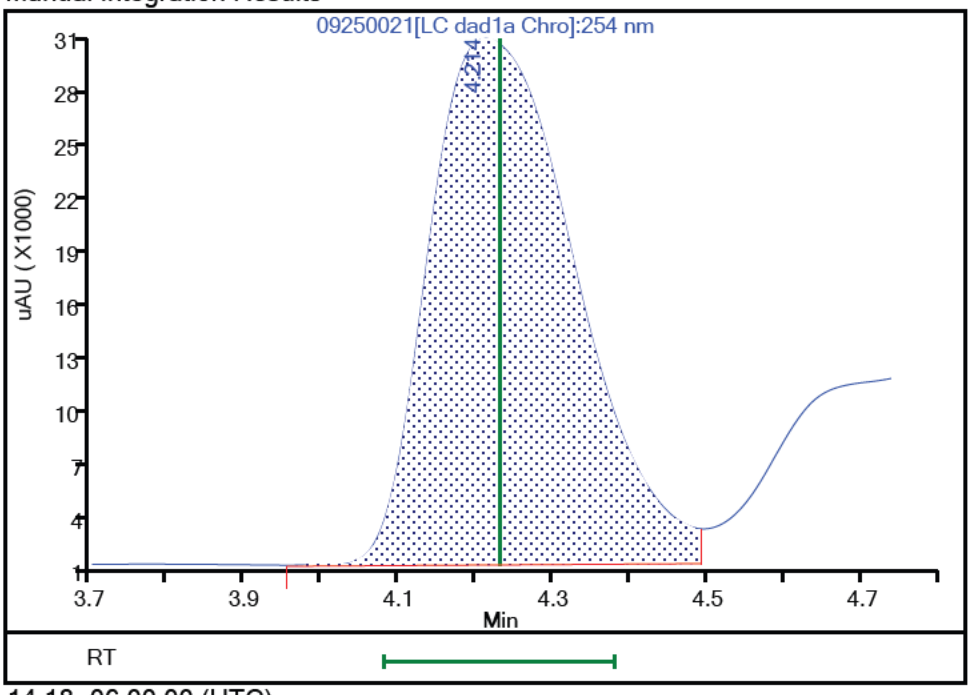
Not Detected
Expected RT: 4.23

Processing Integration Results



RT: 4.21
Area: 389304
Amount: 1.004285
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 26-Sep-2023 14:14:18 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250022.D
Lims ID: IC ADD 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 26-Sep-2023 01:54:36 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 6
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub19

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:41 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:14:22

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.219	4.230	-0.011	258964	0.7000	0.6680	a
2 2,4-diamino-6-nitrotoluene	1	4.813	4.810	0.003	159343	0.7000	0.6811	

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

8330_ADDs_00037 Amount Added: 35.00 Units: uL

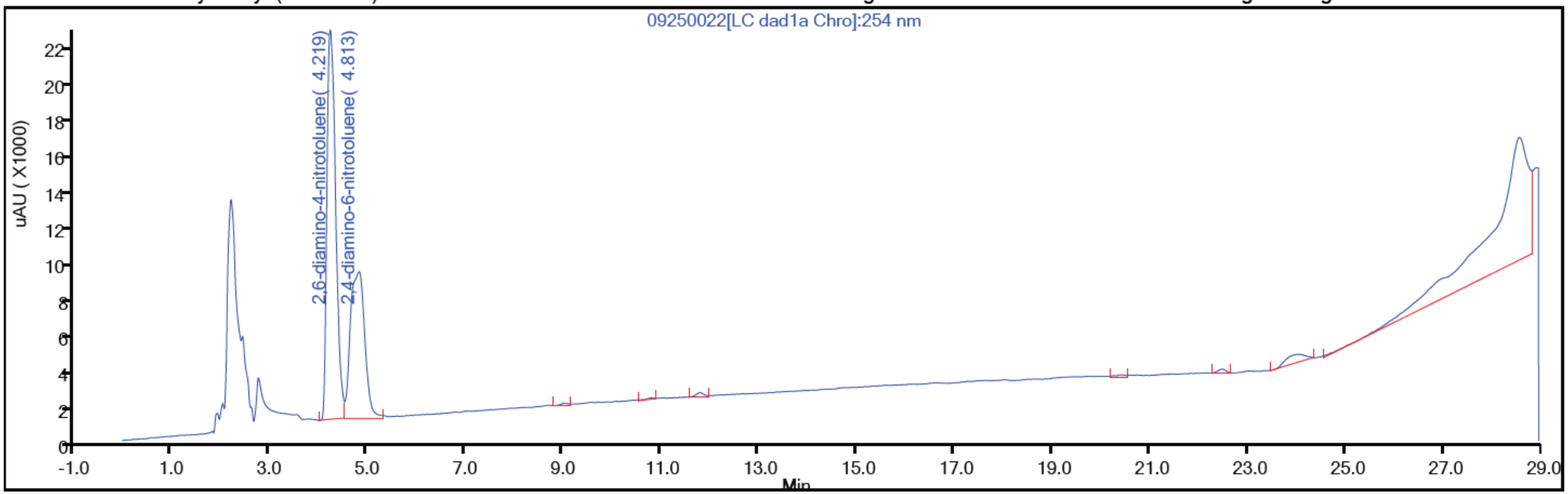
Report Date: 26-Sep-2023 15:25:41 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

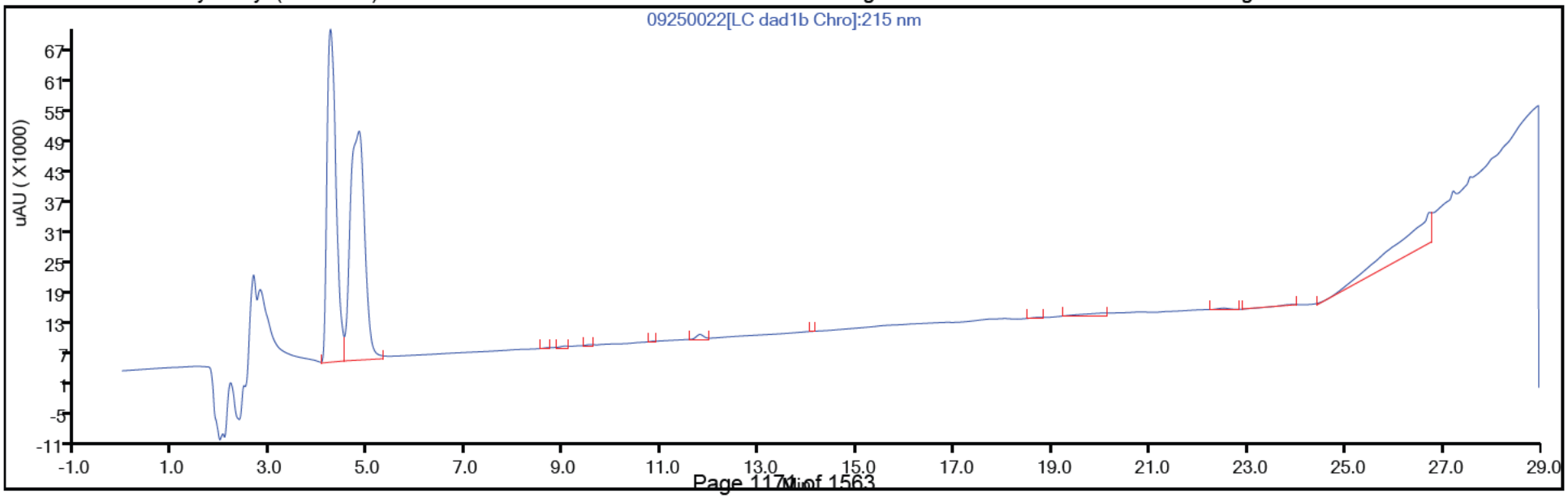
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250022.d

Injection Date:	26-Sep-2023 01:54:36	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC ADD 6			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	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



Manual Integration/User Assign Peak Report

Eurofins Denver

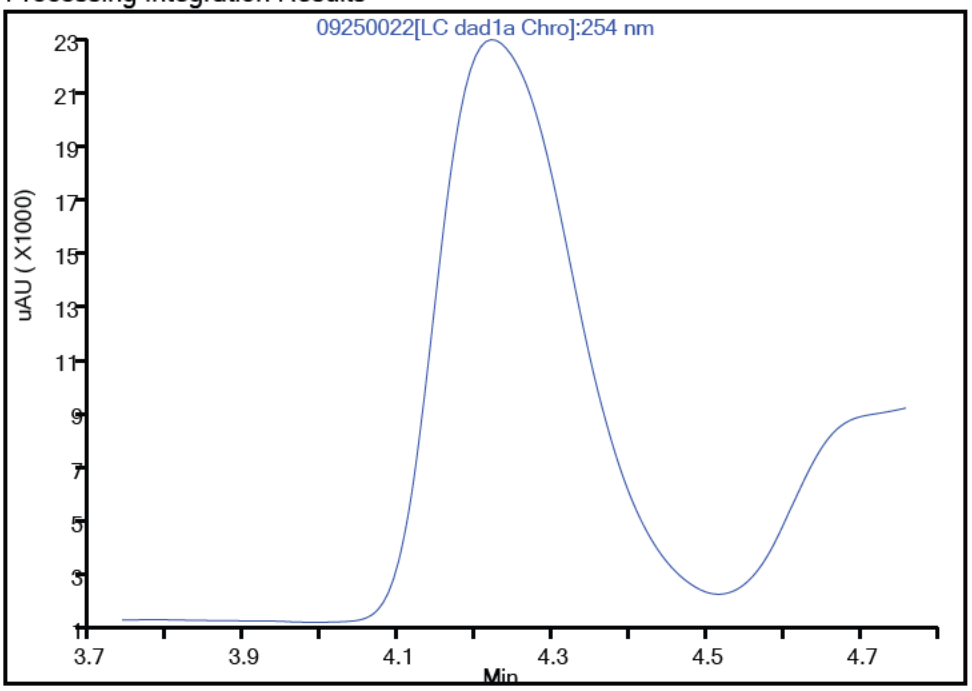
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250022.d				
Injection Date:	26-Sep-2023 01:54:36	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC ADD 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

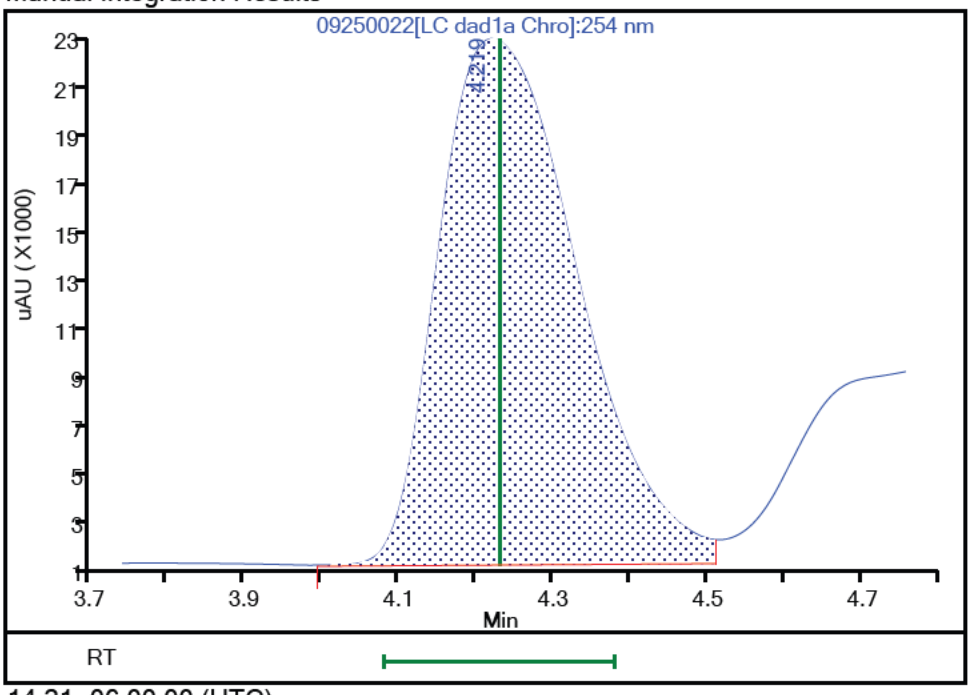
Not Detected
Expected RT: 4.23

Processing Integration Results



RT: 4.22
Area: 258964
Amount: 0.668048
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 26-Sep-2023 14:14:21 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250023.D
Lims ID: IC ADD 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 26-Sep-2023 02:30:35 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 5
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub19

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:42 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:14:25

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.230	4.230	0.000	155103	0.4000	0.4001	a
2 2,4-diamino-6-nitrotoluene	1	4.810	4.810	0.000	95062	0.4000	0.4063	

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

8330_ADDs_00037 Amount Added: 20.00 Units: uL

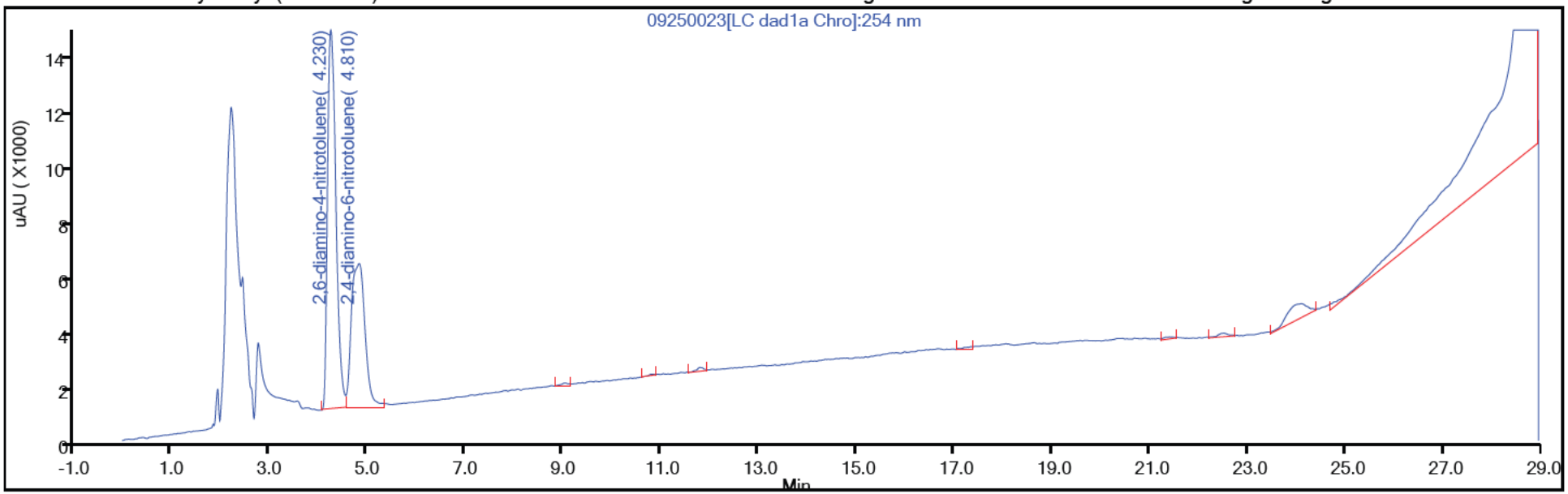
Report Date: 26-Sep-2023 15:25:42 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

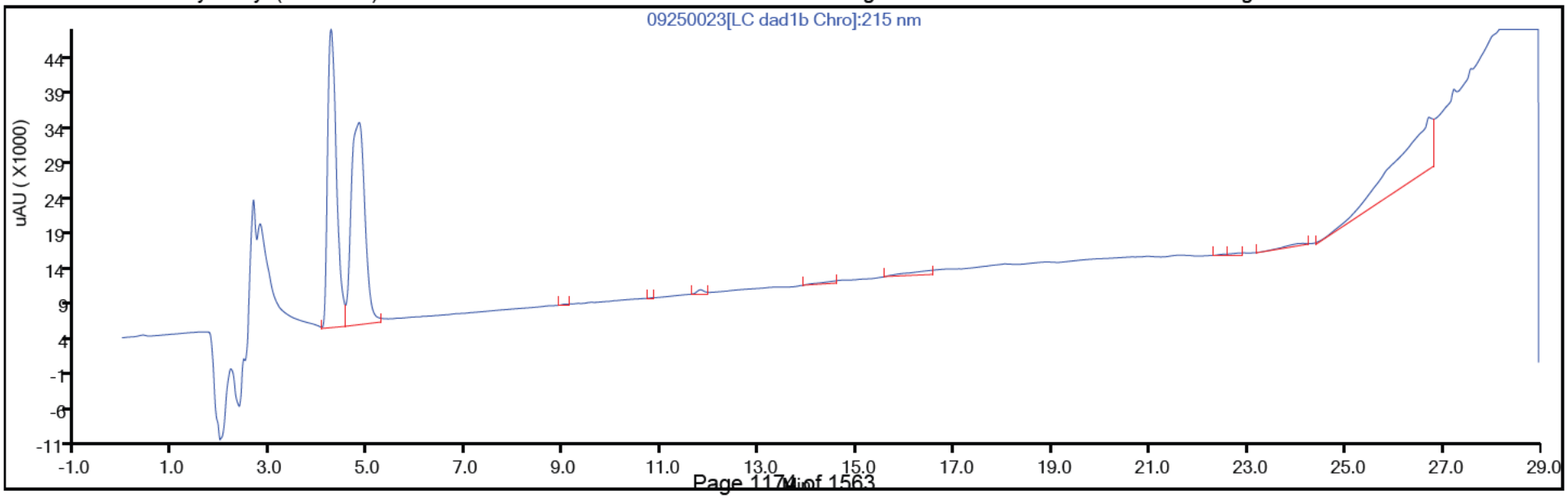
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250023.d

Injection Date:	26-Sep-2023 02:30:35	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC ADD 5			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	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



Manual Integration/User Assign Peak Report

Eurofins Denver

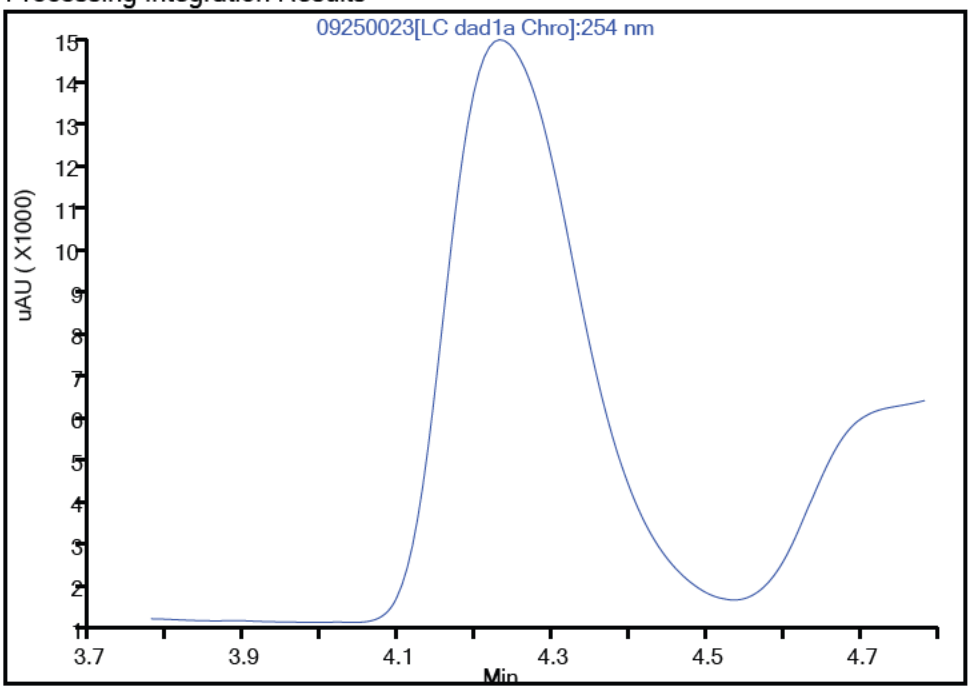
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250023.d				
Injection Date:	26-Sep-2023 02:30:35	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC ADD 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

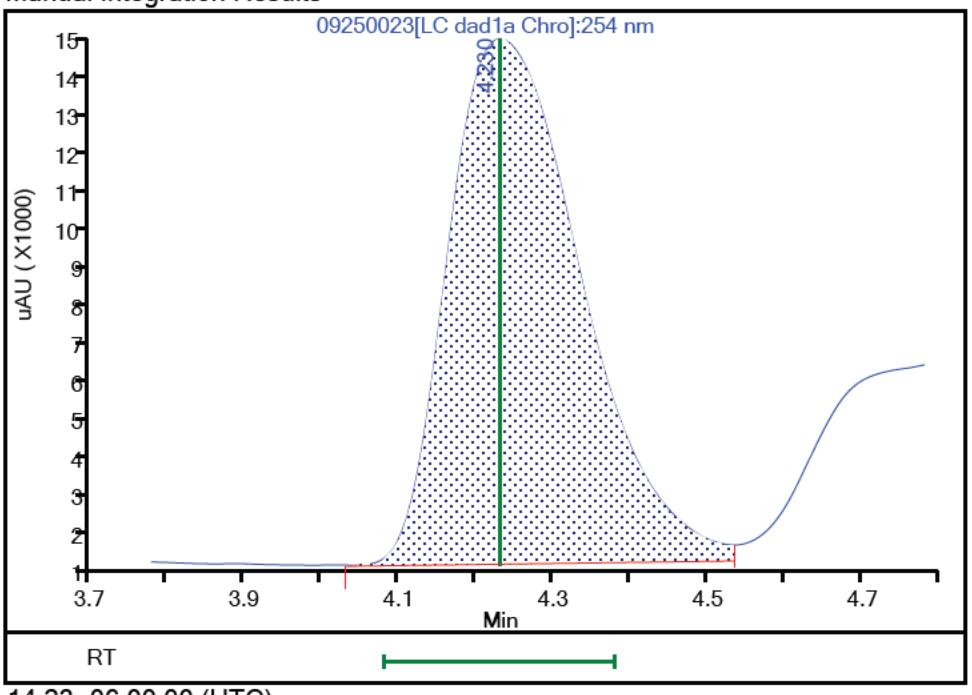
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 155103
Amount: 0.400118
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:14:23 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250024.D
Lims ID: IC ADD 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 26-Sep-2023 03:06:33 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 4
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub19

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:42 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:14:28

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.223	4.230	-0.007	97801	0.2500	0.2523	a
2 2,4-diamino-6-nitrotoluene	1	4.803	4.810	-0.007	59536	0.2500	0.2545	

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

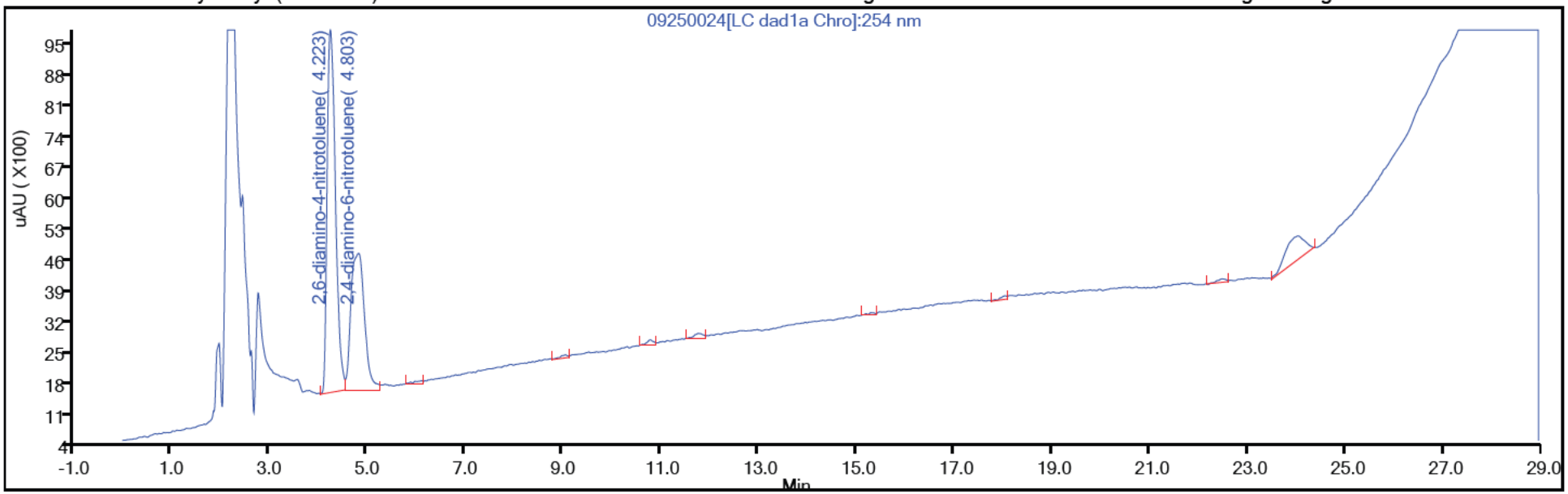
Report Date: 26-Sep-2023 15:25:42 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

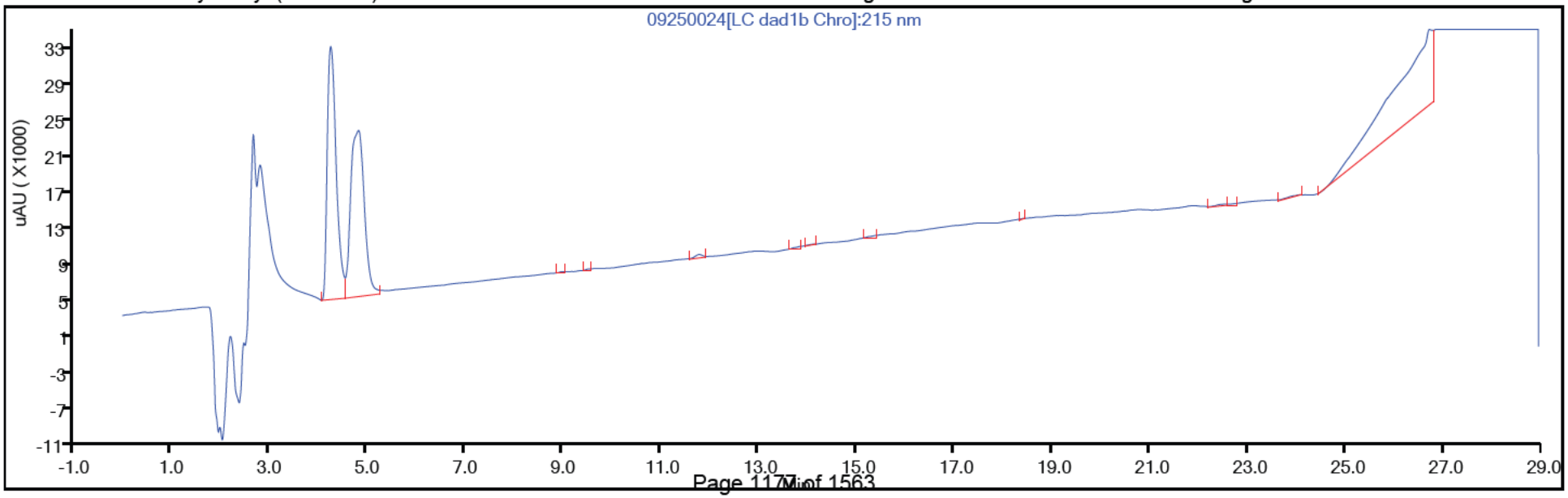
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250024.d

Injection Date:	26-Sep-2023 03:06:33	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC ADD 4			Worklist Smp#:	24
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	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



Manual Integration/User Assign Peak Report

Eurofins Denver

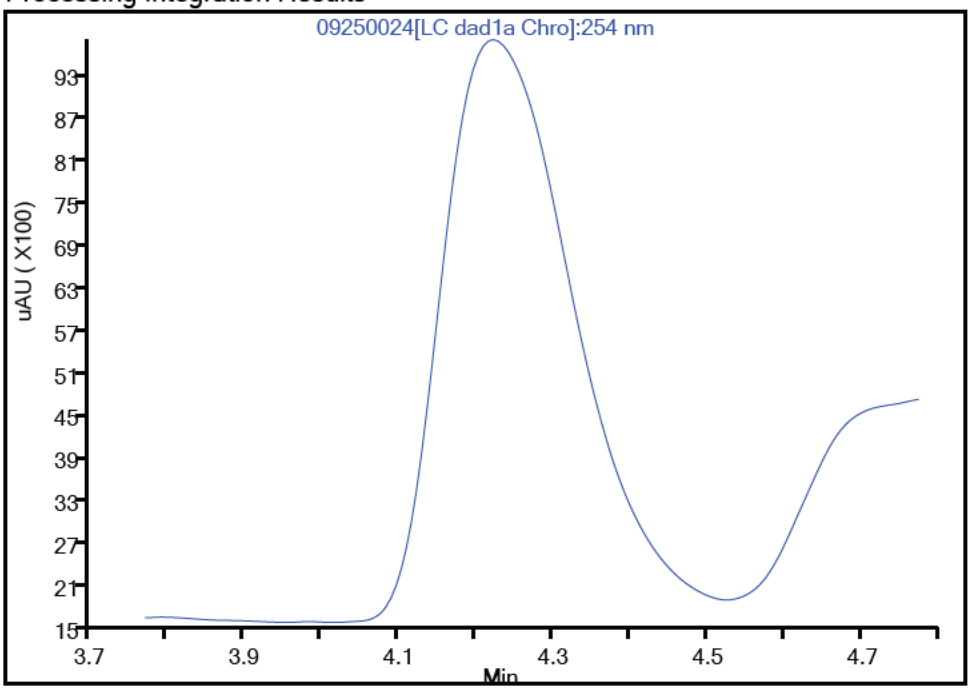
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250024.d				
Injection Date:	26-Sep-2023 03:06:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC ADD 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

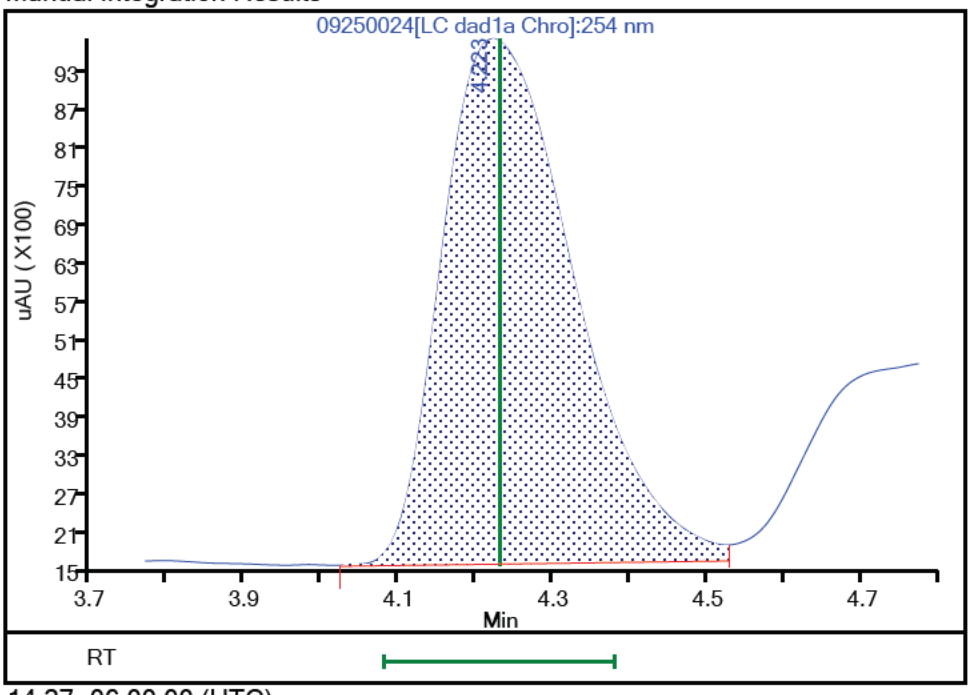
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.22
Area: 97801
Amount: 0.252297
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:14:27 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250025.D
Lims ID: IC ADD 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 26-Sep-2023 03:42:27 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 3
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub19

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:43 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:14:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.227	4.230	-0.003	38196	0.1000	0.0985	a
2 2,4-diamino-6-nitrotoluene	1	4.807	4.810	-0.003	23931	0.1000	0.1023	

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

8330_ADDs_00037 Amount Added: 5.00 Units: uL

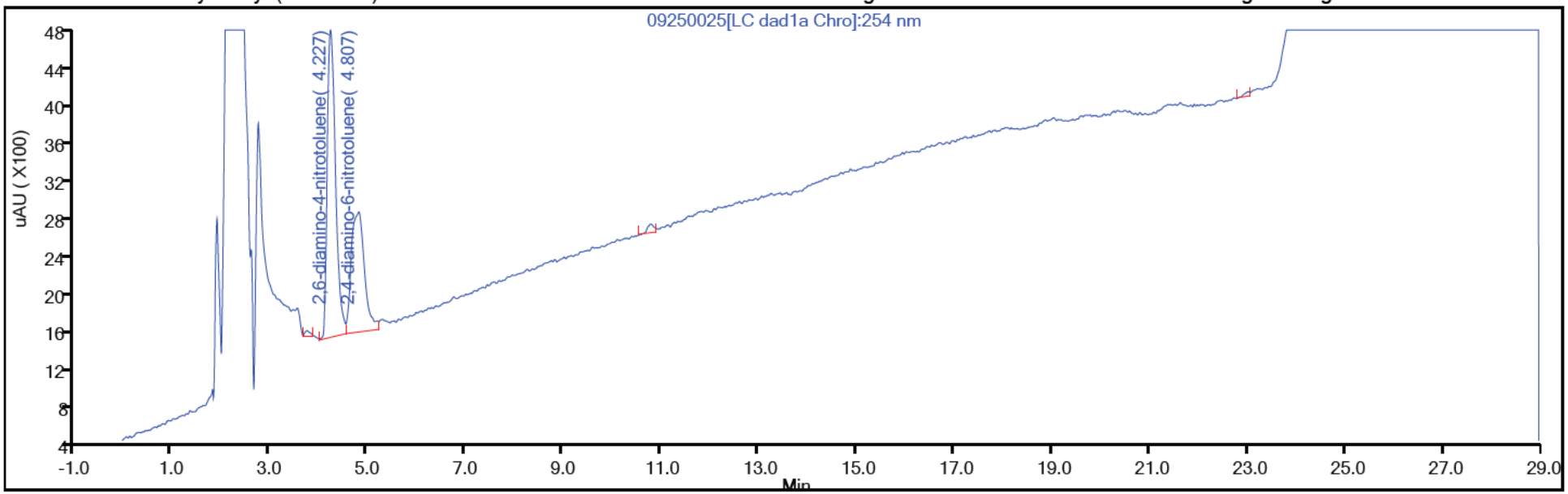
Report Date: 26-Sep-2023 15:25:43 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

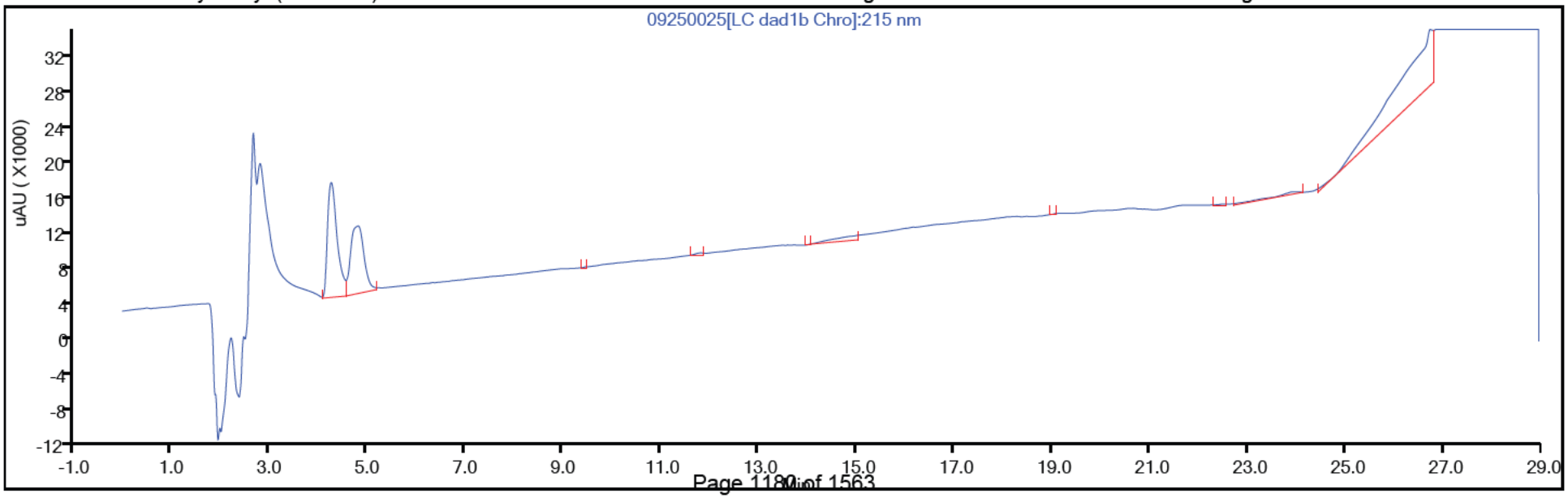
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250025.d

Injection Date:	26-Sep-2023 03:42:27	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC ADD 3			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	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



Manual Integration/User Assign Peak Report

Eurofins Denver

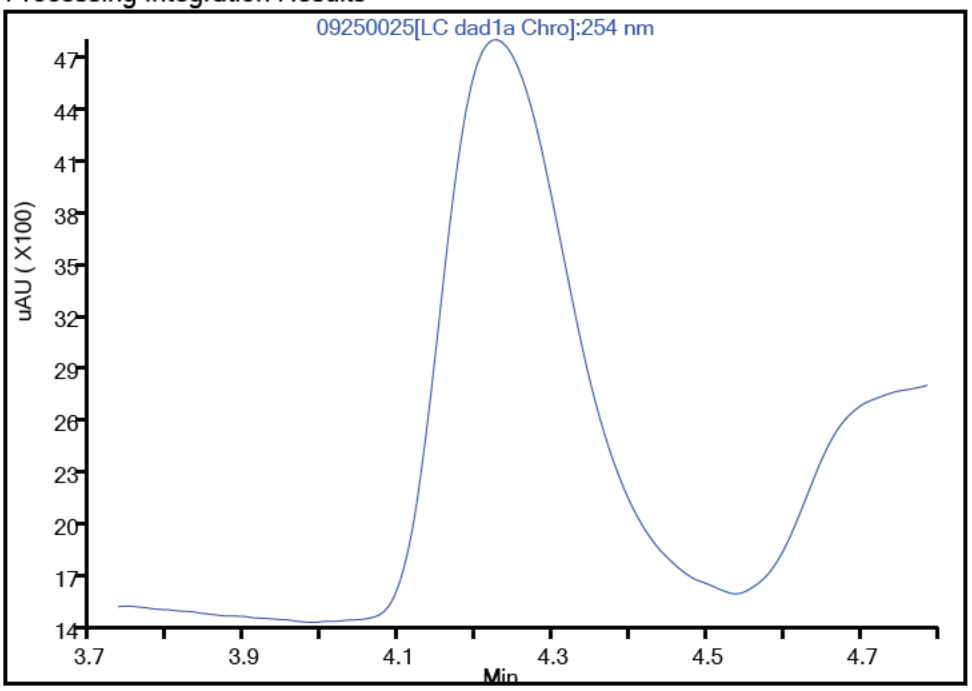
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250025.d				
Injection Date:	26-Sep-2023 03:42:27	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC ADD 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

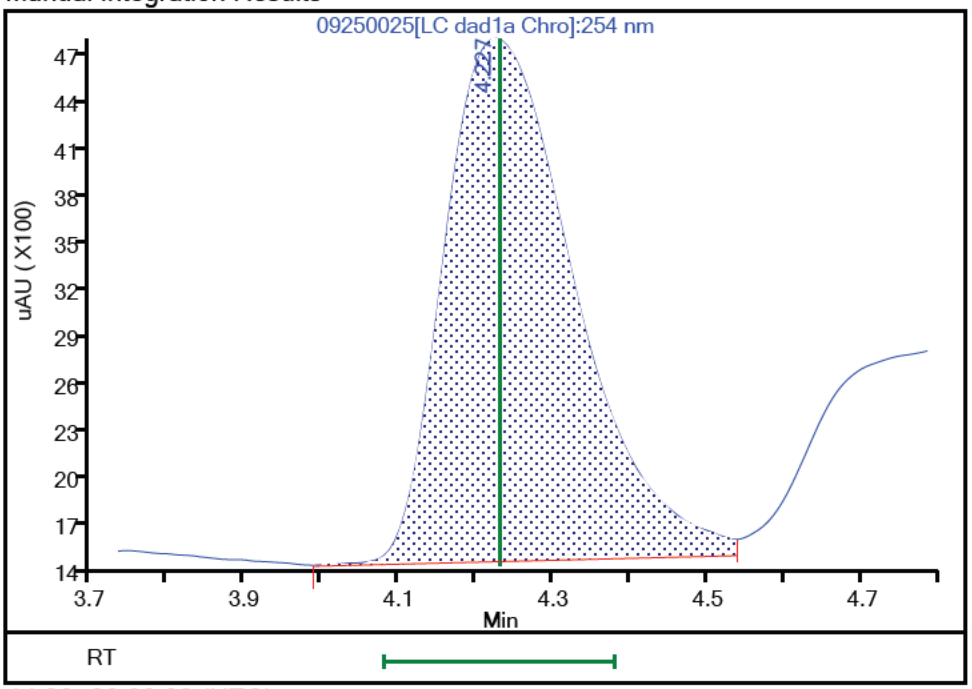
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 38196
Amount: 0.098534
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:14:30 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250026.D
Lims ID: IC ADD 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 26-Sep-2023 04:18:35 ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 2
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub19

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:43 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:14:35

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.225	4.230	-0.005	22868	0.0400	0.0590	a
2 2,4-diamino-6-nitrotoluene	1	4.792	4.810	-0.018	14140	0.0400	0.0604	

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

8330_ADDs_00037 Amount Added: 2.00 Units: uL

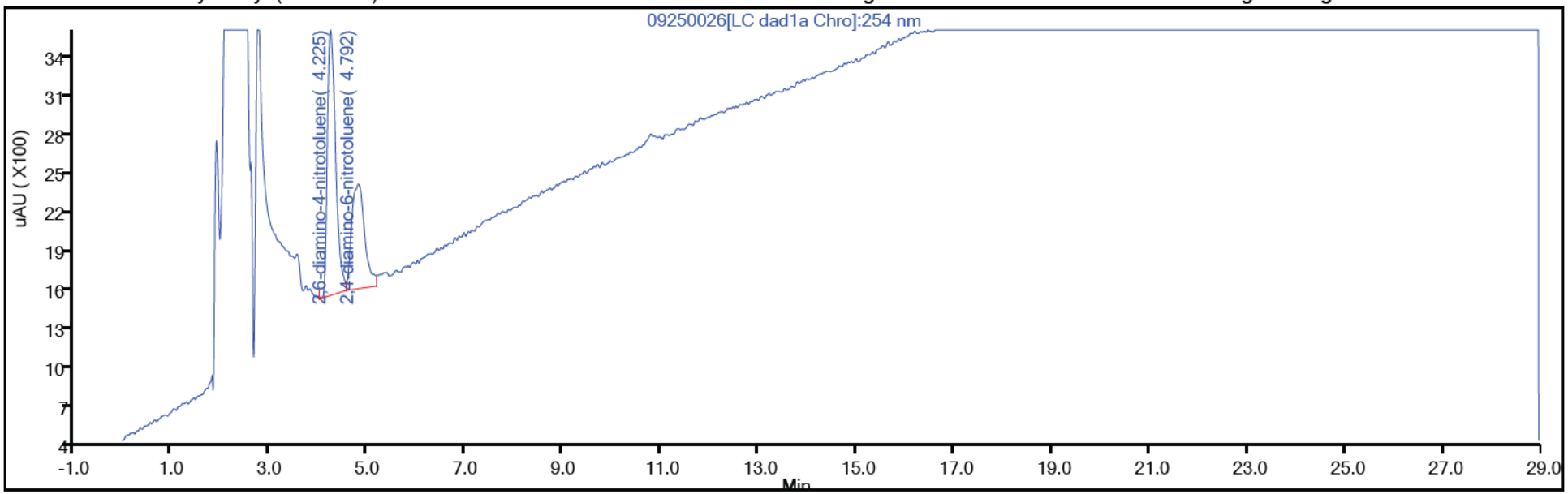
Report Date: 26-Sep-2023 15:25:44 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

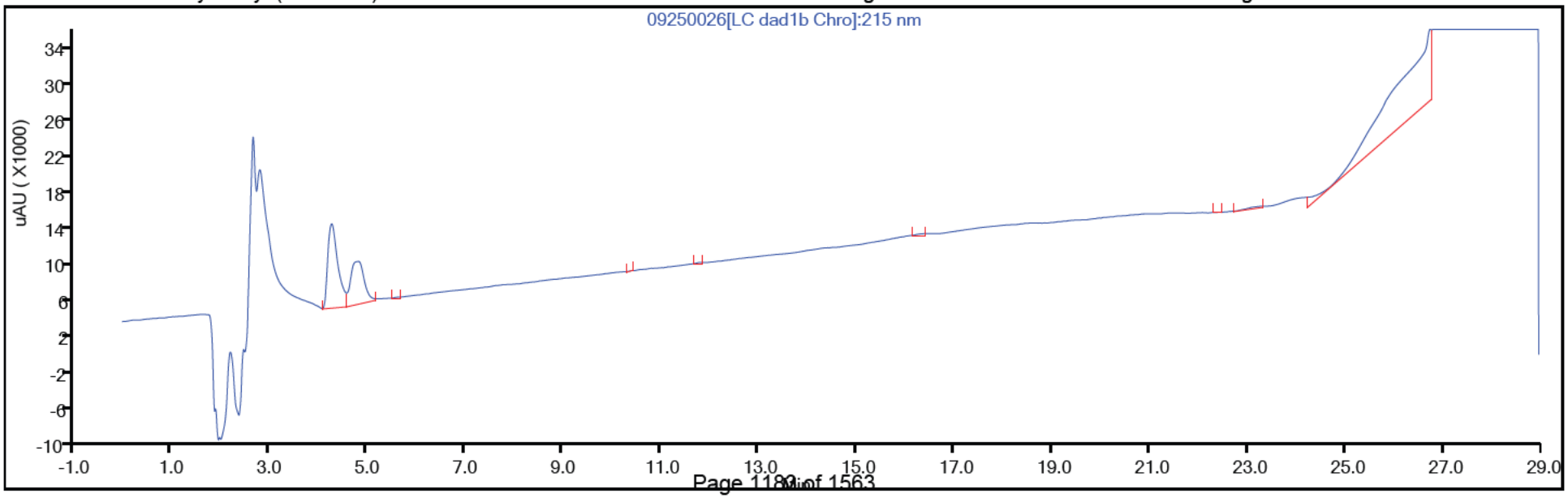
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250026.d

Injection Date:	26-Sep-2023 04:18:35	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC ADD 2			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	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



Manual Integration/User Assign Peak Report

Eurofins Denver

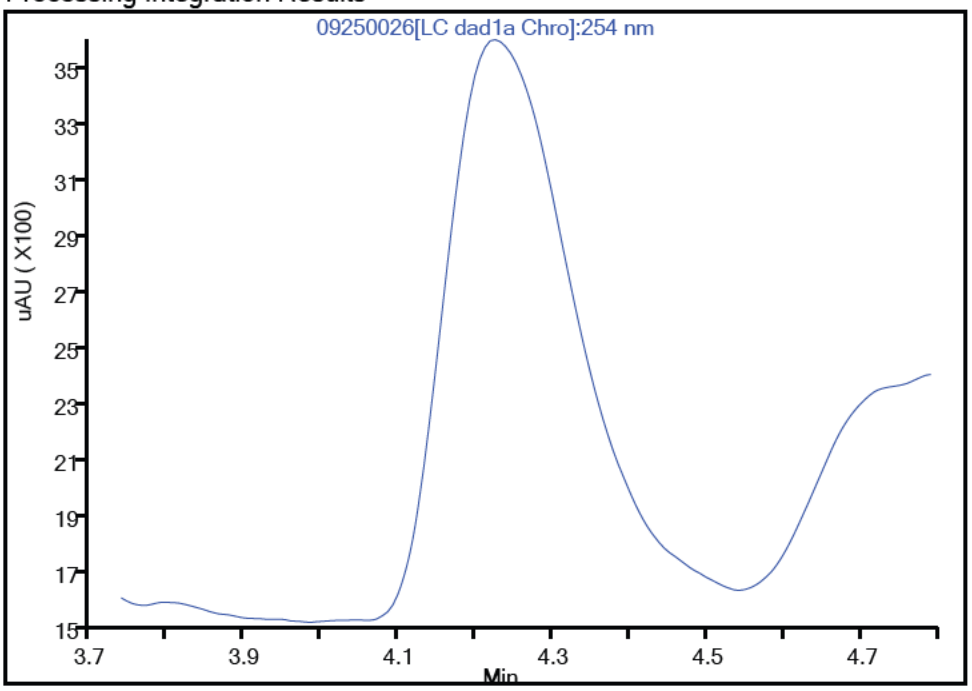
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250026.d				
Injection Date:	26-Sep-2023 04:18:35	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC ADD 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

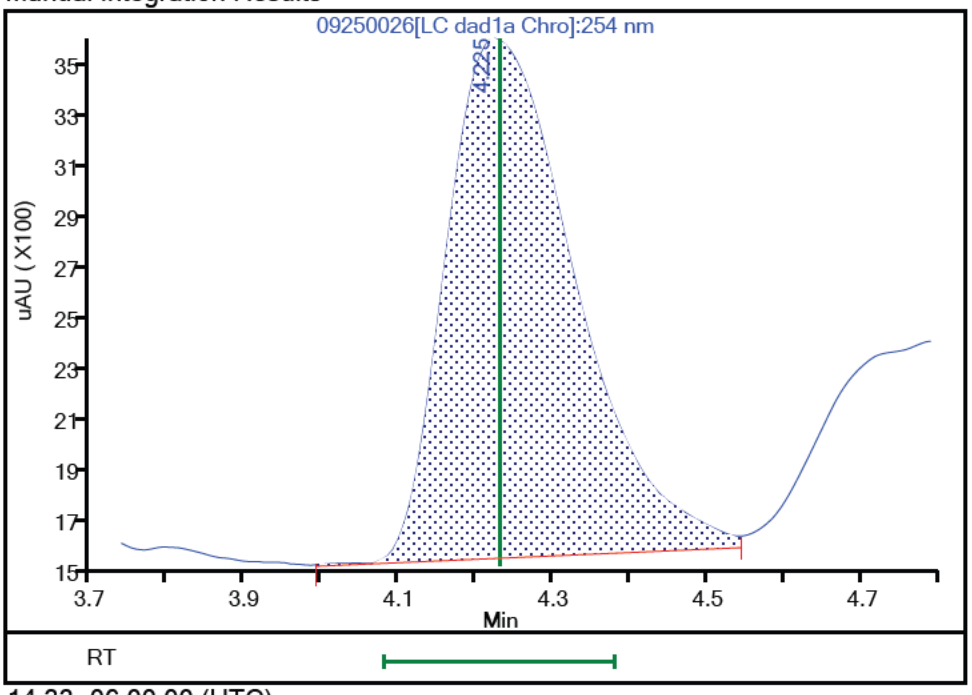
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.22
Area: 22868
Amount: 0.058992
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:14:33 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D
Lims ID: IC ADD 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 26-Sep-2023 04:54:46 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 1
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub19

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:25:44 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:15:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.230	4.230	0.000	19367	0.0200	0.0500	a
2 2,4-diamino-6-nitrotoluene	1	4.803	4.810	-0.007	12993	0.0200	0.0555	

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

8330_ADDs_00037 Amount Added: 1.00 Units: uL

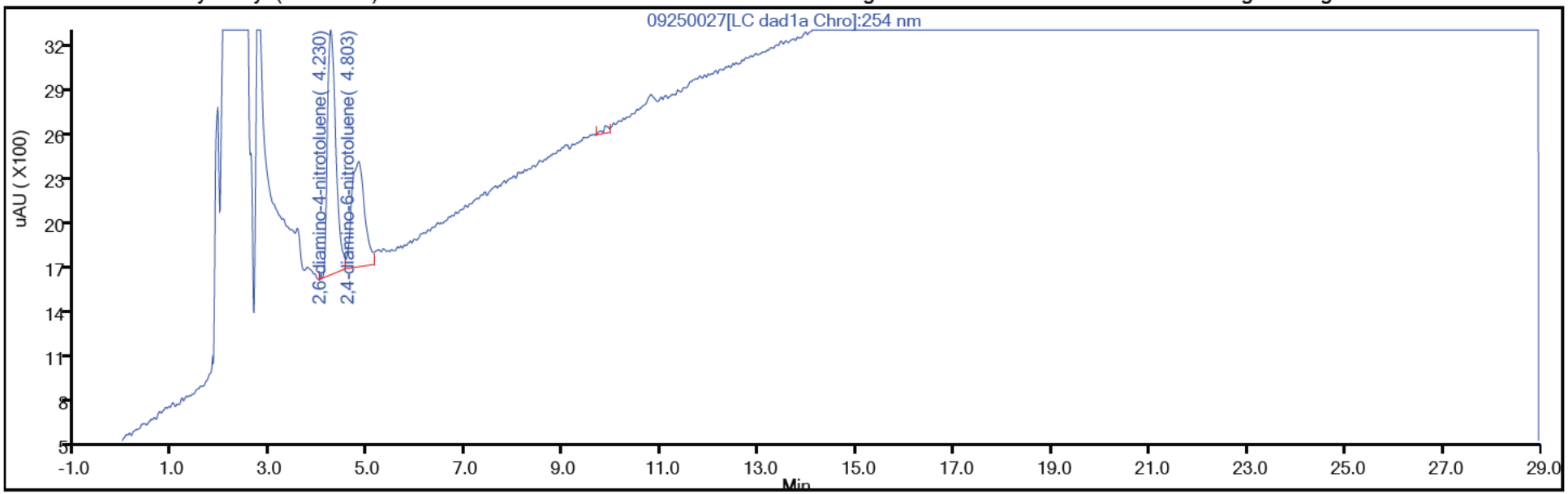
Report Date: 26-Sep-2023 15:25:44 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

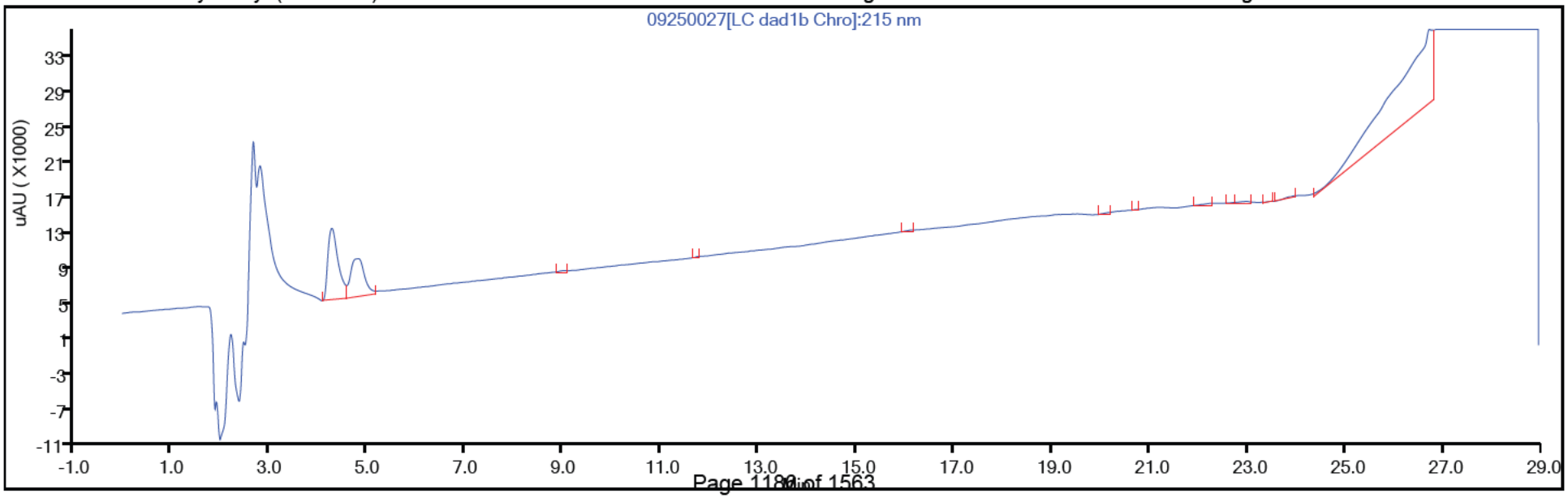
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250027.d

Injection Date:	26-Sep-2023 04:54:46	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC ADD 1			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	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



Manual Integration/User Assign Peak Report

Eurofins Denver

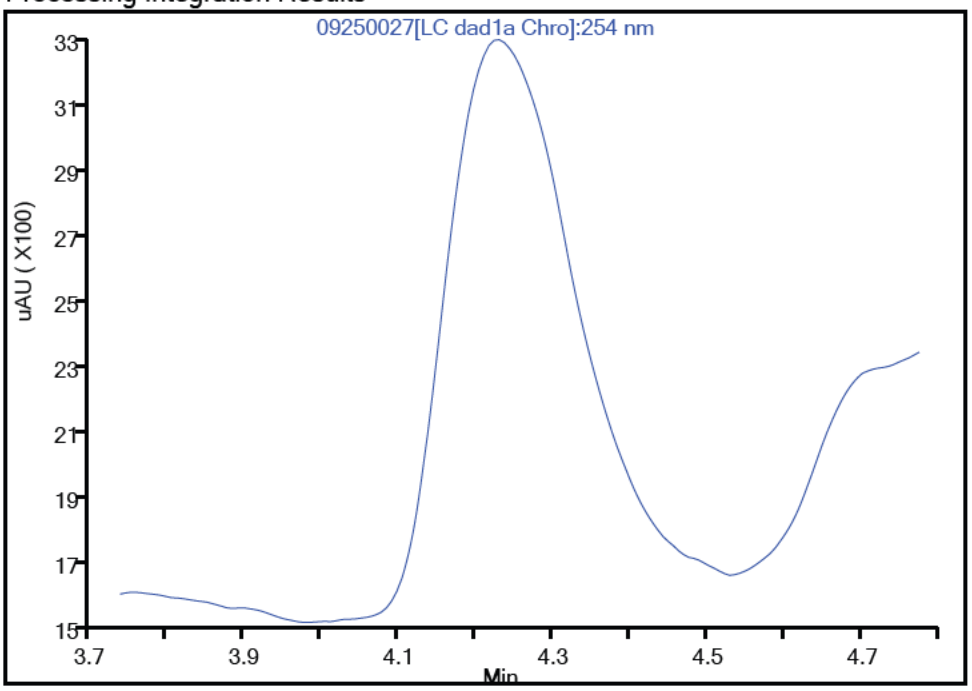
Data File:	\\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250027.d				
Injection Date:	26-Sep-2023 04:54:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC ADD 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

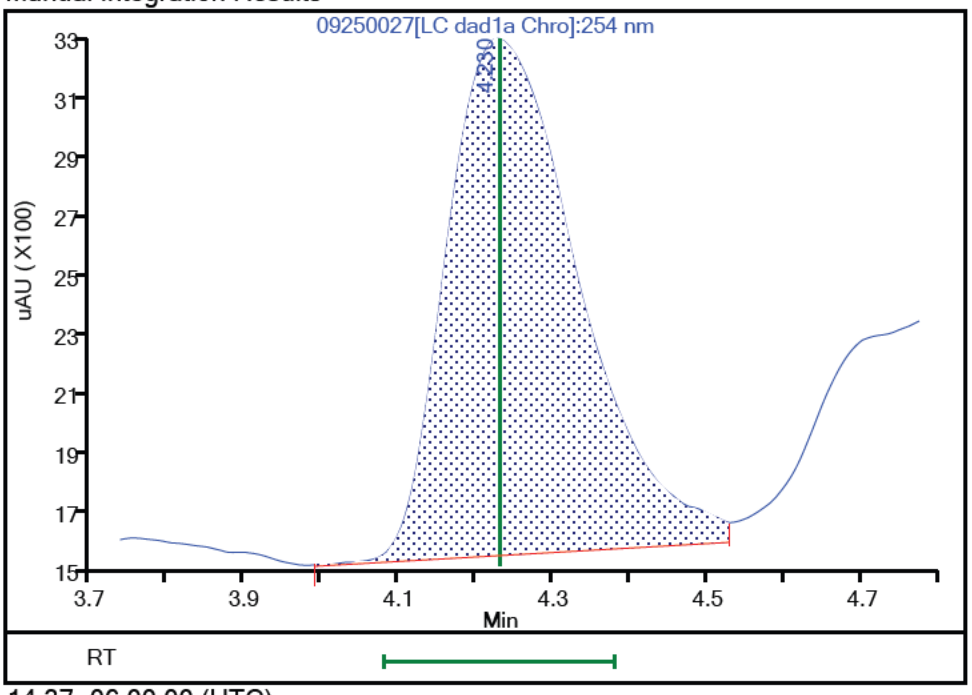
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 19367
Amount: 0.049961
Amount Units: ug/ml



Reviewer: LV5D, 26-Sep-2023 14:14:37 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Calibration / 2,6-diamino-4-nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

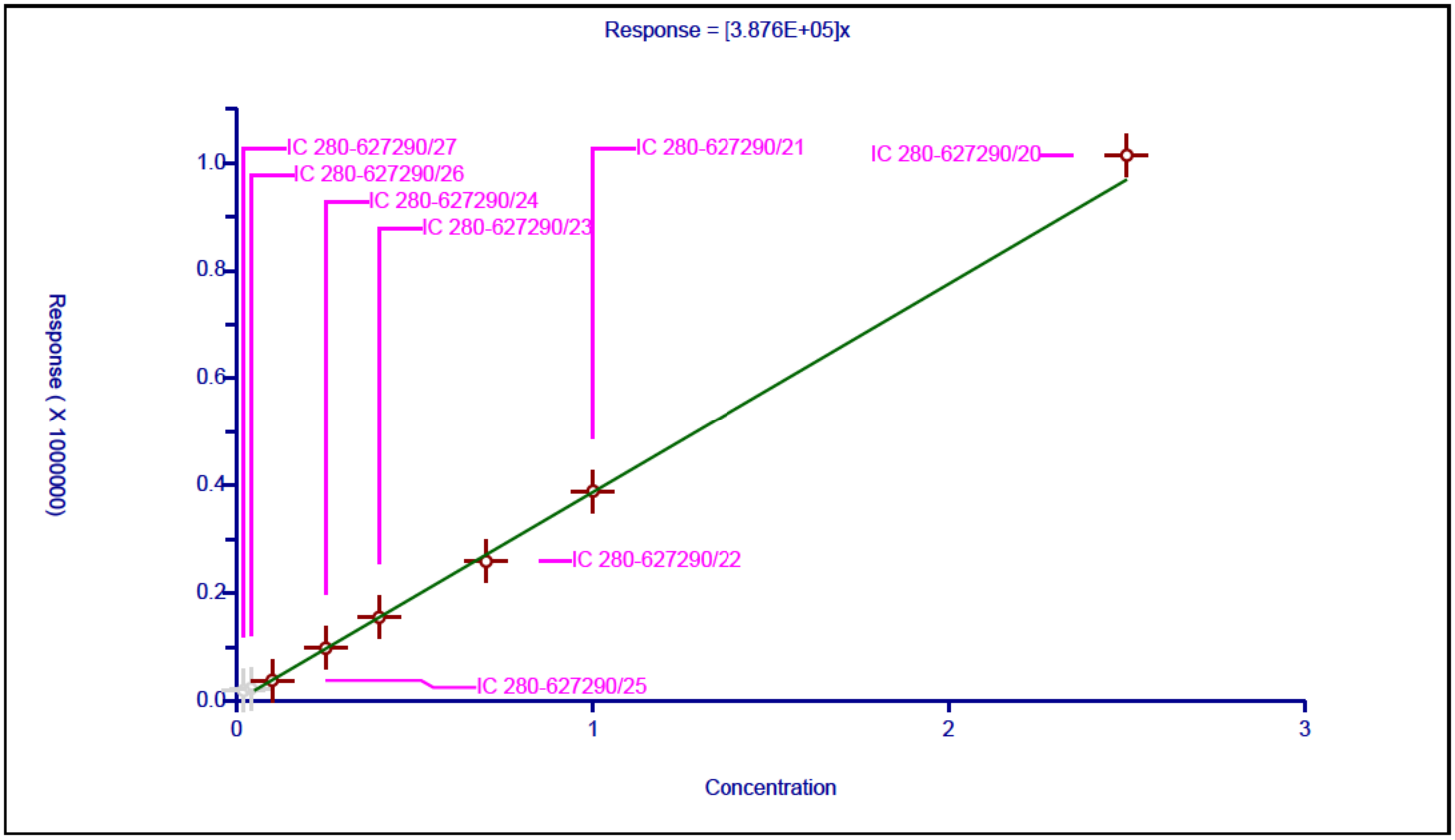
Curve Coefficients

Intercept:	0
Slope:	3.876E+05

Error Coefficients

Standard Error:	20900
Relative Standard Error:	3.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/27	0.02	19367.0			968350.0	N
2	IC 280-627290/26	0.04	22868.0			571700.0	N
3	IC 280-627290/25	0.1	38196.0			381960.0	Y
4	IC 280-627290/24	0.25	97801.0			391204.0	Y
5	IC 280-627290/23	0.4	155103.0			387757.5	Y
6	IC 280-627290/22	0.7	258964.0			369948.571429	Y
7	IC 280-627290/21	1.0	389304.0			389304.0	Y
8	IC 280-627290/20	2.5	1014207.0			405682.8	Y



Calibration / 2,4-diamino-6-nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

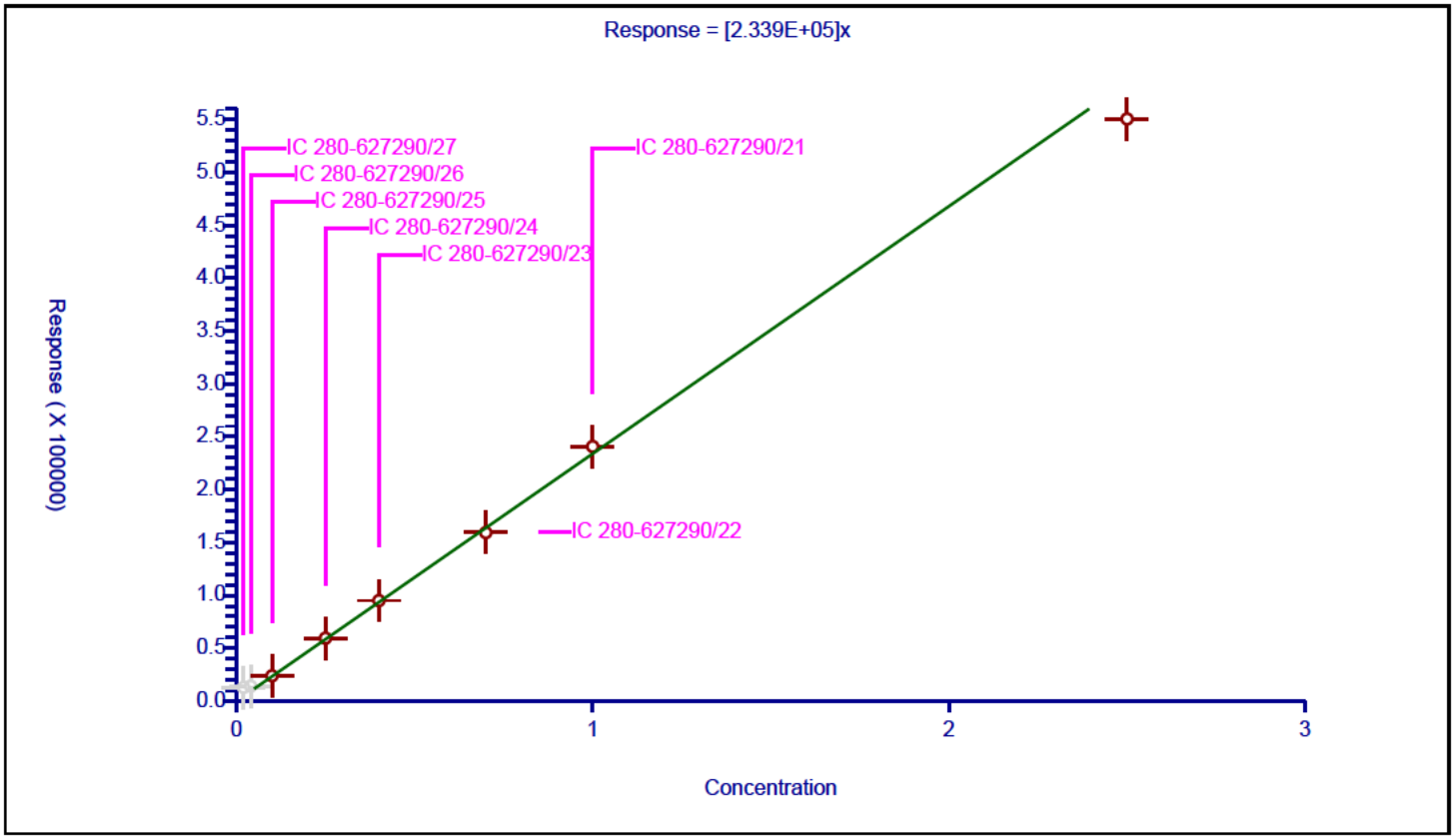
Curve Coefficients

Intercept:	0
Slope:	2.339E+05

Error Coefficients

Standard Error:	15800
Relative Standard Error:	3.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-627290/27	0.02	12993.0			649650.0	N
2	IC 280-627290/26	0.04	14140.0			353500.0	N
3	IC 280-627290/25	0.1	23931.0			239310.0	Y
4	IC 280-627290/24	0.25	59536.0			238144.0	Y
5	IC 280-627290/23	0.4	95062.0			237655.0	Y
6	IC 280-627290/22	0.7	159343.0			227632.857143	Y
7	IC 280-627290/21	1.0	240760.0			240760.0	Y
8	IC 280-627290/20	2.5	550480.0			220192.0	Y



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 | Calibration End Date: 01/24/2024 19:38 | Calibration ID: 89713

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/19	01240019.D
Level 2	IC 280-640909/18	01240020.D
Level 3	IC 280-640909/17	01240017.D
Level 4	IC 280-640909/16	01240016.D
Level 5	IC 280-640909/15	01240015.D
Level 6	IC 280-640909/14	01240014.D
Level 7	IC 280-640909/13	01240013.D
Level 8	IC 280-640909/12	01240012.D
Level 9	IC 280-640909/11	01240011.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	6.516	6.517	6.519	6.515	6.514	6.517	6.517	6.511	6.503		6.415 - 6.615	6.514
HMX	6.629	6.630	6.626	6.628	6.628	6.624	6.624	6.625	6.623		6.478 - 6.778	6.626
DNX	6.836	6.843	6.839	6.842	6.841	6.837	6.837	6.838	6.829		6.742 - 6.942	6.838
MNX	7.269	7.270	7.272	7.268	7.268	7.264	7.271	7.265	7.256		7.118 - 7.418	7.267
RDX	7.656	7.657	7.659	7.655	7.654	7.650	7.657	7.651	7.643		7.505 - 7.805	7.654
Picric acid	+++++	7.803	7.799	7.795	7.788	7.777	7.771	7.758	7.716		7.645 - 7.945	7.776
1,3,5-Trinitrobenzene	8.743	8.750	8.746	8.742	8.741	8.737	8.744	8.738	8.729		8.592 - 8.892	8.741
1,3-Dinitrobenzene	9.362	9.377	9.379	9.375	9.367	9.364	9.371	9.365	9.349		9.225 - 9.525	9.368
Nitrobenzene	9.736	9.743	9.746	9.742	9.734	9.730	9.737	9.731	9.716		9.592 - 9.892	9.735
3,5-Dinitroaniline	9.969	9.983	9.979	9.975	9.967	9.964	9.971	9.965	9.949		9.825 - 10.125	9.969
Tetryl	10.069	10.083	10.086	10.075	10.067	10.070	10.077	10.065	10.056		9.925 - 10.225	10.072
Nitroglycerin	10.536	10.550	10.552	10.542	10.534	10.537	10.544	10.531	10.516		10.392 - 10.692	10.538
2,4,6-Trinitrotoluene	10.976	10.990	10.992	10.982	10.974	10.977	10.984	10.978	10.963		10.882 - 11.082	10.980
4-Amino-2,6-dinitrotoluene	11.169	11.177	11.179	11.175	11.167	11.164	11.171	11.158	11.143		11.075 - 11.275	11.167
2-Amino-4,6-dinitrotoluene	11.422	11.437	11.439	11.428	11.421	11.424	11.424	11.418	11.396		11.328 - 11.528	11.423
2,6-Dinitrotoluene	11.576	11.583	11.592	11.582	11.574	11.570	11.584	11.571	11.556		11.482 - 11.682	11.576
2,4-Dinitrotoluene	11.742	11.757	11.759	11.755	11.747	11.744	11.757	11.745	11.729		11.655 - 11.855	11.748
2-Nitrotoluene	12.556	12.563	12.572	12.562	12.554	12.557	12.564	12.551	12.536		12.412 - 12.712	12.557
4-Nitrotoluene	12.969	12.990	12.999	12.988	12.974	12.977	12.991	12.971	12.956		12.838 - 13.138	12.979
3-Nitrotoluene	13.542	13.550	13.559	13.548	13.541	13.537	13.551	13.531	13.523		13.398 - 13.698	13.542
PETN	14.636	14.650	14.659	14.642	14.627	14.630	14.651	14.625	14.616		14.492 - 14.792	14.637
1,2-Dinitrobenzene	8.609	8.617	8.619	8.615	8.608	8.610	8.611	8.611	8.596		8.465 - 8.765	8.611

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 | Calibration End Date: 01/24/2024 19:38 | Calibration ID: 89713

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/19	01240019.D
Level 2	IC 280-640909/18	01240020.D
Level 3	IC 280-640909/17	01240017.D
Level 4	IC 280-640909/16	01240016.D
Level 5	IC 280-640909/15	01240015.D
Level 6	IC 280-640909/14	01240014.D
Level 7	IC 280-640909/13	01240013.D
Level 8	IC 280-640909/12	01240012.D
Level 9	IC 280-640909/11	01240011.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	205578 180964 190126	183367 185164	183924 184573	221135 193953	Ave		192087.188				6.9		20.0			
HMX	84600 92172 99620	96350 101553	90460 100089	92800 100194	Ave		95315.2746				6.0		20.0			
DNX	166367 141641 148741	167066 146727	141158 146296	169212 152909	Lin1	218.159267	148766.000							0.9990		0.9900
MNX	156031 131093 133068	131223 130511	133259 131514	160924 137820	Lin2	189.836091	134966.496							0.9930		0.9900
RDX	107800 101344 106083	111650 105370	107480 104103	105850 104798	Lin2	50.4792276	104991.211							0.9990		0.9900
Picric acid	+++++ 72828 79024	67900 77088	73720 77803	77370 78287	Ave		75502.4696				5.0		20.0			
1,3,5-Trinitrobenzene	212300 205872 222799	223050 216670	212040 219016	211600 220927	Ave		216030.390				2.7		20.0			
1,3-Dinitrobenzene	284900 282356 303968	285600 300545	289540 299171	287010 300390	Ave		292608.892				2.8		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.: 280-188555-1 Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 Calibration End Date: 01/24/2024 19:38 Calibration ID: 89713

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	171600 172772 199222	191550 188600	181240 191523	179160 189183	Ave		184983.273				5.0		20.0			
3,5-Dinitroaniline	209200 202704 228667	218500 223080	210540 225349	209160 221713	Lin2	-93.699233	218516.924							0.9980		0.9900
Tetryl	186000 171440 185970	177850 178813	182840 182314	174340 188213	Ave		180864.421				3.1		20.0			
Nitroglycerin	58500 60286 62972	62460 63279	62040 62424	61858 62595	Ave		61823.868 7				2.4		20.0			
2,4,6-Trinitrotoluene	212200 201424 216027	231600 215445	213820 212989	210990 213915	Lin2	62.8352318	212945.919							0.9980		0.9900
4-Amino-2,6-dinitrotoluene	151200 136152 150977	176950 148465	144320 148127	144700 149334	Ave		150024.994				7.4		20.0			
2-Amino-4,6-dinitrotoluene	214800 185608 204826	216900 202260	198300 200963	194830 202317	Lin2	194.120814	198227.916							0.9980		0.9900
2,6-Dinitrotoluene	151000 137520 144490	151650 144383	143600 142969	144100 143864	Lin2	98.3971325	142771.743							1.0000		0.9900
2,4-Dinitrotoluene	286400 275204 300641	303550 298133	291600 295497	286650 297217	Ave		292765.760				3.0		20.0			
2-Nitrotoluene	144500 113280 128204	139500 122230	124820 122944	118990 121861	Lin2	255.939007	120874.791							0.9980		0.9900
4-Nitrotoluene	141900 96992 110996	126100 106380	107780 106850	103250 106657	Lin2	382.515691	103831.539							0.9970		0.9900
3-Nitrotoluene	196700 125332 141109	170050 134898	141620 135480	132930 134004	Lin2	658.468293	131939.493							0.9980		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 Calibration End Date: 01/24/2024 19:38 Calibration ID: 89713

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	71850 70690 75056	71665 74507	69948 73931	71189 74588	Ave		72602.6095				2.6		20.0			
1,2-Dinitrobenzene	131500 124788 132866	131850 130825	129100 130387	128030 130923	Lin2	20.2337929	129604.301							1.0000		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 | Calibration End Date: 01/24/2024 19:38 | Calibration ID: 89713

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/19	01240019.D
Level 2	IC 280-640909/18	01240020.D
Level 3	IC 280-640909/17	01240017.D
Level 4	IC 280-640909/16	01240016.D
Level 5	IC 280-640909/15	01240015.D
Level 6	IC 280-640909/14	01240014.D
Level 7	IC 280-640909/13	01240013.D
Level 8	IC 280-640909/12	01240012.D
Level 9	IC 280-640909/11	01240011.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
TNX	Ave	2064 74362	3682 129718	9233 194729	22202 477216	45422	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
HMX	Ave	846 40621	1927 70062	4523 100194	9280 249051	23043	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
DNX	Lin1	1667 58808	3348 102612	7072 153215	16955 372595	35481	0.0100 0.401	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251
MNX	Lin2	1824 61027	3068 107618	7789 161112	18812 388891	38312	0.0117 0.468	0.0234 0.818	0.0585 1.17	0.117 2.92	0.292
RDX	Lin2	1078 42148	2233 72872	5374 104798	10585 265208	25336	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	+++++ 30835	1358 54462	3686 78287	7737 197561	18207	+++++ 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2123 86668	4461 153311	10602 220927	21160 556997	51468	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	2849 120218	5712 209420	14477 300390	28701 759919	70589	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	1716 75440	3831 134066	9062 189183	17916 498054	43193	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	2092 89232	4370 157744	10527 221713	20916 571667	50676	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	1860 71525	3557 127620	9142 188213	17434 464925	42860	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	5850 253117	12492 436971	31020 625949	61858 1574296	150716	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Lin2	2122 86178	4632 149092	10691 213915	21099 540068	50356	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	1512 59386	3539 103689	7216 149334	14470 377442	34038	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Lin2	2148	4338	9915	19483	46402	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.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 | Calibration End Date: 01/24/2024 19:38 | Calibration ID: 89713

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
		80904	140674	202317	512065		0.400	0.700	1.00	2.50	
2,6-Dinitrotoluene	Lin2	1510 57753	3033 100078	7180 143864	14410 361225	34380	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	2864 119253	6071 206848	14580 297217	28665 751603	68801	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Nitrotoluene	Lin2	1445 48892	2790 86061	6241 121861	11899 320511	28320	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Lin2	1419 42552	2522 74795	5389 106657	10325 277490	24248	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Lin2	1967 53959	3401 94836	7081 134004	13293 352772	31333	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Ave	7185 298028	14333 517519	34974 745876	71189 1876400	176724	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Lin2	1315 52330	2637 91271	6455 130923	12803 332166	31197	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:

Ave = Average
Lin1 = Linear 1/conc
Lin2 = Linear 1/conc^2

Report Date: 30-Jan-2024 16:55:09 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240011.D
Lims ID: IC INT/DMT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 24-Jan-2024 16:05:35 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\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:09 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: LV5D Date: 24-Jan-2024 16:31:24

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.503	6.515	-0.012	477216	2.51	2.48	
4 HMX	1	6.623	6.628	-0.005	249051	2.50	2.61	
6 DNX	1	6.829	6.842	-0.013	372595	2.51	2.50	
7 MNX	1	7.256	7.268	-0.012	388891	2.92	2.88	
8 RDX	1	7.643	7.655	-0.012	265208	2.50	2.53	
9 2,4,6-Trinitrophenol	1	7.716	7.795	-0.079	197561	2.50	2.62	
$ 10 1,2-Dinitrobenzene	1	8.596	8.615	-0.019	332166	2.50	2.56	
11 1,3,5-Trinitrobenzene	1	8.729	8.742	-0.013	556997	2.50	2.58	
12 1,3-Dinitrobenzene	1	9.349	9.375	-0.026	759919	2.50	2.60	
13 Nitrobenzene	1	9.716	9.742	-0.026	498054	2.50	2.69	
14 3,5-Dinitroaniline	1	9.949	9.975	-0.026	571667	2.50	2.62	
15 Tetryl	1	10.056	10.075	-0.019	464925	2.50	2.57	
16 Nitroglycerin	2	10.516	10.542	-0.026	1574296	25.0	25.5	M
17 2,4,6-Trinitrotoluene	1	10.963	10.982	-0.019	540068	2.50	2.54	
18 4-Amino-2,6-dinitrotoluene	1	11.143	11.175	-0.032	377442	2.50	2.52	
19 2-Amino-4,6-dinitrotoluene	1	11.396	11.428	-0.032	512065	2.50	2.58	
20 2,6-Dinitrotoluene	1	11.556	11.582	-0.026	361225	2.50	2.53	
21 2,4-Dinitrotoluene	1	11.729	11.755	-0.026	751603	2.50	2.57	
22 o-Nitrotoluene	1	12.536	12.562	-0.026	320511	2.50	2.65	
23 p-Nitrotoluene	1	12.956	12.988	-0.032	277490	2.50	2.67	
24 m-Nitrotoluene	1	13.523	13.548	-0.025	352772	2.50	2.67	
25 PETN	2	14.616	14.642	-0.026	1876400	25.0	25.8	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079	Amount Added: 250.00	Units: uL
8330 DMT_00016	Amount Added: 125.00	Units: uL

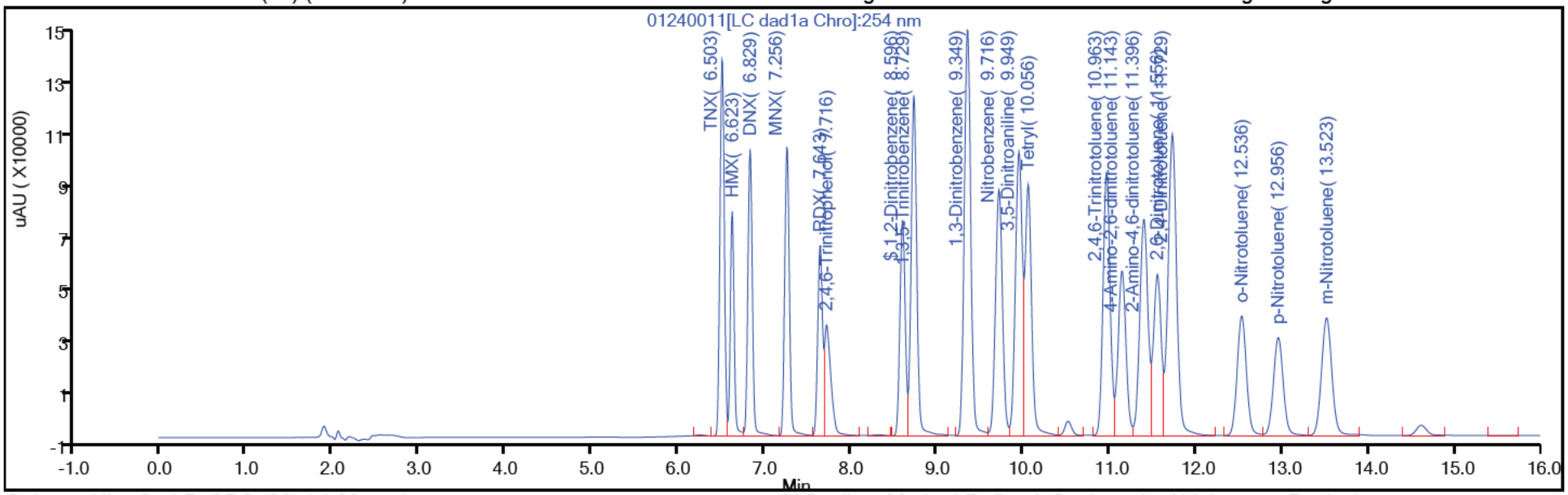
Report Date: 30-Jan-2024 16:55:09 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

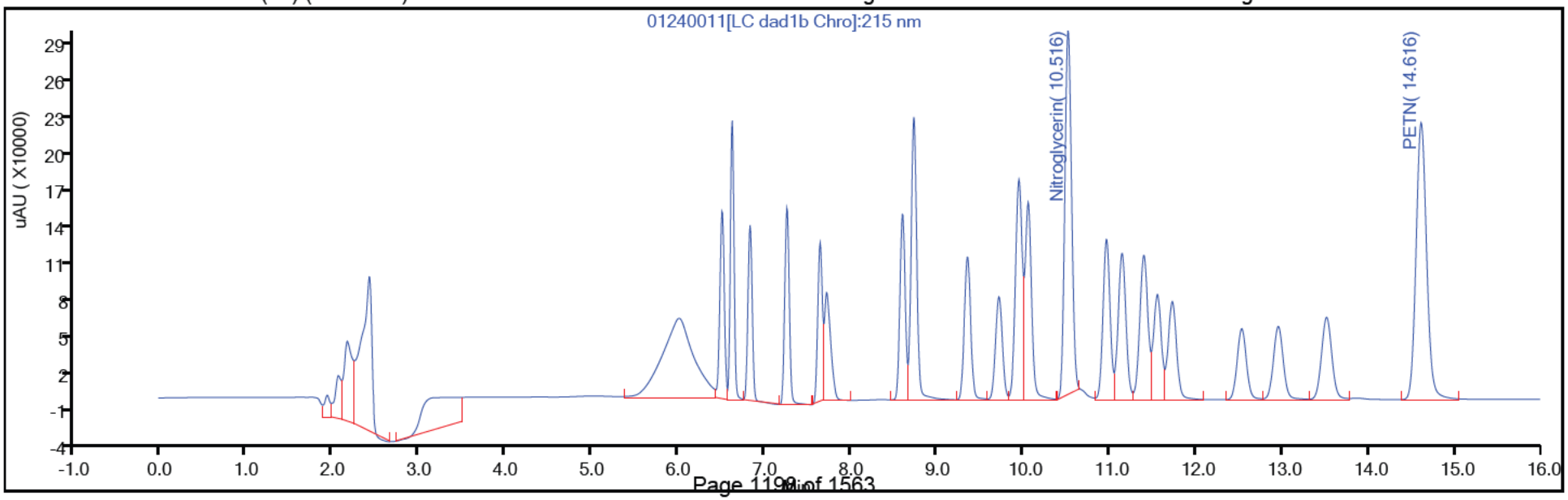
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240011.d

Injection Date:	24-Jan-2024 16:05:35	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



Manual Integration/User Assign Peak Report

Eurofins Denver

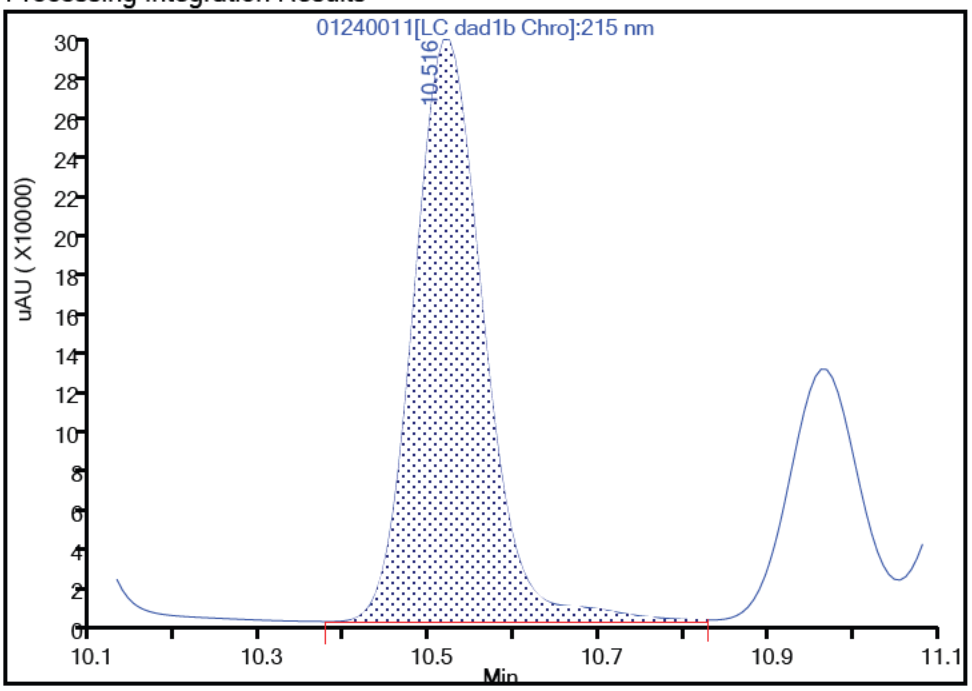
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240011.d				
Injection Date:	24-Jan-2024 16:05:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

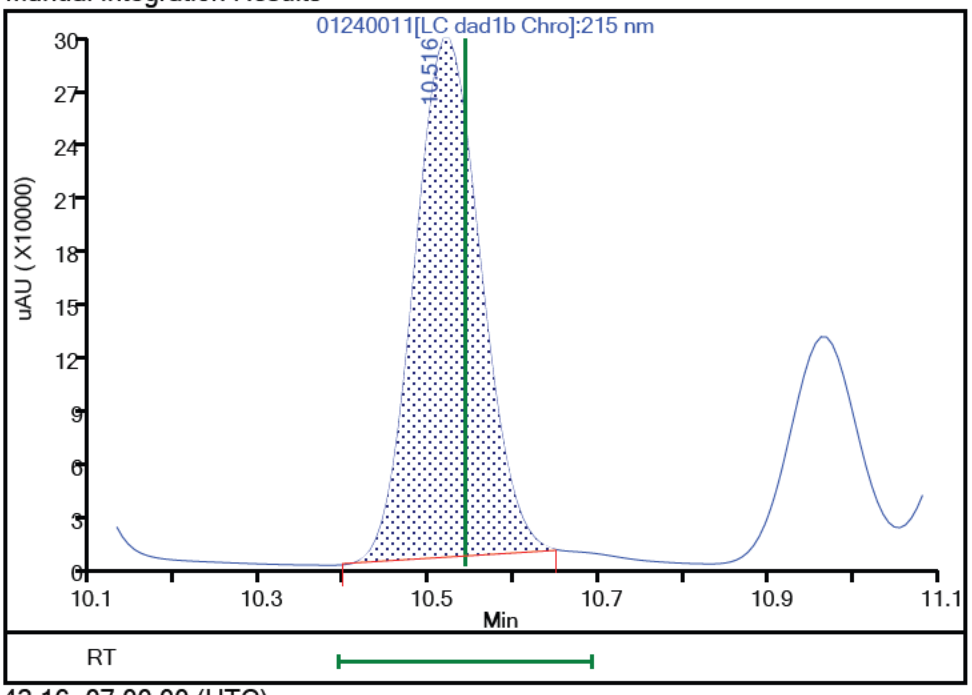
Processing Integration Results

RT: 10.52
Area: 1695731
Amount: 26.993145
Amount Units: ug/mL



Manual Integration Results

RT: 10.52
Area: 1574296
Amount: 25.464210
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 19:42:16 -07:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240012.D
Lims ID: IC INT/DMT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Jan-2024 16:28:28 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\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:10 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: LV5D Date: 24-Jan-2024 16:53:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.511	6.515	-0.004	194729	1.00	1.01	
4 HMX	1	6.625	6.628	-0.003	100194	1.00	1.05	
6 DNX	1	6.838	6.842	-0.004	153215	1.00	1.03	
7 MNX	1	7.265	7.268	-0.003	161112	1.17	1.19	
8 RDX	1	7.651	7.655	-0.004	104798	1.00	1.00	
9 2,4,6-Trinitrophenol	1	7.758	7.795	-0.037	78287	1.00	1.04	
$ 10 1,2-Dinitrobenzene	1	8.611	8.615	-0.004	130923	1.00	1.01	
11 1,3,5-Trinitrobenzene	1	8.738	8.742	-0.004	220927	1.00	1.02	
12 1,3-Dinitrobenzene	1	9.365	9.375	-0.010	300390	1.00	1.03	
13 Nitrobenzene	1	9.731	9.742	-0.011	189183	1.00	1.02	
14 3,5-Dinitroaniline	1	9.965	9.975	-0.010	221713	1.00	1.02	
15 Tetryl	1	10.065	10.075	-0.010	188213	1.00	1.04	
16 Nitroglycerin	2	10.531	10.542	-0.011	625949	10.0	10.1	M
17 2,4,6-Trinitrotoluene	1	10.978	10.982	-0.004	213915	1.00	1.00	
18 4-Amino-2,6-dinitrotoluene	1	11.158	11.175	-0.017	149334	1.00	1.00	
19 2-Amino-4,6-dinitrotoluene	1	11.418	11.428	-0.010	202317	1.00	1.02	
20 2,6-Dinitrotoluene	1	11.571	11.582	-0.011	143864	1.00	1.01	
21 2,4-Dinitrotoluene	1	11.745	11.755	-0.010	297217	1.00	1.02	
22 o-Nitrotoluene	1	12.551	12.562	-0.011	121861	1.00	1.01	
23 p-Nitrotoluene	1	12.971	12.988	-0.017	106657	1.00	1.02	
24 m-Nitrotoluene	1	13.531	13.548	-0.017	134004	1.00	1.01	
25 PETN	2	14.625	14.642	-0.017	745876	10.0	10.3	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00016	Amount Added: 50.00	Units: uL
8330IntermStk_00079	Amount Added: 100.00	Units: uL

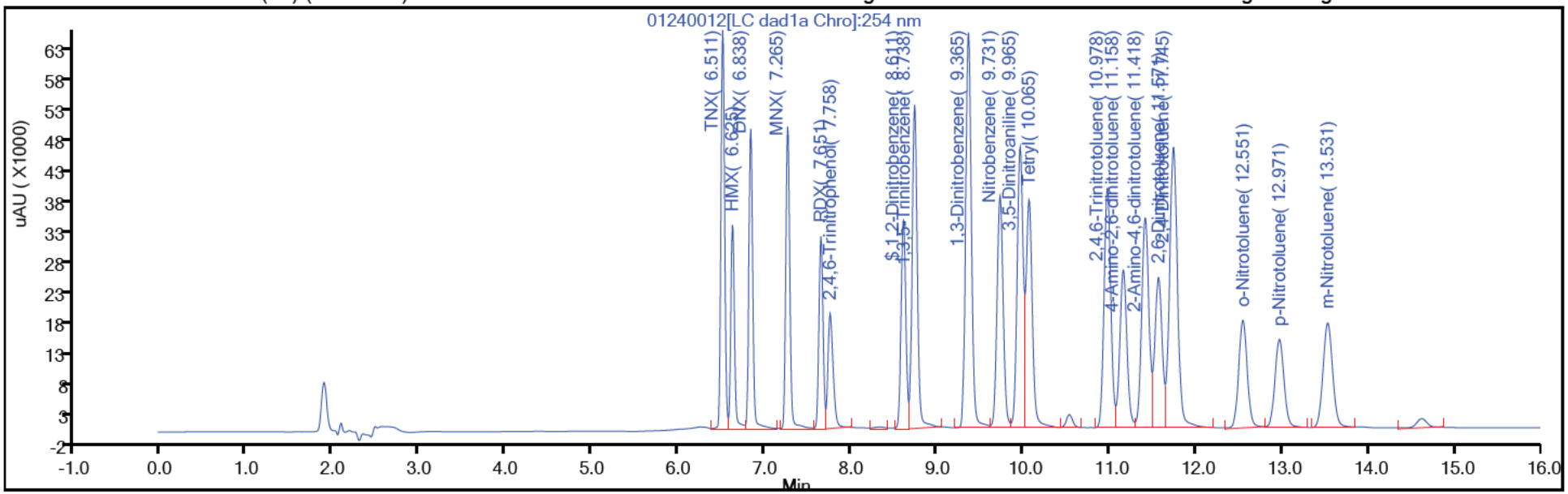
Report Date: 30-Jan-2024 16:55:10 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

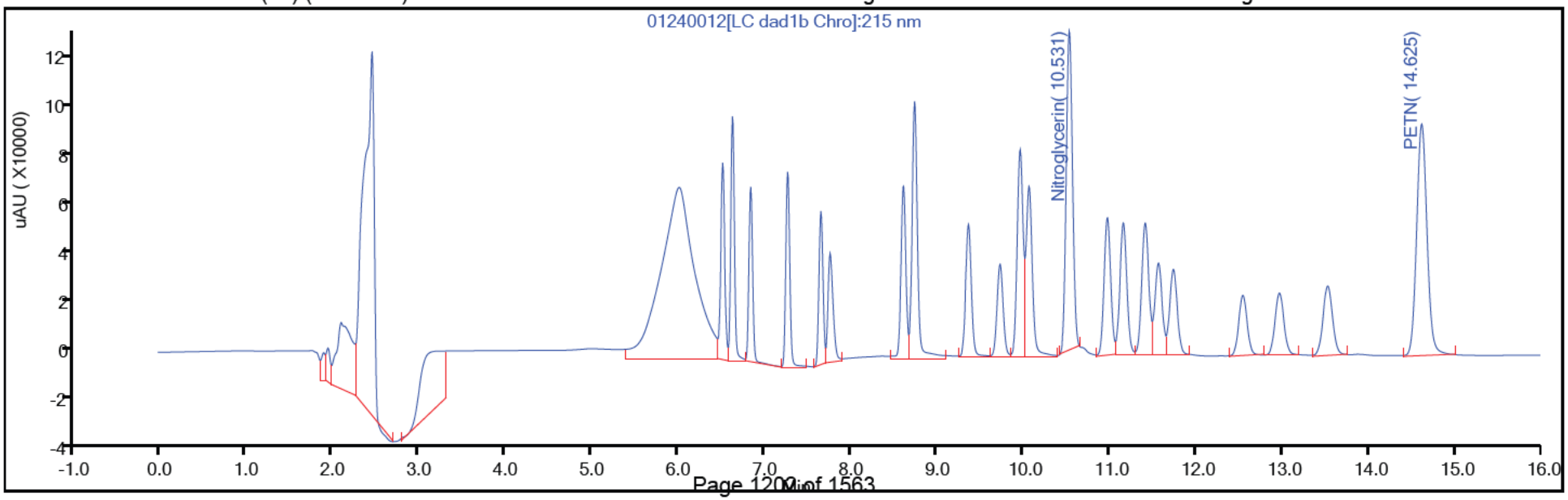
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240012.d

Injection Date:	24-Jan-2024 16:28:28	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



Manual Integration/User Assign Peak Report

Eurofins Denver

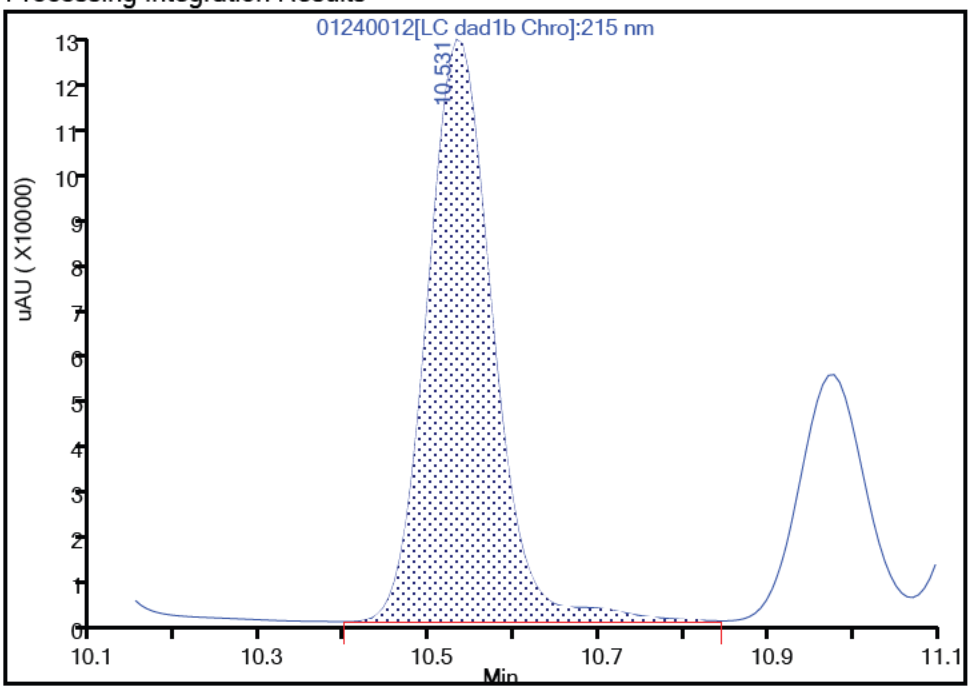
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240012.d				
Injection Date:	24-Jan-2024 16:28:28	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

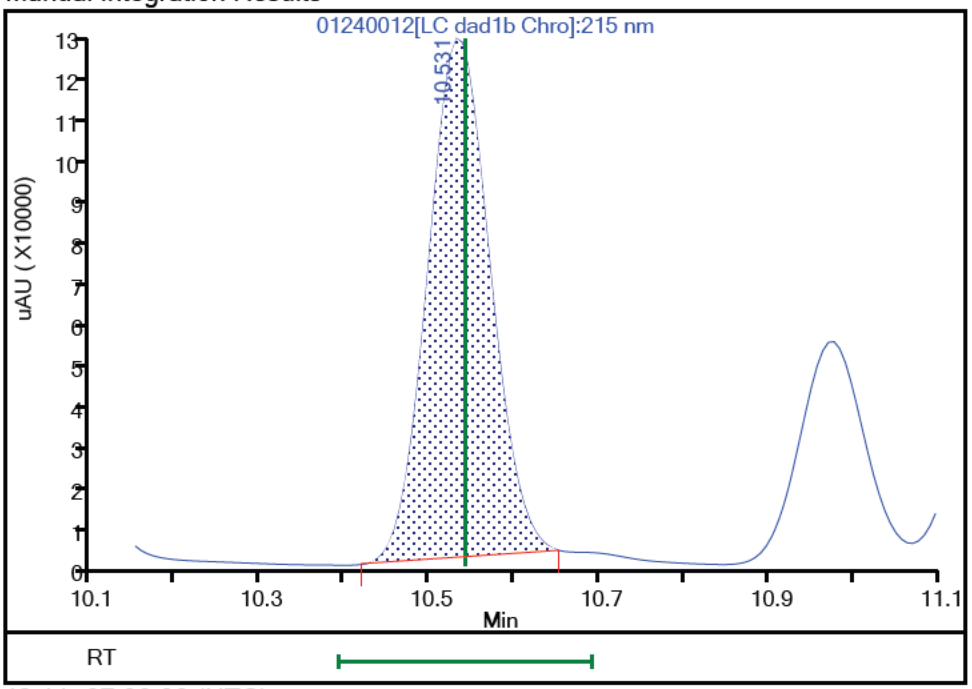
Processing Integration Results

RT: 10.53
Area: 672433
Amount: 10.616700
Amount Units: ug/mL



Manual Integration Results

RT: 10.53
Area: 625949
Amount: 10.124714
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 19:42:11 -07:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240013.D
Lims ID: IC INT/DMT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 24-Jan-2024 16:51:28 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\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:10 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: LV5D Date: 24-Jan-2024 18:01:22

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.517	6.515	0.002	129718	0.7028	0.6753	
4 HMX	1	6.624	6.628	-0.004	70062	0.7000	0.7351	
6 DNX	1	6.837	6.842	-0.005	102612	0.7014	0.6883	
7 MNX	1	7.271	7.268	0.003	107618	0.8183	0.7960	
8 RDX	1	7.657	7.655	0.002	72872	0.7000	0.6936	
9 2,4,6-Trinitrophenol	1	7.771	7.795	-0.024	54462	0.7000	0.7213	
$ 10 1,2-Dinitrobenzene	1	8.611	8.615	-0.004	91271	0.7000	0.7041	
11 1,3,5-Trinitrobenzene	1	8.744	8.742	0.002	153311	0.7000	0.7097	
12 1,3-Dinitrobenzene	1	9.371	9.375	-0.004	209420	0.7000	0.7157	
13 Nitrobenzene	1	9.737	9.742	-0.005	134066	0.7000	0.7247	
14 3,5-Dinitroaniline	1	9.971	9.975	-0.004	157744	0.7000	0.7223	
15 Tetryl	1	10.077	10.075	0.002	127620	0.7000	0.7056	
16 Nitroglycerin	2	10.544	10.542	0.002	436971	7.00	7.07	M
17 2,4,6-Trinitrotoluene	1	10.984	10.982	0.002	149092	0.7000	0.6998	
18 4-Amino-2,6-dinitrotoluene	1	11.171	11.175	-0.004	103689	0.7000	0.6911	
19 2-Amino-4,6-dinitrotoluene	1	11.424	11.428	-0.004	140674	0.7000	0.7087	
20 2,6-Dinitrotoluene	1	11.584	11.582	0.002	100078	0.7000	0.7003	
21 2,4-Dinitrotoluene	1	11.757	11.755	0.002	206848	0.7000	0.7065	
22 o-Nitrotoluene	1	12.564	12.562	0.002	86061	0.7000	0.7099	
23 p-Nitrotoluene	1	12.991	12.988	0.003	74795	0.7000	0.7167	
24 m-Nitrotoluene	1	13.551	13.548	0.003	94836	0.7000	0.7138	
25 PETN	2	14.651	14.642	0.009	517519	7.00	7.13	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00016	Amount Added:	35.00	Units: uL
8330IntermStk_00079	Amount Added:	70.00	Units: uL

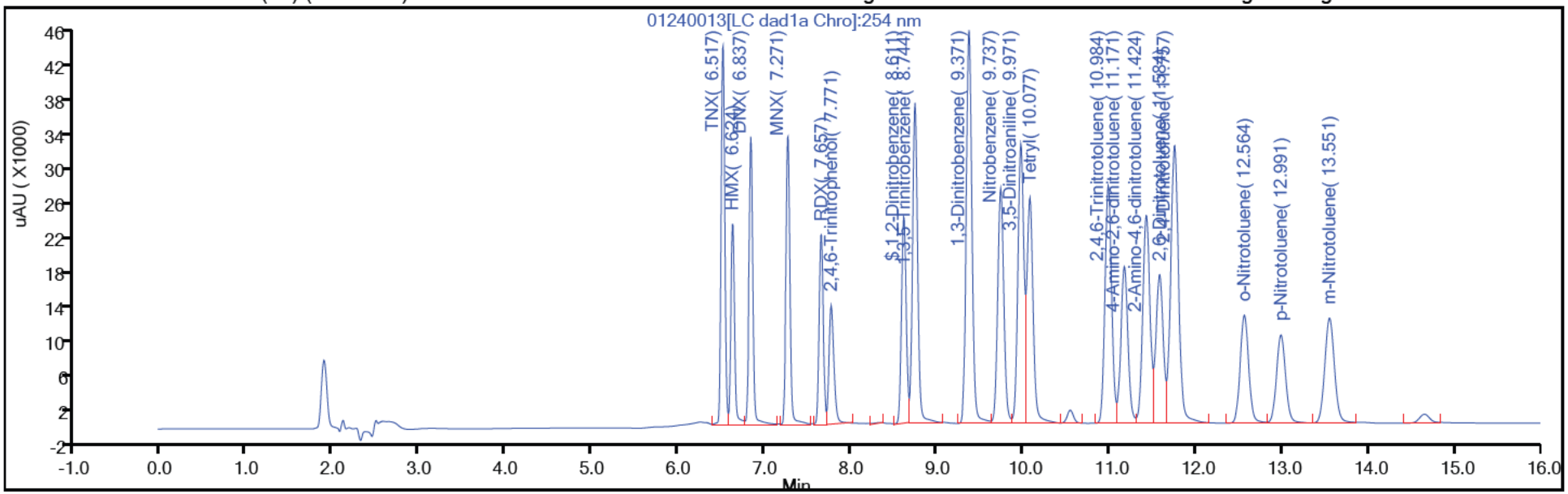
Report Date: 30-Jan-2024 16:55:10 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

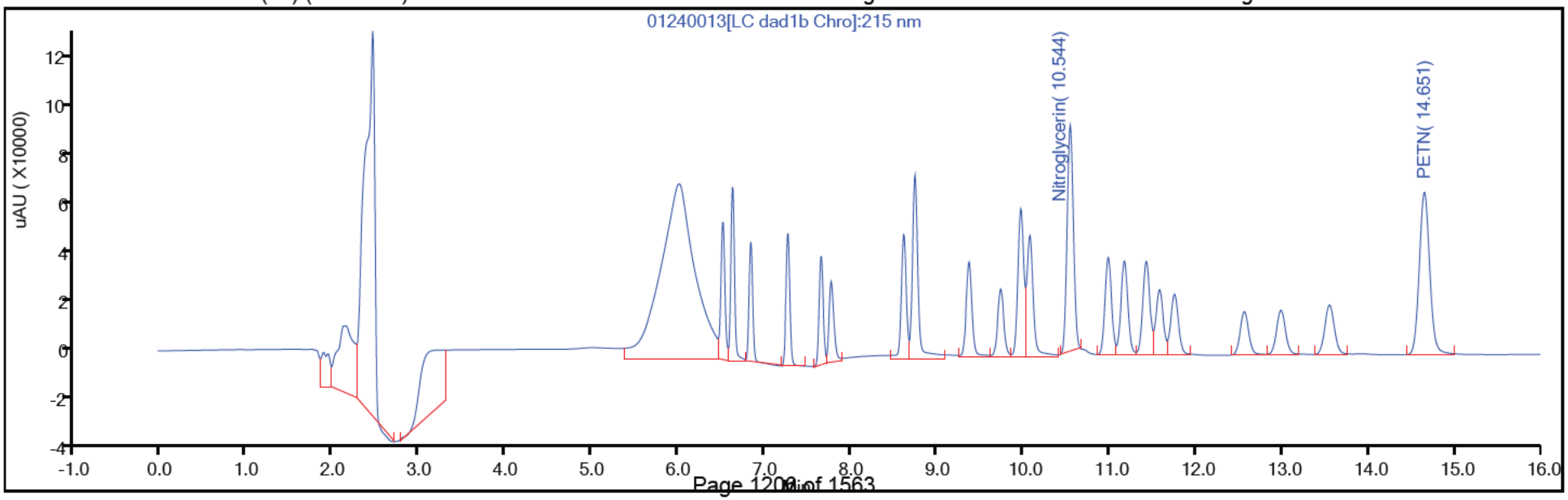
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240013.d

Injection Date:	24-Jan-2024 16:51:28	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



Manual Integration/User Assign Peak Report

Eurofins Denver

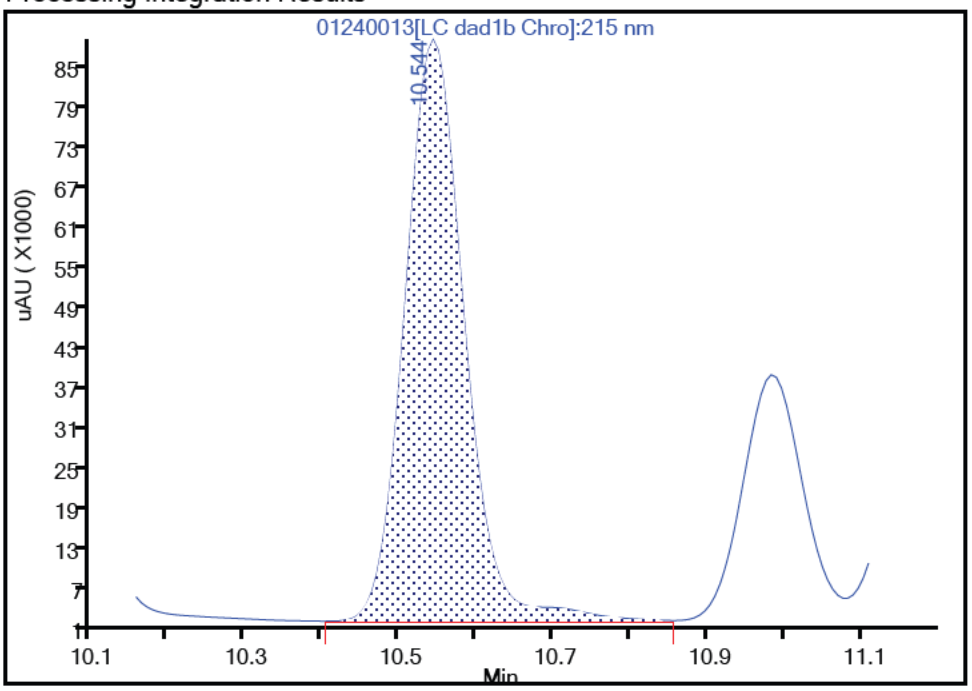
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240013.d				
Injection Date:	24-Jan-2024 16:51:28	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

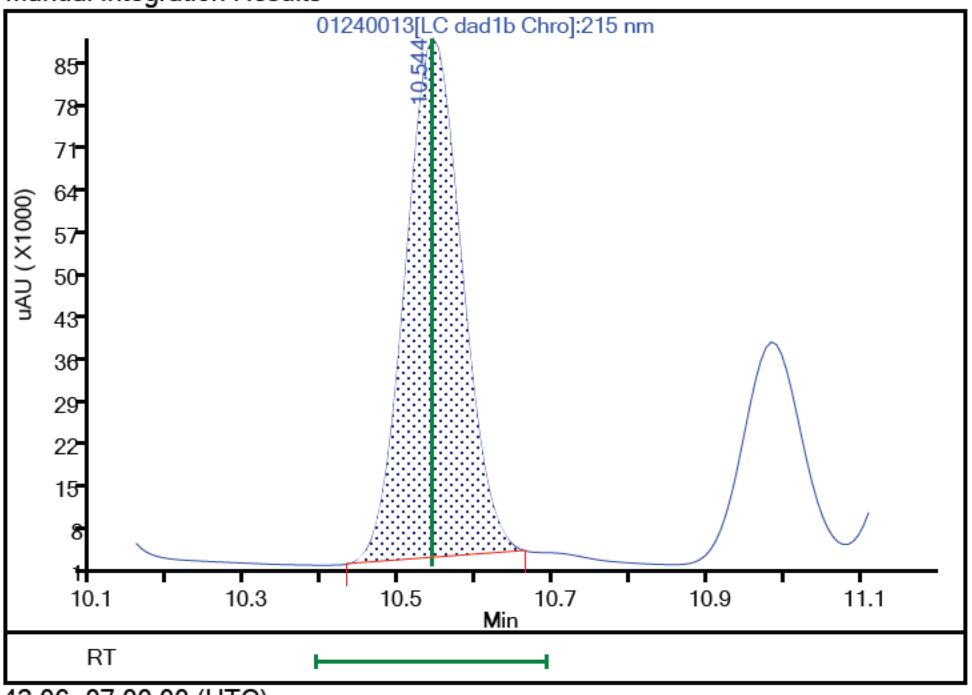
Processing Integration Results

RT: 10.54
Area: 469992
Amount: 7.359559
Amount Units: ug/mL



Manual Integration Results

RT: 10.54
Area: 436971
Amount: 7.067998
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 19:42:06 -07:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Report Date: 30-Jan-2024 16:55:11 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240014.D
Lims ID: IC INT/DMT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Jan-2024 17:14:20 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\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:11 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: LV5D Date: 24-Jan-2024 18:01:30

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.517	6.515	0.002	74362	0.4016	0.3871	
4 HMX	1	6.624	6.628	-0.004	40621	0.4000	0.4262	
6 DNX	1	6.837	6.842	-0.005	58808	0.4008	0.3938	
7 MNX	1	7.264	7.268	-0.004	61027	0.4676	0.4508	
8 RDX	1	7.650	7.655	-0.005	42148	0.4000	0.4010	
9 2,4,6-Trinitrophenol	1	7.777	7.795	-0.018	30835	0.4000	0.4084	
$ 10 1,2-Dinitrobenzene	1	8.610	8.615	-0.005	52330	0.4000	0.4036	
11 1,3,5-Trinitrobenzene	1	8.737	8.742	-0.005	86668	0.4000	0.4012	
12 1,3-Dinitrobenzene	1	9.364	9.375	-0.011	120218	0.4000	0.4108	
13 Nitrobenzene	1	9.730	9.742	-0.012	75440	0.4000	0.4078	
14 3,5-Dinitroaniline	1	9.964	9.975	-0.011	89232	0.4000	0.4088	
15 Tetryl	1	10.070	10.075	-0.005	71525	0.4000	0.3955	
16 Nitroglycerin	2	10.537	10.542	-0.005	253117	4.00	4.09	M
17 2,4,6-Trinitrotoluene	1	10.977	10.982	-0.005	86178	0.4000	0.4044	
18 4-Amino-2,6-dinitrotoluene	1	11.164	11.175	-0.011	59386	0.4000	0.3958	
19 2-Amino-4,6-dinitrotoluene	1	11.424	11.428	-0.004	80904	0.4000	0.4072	
20 2,6-Dinitrotoluene	1	11.570	11.582	-0.012	57753	0.4000	0.4038	
21 2,4-Dinitrotoluene	1	11.744	11.755	-0.011	119253	0.4000	0.4073	
22 o-Nitrotoluene	1	12.557	12.562	-0.005	48892	0.4000	0.4024	
23 p-Nitrotoluene	1	12.977	12.988	-0.011	42552	0.4000	0.4061	
24 m-Nitrotoluene	1	13.537	13.548	-0.011	53959	0.4000	0.4040	
25 PETN	2	14.630	14.642	-0.012	298028	4.00	4.10	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079	Amount Added:	40.00	Units: uL
8330 DMT_00016	Amount Added:	20.00	Units: uL

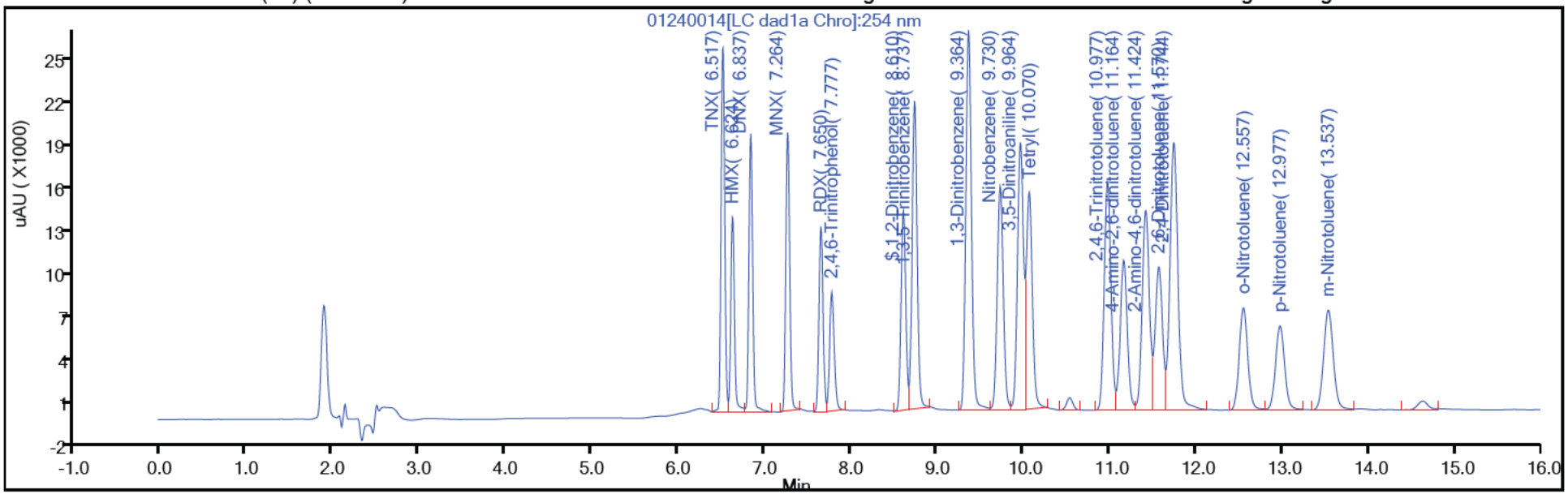
Report Date: 30-Jan-2024 16:55:11 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

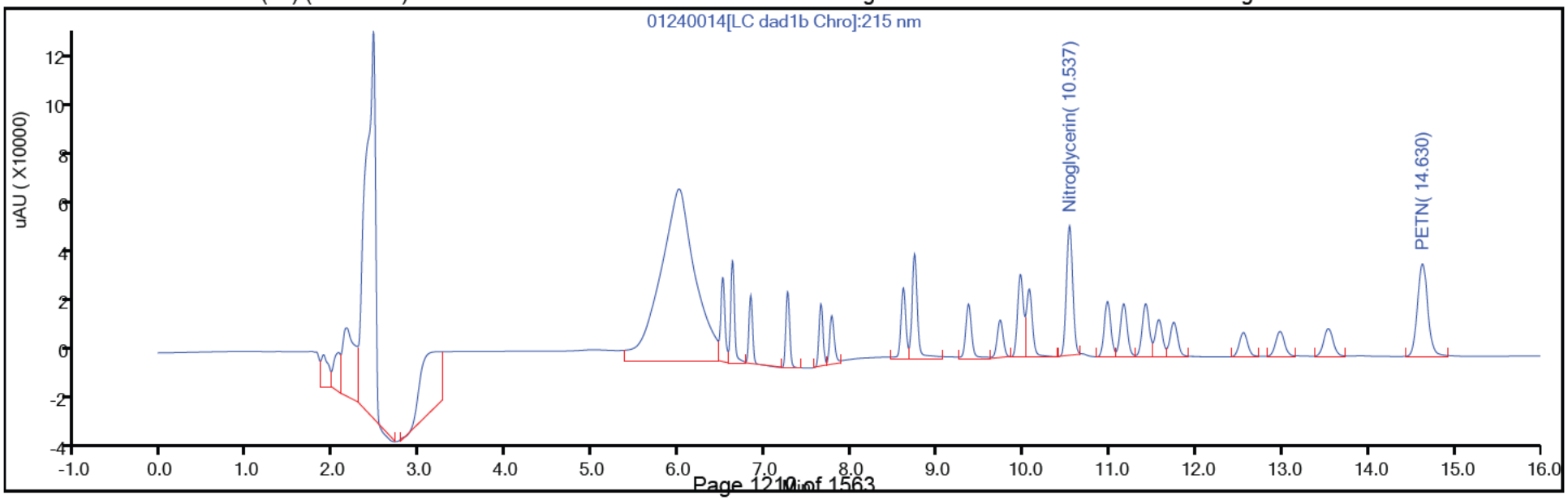
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240014.d

Injection Date:	24-Jan-2024 17:14:20	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



Manual Integration/User Assign Peak Report

Eurofins Denver

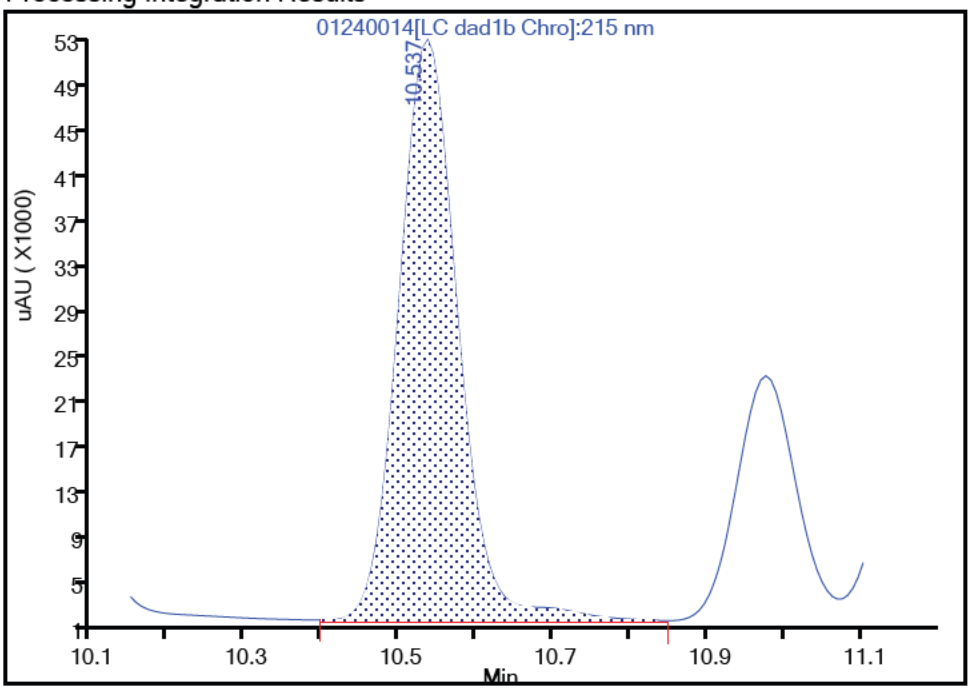
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240014.d				
Injection Date:	24-Jan-2024 17:14:20	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

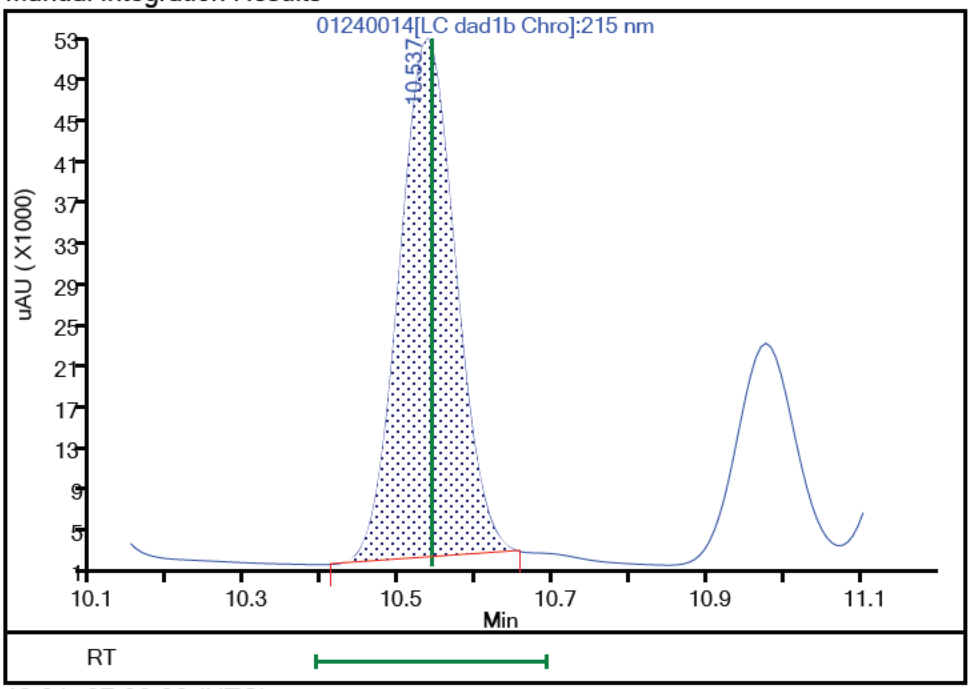
Processing Integration Results

RT: 10.54
Area: 272029
Amount: 4.224921
Amount Units: ug/mL



Manual Integration Results

RT: 10.54
Area: 253117
Amount: 4.094163
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 19:42:01 -07:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240015.D
Lims ID: IC INT/DMT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Jan-2024 17:37:18 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\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:11 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: LV5D Date: 24-Jan-2024 18:32:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.514	6.515	-0.001	45422	0.2510	0.2365	
4 HMX	1	6.628	6.628	0.000	23043	0.2500	0.2418	
6 DNX	1	6.841	6.842	-0.001	35481	0.2505	0.2370	
7 MNX	1	7.268	7.268	0.000	38312	0.2923	0.2825	
8 RDX	1	7.654	7.655	-0.001	25336	0.2500	0.2408	
9 2,4,6-Trinitrophenol	1	7.788	7.795	-0.007	18207	0.2500	0.2411	
$ 10 1,2-Dinitrobenzene	1	8.608	8.615	-0.007	31197	0.2500	0.2406	
11 1,3,5-Trinitrobenzene	1	8.741	8.742	-0.001	51468	0.2500	0.2382	
12 1,3-Dinitrobenzene	1	9.367	9.375	-0.008	70589	0.2500	0.2412	
13 Nitrobenzene	1	9.734	9.742	-0.008	43193	0.2500	0.2335	
14 3,5-Dinitroaniline	1	9.967	9.975	-0.008	50676	0.2500	0.2323	
15 Tetryl	1	10.067	10.075	-0.008	42860	0.2500	0.2370	
16 Nitroglycerin	2	10.534	10.542	-0.008	150716	2.50	2.44	M
17 2,4,6-Trinitrotoluene	1	10.974	10.982	-0.008	50356	0.2500	0.2362	
18 4-Amino-2,6-dinitrotoluene	1	11.167	11.175	-0.008	34038	0.2500	0.2269	
19 2-Amino-4,6-dinitrotoluene	1	11.421	11.428	-0.007	46402	0.2500	0.2331	
20 2,6-Dinitrotoluene	1	11.574	11.582	-0.008	34380	0.2500	0.2401	
21 2,4-Dinitrotoluene	1	11.747	11.755	-0.008	68801	0.2500	0.2350	
22 o-Nitrotoluene	1	12.554	12.562	-0.008	28320	0.2500	0.2322	
23 p-Nitrotoluene	1	12.974	12.988	-0.014	24248	0.2500	0.2298	
24 m-Nitrotoluene	1	13.541	13.548	-0.007	31333	0.2500	0.2325	
25 PETN	2	14.627	14.642	-0.015	176724	2.50	2.43	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079	Amount Added:	25.00	Units: uL
8330 DMT_00016	Amount Added:	12.50	Units: uL

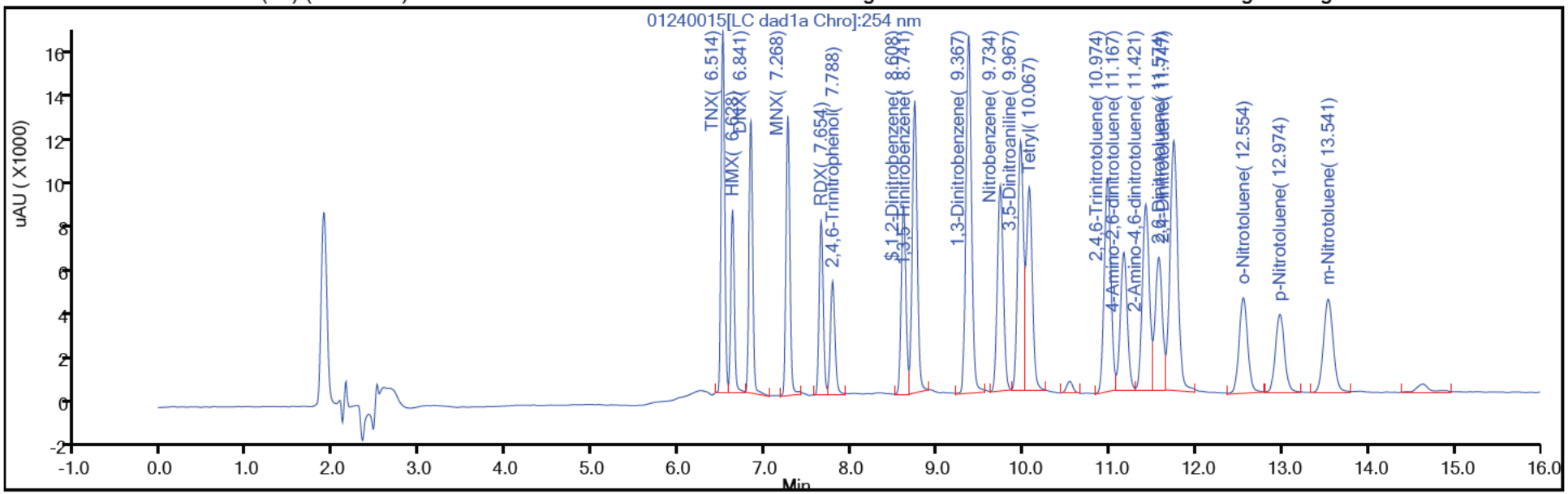
Report Date: 30-Jan-2024 16:55:11 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

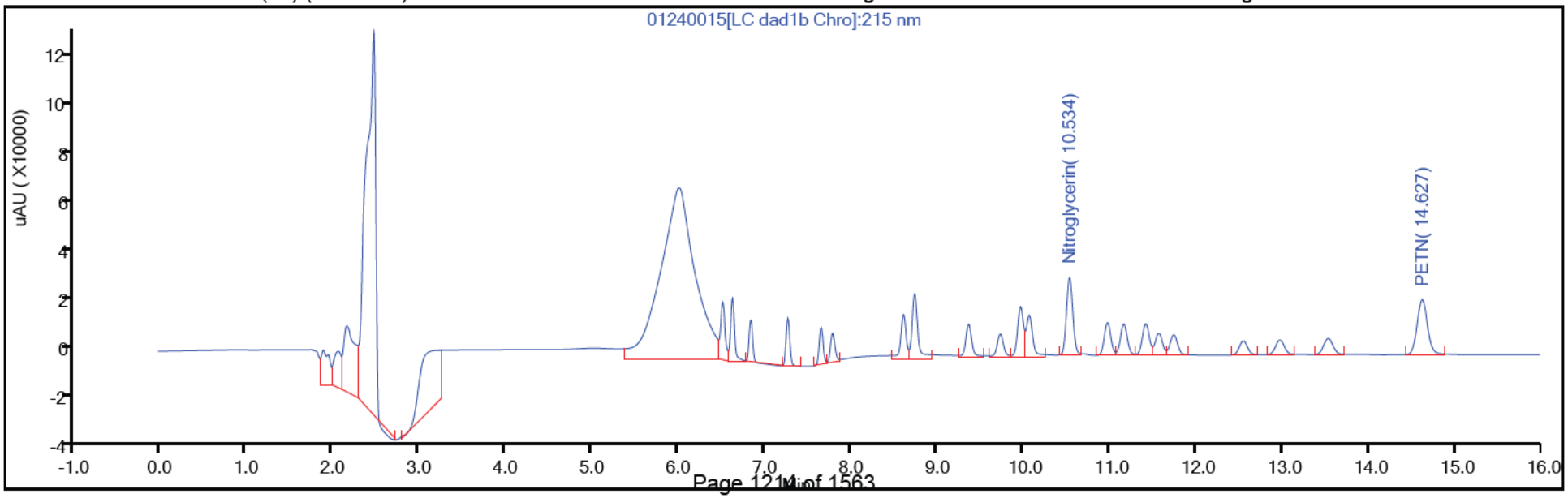
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240015.d

Injection Date:	24-Jan-2024 17:37:18	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



Manual Integration/User Assign Peak Report

Eurofins Denver

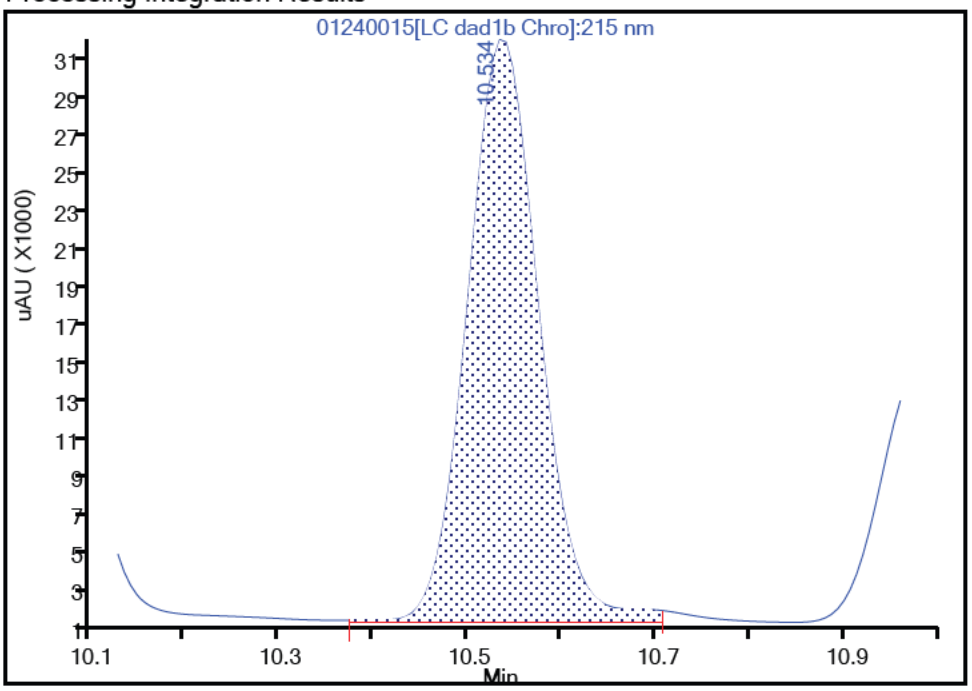
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240015.d				
Injection Date:	24-Jan-2024 17:37:18	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

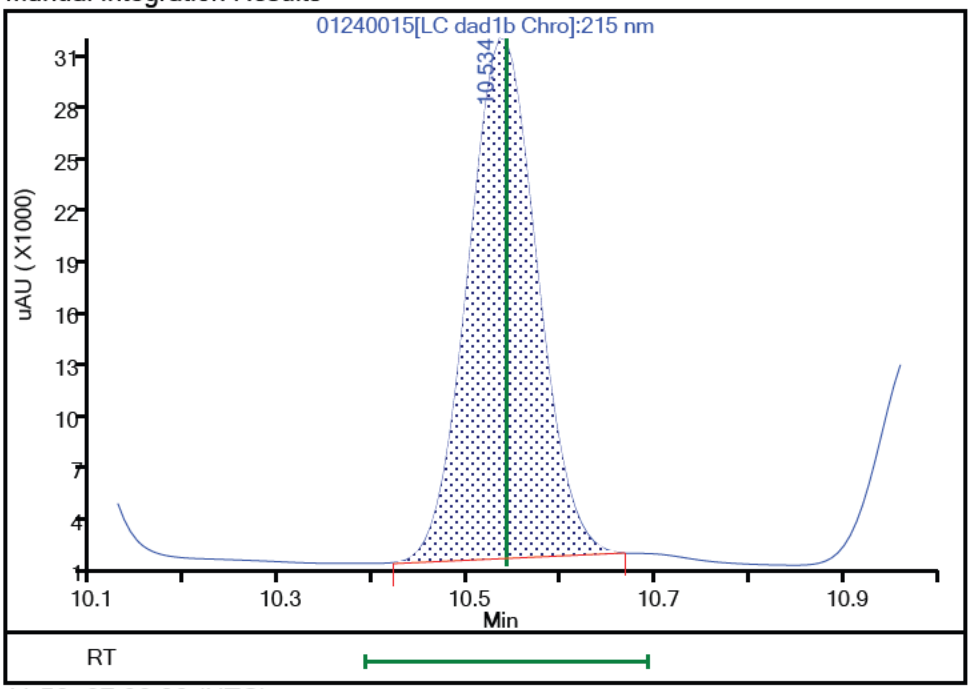
Processing Integration Results

RT: 10.53
Area: 158336
Amount: 2.446272
Amount Units: ug/mL



Manual Integration Results

RT: 10.53
Area: 150716
Amount: 2.437829
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 19:41:56 -07:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240016.D
Lims ID: IC INT/DMT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Jan-2024 18:00:12 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\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:12 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: LV5D Date: 24-Jan-2024 18:31:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.515	6.515	0.000	22202	0.1004	0.1156	
4 HMX	1	6.628	6.628	0.000	9280	0.1000	0.0974	
6 DNX	1	6.842	6.842	0.000	16955	0.1002	0.1125	
7 MNX	1	7.268	7.268	0.000	18812	0.1169	0.1380	
8 RDX	1	7.655	7.655	0.000	10585	0.1000	0.1003	
9 2,4,6-Trinitrophenol	1	7.795	7.795	0.000	7737	0.1000	0.1025	
$ 10 1,2-Dinitrobenzene	1	8.615	8.615	0.000	12803	0.1000	0.0986	
11 1,3,5-Trinitrobenzene	1	8.742	8.742	0.000	21160	0.1000	0.0979	
12 1,3-Dinitrobenzene	1	9.375	9.375	0.000	28701	0.1000	0.0981	
13 Nitrobenzene	1	9.742	9.742	0.000	17916	0.1000	0.0969	
14 3,5-Dinitroaniline	1	9.975	9.975	0.000	20916	0.1000	0.0961	
15 Tetryl	1	10.075	10.075	0.000	17434	0.1000	0.0964	
16 Nitroglycerin	2	10.542	10.542	0.000	61858	1.00	1.00	M
17 2,4,6-Trinitrotoluene	1	10.982	10.982	0.000	21099	0.1000	0.0988	
18 4-Amino-2,6-dinitrotoluene	1	11.175	11.175	0.000	14470	0.1000	0.0965	
19 2-Amino-4,6-dinitrotoluene	1	11.428	11.428	0.000	19483	0.1000	0.0973	
20 2,6-Dinitrotoluene	1	11.582	11.582	0.000	14410	0.1000	0.1002	
21 2,4-Dinitrotoluene	1	11.755	11.755	0.000	28665	0.1000	0.0979	
22 o-Nitrotoluene	1	12.562	12.562	0.000	11899	0.1000	0.0963	
23 p-Nitrotoluene	1	12.988	12.988	0.000	10325	0.1000	0.0958	
24 m-Nitrotoluene	1	13.548	13.548	0.000	13293	0.1000	0.0958	
25 PETN	2	14.642	14.642	0.000	71189	1.00	0.9805	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079	Amount Added: 10.00	Units: uL
8330 DMT_00016	Amount Added: 5.00	Units: uL

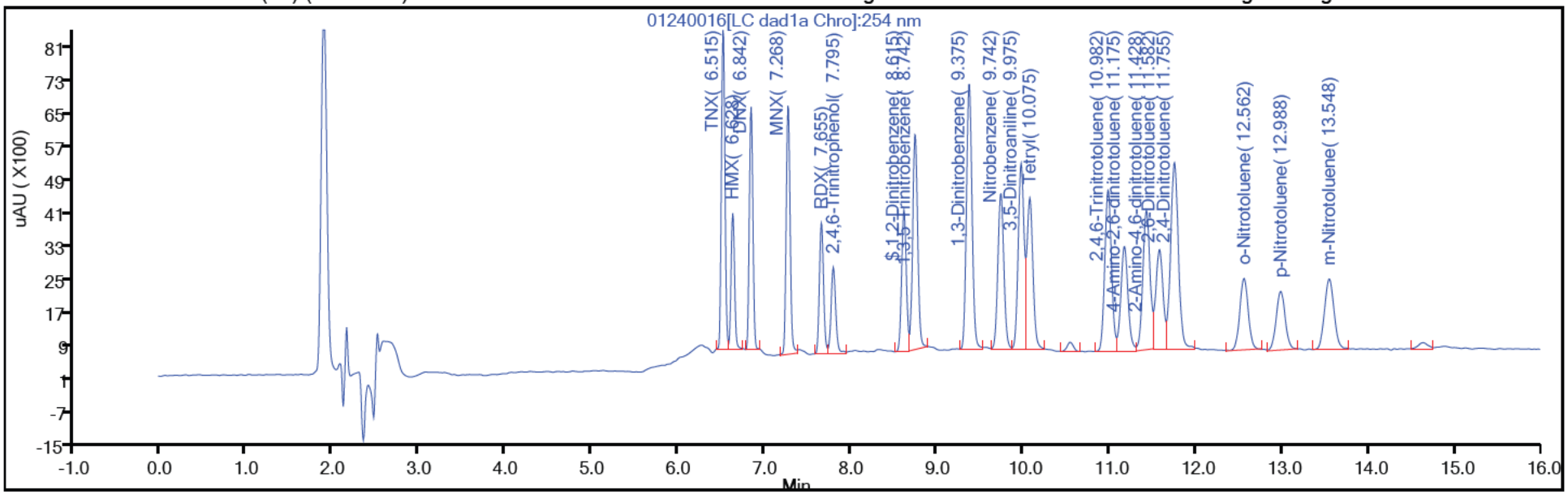
Report Date: 30-Jan-2024 16:55:12 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

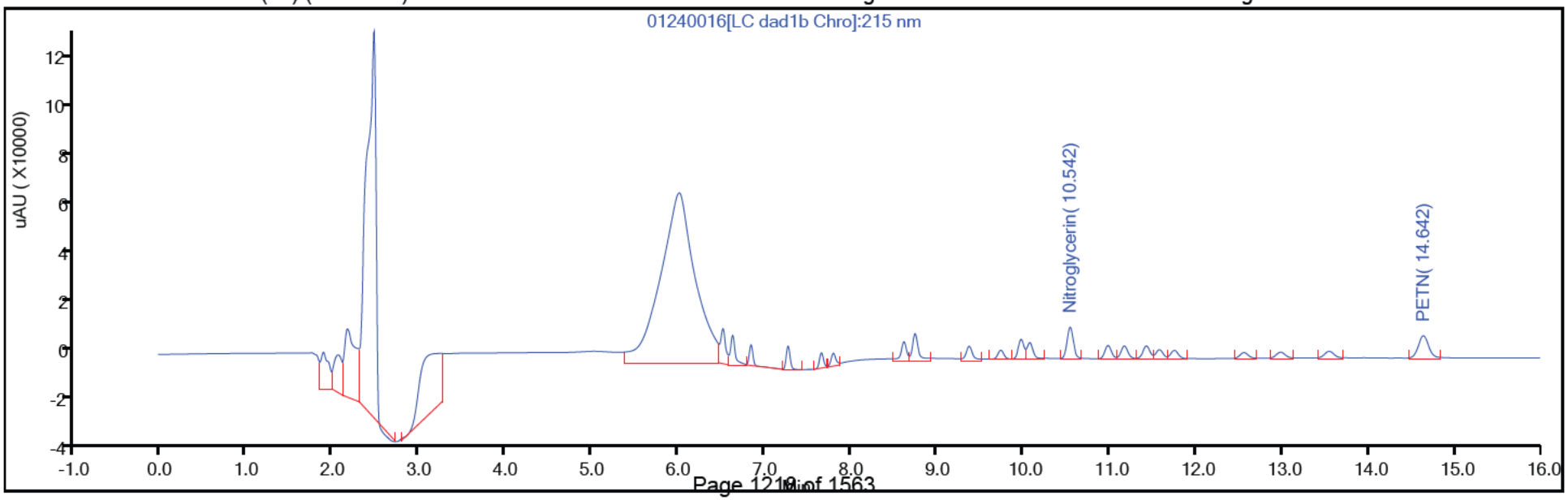
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240016.d

Injection Date:	24-Jan-2024 18:00:12	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



Manual Integration/User Assign Peak Report

Eurofins Denver

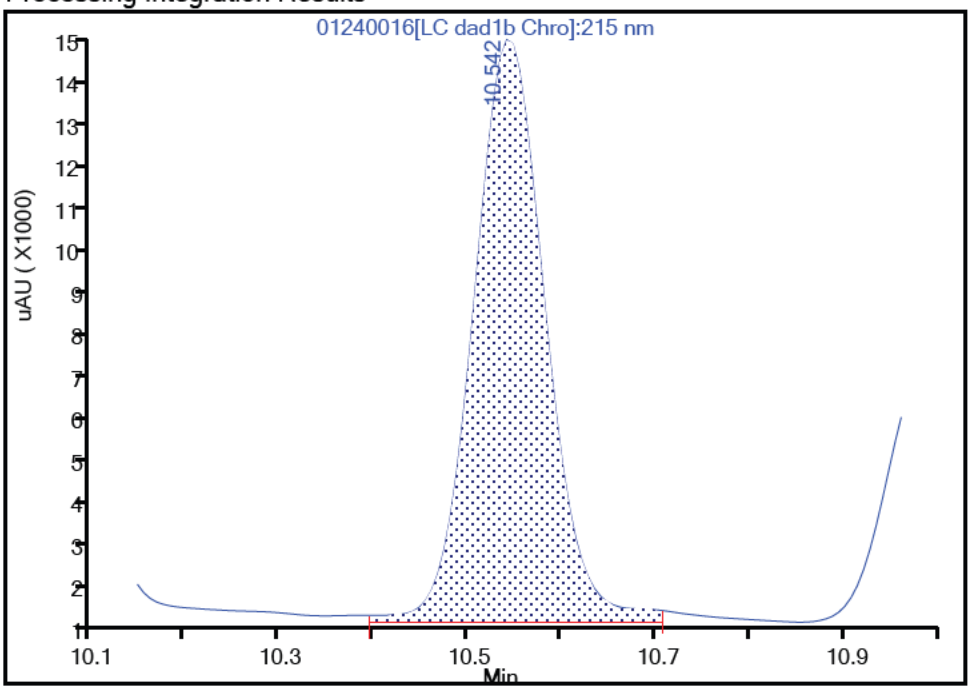
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240016.d				
Injection Date:	24-Jan-2024 18:00:12	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

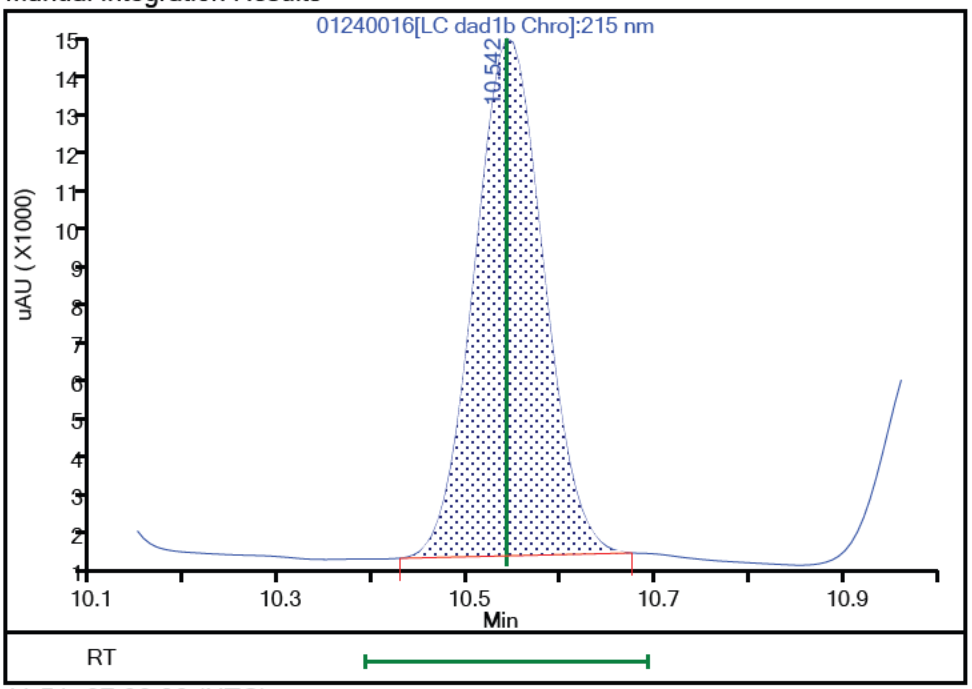
Processing Integration Results

RT: 10.54
Area: 66106
Amount: 1.013936
Amount Units: ug/mL



Manual Integration Results

RT: 10.54
Area: 61858
Amount: 1.000552
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 19:41:51 -07:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240017.D
Lims ID: IC INT/DMT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Jan-2024 18:23:12 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\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:13 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: LV5D Date: 24-Jan-2024 18:47:40

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.519	6.515	0.004	9233	0.0502	0.0481	
4 HMX	1	6.626	6.628	-0.002	4523	0.0500	0.0475	
6 DNX	1	6.839	6.842	-0.003	7072	0.0501	0.0461	
7 MNX	1	7.272	7.268	0.004	7789	0.0585	0.0563	
8 RDX	1	7.659	7.655	0.004	5374	0.0500	0.0507	
9 2,4,6-Trinitrophenol	1	7.799	7.795	0.004	3686	0.0500	0.0488	
$ 10 1,2-Dinitrobenzene	1	8.619	8.615	0.004	6455	0.0500	0.0496	
11 1,3,5-Trinitrobenzene	1	8.746	8.742	0.004	10602	0.0500	0.0491	
12 1,3-Dinitrobenzene	1	9.379	9.375	0.004	14477	0.0500	0.0495	
13 Nitrobenzene	1	9.746	9.742	0.004	9062	0.0500	0.0490	
14 3,5-Dinitroaniline	1	9.979	9.975	0.004	10527	0.0500	0.0486	
15 Tetryl	1	10.086	10.075	0.011	9142	0.0500	0.0505	
16 Nitroglycerin	2	10.552	10.542	0.010	31020	0.5000	0.5017	M
17 2,4,6-Trinitrotoluene	1	10.992	10.982	0.010	10691	0.0500	0.0499	
18 4-Amino-2,6-dinitrotoluene	1	11.179	11.175	0.004	7216	0.0500	0.0481	
19 2-Amino-4,6-dinitrotoluene	1	11.439	11.428	0.011	9915	0.0500	0.0490	
20 2,6-Dinitrotoluene	1	11.592	11.582	0.010	7180	0.0500	0.0496	
21 2,4-Dinitrotoluene	1	11.759	11.755	0.004	14580	0.0500	0.0498	
22 o-Nitrotoluene	1	12.572	12.562	0.010	6241	0.0500	0.0495	
23 p-Nitrotoluene	1	12.999	12.988	0.011	5389	0.0500	0.0482	
24 m-Nitrotoluene	1	13.559	13.548	0.011	7081	0.0500	0.0487	
25 PETN	2	14.659	14.642	0.017	34974	0.5000	0.4817	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

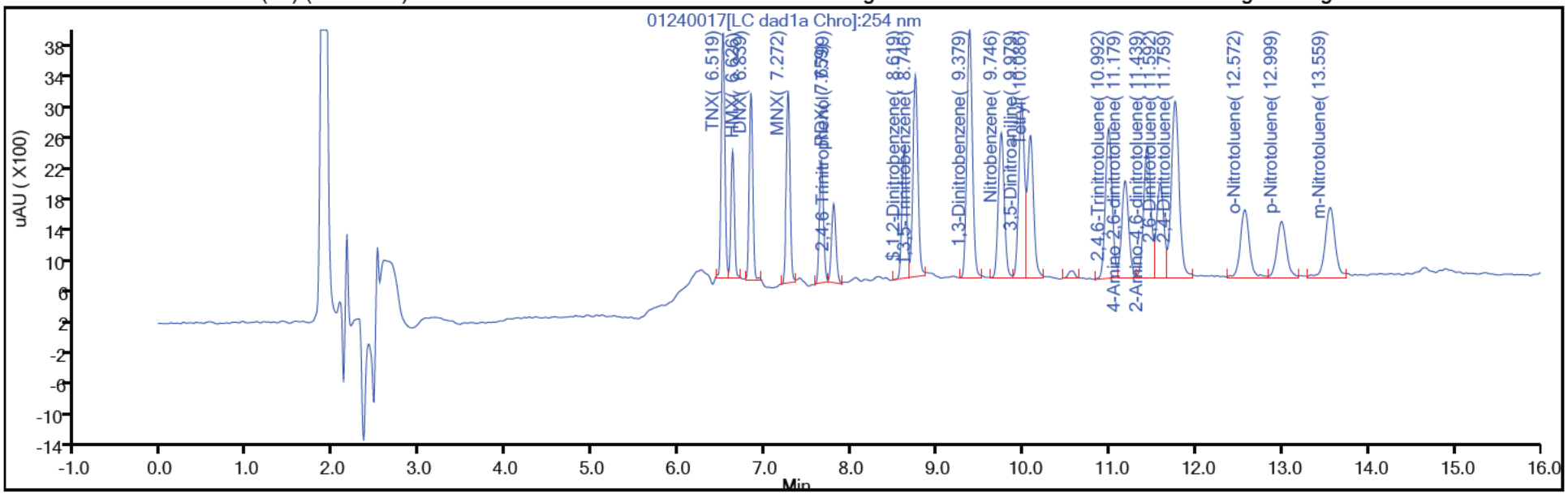
8330IntermStk_00079	Amount Added:	5.00	Units: uL
8330 DMT_00016	Amount Added:	2.50	Units: uL

Report Date: 30-Jan-2024 16:55:13 Chrom Revision: 2.3 24-Jan-2024 12:19:54

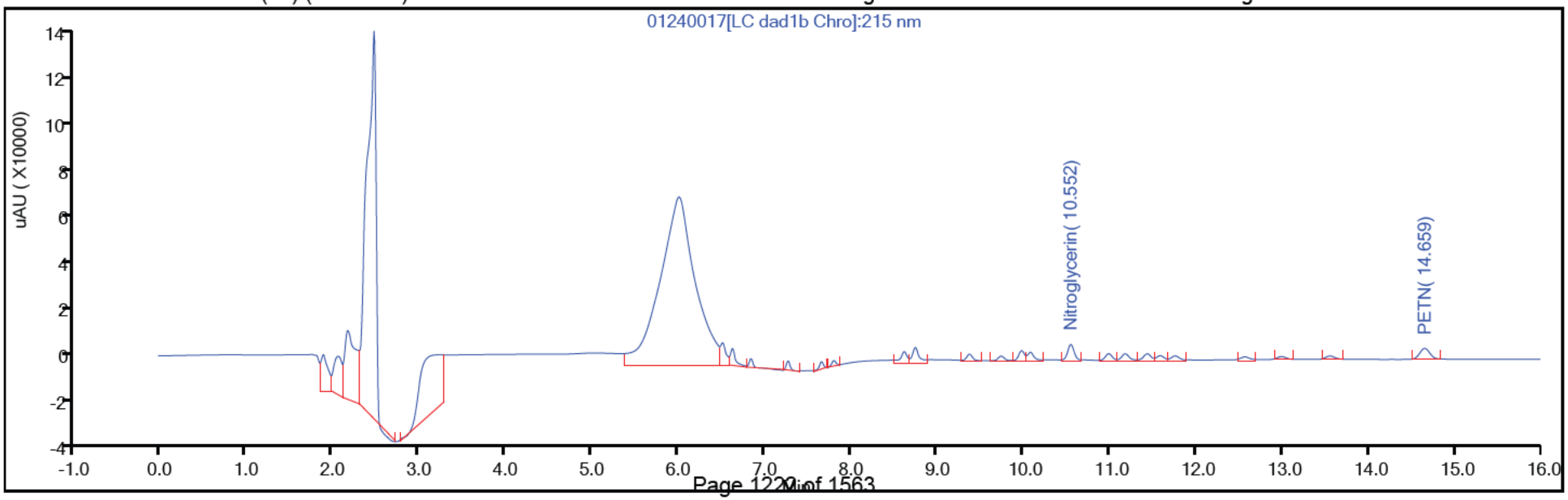
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240017.d				
Injection Date:	24-Jan-2024 18:23:12	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



Manual Integration/User Assign Peak Report

Eurofins Denver

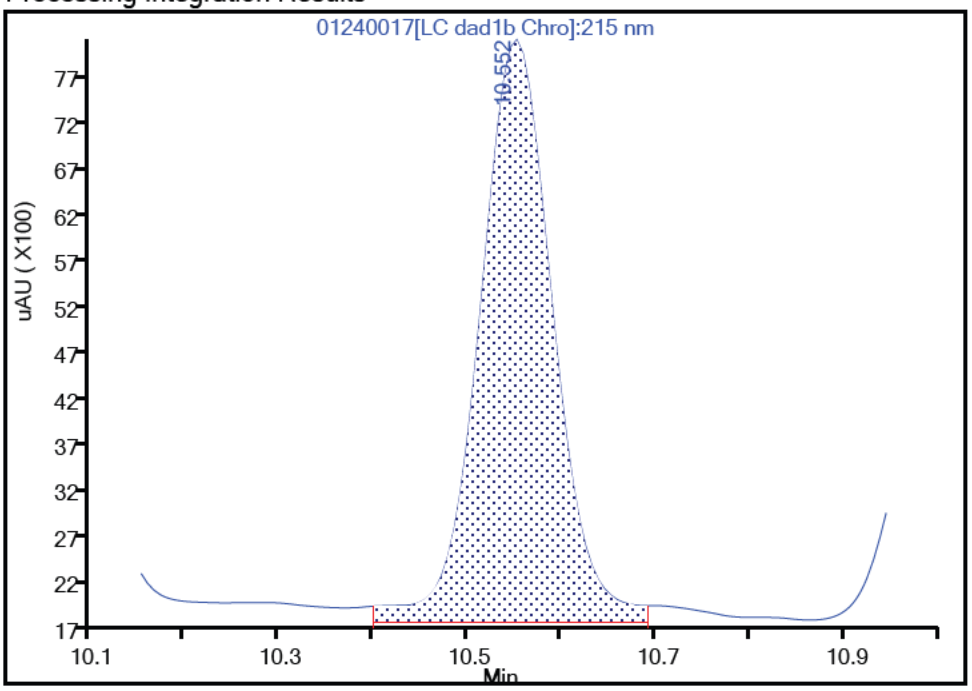
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240017.d				
Injection Date:	24-Jan-2024 18:23:12	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

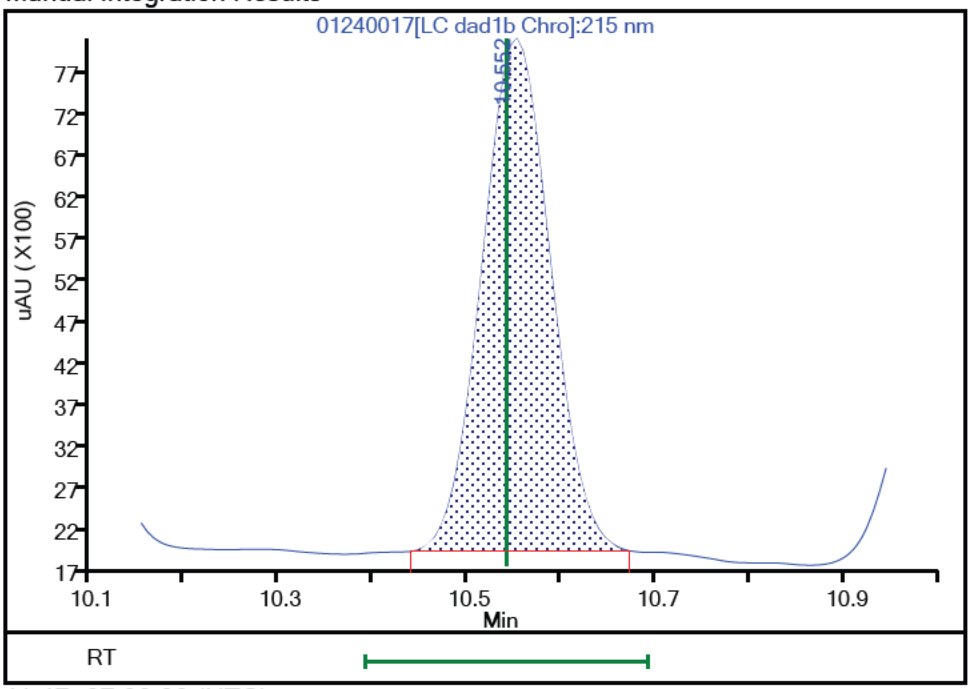
Processing Integration Results

RT: 10.55
Area: 34372
Amount: 0.521243
Amount Units: ug/mL



Manual Integration Results

RT: 10.55
Area: 31020
Amount: 0.501748
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 19:41:47 -07:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240020.D
Lims ID: IC INT/DMT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Jan-2024 19:38:07 ALS Bottle#: 20 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\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:13 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: LV5D Date: 24-Jan-2024 20:02:34

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.517	6.515	0.002	3682	0.0201	0.0192	
4 HMX	1	6.630	6.628	0.002	1927	0.0200	0.0202	
6 DNX	1	6.843	6.842	0.001	3348	0.0200	0.0210	
7 MNX	1	7.270	7.268	0.002	3068	0.0234	0.0213	
8 RDX	1	7.657	7.655	0.002	2233	0.0200	0.0208	
9 2,4,6-Trinitrophenol	1	7.803	7.795	0.008	1358	0.0200	0.0180	
$ 10 1,2-Dinitrobenzene	1	8.617	8.615	0.002	2637	0.0200	0.0202	
11 1,3,5-Trinitrobenzene	1	8.750	8.742	0.008	4461	0.0200	0.0206	
12 1,3-Dinitrobenzene	1	9.377	9.375	0.002	5712	0.0200	0.0195	
13 Nitrobenzene	1	9.743	9.742	0.001	3831	0.0200	0.0207	
14 3,5-Dinitroaniline	1	9.983	9.975	0.008	4370	0.0200	0.0204	
15 Tetryl	1	10.083	10.075	0.008	3557	0.0200	0.0197	
16 Nitroglycerin	2	10.550	10.542	0.008	12492	0.2000	0.2021	M
17 2,4,6-Trinitrotoluene	1	10.990	10.982	0.008	4632	0.0200	0.0215	
18 4-Amino-2,6-dinitrotoluene	1	11.177	11.175	0.002	3539	0.0200	0.0236	
19 2-Amino-4,6-dinitrotoluene	1	11.437	11.428	0.009	4338	0.0200	0.0209	
20 2,6-Dinitrotoluene	1	11.583	11.582	0.001	3033	0.0200	0.0206	
21 2,4-Dinitrotoluene	1	11.757	11.755	0.002	6071	0.0200	0.0207	
22 o-Nitrotoluene	1	12.563	12.562	0.001	2790	0.0200	0.0210	
23 p-Nitrotoluene	1	12.990	12.988	0.002	2522	0.0200	0.0206	
24 m-Nitrotoluene	1	13.550	13.548	0.002	3401	0.0200	0.0208	
25 PETN	2	14.650	14.642	0.008	14333	0.2000	0.1974	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079	Amount Added:	2.00	Units: uL
8330 DMT_00016	Amount Added:	1.00	Units: uL

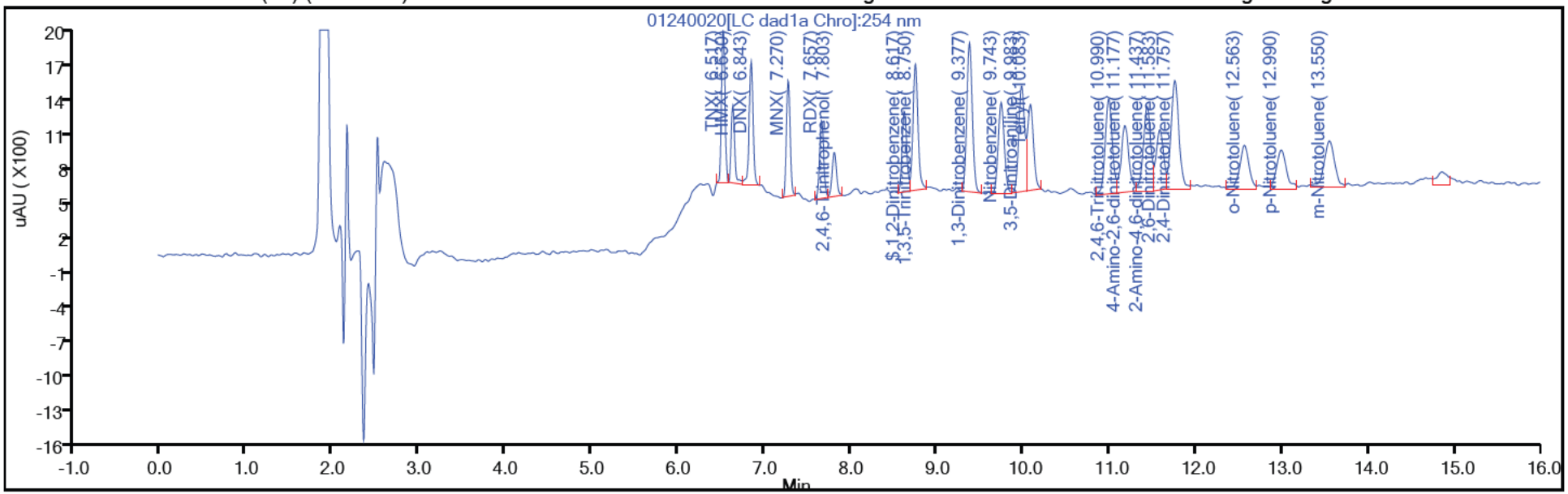
Report Date: 30-Jan-2024 16:55:13 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

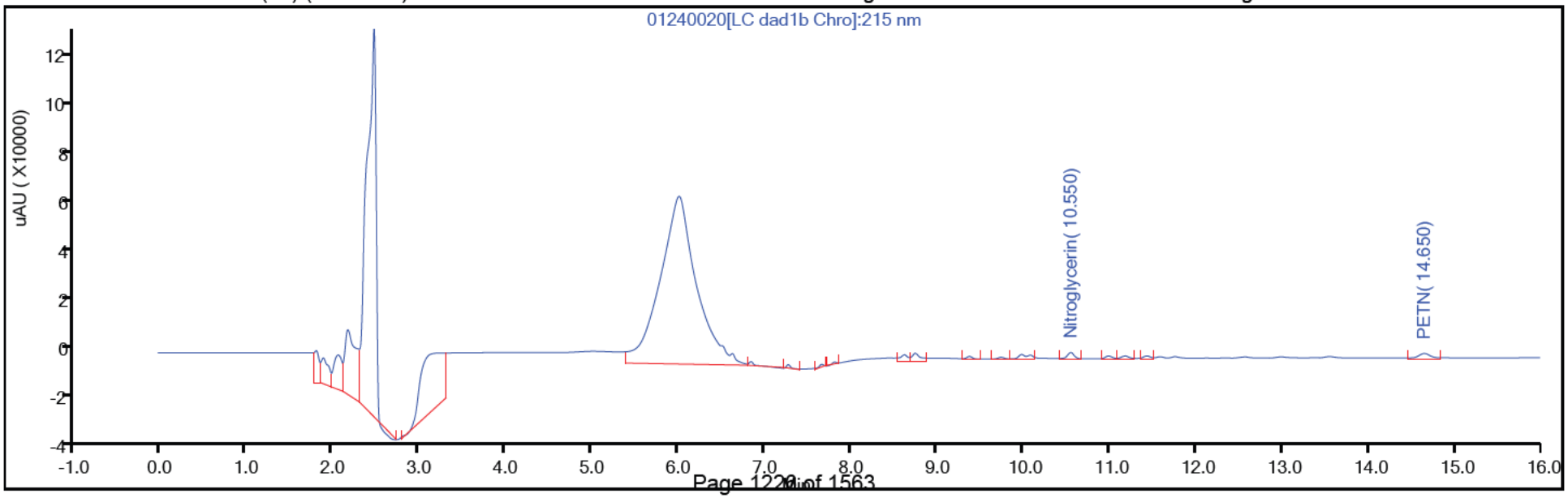
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240020.d

Injection Date:	24-Jan-2024 19:38:07	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#:	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



Manual Integration/User Assign Peak Report

Eurofins Denver

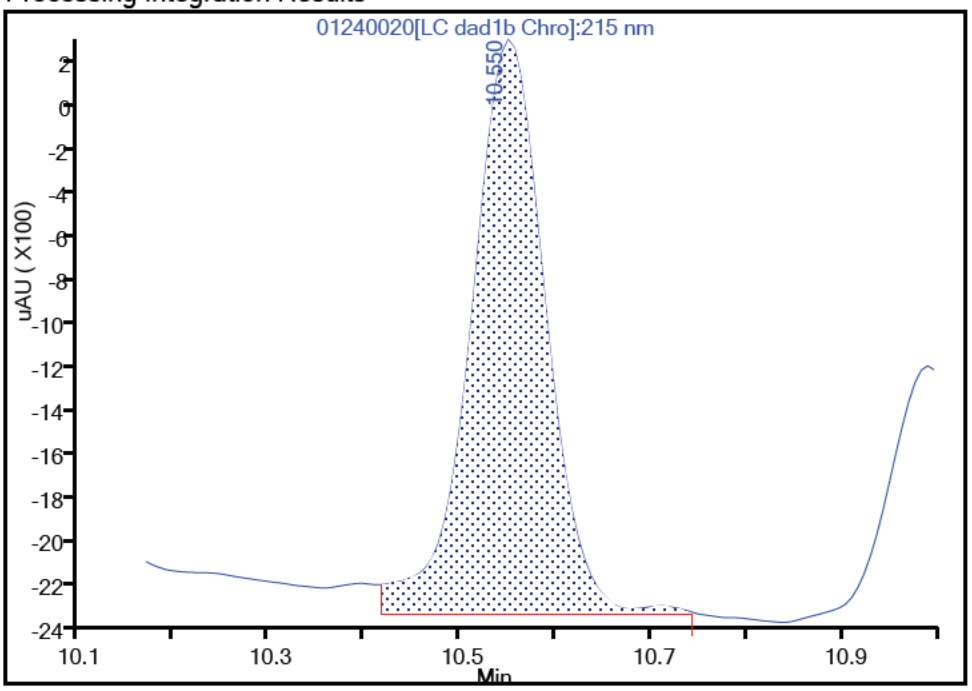
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240020.d				
Injection Date:	24-Jan-2024 19:38:07	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

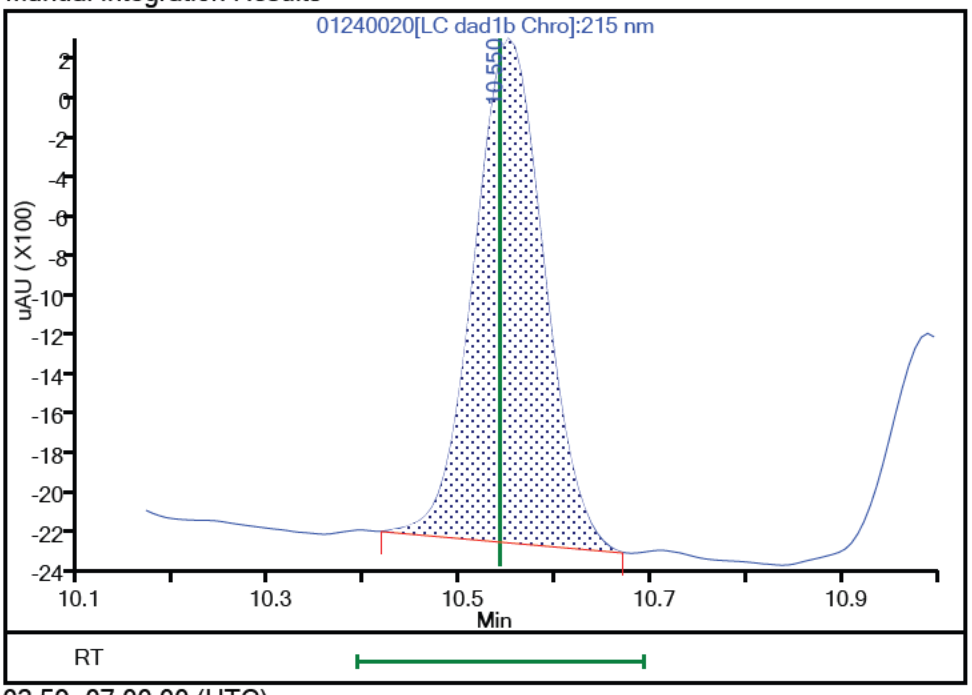
Processing Integration Results

RT: 10.55
Area: 13834
Amount: 0.221098
Amount Units: ug/mL



Manual Integration Results

RT: 10.55
Area: 12492
Amount: 0.202058
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 20:02:59 -07:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

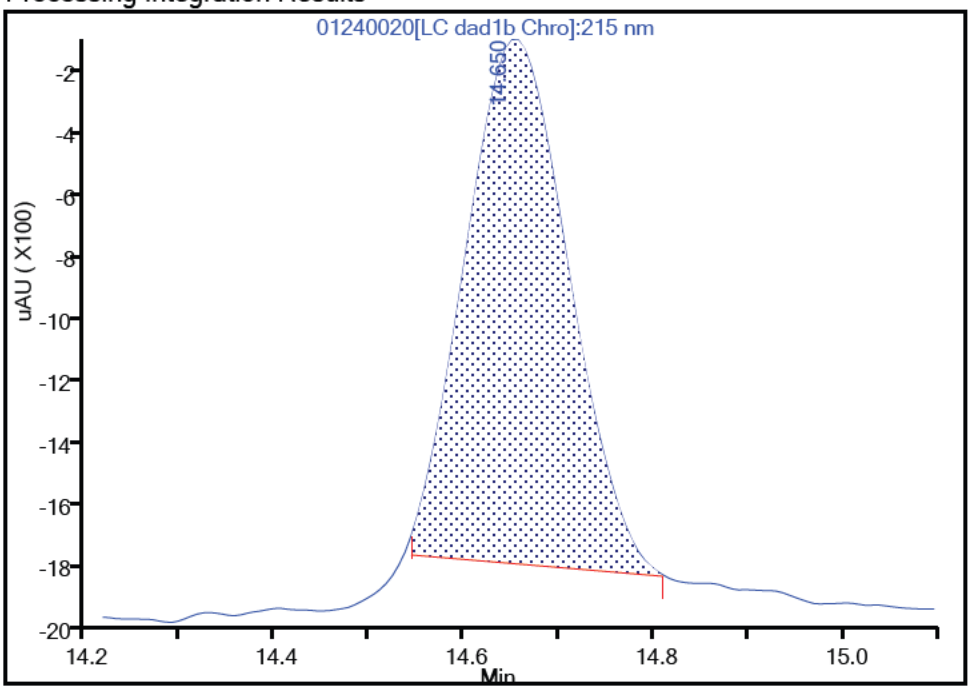
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240020.d				
Injection Date:	24-Jan-2024 19:38:07	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

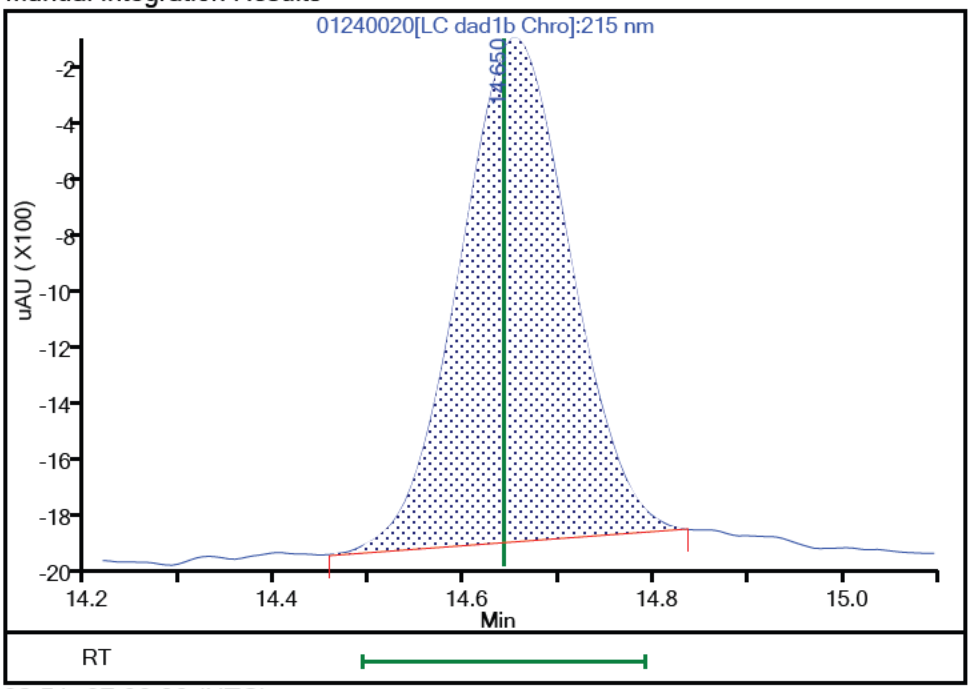
Processing Integration Results

RT: 14.65
Area: 12531
Amount: 0.175010
Amount Units: ug/mL



Manual Integration Results

RT: 14.65
Area: 14333
Amount: 0.197417
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 20:02:51 -07:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240019.D
Lims ID: IC INT/DMT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Jan-2024 19:09:02 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 1
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:14 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: LV5D Date: 24-Jan-2024 19:41:42

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.516	6.515	0.001	2064	0.0100	0.0107	
4 HMX	1	6.629	6.628	0.001	846	0.0100	0.008876	
6 DNX	1	6.836	6.842	-0.006	1667	0.0100	0.009739	
7 MNX	1	7.269	7.268	0.001	1824	0.0117	0.0121	
8 RDX	1	7.656	7.655	0.001	1078	0.0100	0.009787	
9 2,4,6-Trinitrophenol	1	7.796	7.795	0.001	591	0.0100	0.007828	
$ 10 1,2-Dinitrobenzene	1	8.609	8.615	-0.006	1315	0.0100	0.0100	
11 1,3,5-Trinitrobenzene	1	8.743	8.742	0.001	2123	0.0100	0.009827	
12 1,3-Dinitrobenzene	1	9.362	9.375	-0.013	2849	0.0100	0.009737	
13 Nitrobenzene	1	9.736	9.742	-0.006	1716	0.0100	0.009277	
14 3,5-Dinitroaniline	1	9.969	9.975	-0.006	2092	0.0100	0.0100	M
15 Tetryl	1	10.069	10.075	-0.006	1860	0.0100	0.0103	Ma
16 Nitroglycerin	2	10.536	10.542	-0.006	5850	0.1000	0.0946	M
17 2,4,6-Trinitrotoluene	1	10.976	10.982	-0.006	2122	0.0100	0.009670	
18 4-Amino-2,6-dinitrotoluene	1	11.169	11.175	-0.006	1512	0.0100	0.0101	
19 2-Amino-4,6-dinitrotoluene	1	11.422	11.428	-0.006	2148	0.0100	0.009857	
20 2,6-Dinitrotoluene	1	11.576	11.582	-0.006	1510	0.0100	0.009887	
21 2,4-Dinitrotoluene	1	11.742	11.755	-0.013	2864	0.0100	0.009783	
22 o-Nitrotoluene	1	12.556	12.562	-0.006	1445	0.0100	0.009837	
23 p-Nitrotoluene	1	12.969	12.988	-0.019	1419	0.0100	0.0100	
24 m-Nitrotoluene	1	13.542	13.548	-0.006	1967	0.0100	0.0099	
25 PETN	2	14.636	14.642	-0.006	7185	0.1000	0.0990	Ma

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00079	Amount Added:	1.00	Units: uL
8330 DMT_00016	Amount Added:	0.50	Units: uL

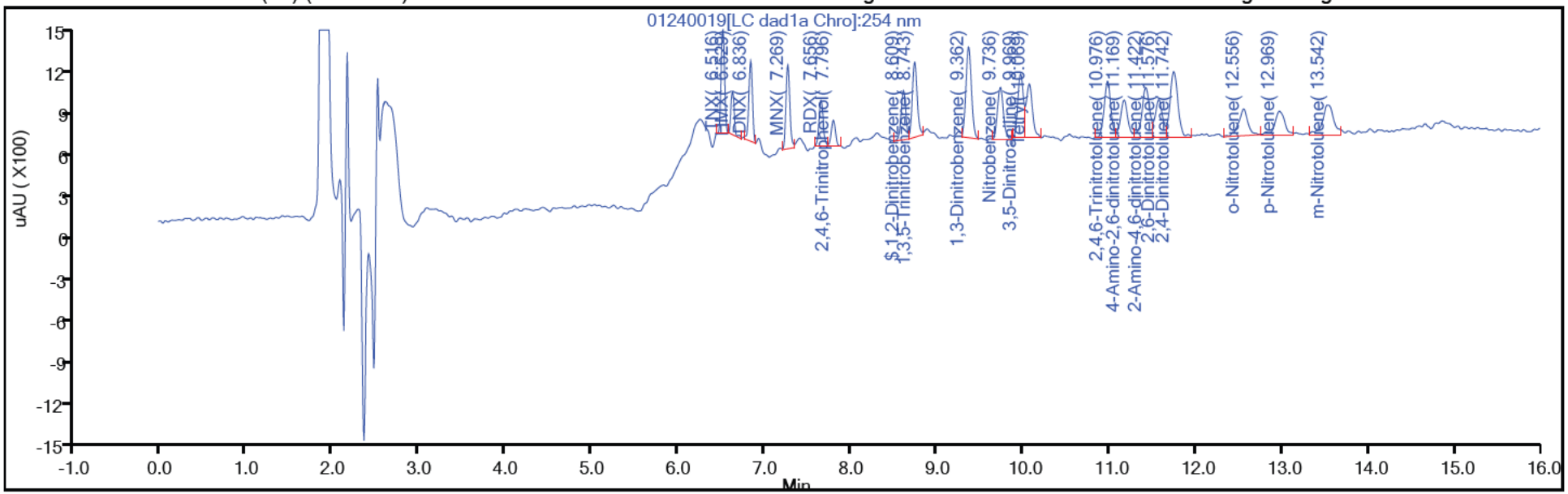
Report Date: 30-Jan-2024 16:55:14 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

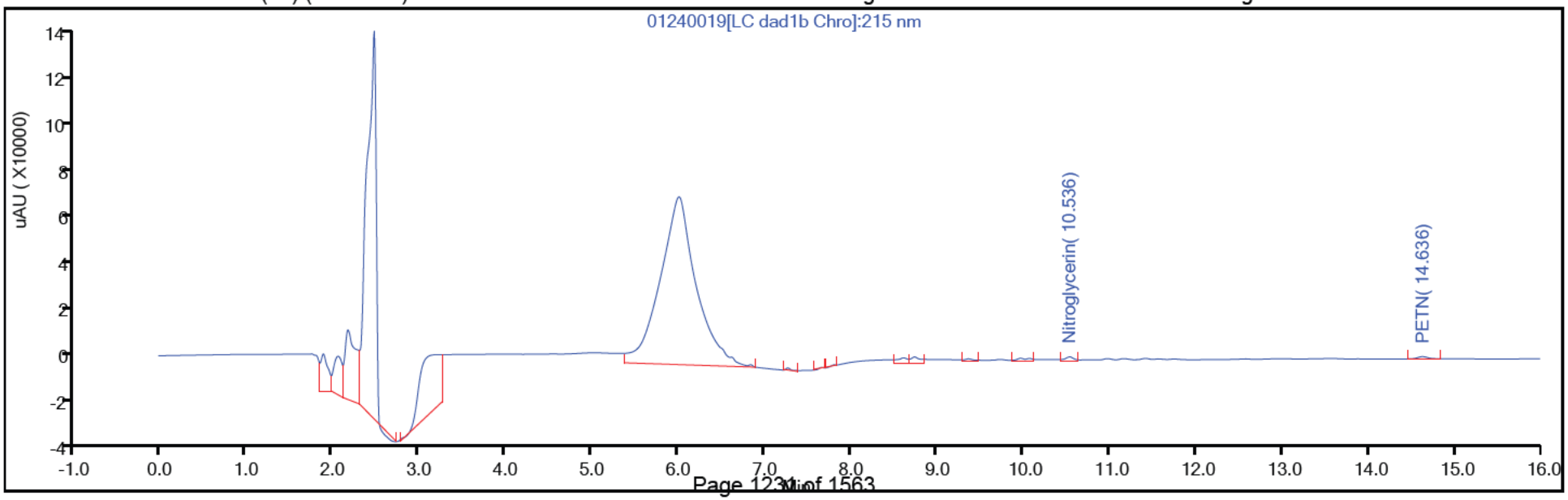
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240019.d

Injection Date:	24-Jan-2024 19:09:02	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



Manual Integration/User Assign Peak Report

Eurofins Denver

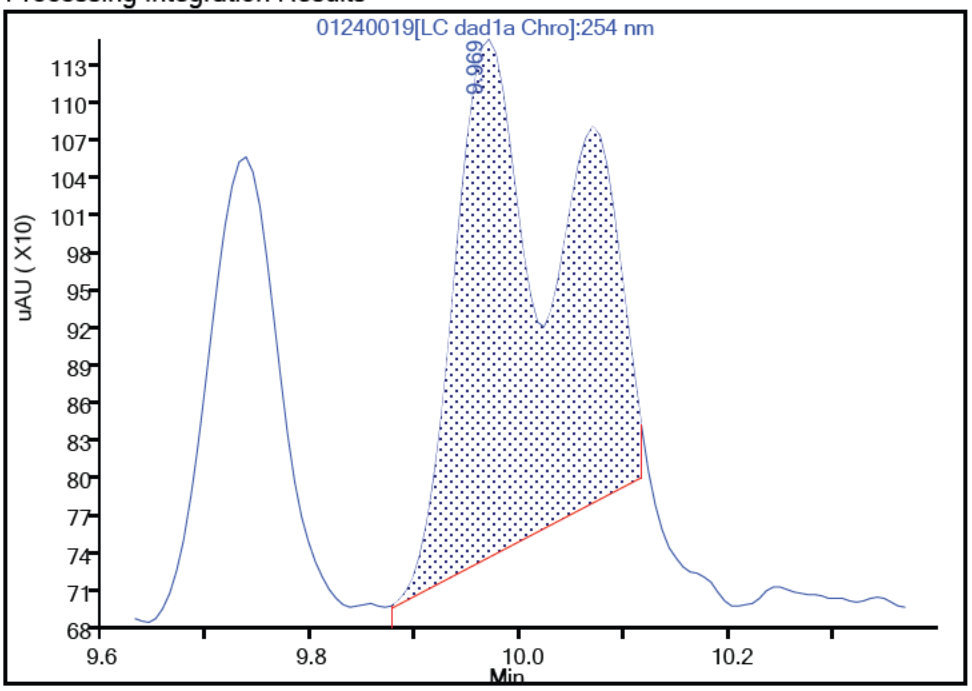
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240019.d				
Injection Date:	24-Jan-2024 19:09:02	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	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

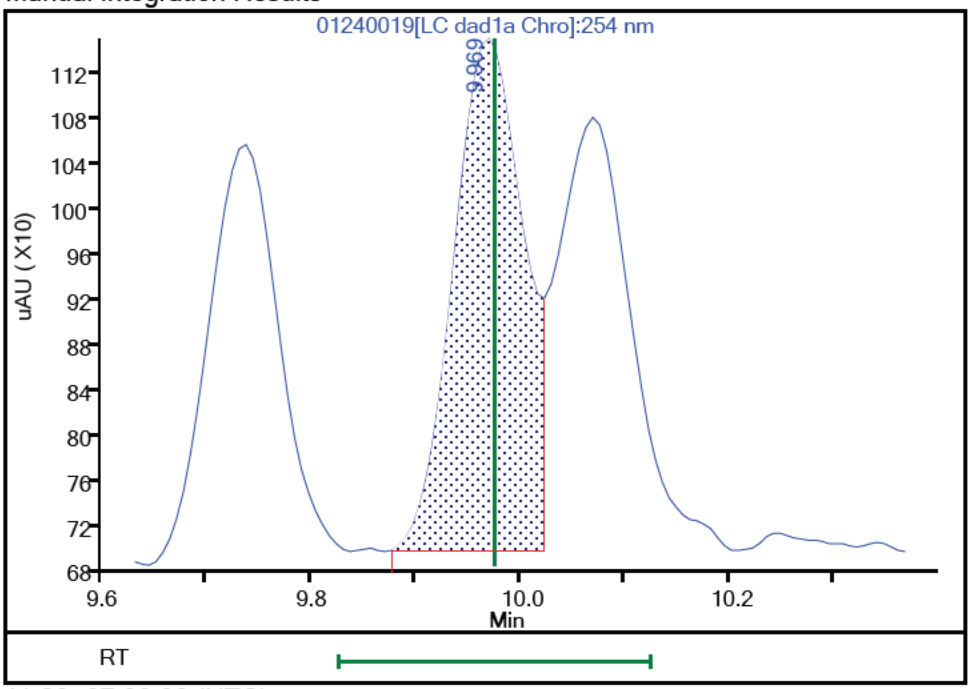
Processing Integration Results

RT: 9.97
Area: 3008
Amount: 0.013305
Amount Units: ug/mL



Manual Integration Results

RT: 9.97
Area: 2092
Amount: 0.010002
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 19:41:20 -07:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

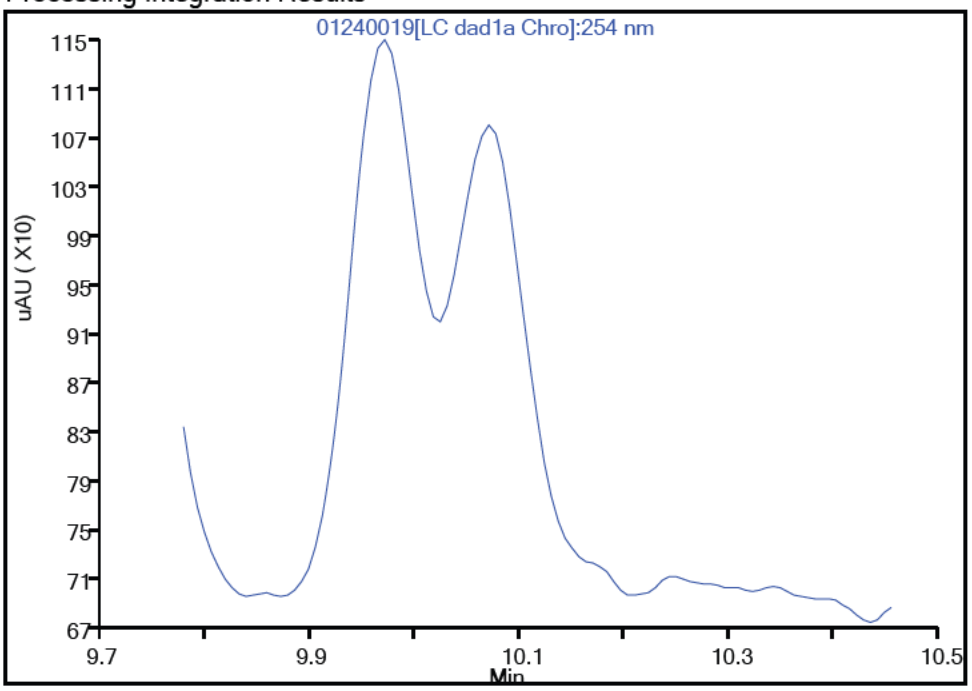
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240019.d				
Injection Date:	24-Jan-2024 19:09:02	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8

Signal: 1

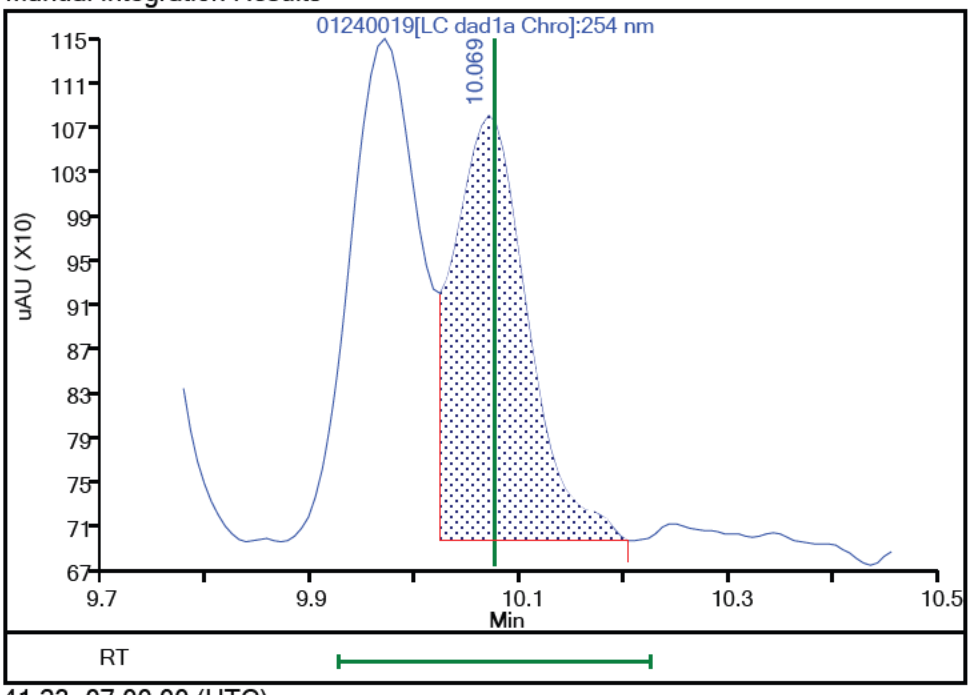
Not Detected
Expected RT: 10.07

Processing Integration Results



Manual Integration Results

RT: 10.07
Area: 1860
Amount: 0.010284
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 19:41:23 -07:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

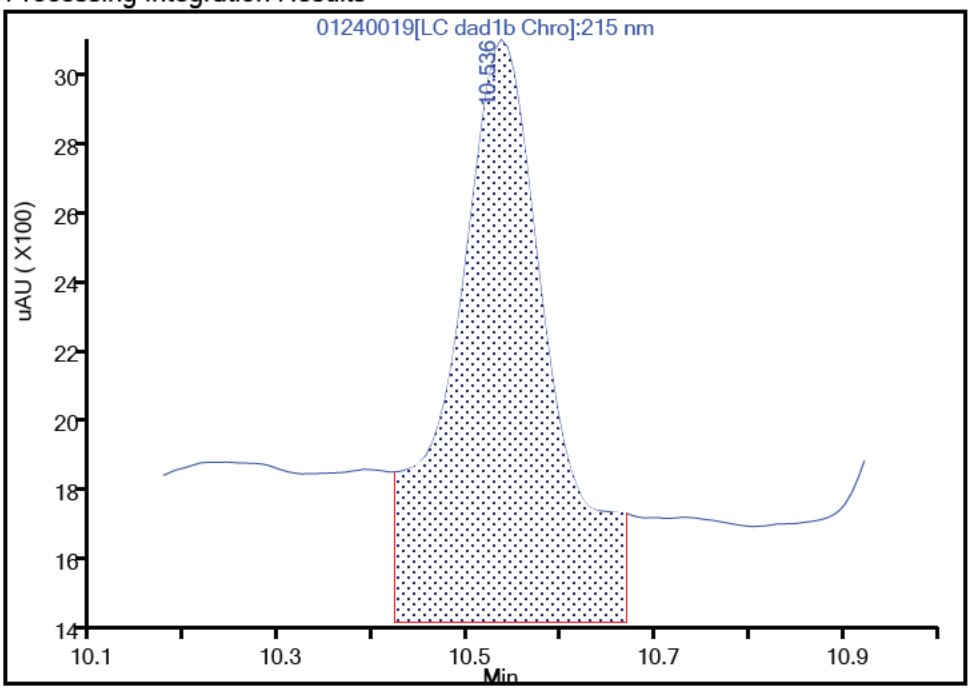
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240019.d				
Injection Date:	24-Jan-2024 19:09:02	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

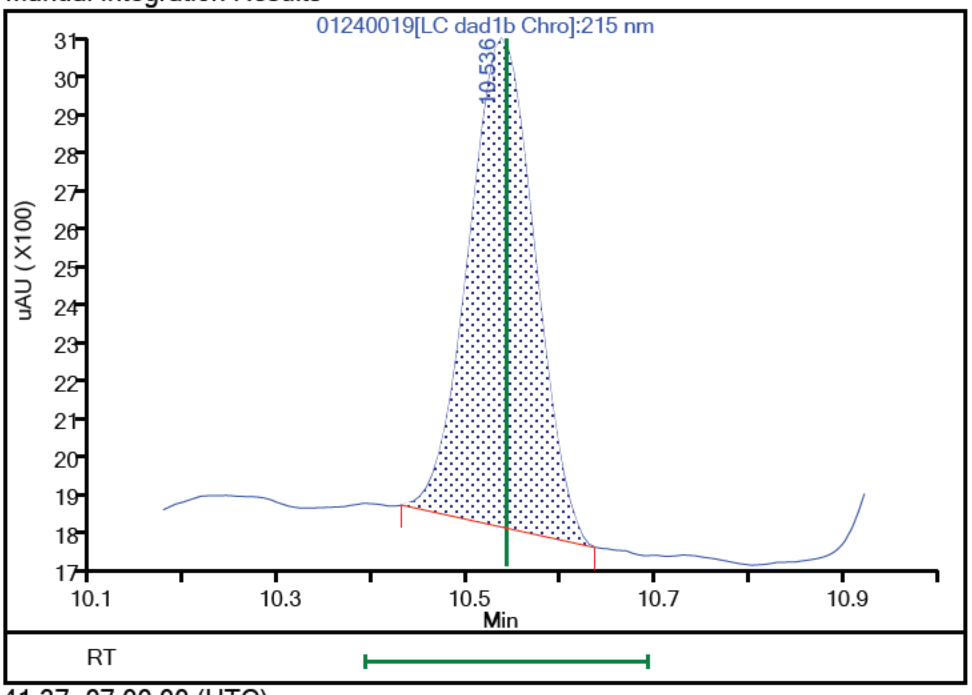
Processing Integration Results

RT: 10.54
Area: 10893
Amount: 0.152252
Amount Units: ug/mL



Manual Integration Results

RT: 10.54
Area: 5850
Amount: 0.094624
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 19:41:37 -07:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

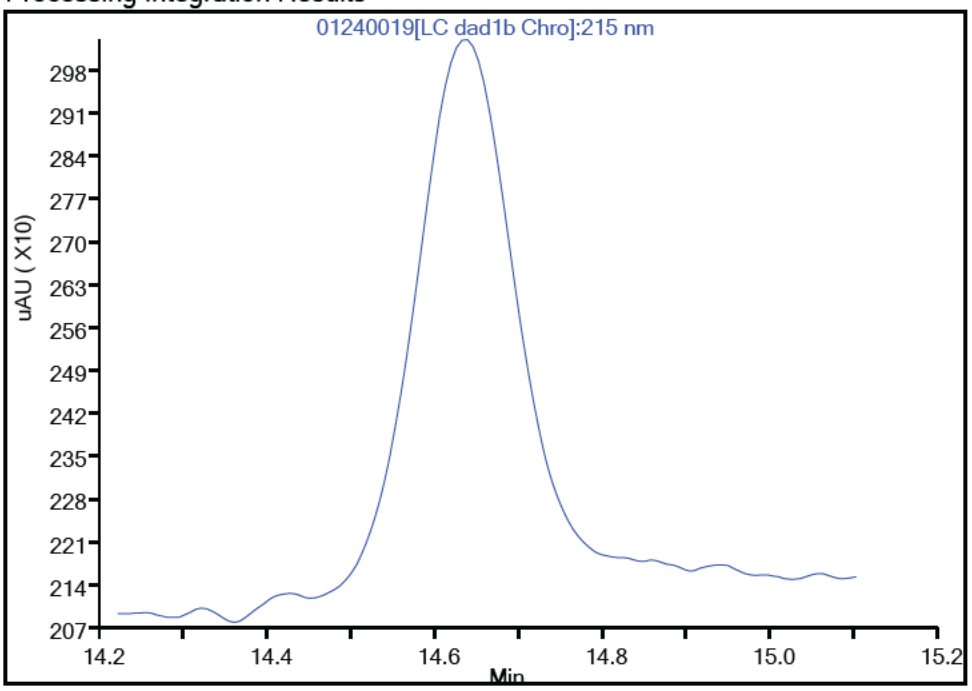
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240019.d				
Injection Date:	24-Jan-2024 19:09:02	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

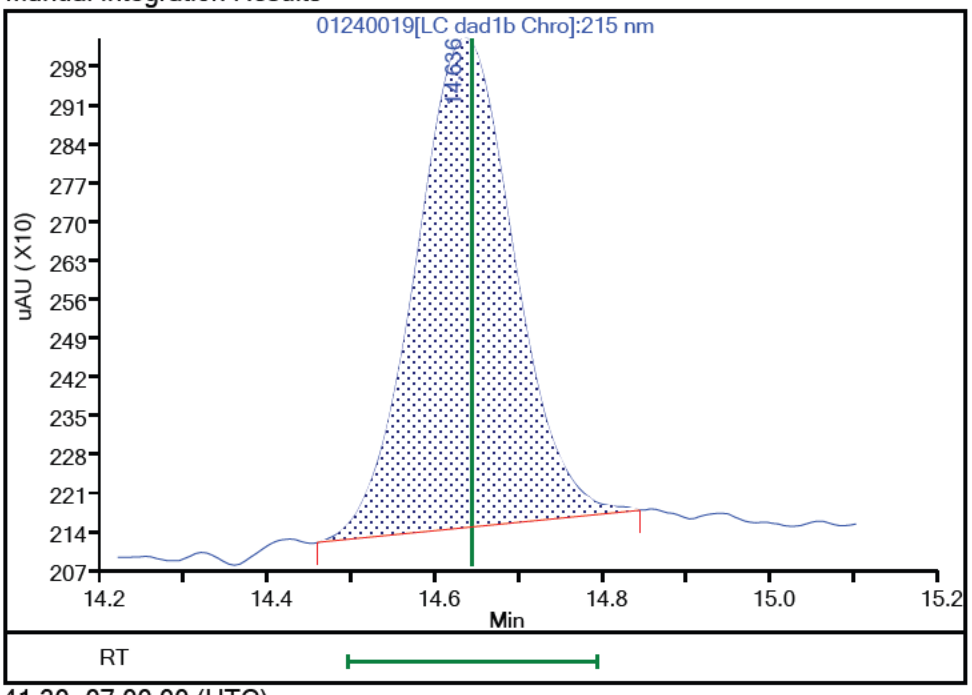
Not Detected
Expected RT: 14.64

Processing Integration Results



Manual Integration Results

RT: 14.64
Area: 7185
Amount: 0.098963
Amount Units: ug/mL



Reviewer: LV5D, 24-Jan-2024 19:41:30 -07:00:00 (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

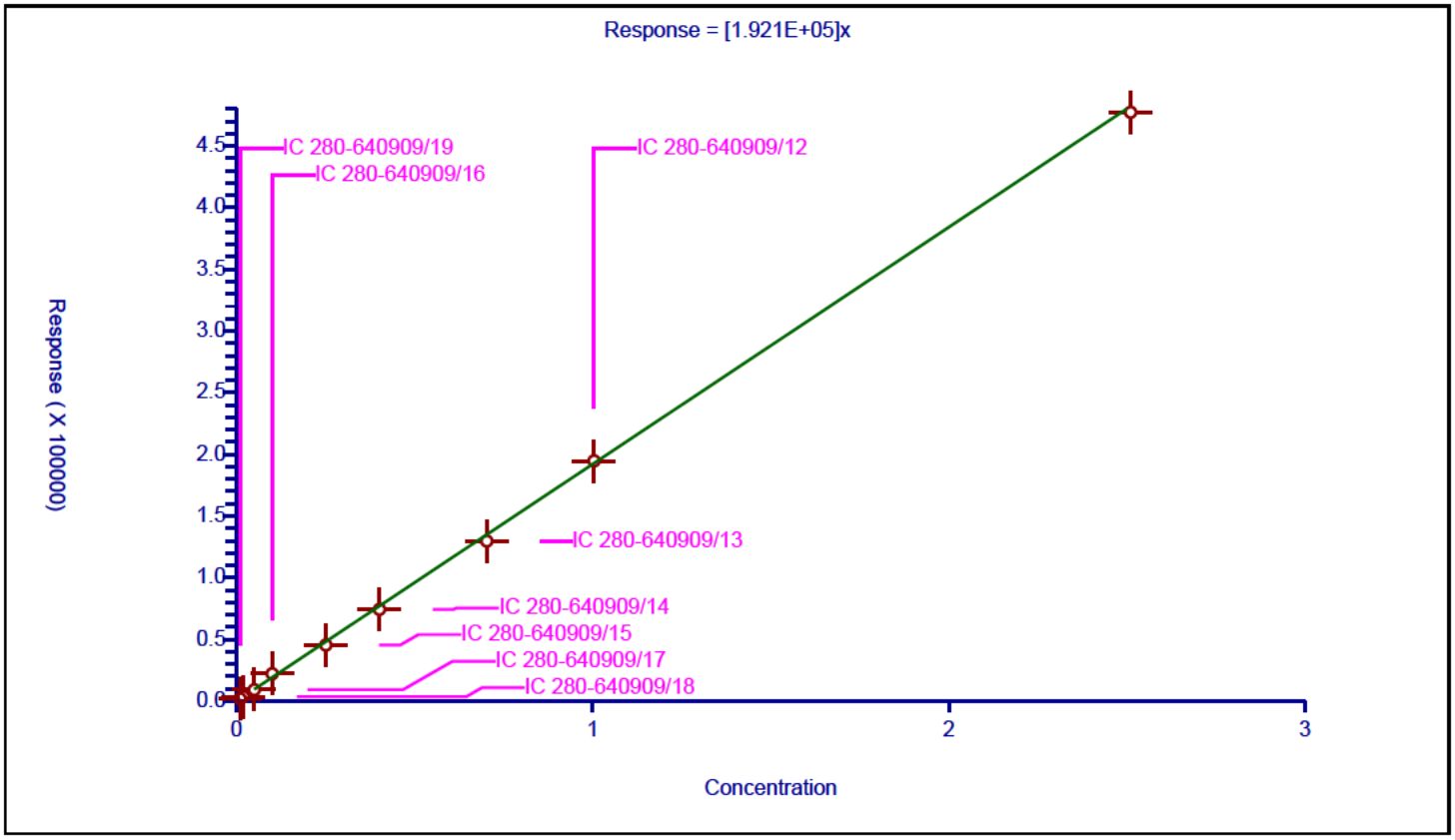
Curve Coefficients

Intercept:	0
Slope:	1.921E+05

Error Coefficients

Relative Standard Deviation:	6.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01004	2064.0			205577.689243	Y
2	IC 280-640909/18	0.02008	3682.0			183366.533865	Y
3	IC 280-640909/17	0.0502	9233.0			183924.302789	Y
4	IC 280-640909/16	0.1004	22202.0			221135.458167	Y
5	IC 280-640909/15	0.251	45422.0			180964.143426	Y
6	IC 280-640909/14	0.4016	74362.0			185164.342629	Y
7	IC 280-640909/13	0.7028	129718.0			184573.136027	Y
8	IC 280-640909/12	1.004	194729.0			193953.187251	Y
9	IC 280-640909/11	2.51	477216.0			190125.896414	Y



Calibration / HMX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

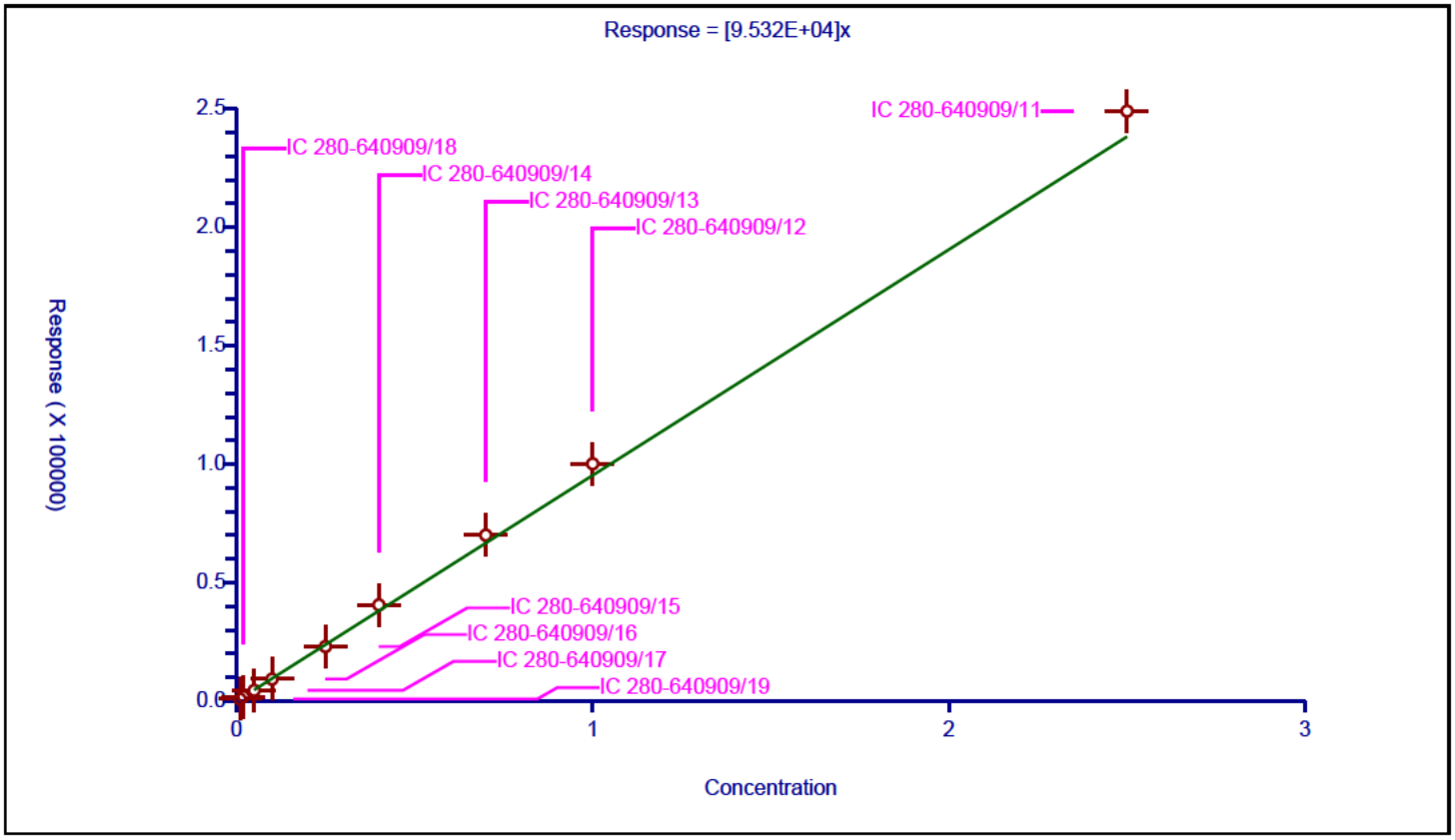
Curve Coefficients

Intercept:	0
Slope:	9.532E+04

Error Coefficients

Relative Standard Deviation:	6.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	846.0			84600.0	Y
2	IC 280-640909/18	0.02	1927.0			96350.0	Y
3	IC 280-640909/17	0.05	4523.0			90460.0	Y
4	IC 280-640909/16	0.1	9280.0			92800.0	Y
5	IC 280-640909/15	0.25	23043.0			92172.0	Y
6	IC 280-640909/14	0.4	40621.0			101552.5	Y
7	IC 280-640909/13	0.7	70062.0			100088.571429	Y
8	IC 280-640909/12	1.0	100194.0			100194.0	Y
9	IC 280-640909/11	2.5	249051.0			99620.4	Y



Calibration / DNX

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

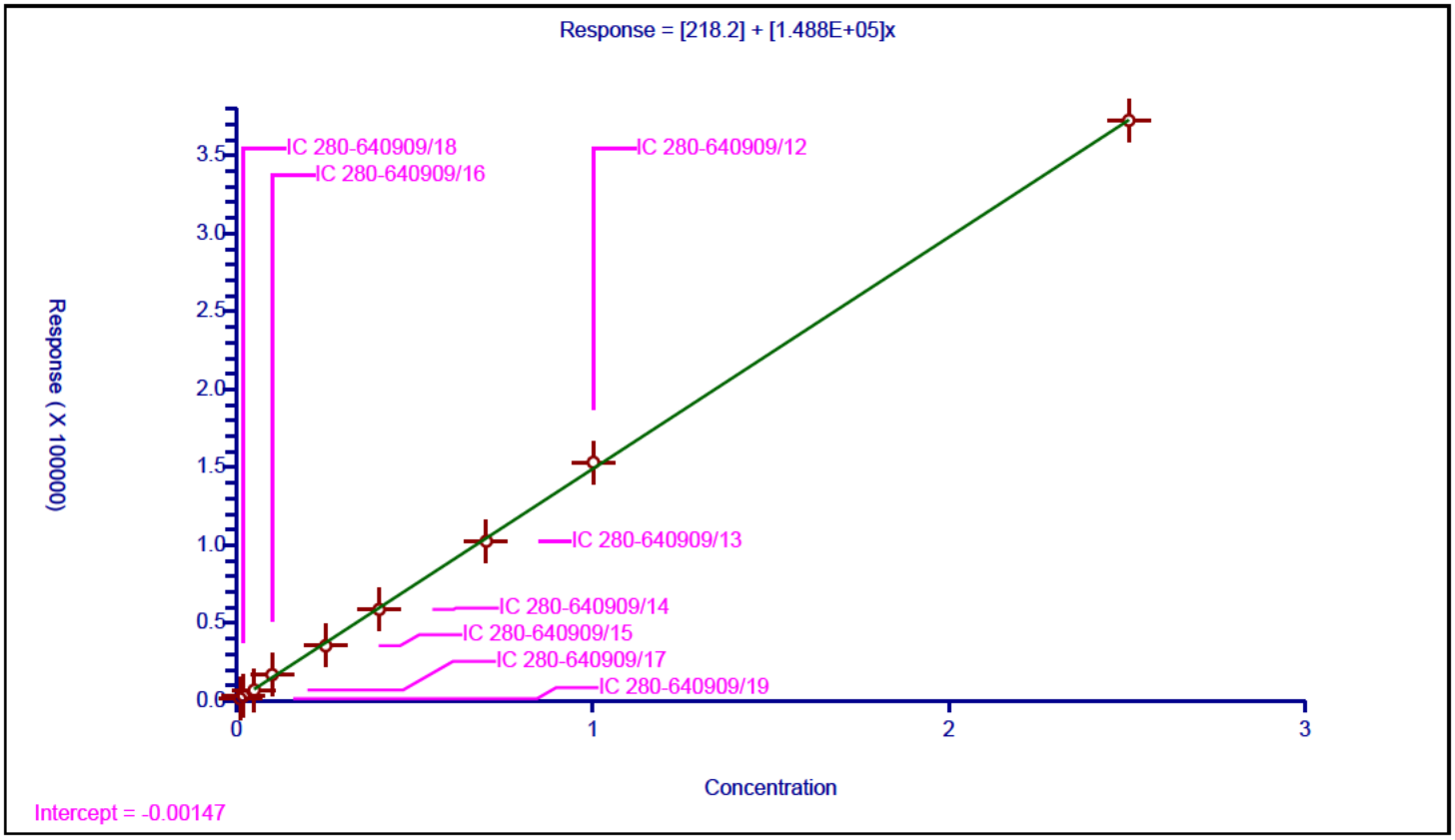
Curve Coefficients

Intercept:	218.2
Slope:	1.488E+05

Error Coefficients

Relative Standard Deviation:	6.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01002	1667.0			166367.265469	Y
2	IC 280-640909/18	0.02004	3348.0			167065.868263	Y
3	IC 280-640909/17	0.0501	7072.0			141157.684631	Y
4	IC 280-640909/16	0.1002	16955.0			169211.576846	Y
5	IC 280-640909/15	0.2505	35481.0			141640.718563	Y
6	IC 280-640909/14	0.4008	58808.0			146726.546906	Y
7	IC 280-640909/13	0.7014	102612.0			146295.97947	Y
8	IC 280-640909/12	1.002	153215.0			152909.181637	Y
9	IC 280-640909/11	2.505	372595.0			148740.518962	Y



Calibration / MNX

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

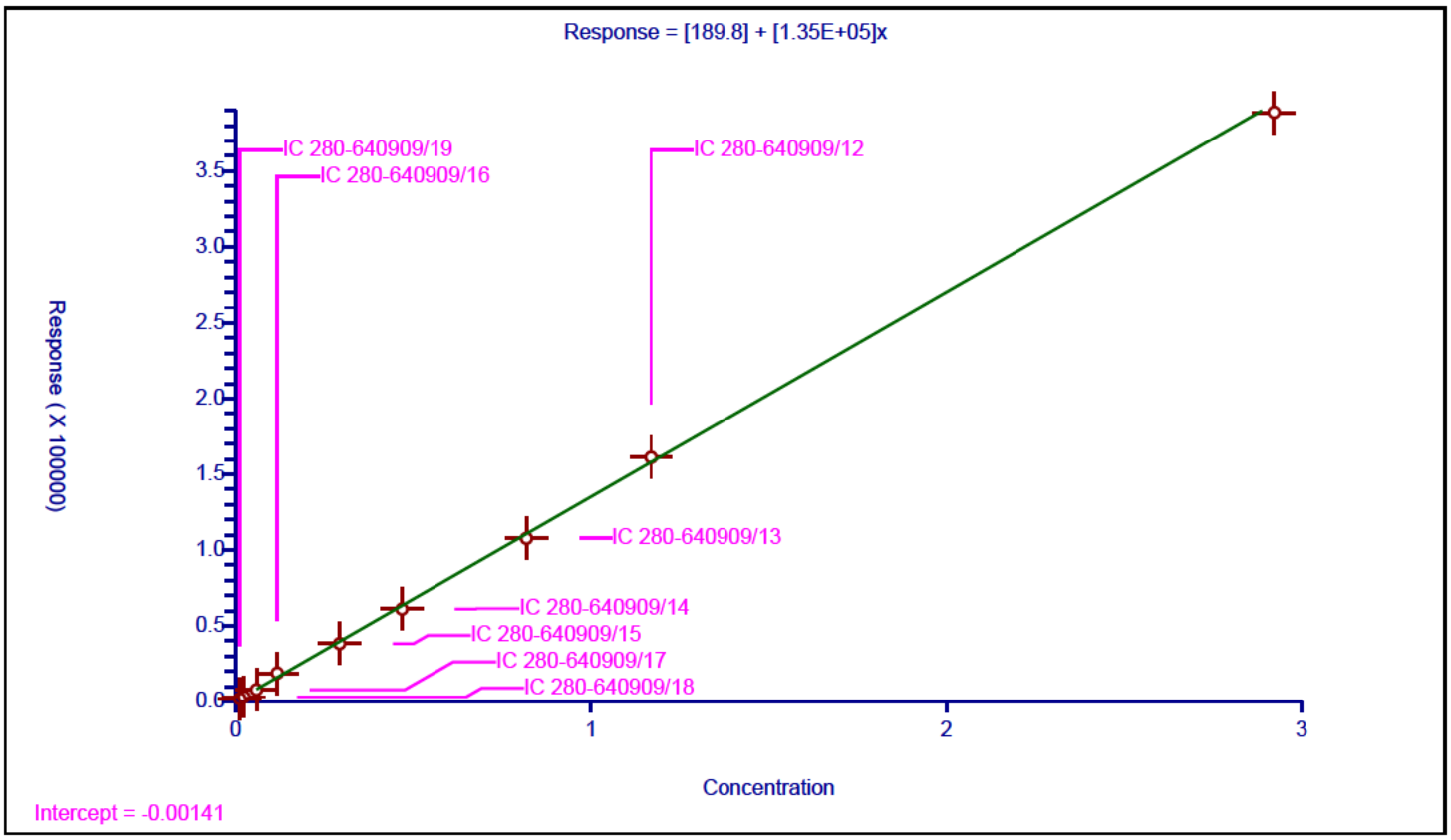
Curve Coefficients

Intercept:	189.8
Slope:	1.35E+05

Error Coefficients

Relative Standard Deviation:	8.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01169	1824.0			156030.795552	Y
2	IC 280-640909/18	0.02338	3068.0			131223.26775	Y
3	IC 280-640909/17	0.05845	7789.0			133259.195894	Y
4	IC 280-640909/16	0.1169	18812.0			160923.866553	Y
5	IC 280-640909/15	0.29225	38312.0			131093.242087	Y
6	IC 280-640909/14	0.4676	61027.0			130511.120616	Y
7	IC 280-640909/13	0.8183	107618.0			131514.114628	Y
8	IC 280-640909/12	1.169	161112.0			137820.359281	Y
9	IC 280-640909/11	2.9225	388891.0			133067.9213	Y



Calibration / RDX

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

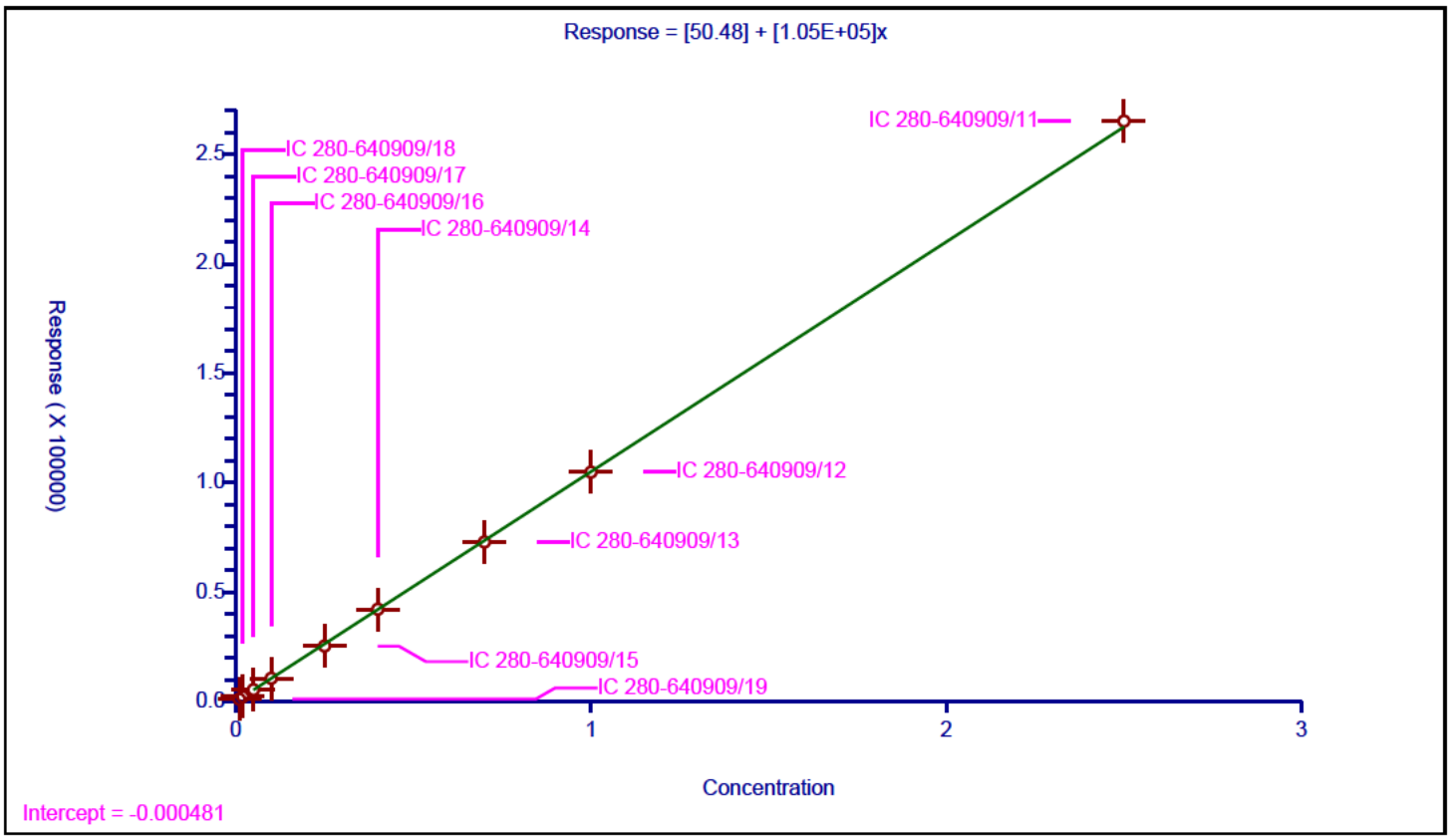
Curve Coefficients

Intercept:	50.48
Slope:	1.05E+05

Error Coefficients

Relative Standard Deviation:	2.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	1078.0			107800.0	Y
2	IC 280-640909/18	0.02	2233.0			111650.0	Y
3	IC 280-640909/17	0.05	5374.0			107480.0	Y
4	IC 280-640909/16	0.1	10585.0			105850.0	Y
5	IC 280-640909/15	0.25	25336.0			101344.0	Y
6	IC 280-640909/14	0.4	42148.0			105370.0	Y
7	IC 280-640909/13	0.7	72872.0			104102.857143	Y
8	IC 280-640909/12	1.0	104798.0			104798.0	Y
9	IC 280-640909/11	2.5	265208.0			106083.2	Y



Calibration / 2,4,6-Trinitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

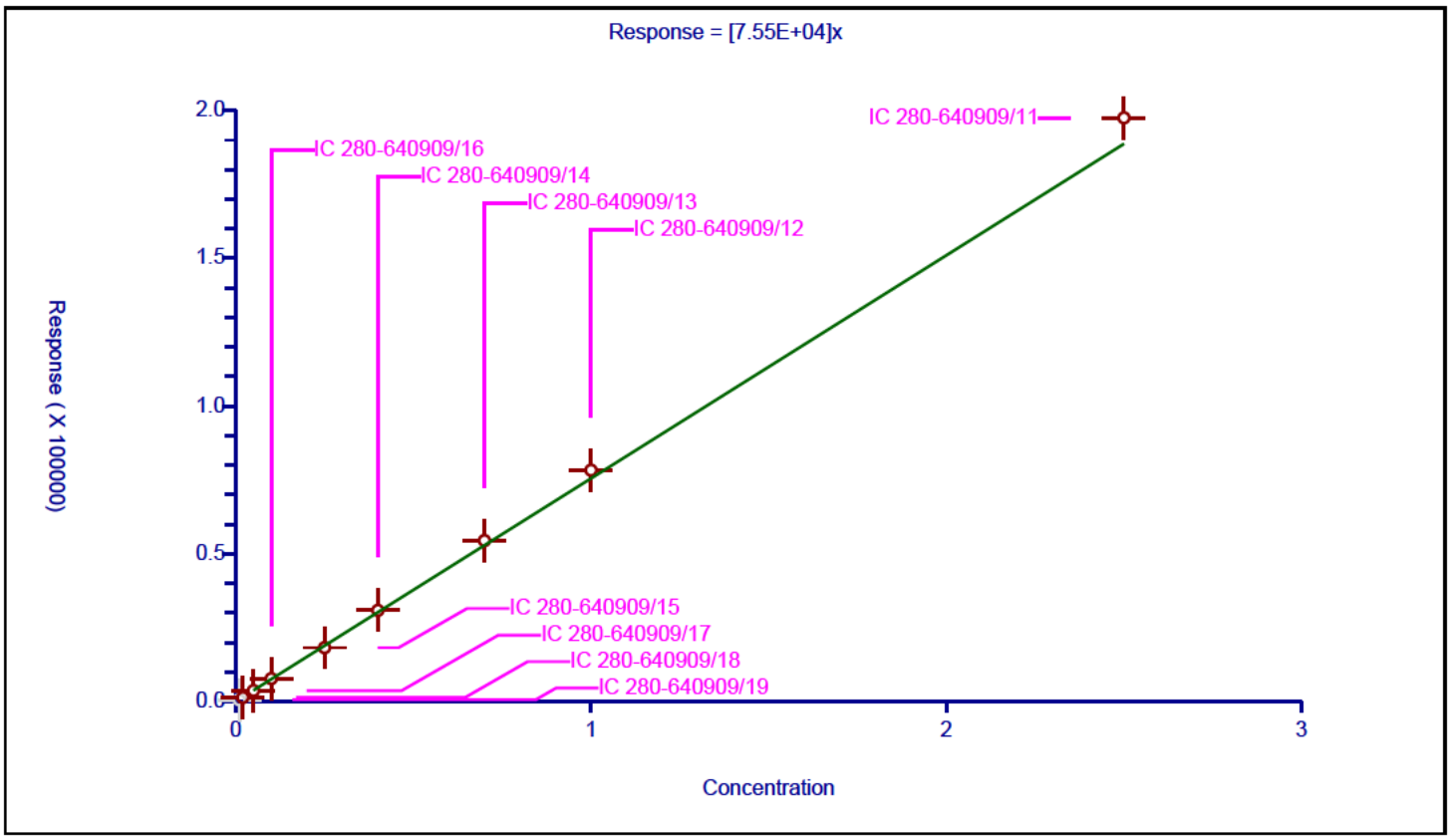
Curve Coefficients

Intercept:	0
Slope:	7.55E+04

Error Coefficients

Relative Standard Deviation:	5.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	591.0			59100.0	N
2	IC 280-640909/18	0.02	1358.0			67900.0	Y
3	IC 280-640909/17	0.05	3686.0			73720.0	Y
4	IC 280-640909/16	0.1	7737.0			77370.0	Y
5	IC 280-640909/15	0.25	18207.0			72828.0	Y
6	IC 280-640909/14	0.4	30835.0			77087.5	Y
7	IC 280-640909/13	0.7	54462.0			77802.857143	Y
8	IC 280-640909/12	1.0	78287.0			78287.0	Y
9	IC 280-640909/11	2.5	197561.0			79024.4	Y



Calibration / 1,2-Dinitrobenzene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

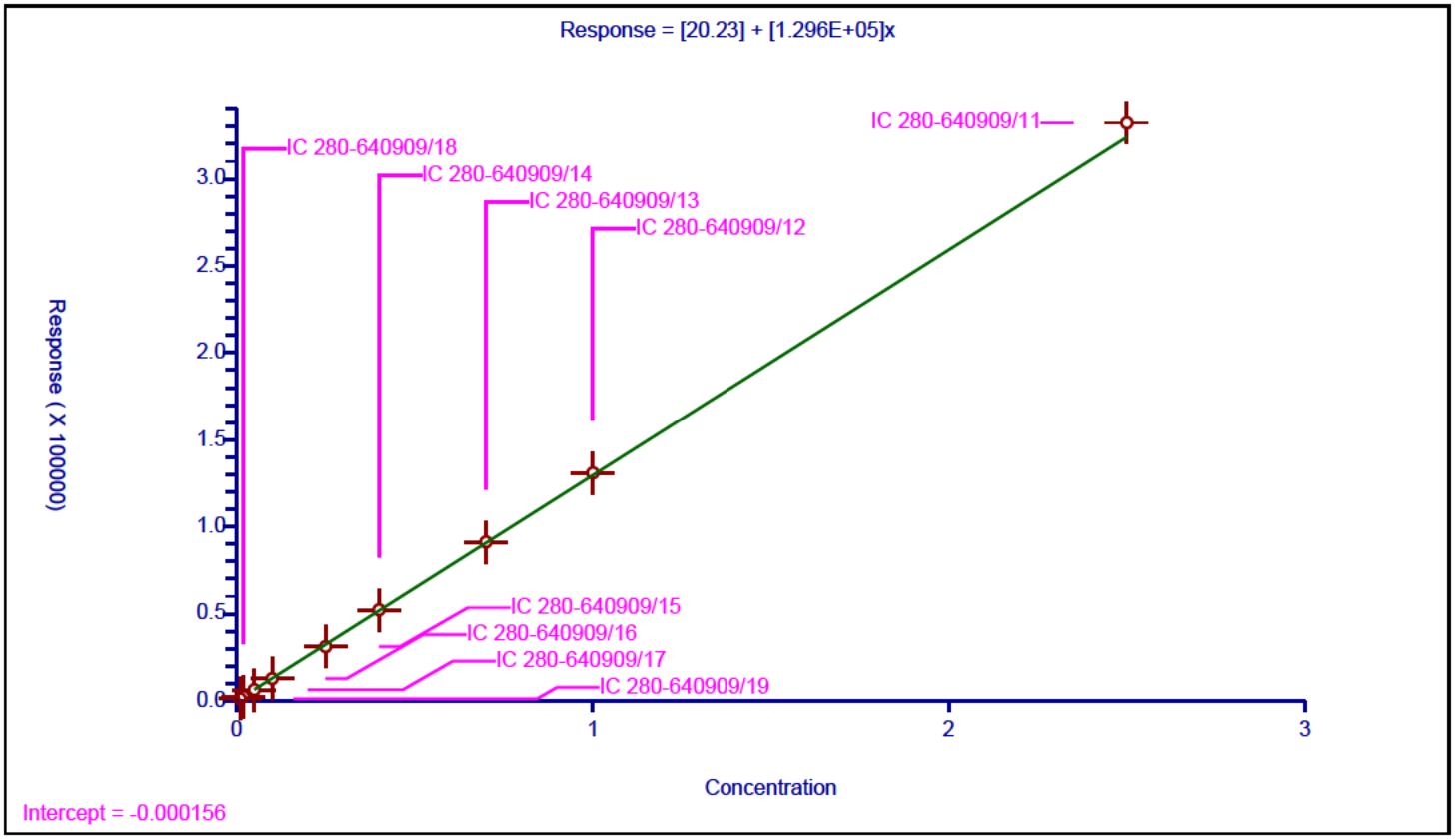
Curve Coefficients

Intercept:	20.23
Slope:	1.296E+05

Error Coefficients

Relative Standard Deviation:	1.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	1315.0			131500.0	Y
2	IC 280-640909/18	0.02	2637.0			131850.0	Y
3	IC 280-640909/17	0.05	6455.0			129100.0	Y
4	IC 280-640909/16	0.1	12803.0			128030.0	Y
5	IC 280-640909/15	0.25	31197.0			124788.0	Y
6	IC 280-640909/14	0.4	52330.0			130825.0	Y
7	IC 280-640909/13	0.7	91271.0			130387.142857	Y
8	IC 280-640909/12	1.0	130923.0			130923.0	Y
9	IC 280-640909/11	2.5	332166.0			132866.4	Y



Calibration / 1,3,5-Trinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

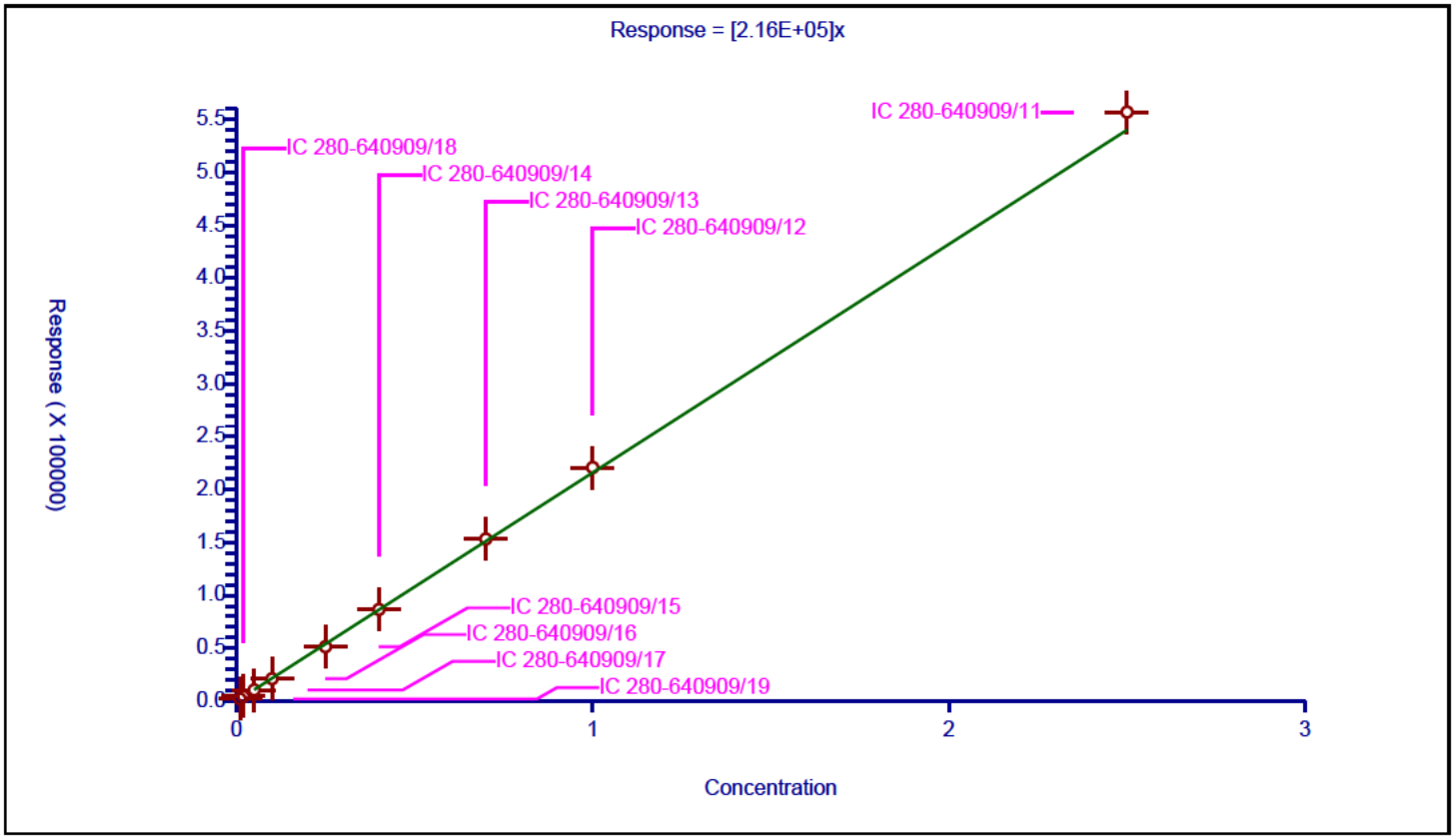
Curve Coefficients

Intercept:	0
Slope:	2.16E+05

Error Coefficients

Relative Standard Deviation:	2.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	2123.0			212300.0	Y
2	IC 280-640909/18	0.02	4461.0			223050.0	Y
3	IC 280-640909/17	0.05	10602.0			212040.0	Y
4	IC 280-640909/16	0.1	21160.0			211600.0	Y
5	IC 280-640909/15	0.25	51468.0			205872.0	Y
6	IC 280-640909/14	0.4	86668.0			216670.0	Y
7	IC 280-640909/13	0.7	153311.0			219015.714286	Y
8	IC 280-640909/12	1.0	220927.0			220927.0	Y
9	IC 280-640909/11	2.5	556997.0			222798.8	Y



Calibration / 1,3-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

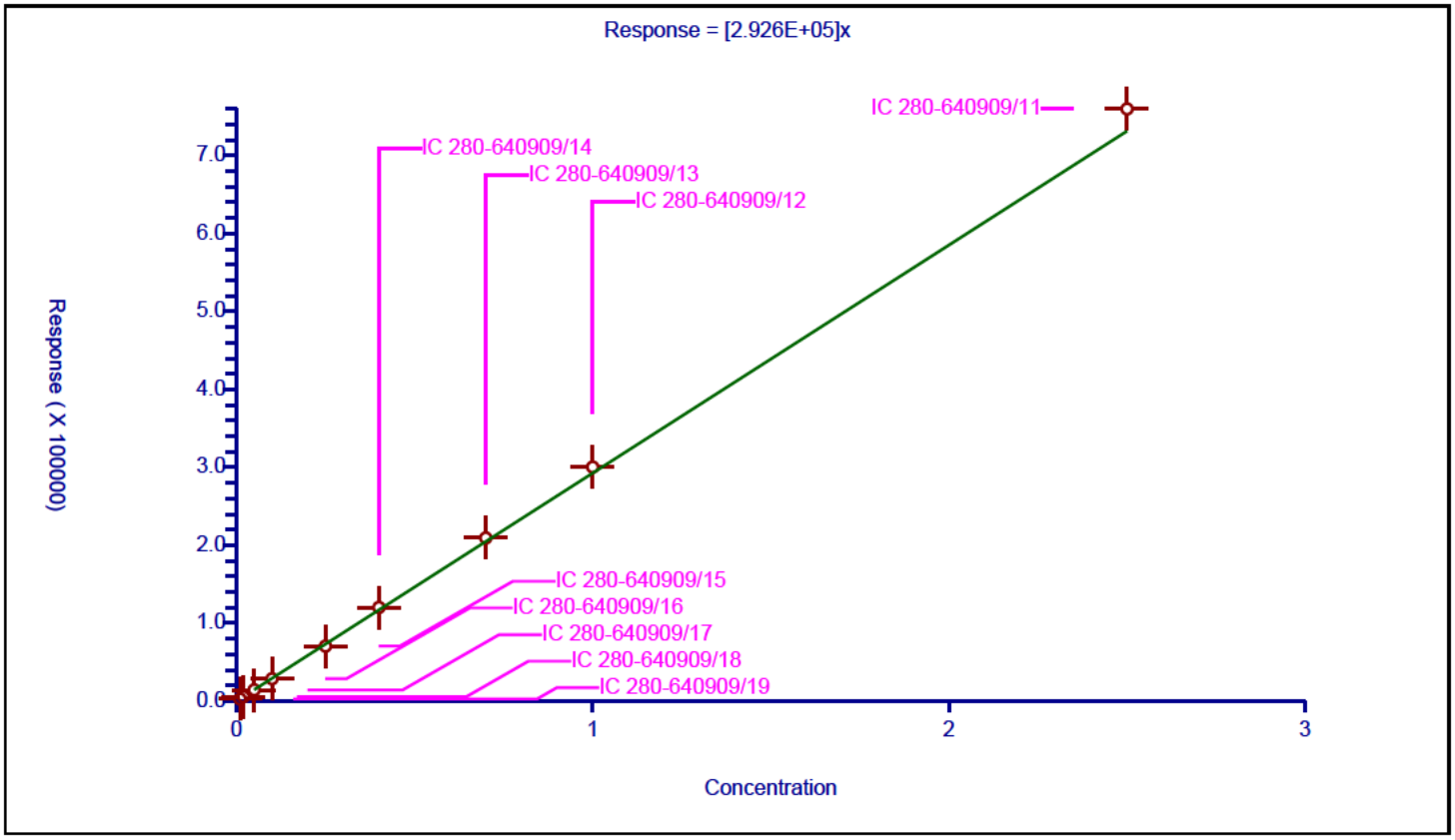
Curve Coefficients

Intercept:	0
Slope:	2.926E+05

Error Coefficients

Relative Standard Deviation:	2.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	2849.0			284900.0	Y
2	IC 280-640909/18	0.02	5712.0			285600.0	Y
3	IC 280-640909/17	0.05	14477.0			289540.0	Y
4	IC 280-640909/16	0.1	28701.0			287010.0	Y
5	IC 280-640909/15	0.25	70589.0			282356.0	Y
6	IC 280-640909/14	0.4	120218.0			300545.0	Y
7	IC 280-640909/13	0.7	209420.0			299171.428571	Y
8	IC 280-640909/12	1.0	300390.0			300390.0	Y
9	IC 280-640909/11	2.5	759919.0			303967.6	Y



Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

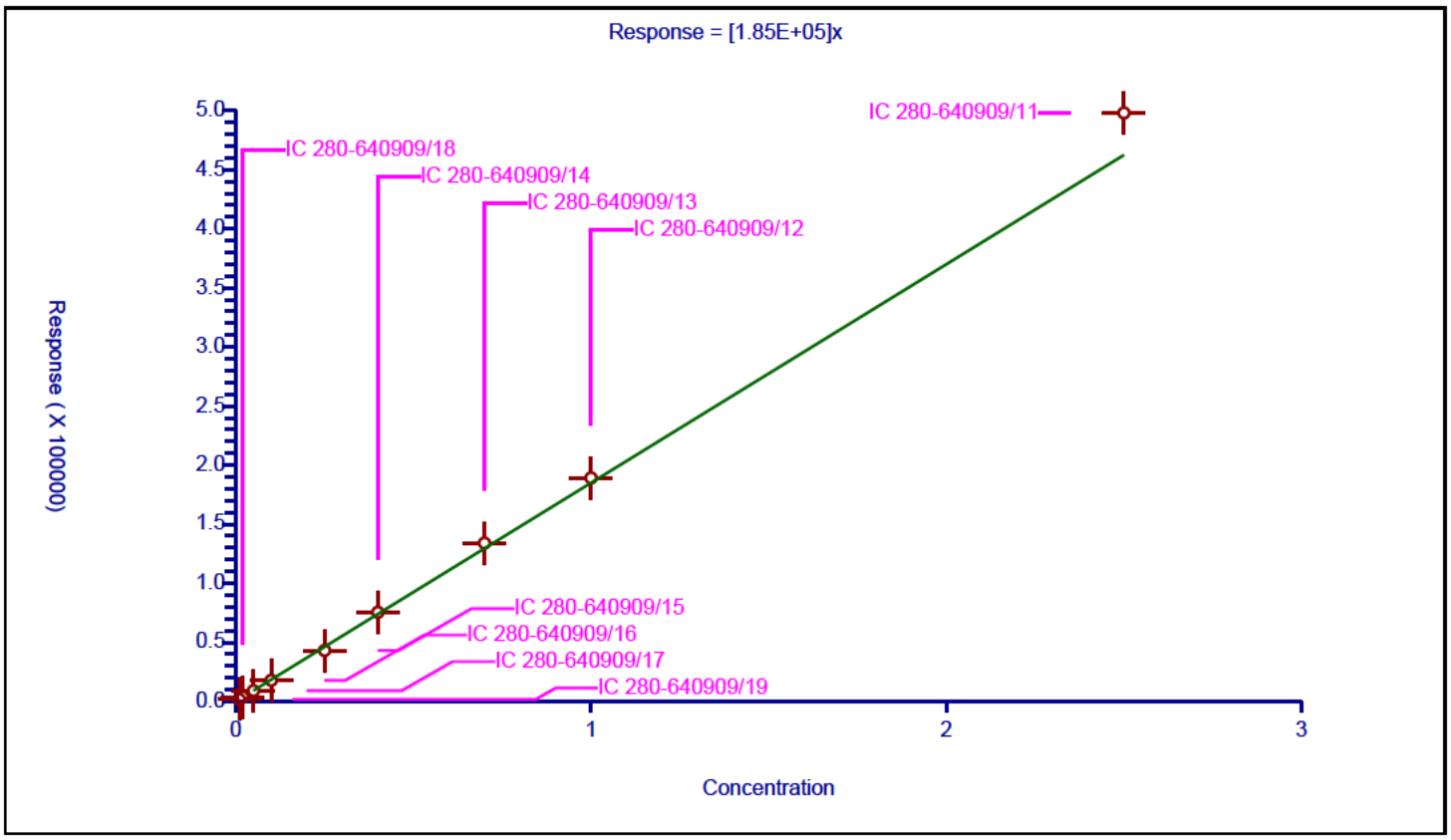
Curve Coefficients

Intercept:	0
Slope:	1.85E+05

Error Coefficients

Relative Standard Deviation:	5.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	1716.0			171600.0	Y
2	IC 280-640909/18	0.02	3831.0			191550.0	Y
3	IC 280-640909/17	0.05	9062.0			181240.0	Y
4	IC 280-640909/16	0.1	17916.0			179160.0	Y
5	IC 280-640909/15	0.25	43193.0			172772.0	Y
6	IC 280-640909/14	0.4	75440.0			188600.0	Y
7	IC 280-640909/13	0.7	134066.0			191522.857143	Y
8	IC 280-640909/12	1.0	189183.0			189183.0	Y
9	IC 280-640909/11	2.5	498054.0			199221.6	Y



Calibration / 3,5-Dinitroaniline

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

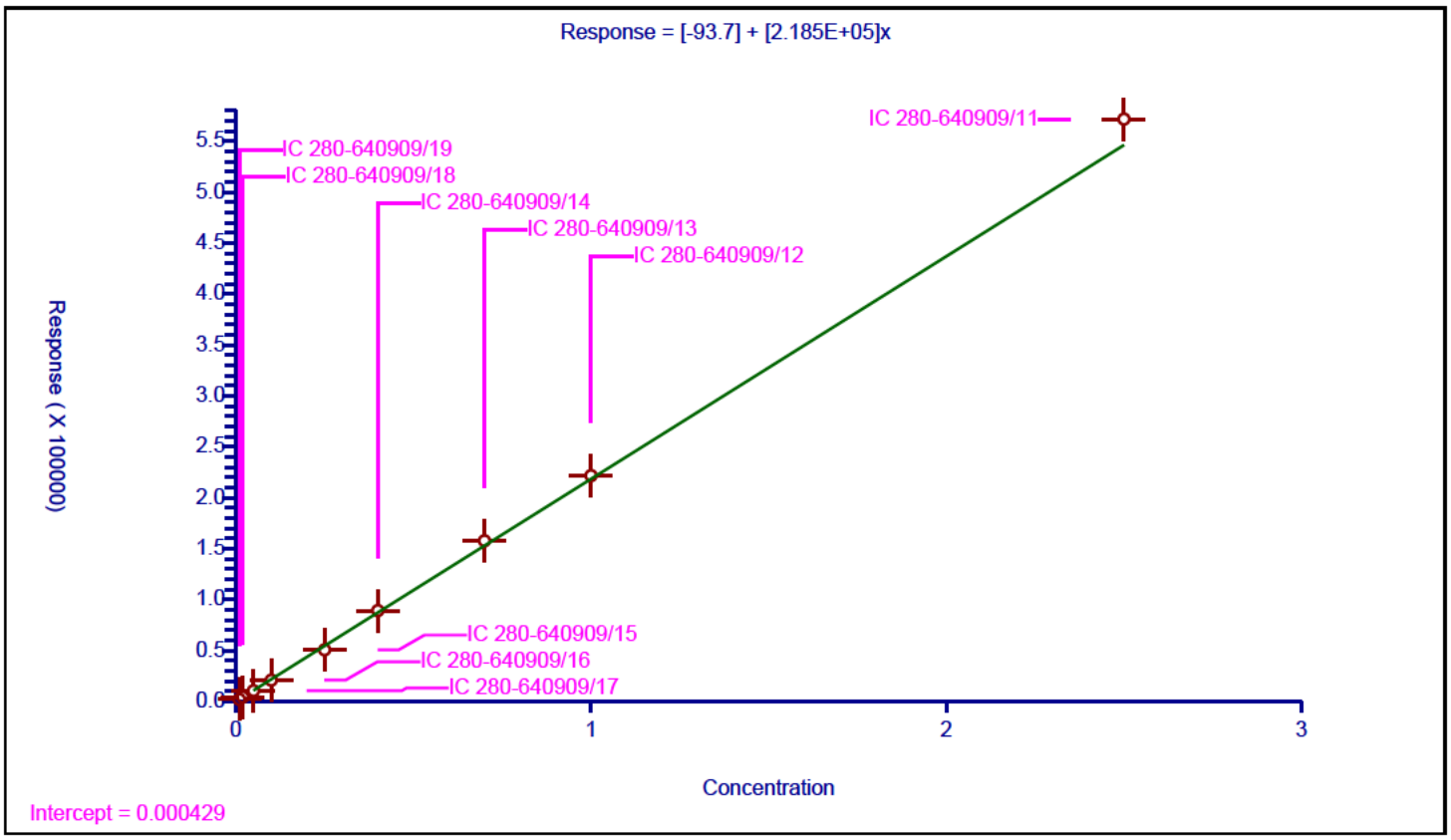
Curve Coefficients

Intercept:	-93.7
Slope:	2.185E+05

Error Coefficients

Relative Standard Deviation:	4.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	2092.0			209200.0	Y
2	IC 280-640909/18	0.02	4370.0			218500.0	Y
3	IC 280-640909/17	0.05	10527.0			210540.0	Y
4	IC 280-640909/16	0.1	20916.0			209160.0	Y
5	IC 280-640909/15	0.25	50676.0			202704.0	Y
6	IC 280-640909/14	0.4	89232.0			223080.0	Y
7	IC 280-640909/13	0.7	157744.0			225348.571429	Y
8	IC 280-640909/12	1.0	221713.0			221713.0	Y
9	IC 280-640909/11	2.5	571667.0			228666.8	Y



Calibration / Tetryl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

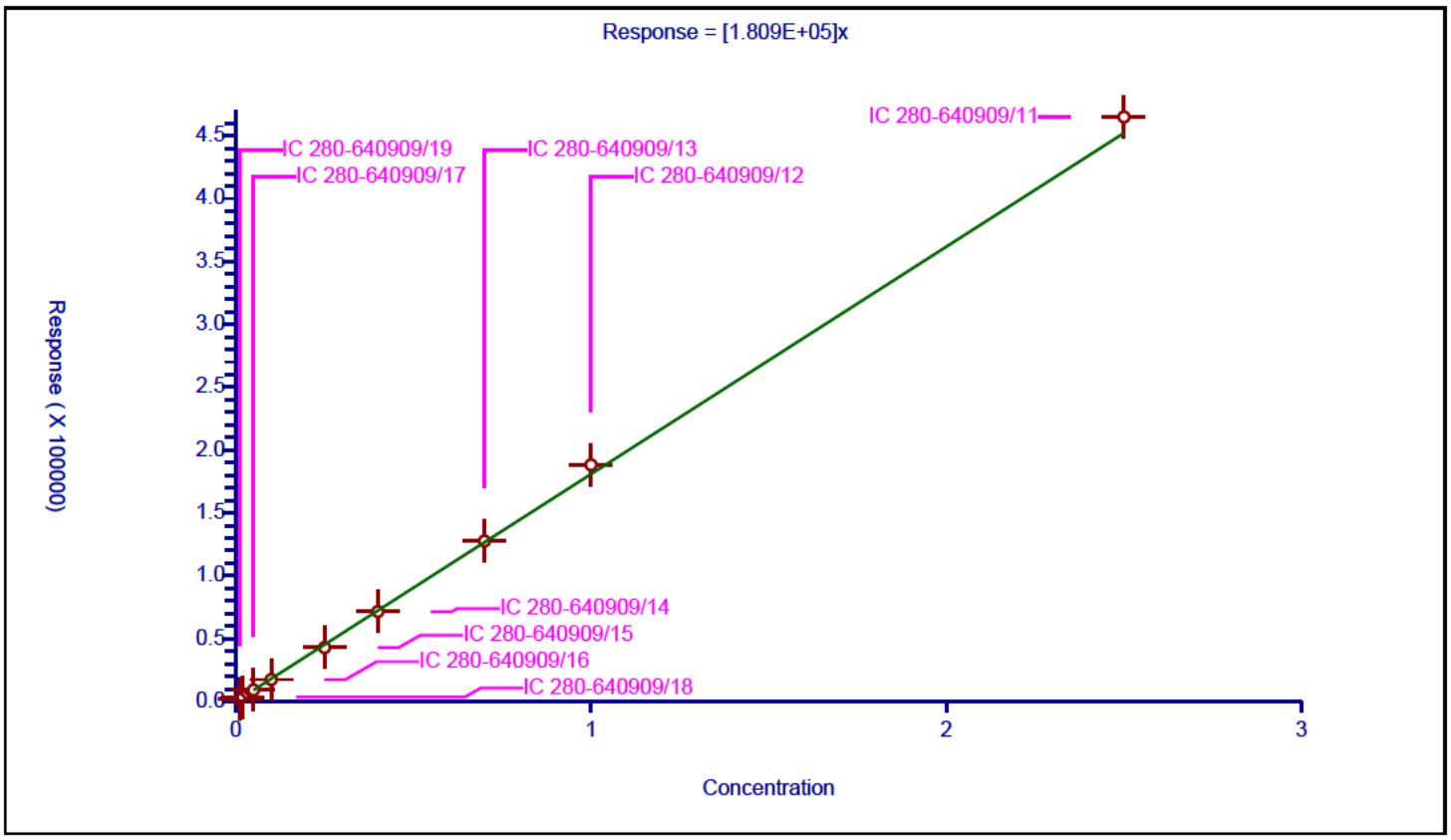
Curve Coefficients

Intercept:	0
Slope:	1.809E+05

Error Coefficients

Relative Standard Deviation:	3.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	1860.0			186000.0	Y
2	IC 280-640909/18	0.02	3557.0			177850.0	Y
3	IC 280-640909/17	0.05	9142.0			182840.0	Y
4	IC 280-640909/16	0.1	17434.0			174340.0	Y
5	IC 280-640909/15	0.25	42860.0			171440.0	Y
6	IC 280-640909/14	0.4	71525.0			178812.5	Y
7	IC 280-640909/13	0.7	127620.0			182314.285714	Y
8	IC 280-640909/12	1.0	188213.0			188213.0	Y
9	IC 280-640909/11	2.5	464925.0			185970.0	Y



Calibration / Nitroglycerin

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

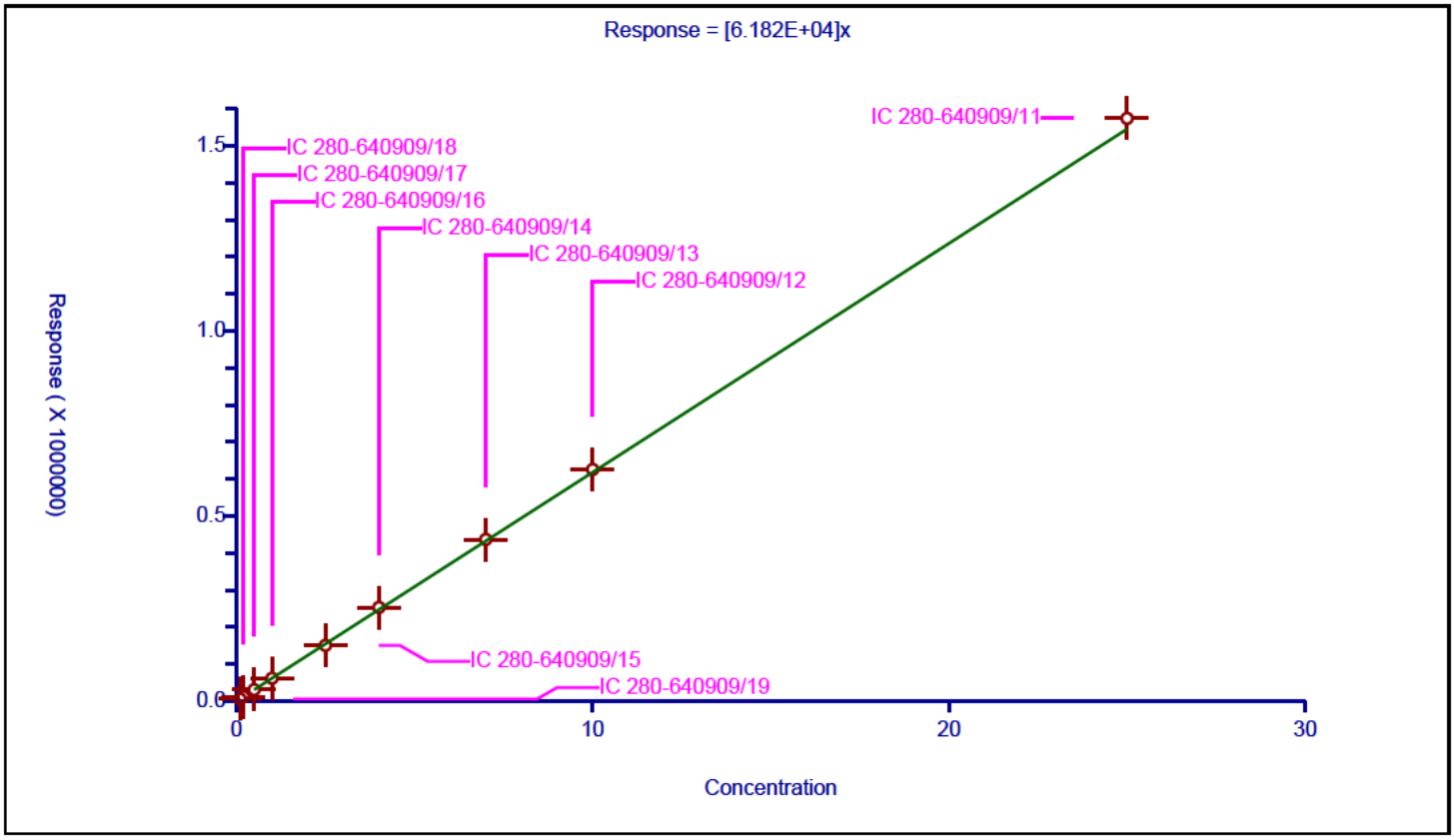
Curve Coefficients

Intercept:	0
Slope:	6.182E+04

Error Coefficients

Relative Standard Deviation:	2.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.1	5850.0			58500.0	Y
2	IC 280-640909/18	0.2	12492.0			62460.0	Y
3	IC 280-640909/17	0.5	31020.0			62040.0	Y
4	IC 280-640909/16	1.0	61858.0			61858.0	Y
5	IC 280-640909/15	2.5	150716.0			60286.4	Y
6	IC 280-640909/14	4.0	253117.0			63279.25	Y
7	IC 280-640909/13	7.0	436971.0			62424.428571	Y
8	IC 280-640909/12	10.0	625949.0			62594.9	Y
9	IC 280-640909/11	25.0	1574296.0			62971.84	Y



Calibration / 2,4,6-Trinitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

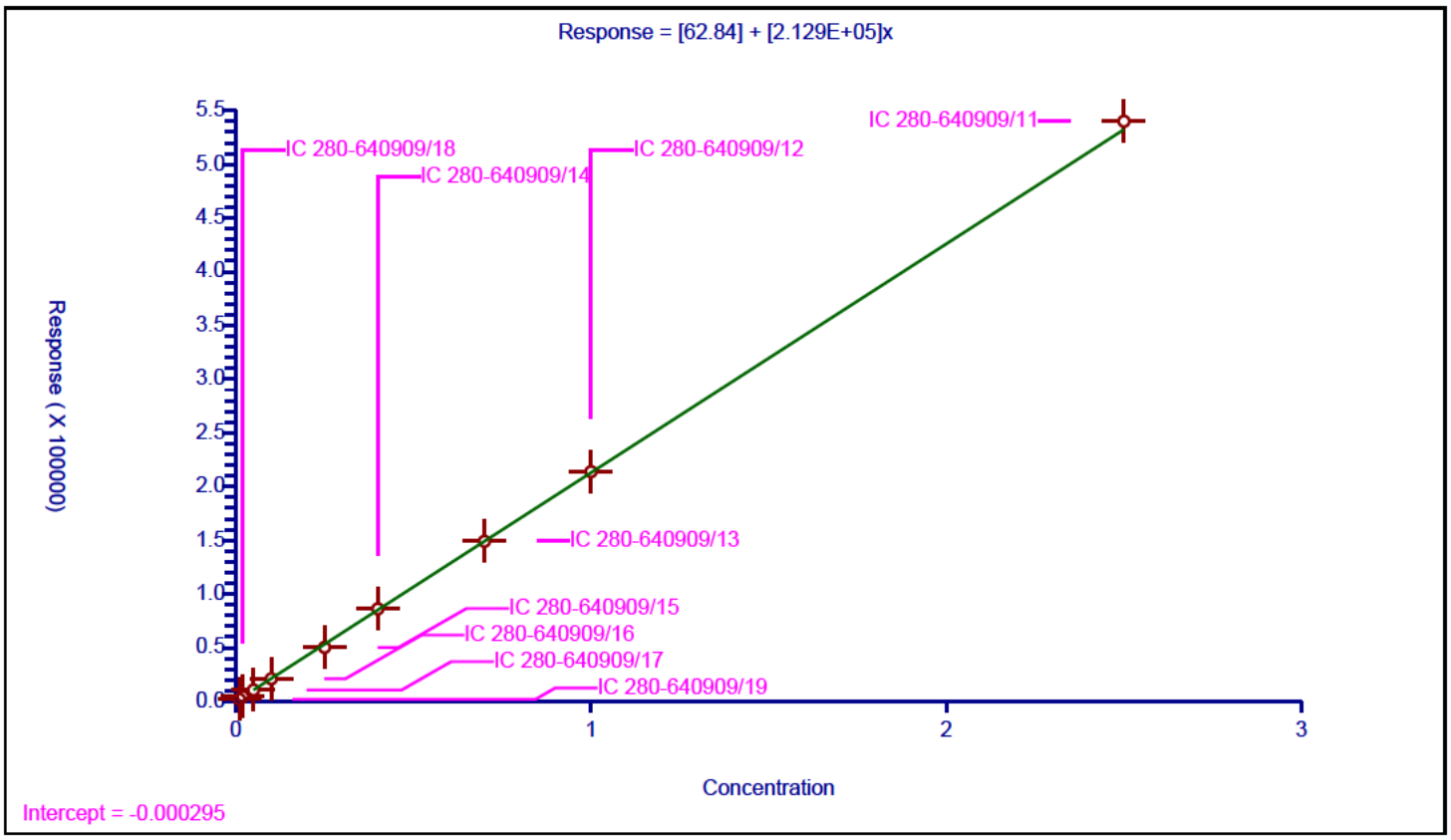
Curve Coefficients

Intercept:	62.84
Slope:	2.129E+05

Error Coefficients

Relative Standard Deviation:	3.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	2122.0			212200.0	Y
2	IC 280-640909/18	0.02	4632.0			231600.0	Y
3	IC 280-640909/17	0.05	10691.0			213820.0	Y
4	IC 280-640909/16	0.1	21099.0			210990.0	Y
5	IC 280-640909/15	0.25	50356.0			201424.0	Y
6	IC 280-640909/14	0.4	86178.0			215445.0	Y
7	IC 280-640909/13	0.7	149092.0			212988.571429	Y
8	IC 280-640909/12	1.0	213915.0			213915.0	Y
9	IC 280-640909/11	2.5	540068.0			216027.2	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

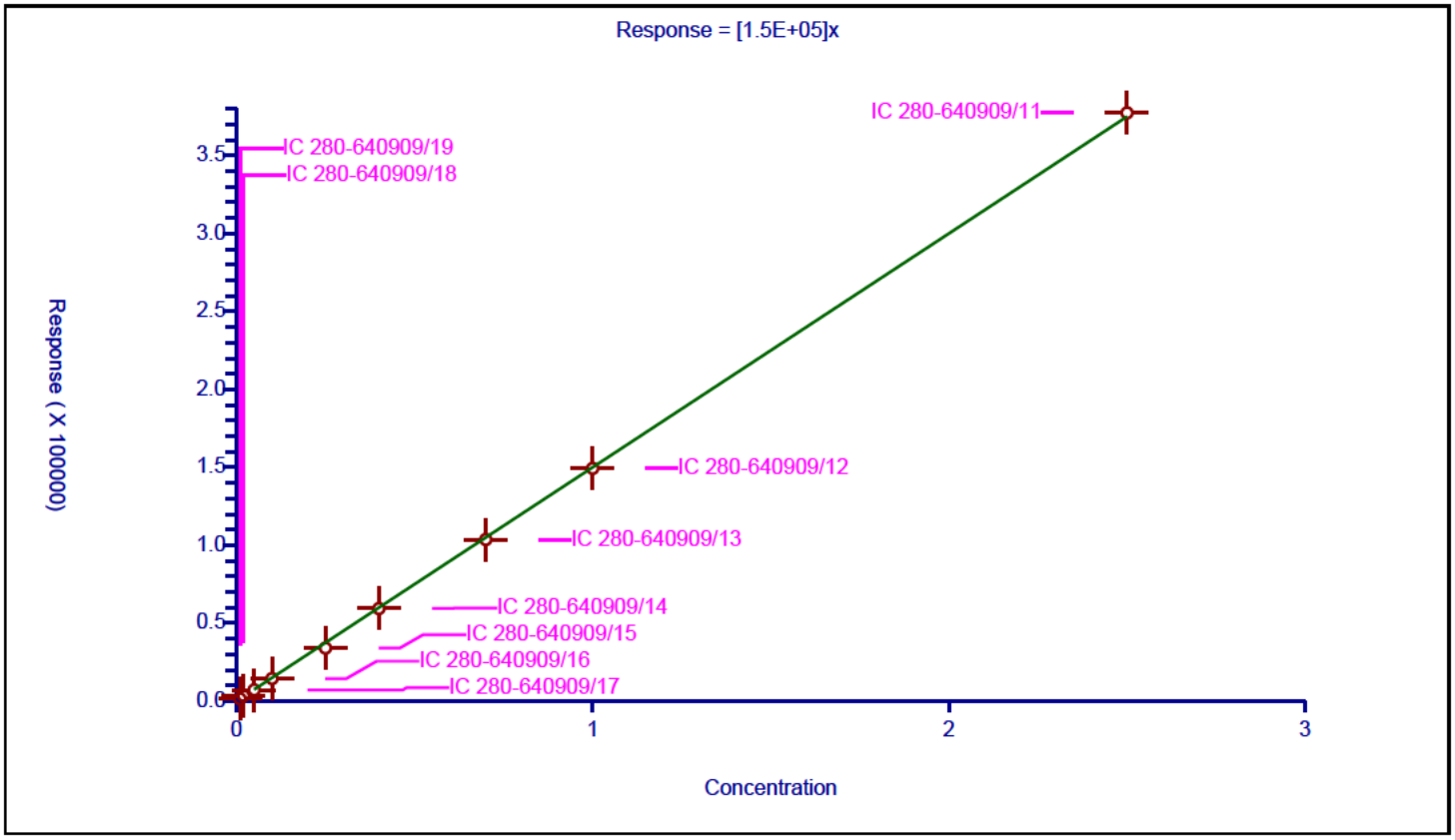
Curve Coefficients

Intercept:	0
Slope:	1.5E+05

Error Coefficients

Relative Standard Deviation:	7.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	1512.0			151200.0	Y
2	IC 280-640909/18	0.02	3539.0			176950.0	Y
3	IC 280-640909/17	0.05	7216.0			144320.0	Y
4	IC 280-640909/16	0.1	14470.0			144700.0	Y
5	IC 280-640909/15	0.25	34038.0			136152.0	Y
6	IC 280-640909/14	0.4	59386.0			148465.0	Y
7	IC 280-640909/13	0.7	103689.0			148127.142857	Y
8	IC 280-640909/12	1.0	149334.0			149334.0	Y
9	IC 280-640909/11	2.5	377442.0			150976.8	Y



Calibration / 2-Amino-4,6-dinitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

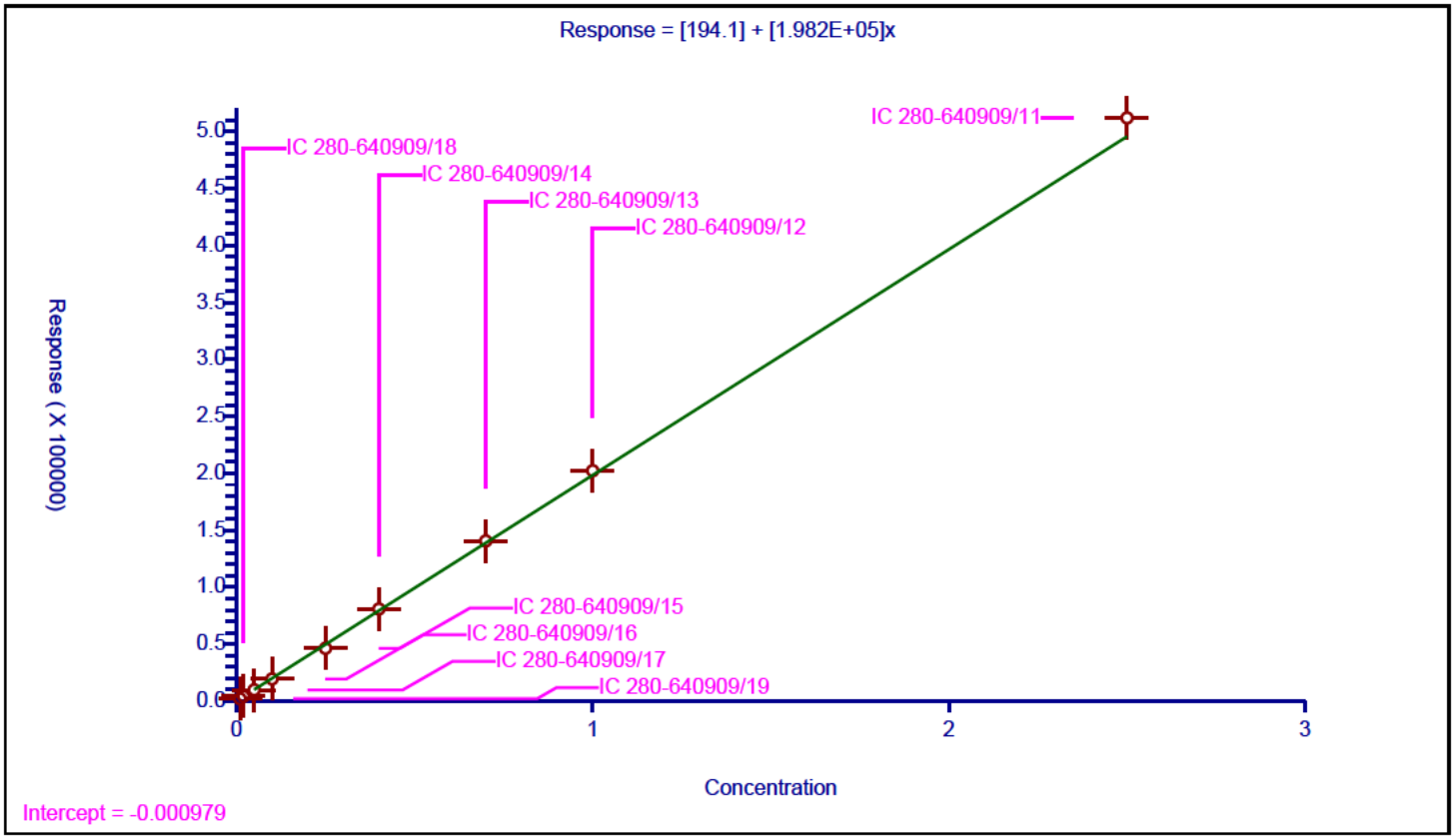
Curve Coefficients

Intercept:	194.1
Slope:	1.982E+05

Error Coefficients

Relative Standard Deviation:	3.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	2148.0			214800.0	Y
2	IC 280-640909/18	0.02	4338.0			216900.0	Y
3	IC 280-640909/17	0.05	9915.0			198300.0	Y
4	IC 280-640909/16	0.1	19483.0			194830.0	Y
5	IC 280-640909/15	0.25	46402.0			185608.0	Y
6	IC 280-640909/14	0.4	80904.0			202260.0	Y
7	IC 280-640909/13	0.7	140674.0			200962.857143	Y
8	IC 280-640909/12	1.0	202317.0			202317.0	Y
9	IC 280-640909/11	2.5	512065.0			204826.0	Y



Calibration / 2,6-Dinitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

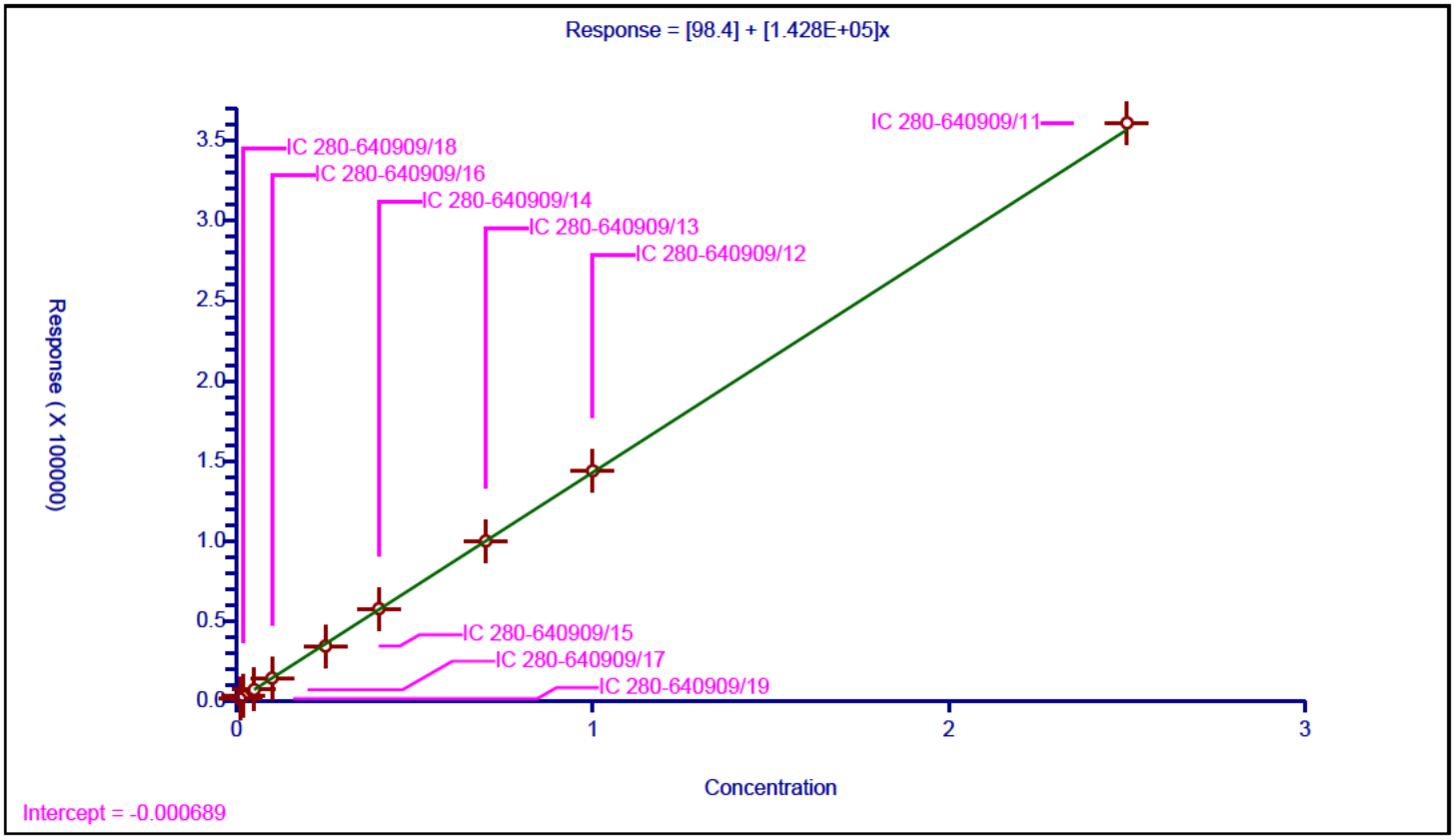
Curve Coefficients

Intercept:	98.4
Slope:	1.428E+05

Error Coefficients

Relative Standard Deviation:	2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	1510.0			151000.0	Y
2	IC 280-640909/18	0.02	3033.0			151650.0	Y
3	IC 280-640909/17	0.05	7180.0			143600.0	Y
4	IC 280-640909/16	0.1	14410.0			144100.0	Y
5	IC 280-640909/15	0.25	34380.0			137520.0	Y
6	IC 280-640909/14	0.4	57753.0			144382.5	Y
7	IC 280-640909/13	0.7	100078.0			142968.571429	Y
8	IC 280-640909/12	1.0	143864.0			143864.0	Y
9	IC 280-640909/11	2.5	361225.0			144490.0	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

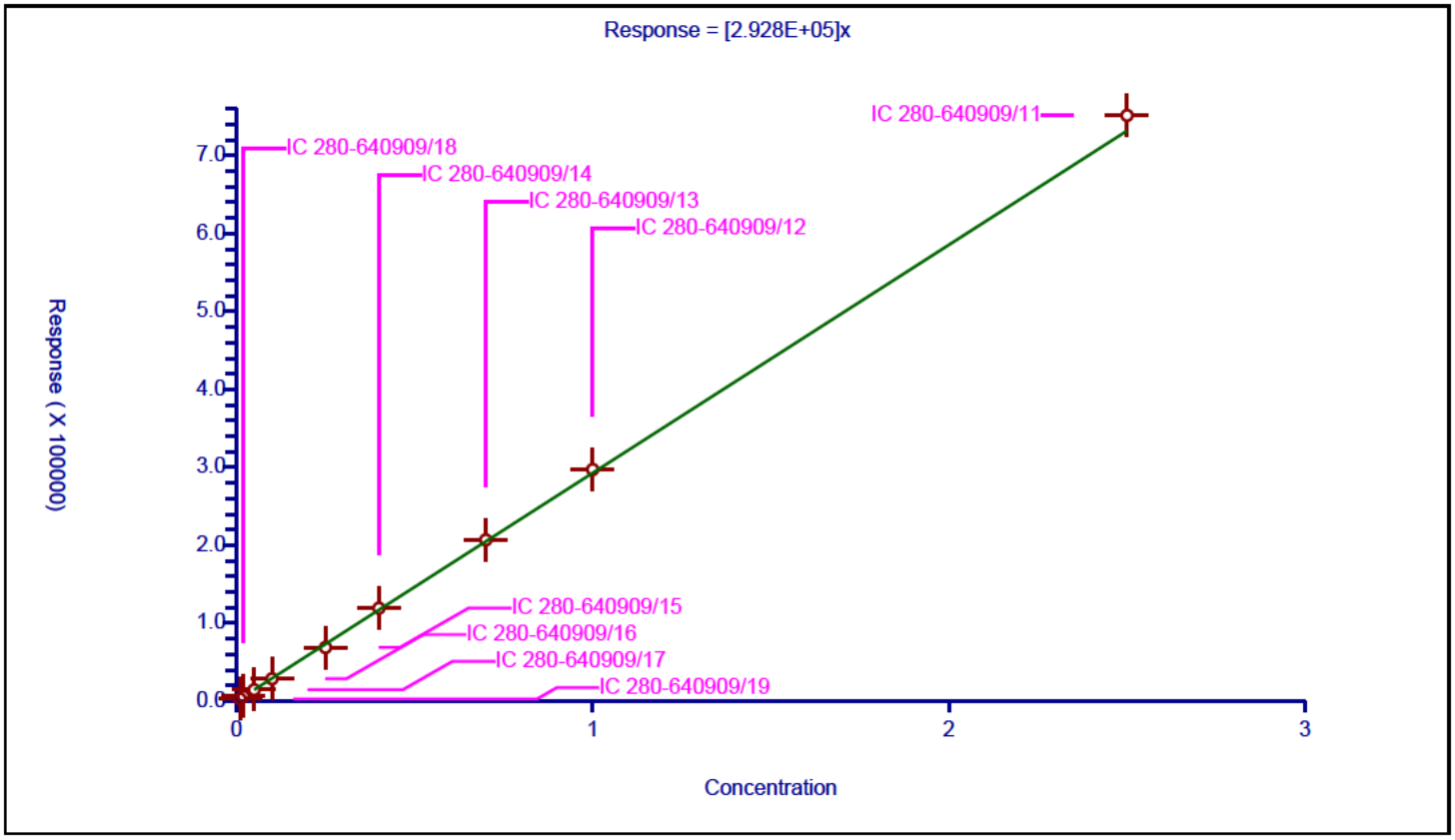
Curve Coefficients

Intercept:	0
Slope:	2.928E+05

Error Coefficients

Relative Standard Deviation:	3.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	2864.0			286400.0	Y
2	IC 280-640909/18	0.02	6071.0			303550.0	Y
3	IC 280-640909/17	0.05	14580.0			291600.0	Y
4	IC 280-640909/16	0.1	28665.0			286650.0	Y
5	IC 280-640909/15	0.25	68801.0			275204.0	Y
6	IC 280-640909/14	0.4	119253.0			298132.5	Y
7	IC 280-640909/13	0.7	206848.0			295497.142857	Y
8	IC 280-640909/12	1.0	297217.0			297217.0	Y
9	IC 280-640909/11	2.5	751603.0			300641.2	Y



Calibration / o-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

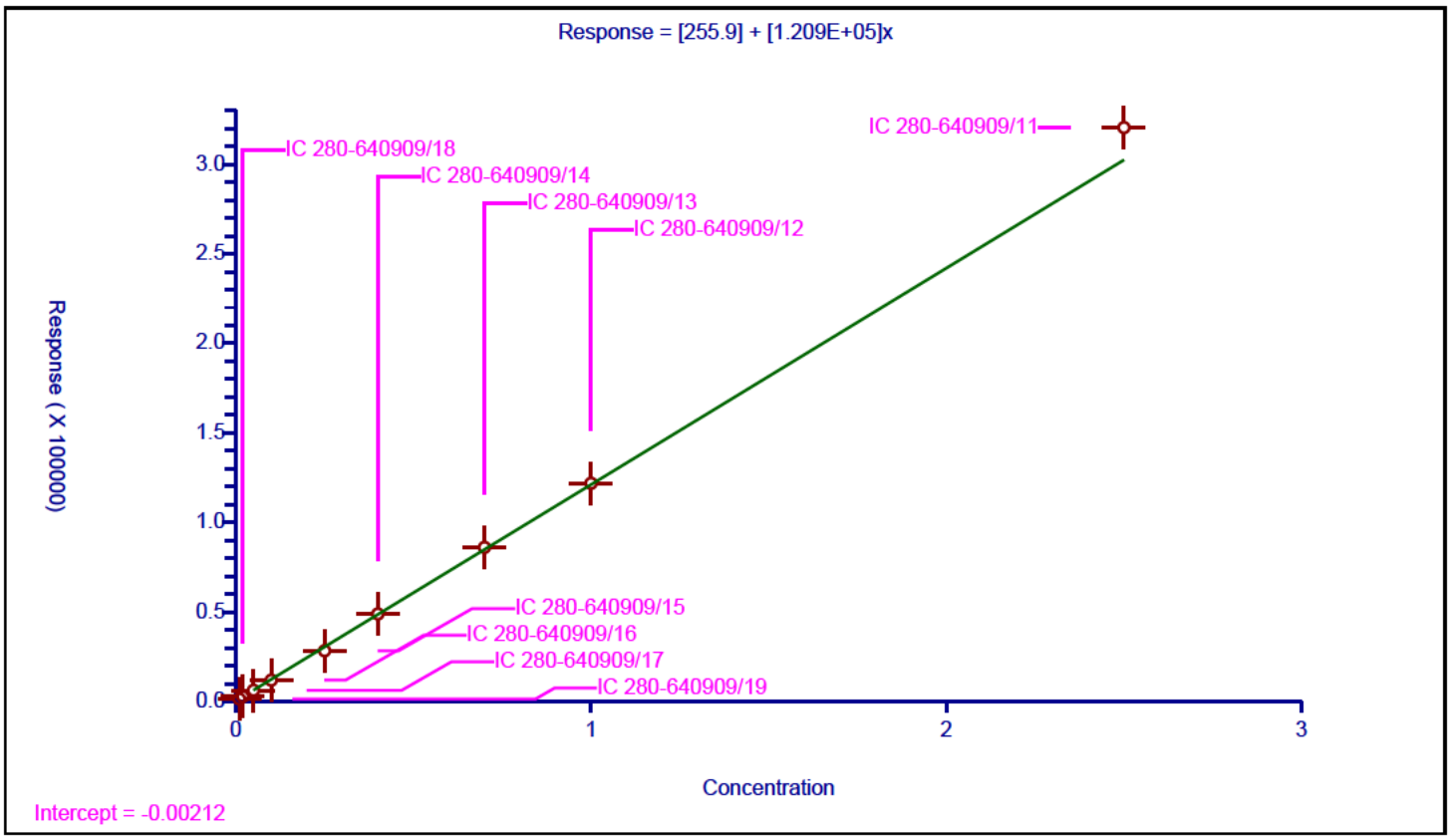
Curve Coefficients

Intercept:	255.9
Slope:	1.209E+05

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	1445.0			144500.0	Y
2	IC 280-640909/18	0.02	2790.0			139500.0	Y
3	IC 280-640909/17	0.05	6241.0			124820.0	Y
4	IC 280-640909/16	0.1	11899.0			118990.0	Y
5	IC 280-640909/15	0.25	28320.0			113280.0	Y
6	IC 280-640909/14	0.4	48892.0			122230.0	Y
7	IC 280-640909/13	0.7	86061.0			122944.285714	Y
8	IC 280-640909/12	1.0	121861.0			121861.0	Y
9	IC 280-640909/11	2.5	320511.0			128204.4	Y



Calibration / p-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

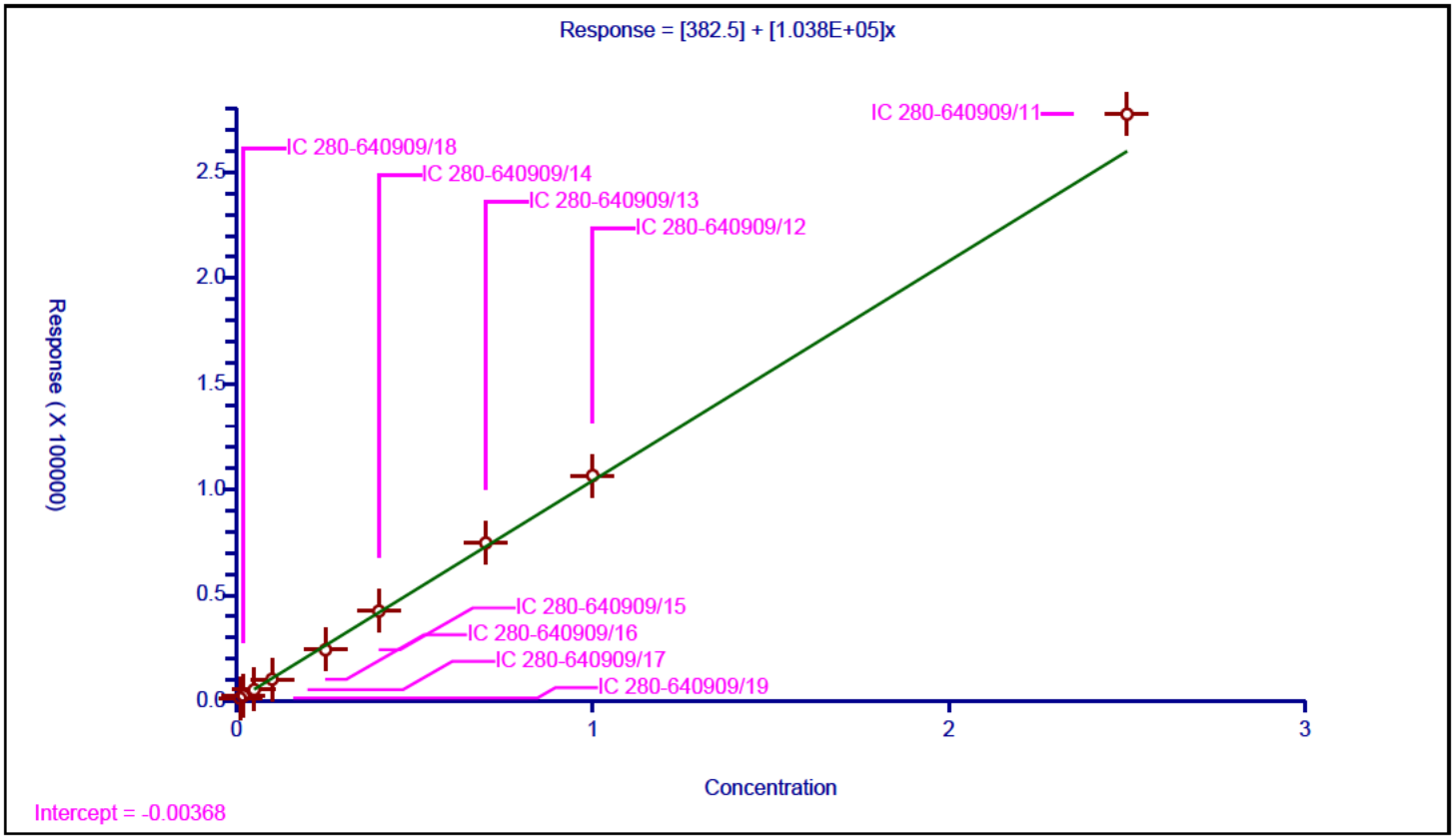
Curve Coefficients

Intercept:	382.5
Slope:	1.038E+05

Error Coefficients

Relative Standard Deviation:	4.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	1419.0			141900.0	Y
2	IC 280-640909/18	0.02	2522.0			126100.0	Y
3	IC 280-640909/17	0.05	5389.0			107780.0	Y
4	IC 280-640909/16	0.1	10325.0			103250.0	Y
5	IC 280-640909/15	0.25	24248.0			96992.0	Y
6	IC 280-640909/14	0.4	42552.0			106380.0	Y
7	IC 280-640909/13	0.7	74795.0			106850.0	Y
8	IC 280-640909/12	1.0	106657.0			106657.0	Y
9	IC 280-640909/11	2.5	277490.0			110996.0	Y



Calibration / m-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

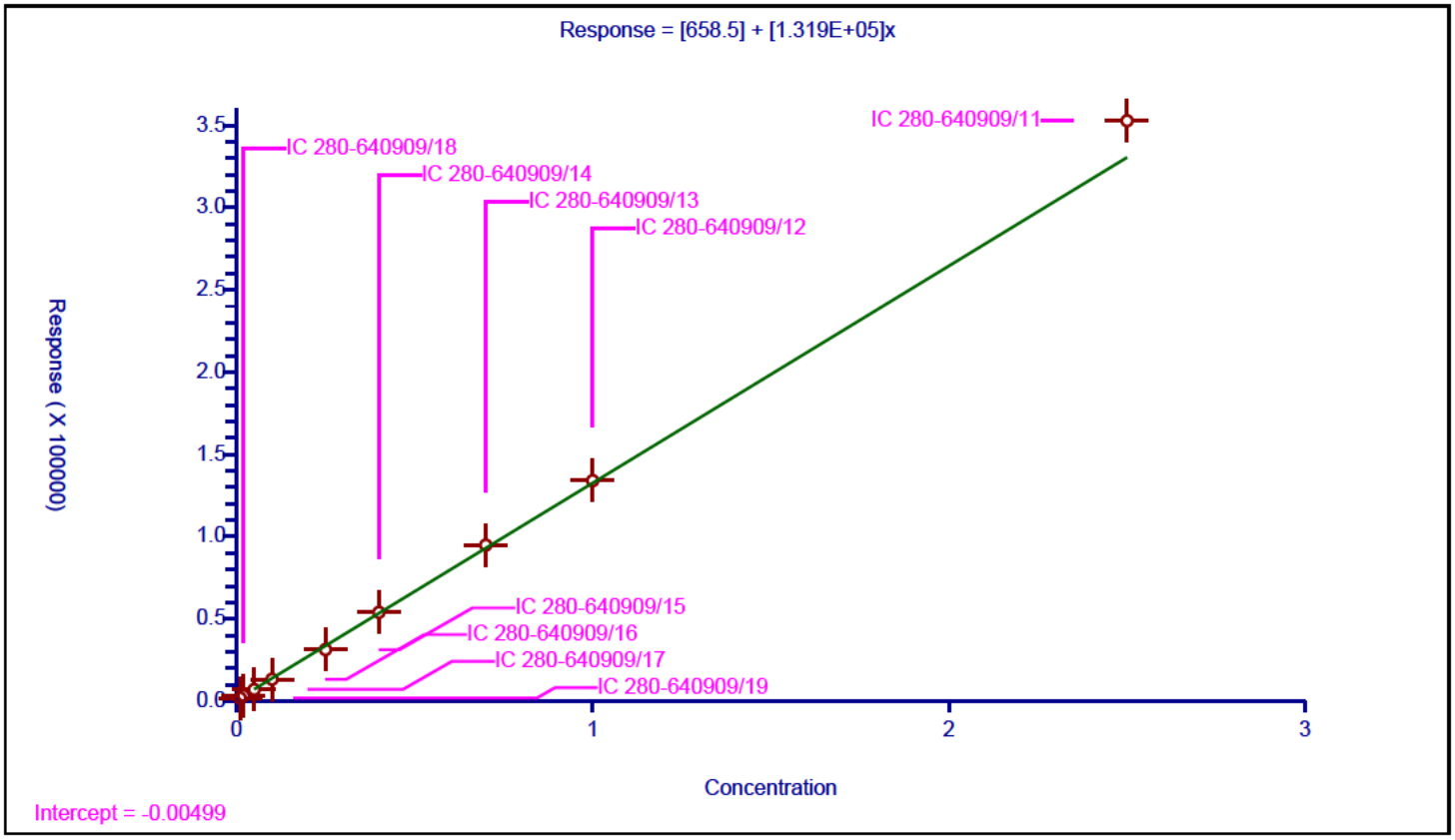
Curve Coefficients

Intercept:	658.5
Slope:	1.319E+05

Error Coefficients

Relative Standard Deviation:	4.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.01	1967.0			196700.0	Y
2	IC 280-640909/18	0.02	3401.0			170050.0	Y
3	IC 280-640909/17	0.05	7081.0			141620.0	Y
4	IC 280-640909/16	0.1	13293.0			132930.0	Y
5	IC 280-640909/15	0.25	31333.0			125332.0	Y
6	IC 280-640909/14	0.4	53959.0			134897.5	Y
7	IC 280-640909/13	0.7	94836.0			135480.0	Y
8	IC 280-640909/12	1.0	134004.0			134004.0	Y
9	IC 280-640909/11	2.5	352772.0			141108.8	Y



Calibration / PETN

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

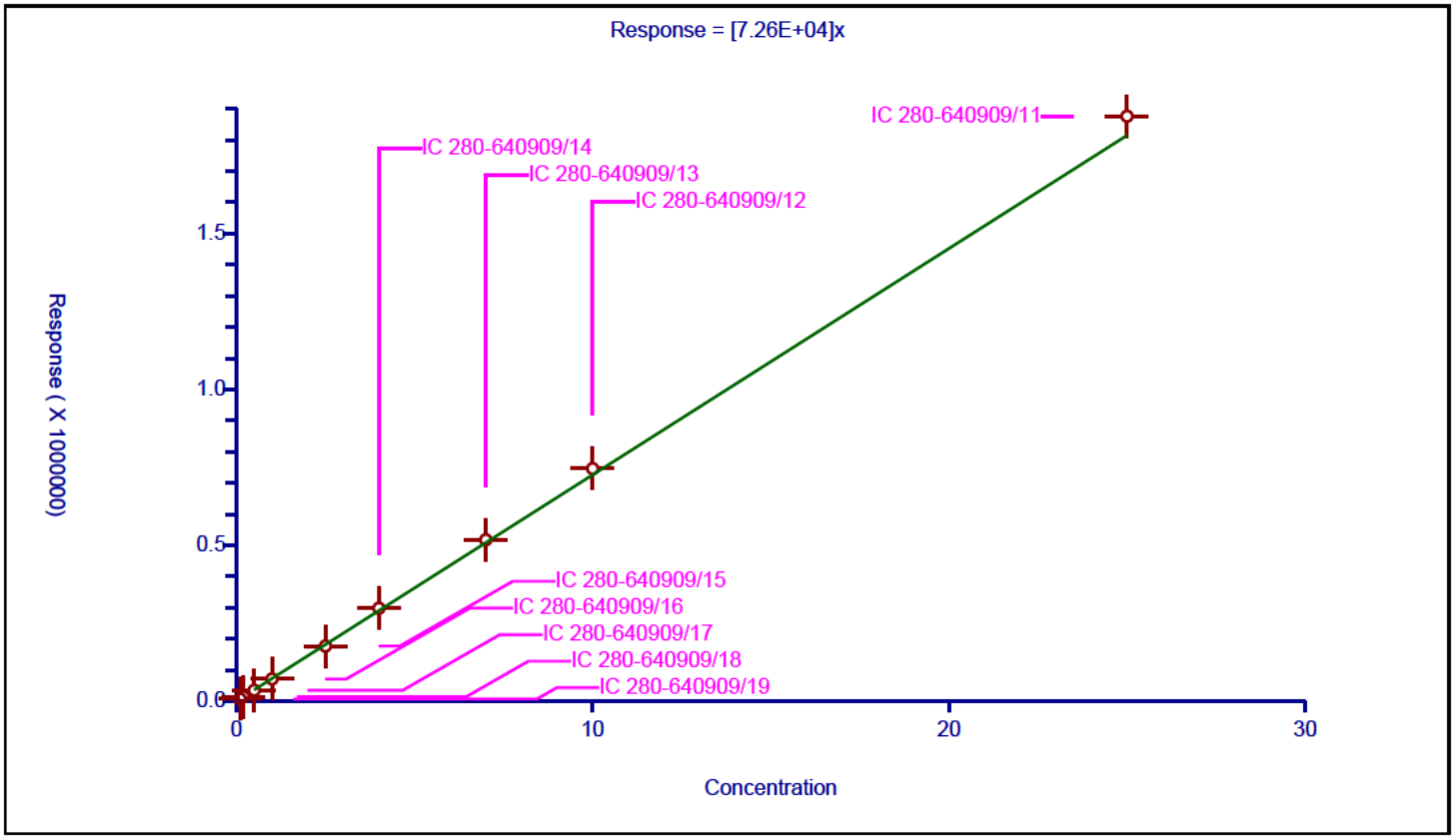
Curve Coefficients

Intercept:	0
Slope:	7.26E+04

Error Coefficients

Relative Standard Deviation:	2.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/19	0.1	7185.0			71850.0	Y
2	IC 280-640909/18	0.2	14333.0			71665.0	Y
3	IC 280-640909/17	0.5	34974.0			69948.0	Y
4	IC 280-640909/16	1.0	71189.0			71189.0	Y
5	IC 280-640909/15	2.5	176724.0			70689.6	Y
6	IC 280-640909/14	4.0	298028.0			74507.0	Y
7	IC 280-640909/13	7.0	517519.0			73931.285714	Y
8	IC 280-640909/12	10.0	745876.0			74587.6	Y
9	IC 280-640909/11	25.0	1876400.0			75056.0	Y



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 20:24 | Calibration End Date: 01/24/2024 23:04 | Calibration ID: 89714

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/28	01240028.D
Level 2	IC 280-640909/27	01240027.D
Level 3	IC 280-640909/26	01240026.D
Level 4	IC 280-640909/25	01240025.D
Level 5	IC 280-640909/24	01240024.D
Level 6	IC 280-640909/23	01240023.D
Level 7	IC 280-640909/22	01240022.D
Level 8	IC 280-640909/21	01240021.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	+++++	6.500	6.498	6.505	6.505	6.503	6.498	6.499			6.355 - 6.655	6.501
2,4-diamino-6-nitrotoluene	+++++	6.687	6.684	6.685	6.685	6.683	6.685	6.685			6.535 - 6.835	6.685

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 20:24 Calibration End Date: 01/24/2024 23:04 Calibration ID: 89714

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/28	01240028.D
Level 2	IC 280-640909/27	01240027.D
Level 3	IC 280-640909/26	01240026.D
Level 4	IC 280-640909/25	01240025.D
Level 5	IC 280-640909/24	01240024.D
Level 6	IC 280-640909/23	01240023.D
Level 7	IC 280-640909/22	01240022.D
Level 8	IC 280-640909/21	01240021.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
2,6-diamino-4-nitrotoluene	+++++ 206208	253125 217521	249110 217959	214460 207927	Ave		223758.590				8.6		20.0			
2,4-diamino-6-nitrotoluene	+++++ 125850	156225 138759	154900 137310	128636 132074	Ave		139107.596				8.7		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.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 20:24 | Calibration End Date: 01/24/2024 23:04 | Calibration ID: 89714

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/28	01240028.D
Level 2	IC 280-640909/27	01240027.D
Level 3	IC 280-640909/26	01240026.D
Level 4	IC 280-640909/25	01240025.D
Level 5	IC 280-640909/24	01240024.D
Level 6	IC 280-640909/23	01240023.D
Level 7	IC 280-640909/22	01240022.D
Level 8	IC 280-640909/21	01240021.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Ave	+++++ 152265	10125 217959	24911 519818	53615	82483	+++++ 0.700	0.0400 1.00	0.100 2.50	0.250	0.400
2,4-diamino-6-nitrotoluene	Ave	+++++ 97131	6249 137310	15490 330184	32159	50340	+++++ 0.700	0.0400 1.00	0.100 2.50	0.250	0.400

Curve Type Legend:
Ave = Average

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240021.D
Lims ID: IC ADD 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Jan-2024 20:24:03 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 8
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:14 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.499	6.505	-0.006	519818	2.50	2.32	
5 2,4-diamino-6-nitrotoluene	1	6.685	6.685	0.000	330184	2.50	2.37	

Reagents:

8330_ADDs_00038 Amount Added: 125.00 Units: uL

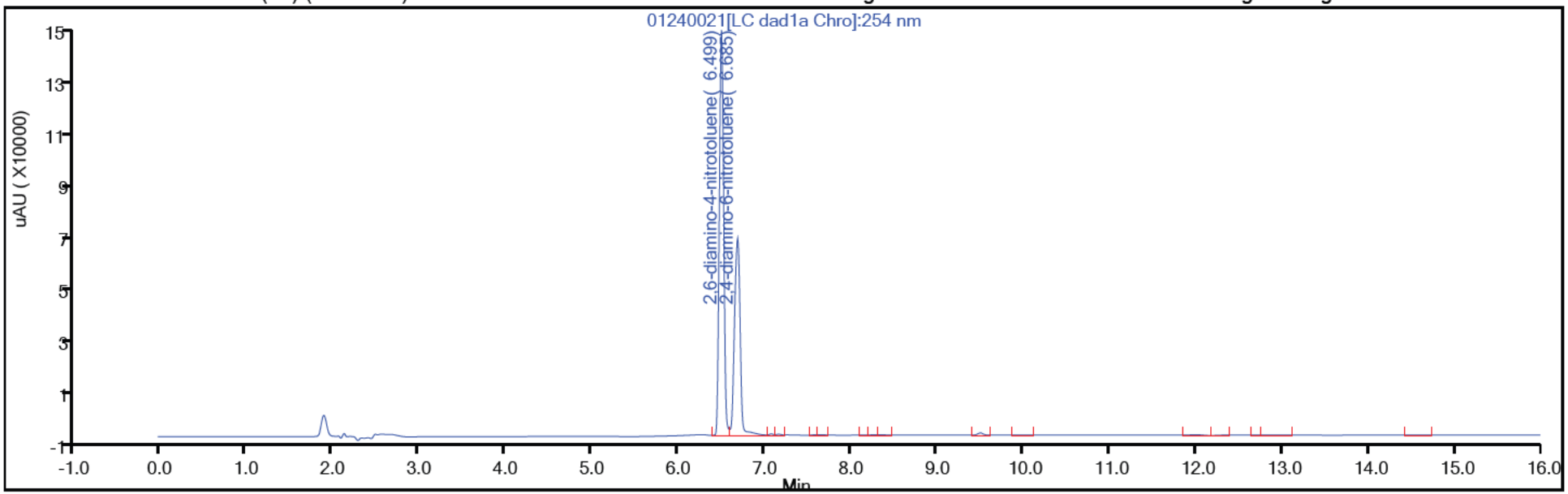
Report Date: 30-Jan-2024 16:55:14 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

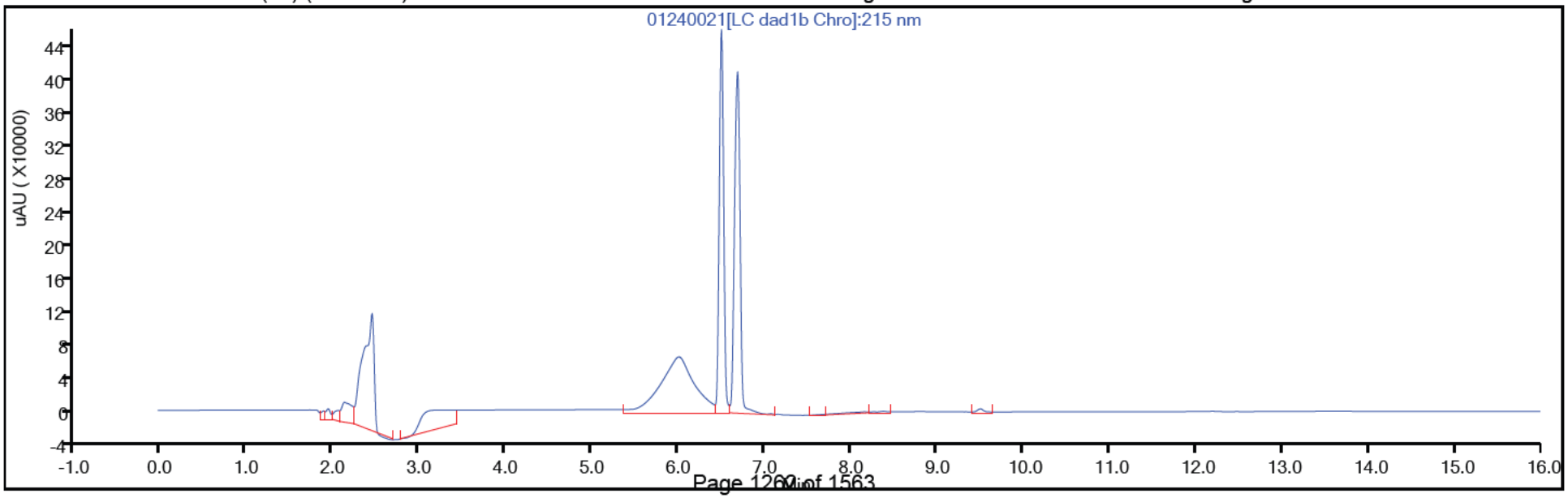
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240021.d

Injection Date:	24-Jan-2024 20:24:03	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 8			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 30-Jan-2024 16:55:15 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240022.D
Lims ID: IC ADD 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 24-Jan-2024 20:46:55 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 7
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:15 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: K8YG Date: 25-Jan-2024 11:02:07

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.498	6.505	-0.007	217959	1.00	0.9741	
5 2,4-diamino-6-nitrotoluene	1	6.685	6.685	0.000	137310	1.00	0.9871	

Reagents:

8330_ADDs_00038 Amount Added: 50.00 Units: uL

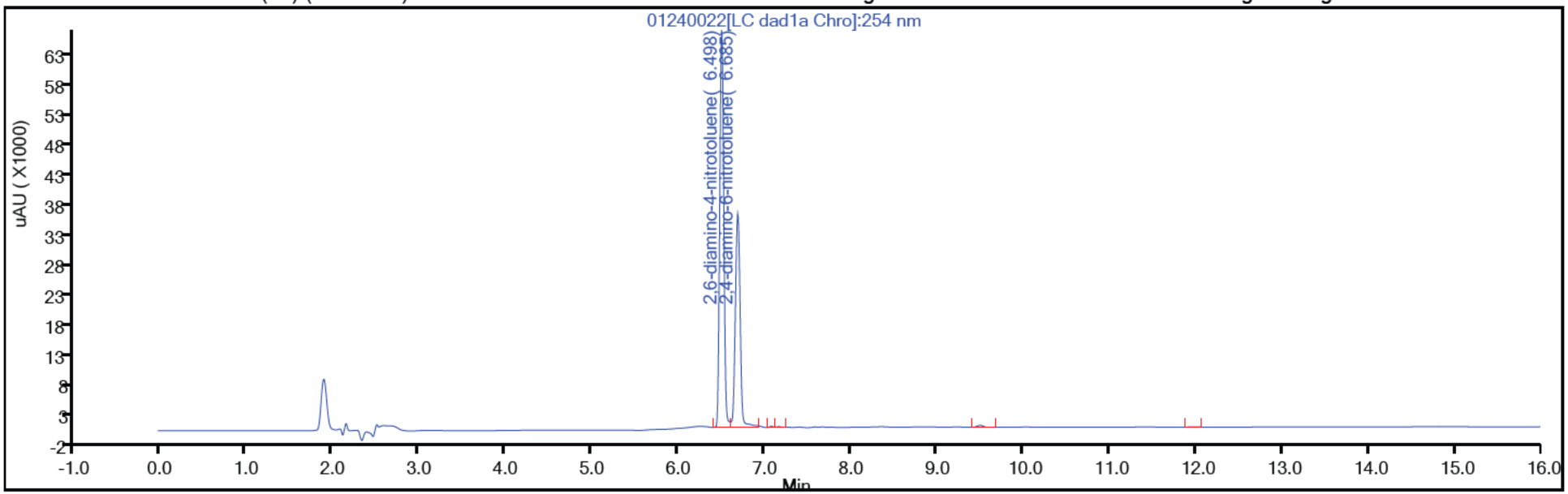
Report Date: 30-Jan-2024 16:55:15 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

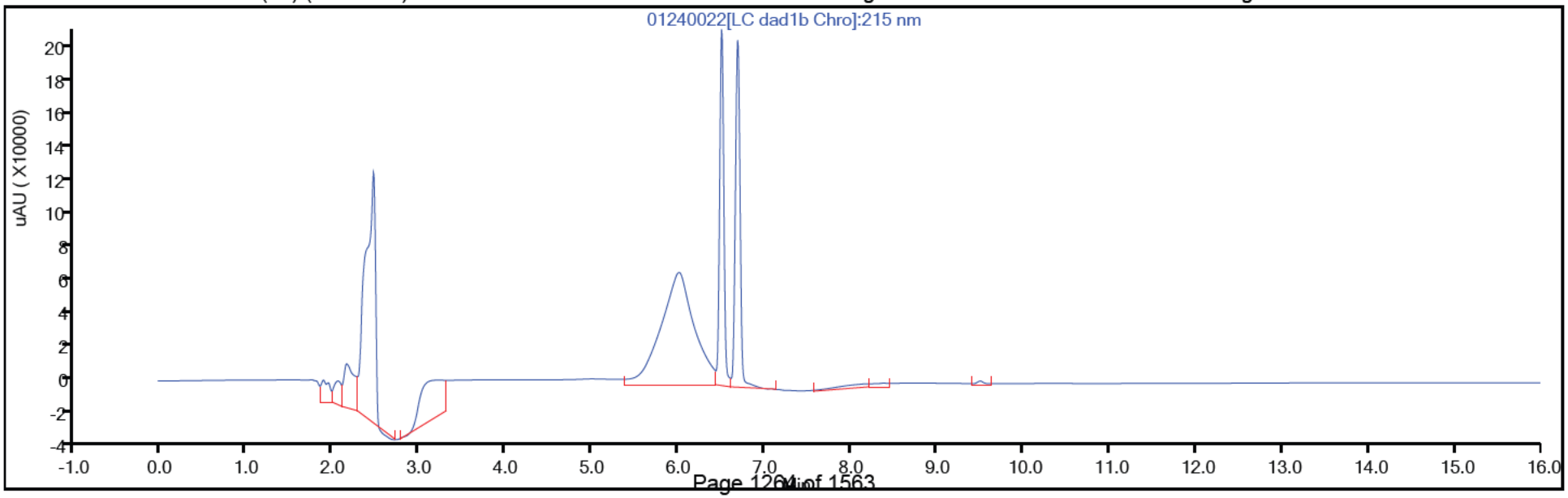
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240022.d

Injection Date:	24-Jan-2024 20:46:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 7			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240023.D				
Lims ID:	IC ADD 6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	24-Jan-2024 21:09:49	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 6				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub28				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	30-Jan-2024 16:55:15	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1603				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.503	6.505	-0.002	152265	0.7000	0.6805	
5 2,4-diamino-6-nitrotoluene	1	6.683	6.685	-0.002	97131	0.7000	0.6982	

Reagents:

8330_ADDs_00038 Amount Added: 35.00 Units: uL

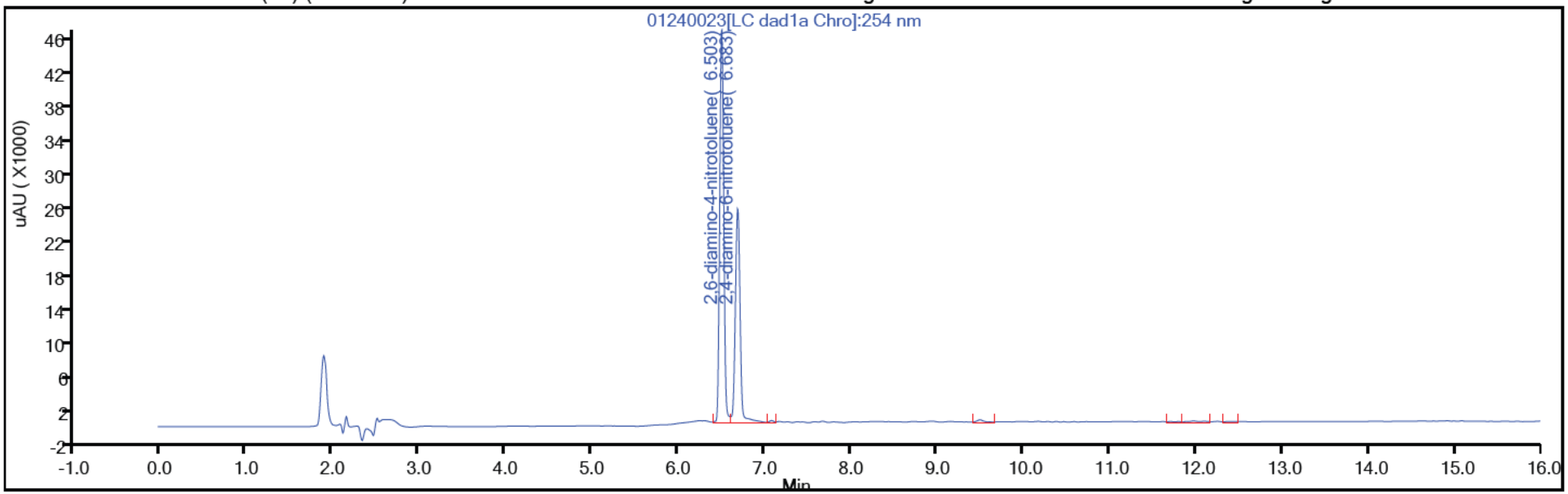
Report Date: 30-Jan-2024 16:55:15 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

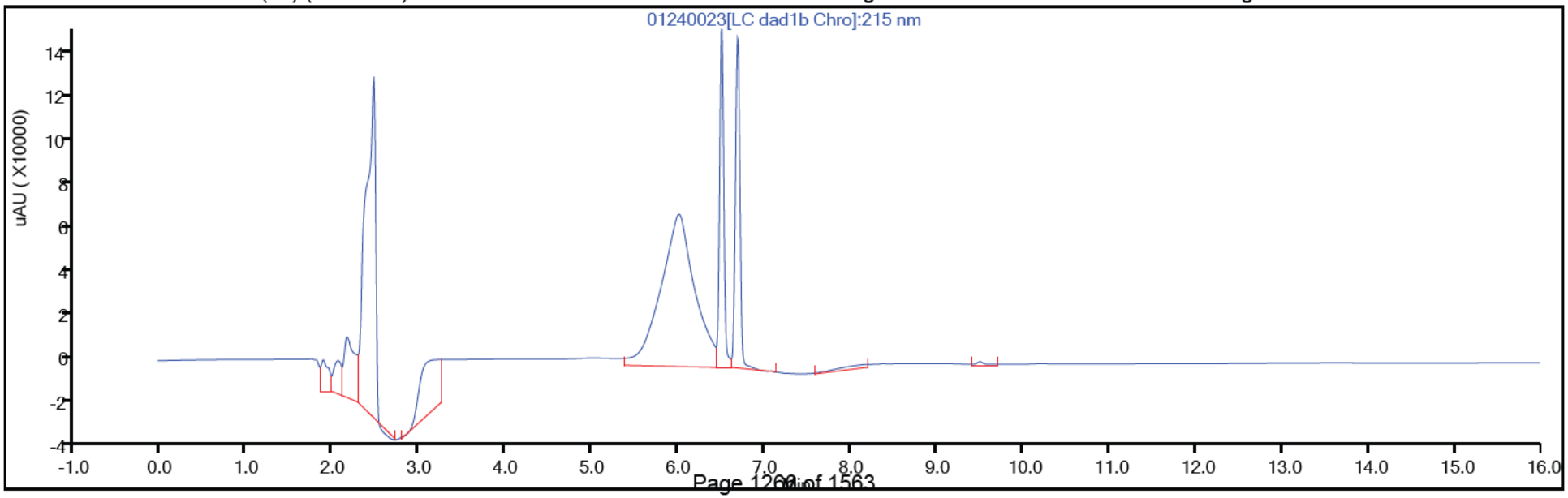
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240023.d

Injection Date:	24-Jan-2024 21:09:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 6			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 30-Jan-2024 16:55:16 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240024.D
Lims ID: IC ADD 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Jan-2024 21:32:48 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 5
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:16 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.505	6.505	0.000	82483	0.4000	0.3686	
5 2,4-diamino-6-nitrotoluene	1	6.685	6.685	0.000	50340	0.4000	0.3619	

Reagents:

8330_ADDs_00038 Amount Added: 20.00 Units: uL

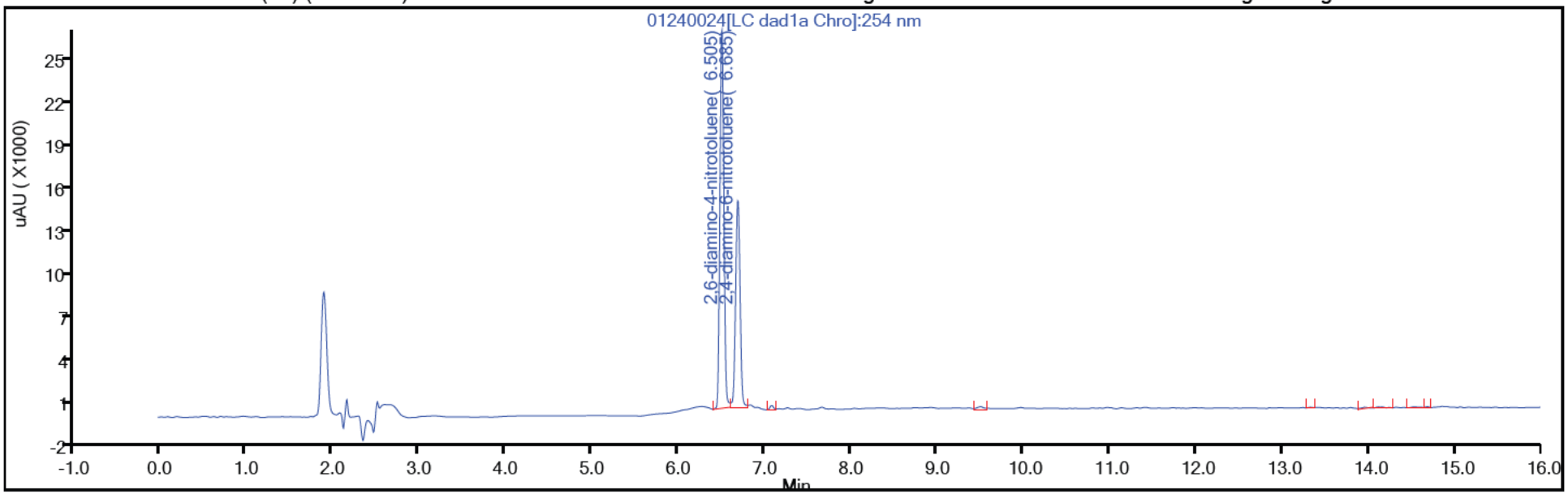
Report Date: 30-Jan-2024 16:55:16 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

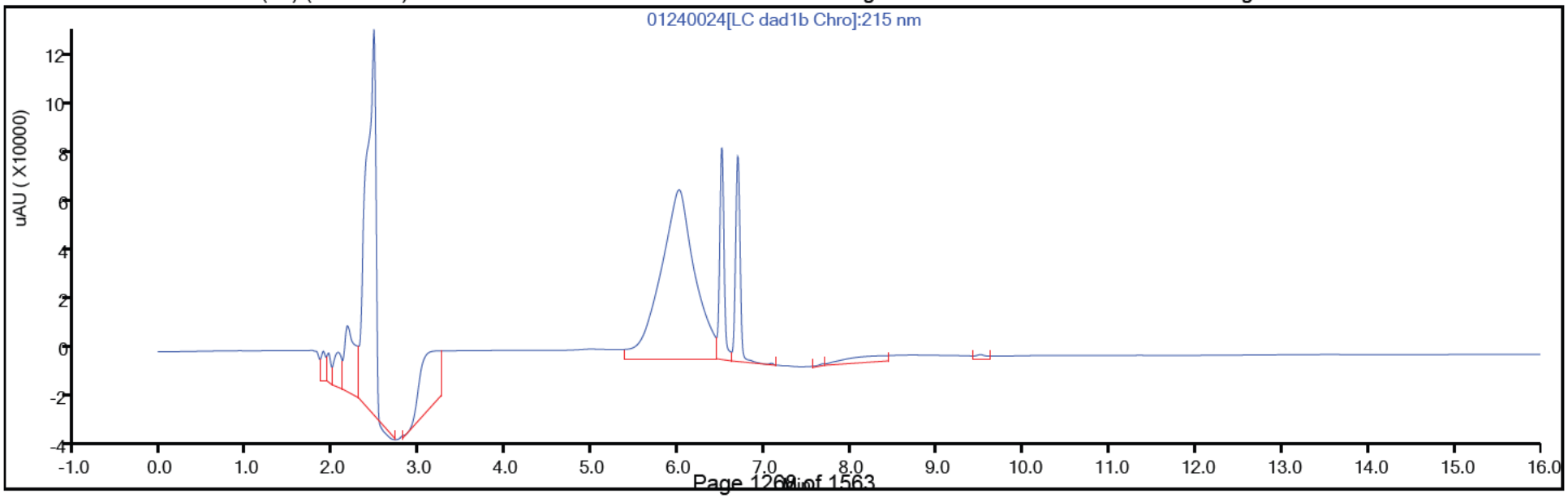
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240024.d

Injection Date:	24-Jan-2024 21:32:48	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 5			Worklist Smp#:	24
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240025.D
Lims ID: IC ADD 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Jan-2024 21:55:48 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 4
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:16 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: K8YG Date: 25-Jan-2024 11:03:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.505	6.505	0.000	53615	0.2500	0.2396	
5 2,4-diamino-6-nitrotoluene	1	6.685	6.685	0.000	32159	0.2500	0.2312	

QC Flag Legend
Processing Flags

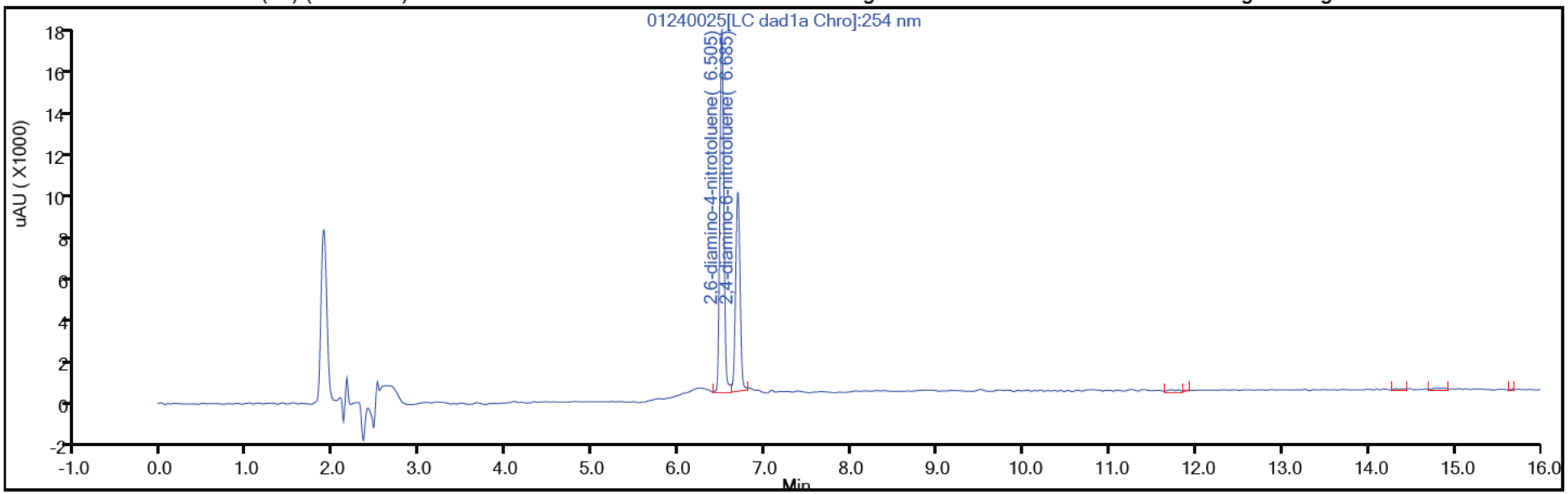
Reagents:
8330_ADDs_00038 Amount Added: 12.50 Units: uL

Report Date: 30-Jan-2024 16:55:16 Chrom Revision: 2.3 24-Jan-2024 12:19:54

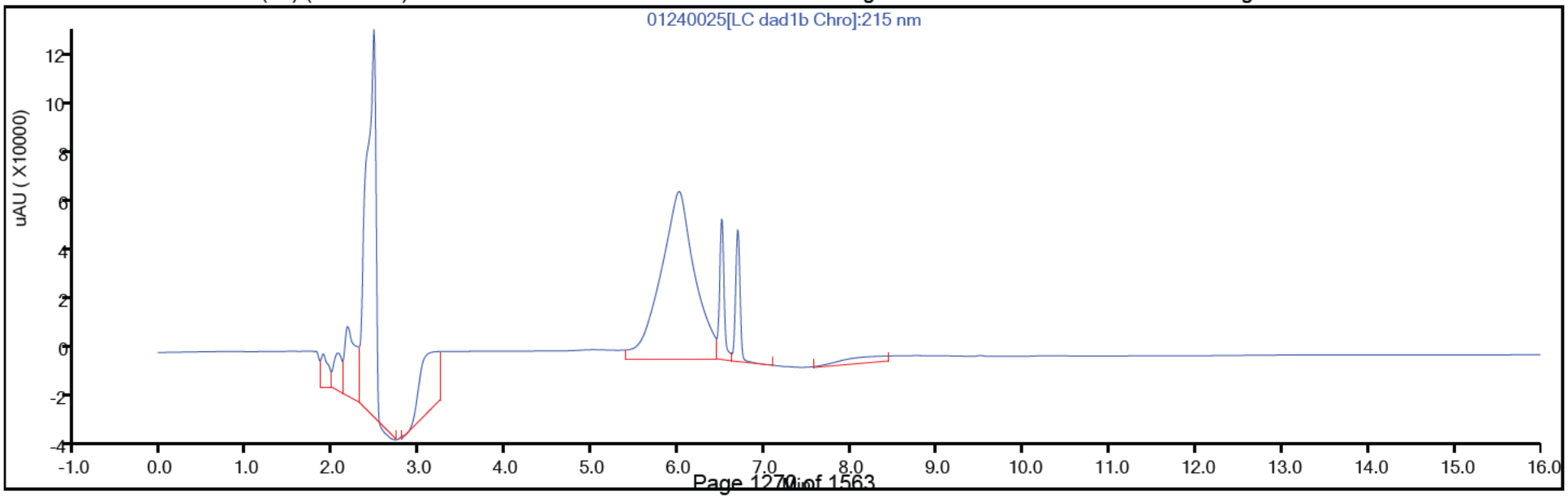
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240025.d				
Injection Date:	24-Jan-2024 21:55:48	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 4			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240026.D				
Lims ID:	IC ADD 3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	24-Jan-2024 22:18:42	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 3				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub28				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	30-Jan-2024 16:55:17	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1603				
First Level Reviewer: K8YG		Date:	25-Jan-2024 11:06:48		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.498	6.505	-0.007	24911	0.1000	0.1113	
5 2,4-diamino-6-nitrotoluene	1	6.684	6.685	-0.001	15490	0.1000	0.1114	

QC Flag Legend

Processing Flags

Reagents:

8330_ADDs_00038 Amount Added: 5.00 Units: uL

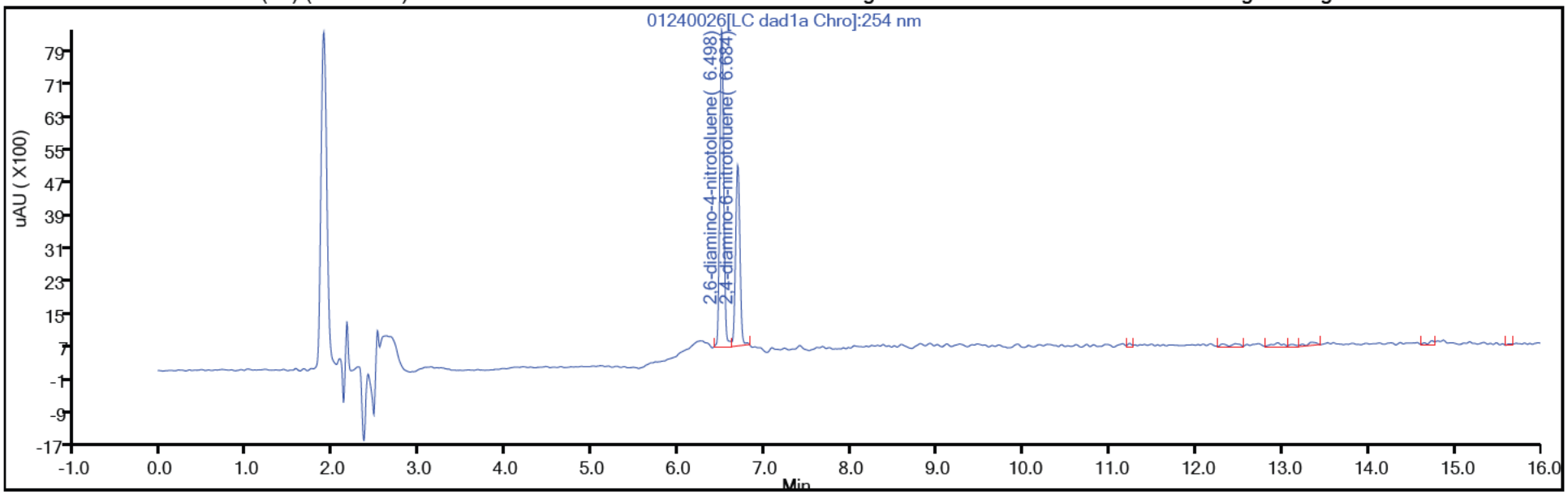
Report Date: 30-Jan-2024 16:55:17 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

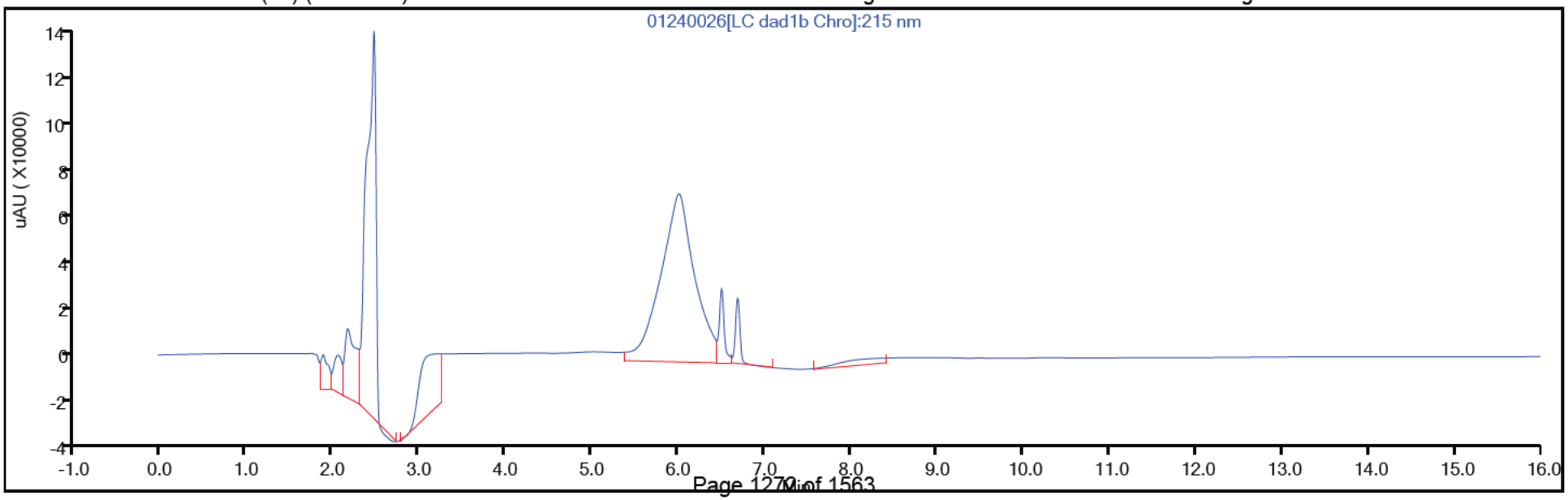
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240026.d

Injection Date:	24-Jan-2024 22:18:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 3			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240027.D				
Lims ID:	IC ADD 2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	24-Jan-2024 22:41:41	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 2				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub28				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	30-Jan-2024 16:55:17	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1603				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.500	6.505	-0.005	10125	0.0400	0.0452	
5 2,4-diamino-6-nitrotoluene	1	6.687	6.685	0.002	6249	0.0400	0.0449	

Reagents:

8330_ADDs_00038 Amount Added: 2.00 Units: uL

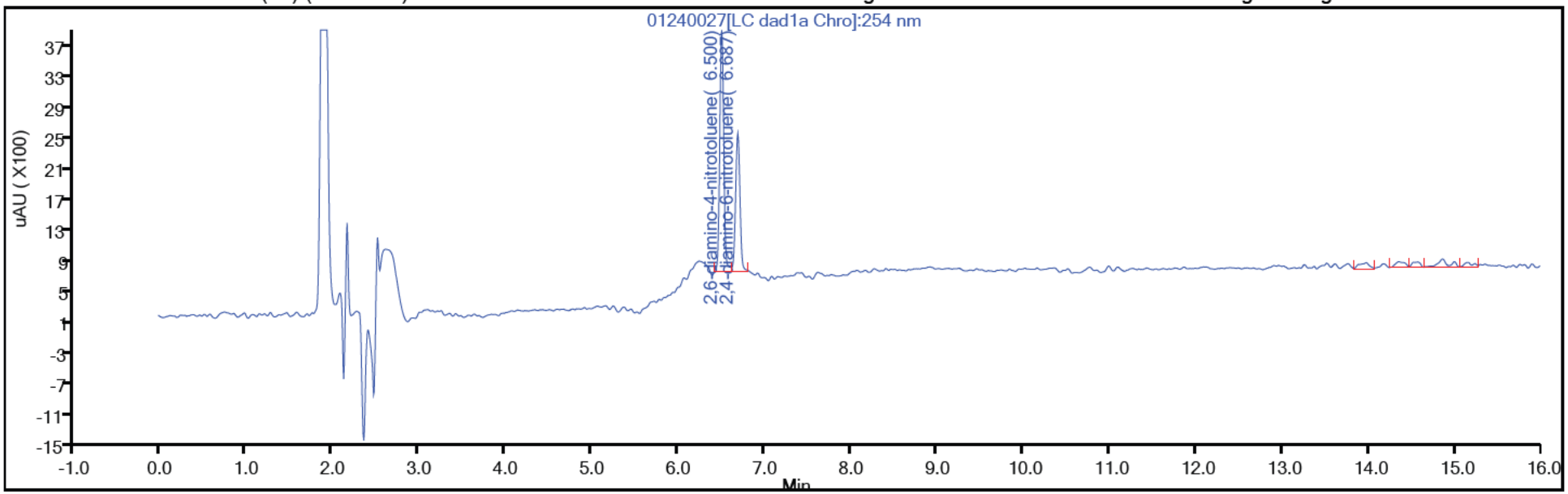
Report Date: 30-Jan-2024 16:55:17 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

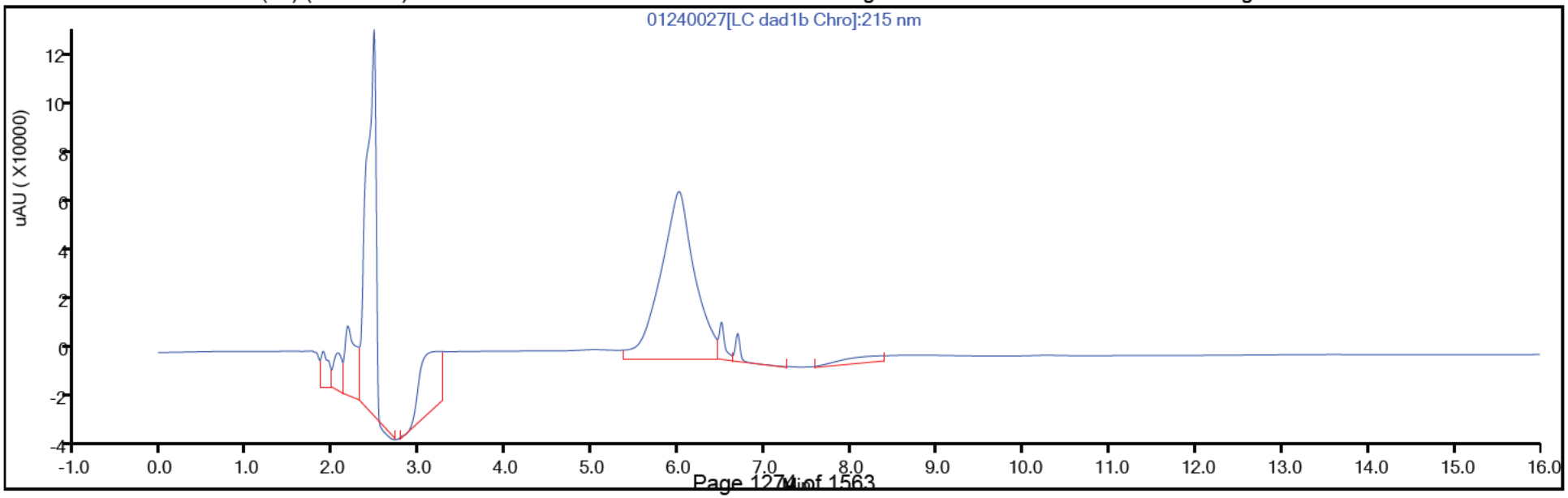
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240027.d

Injection Date:	24-Jan-2024 22:41:41	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 2			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D
Lims ID: IC ADD 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Jan-2024 23:04:41 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 1
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:55:17 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.498	6.505	-0.007	9326	0.0200	0.0417	
5 2,4-diamino-6-nitrotoluene	1	6.685	6.685	0.000	6151	0.0200	0.0442	

Reagents:

8330_ADDs_00038 Amount Added: 1.00 Units: uL

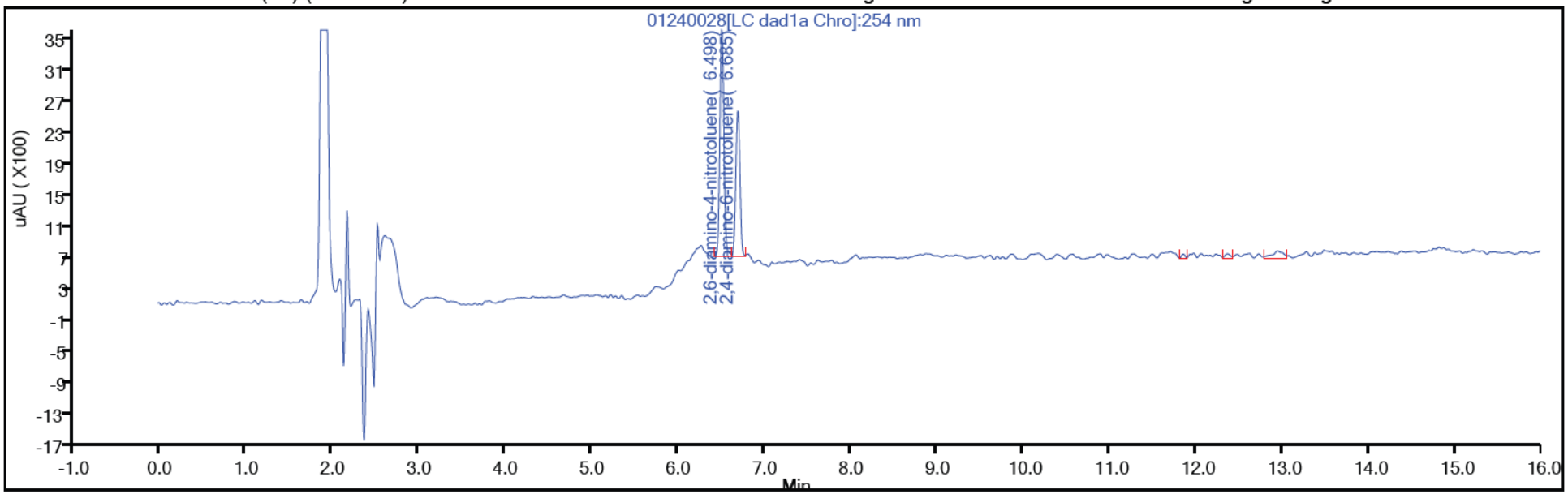
Report Date: 30-Jan-2024 16:55:18 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

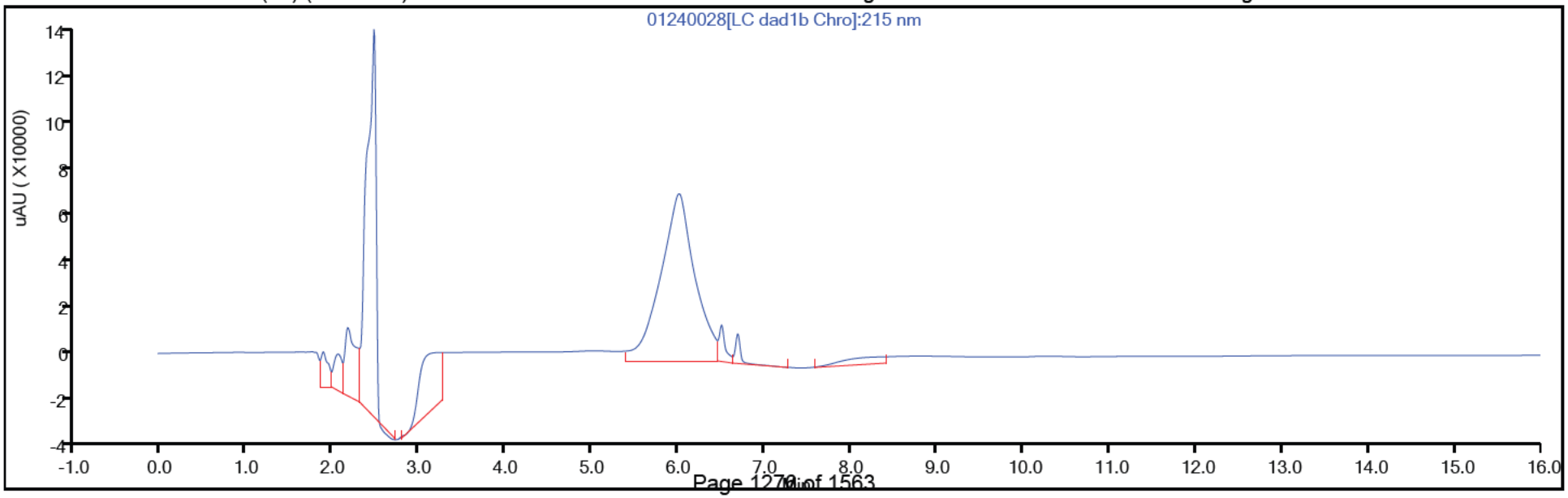
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240028.d

Injection Date:	24-Jan-2024 23:04:41	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 1			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Calibration / 2,6-diamino-4-nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

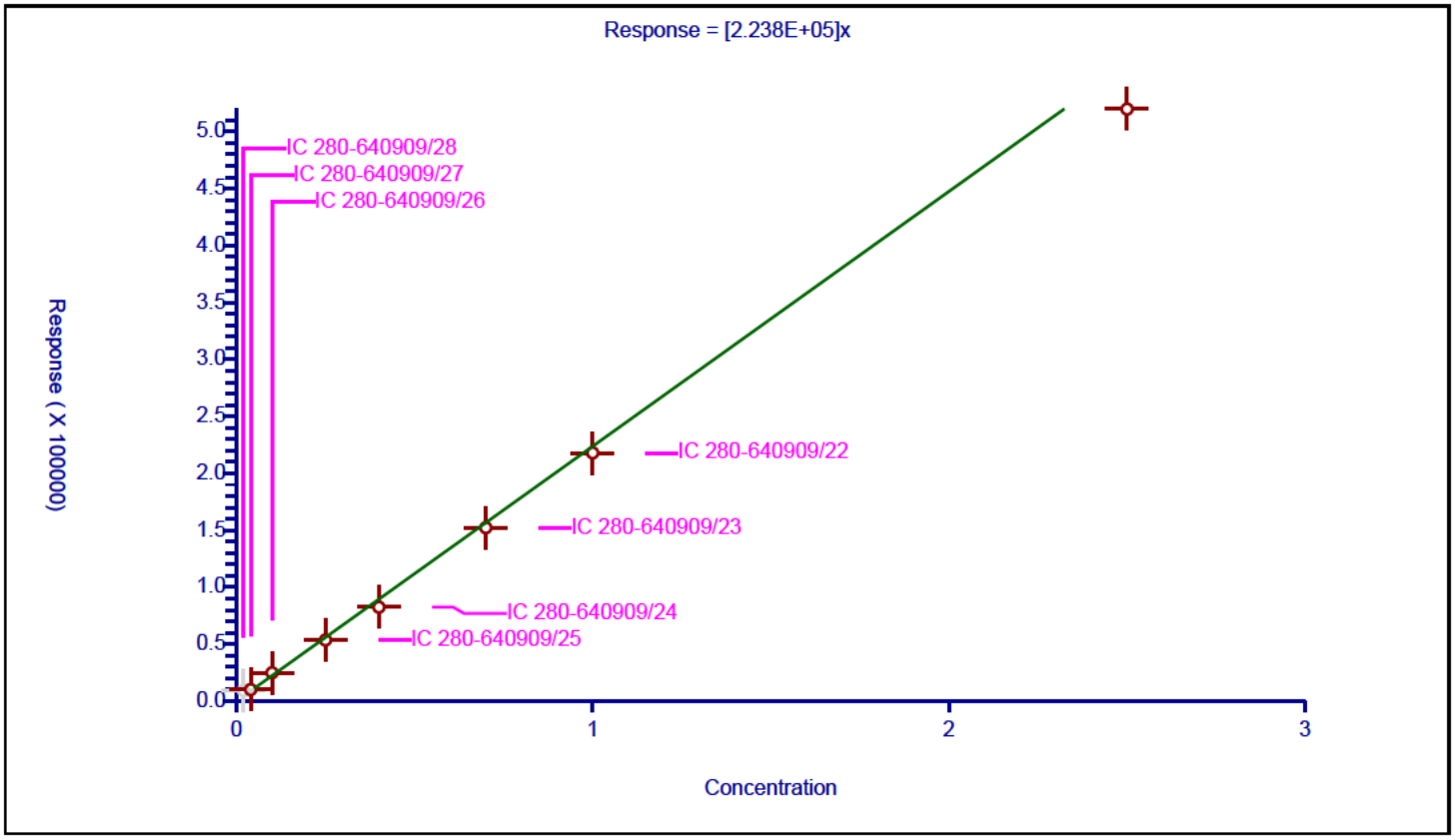
Curve Coefficients

Intercept:	0
Slope:	2.238E+05

Error Coefficients

Relative Standard Deviation:	8.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/28	0.02	9326.0			466300.0	N
2	IC 280-640909/27	0.04	10125.0			253125.0	Y
3	IC 280-640909/26	0.1	24911.0			249110.0	Y
4	IC 280-640909/25	0.25	53615.0			214460.0	Y
5	IC 280-640909/24	0.4	82483.0			206207.5	Y
6	IC 280-640909/23	0.7	152265.0			217521.428571	Y
7	IC 280-640909/22	1.0	217959.0			217959.0	Y
8	IC 280-640909/21	2.5	519818.0			207927.2	Y



Calibration / 2,4-diamino-6-nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

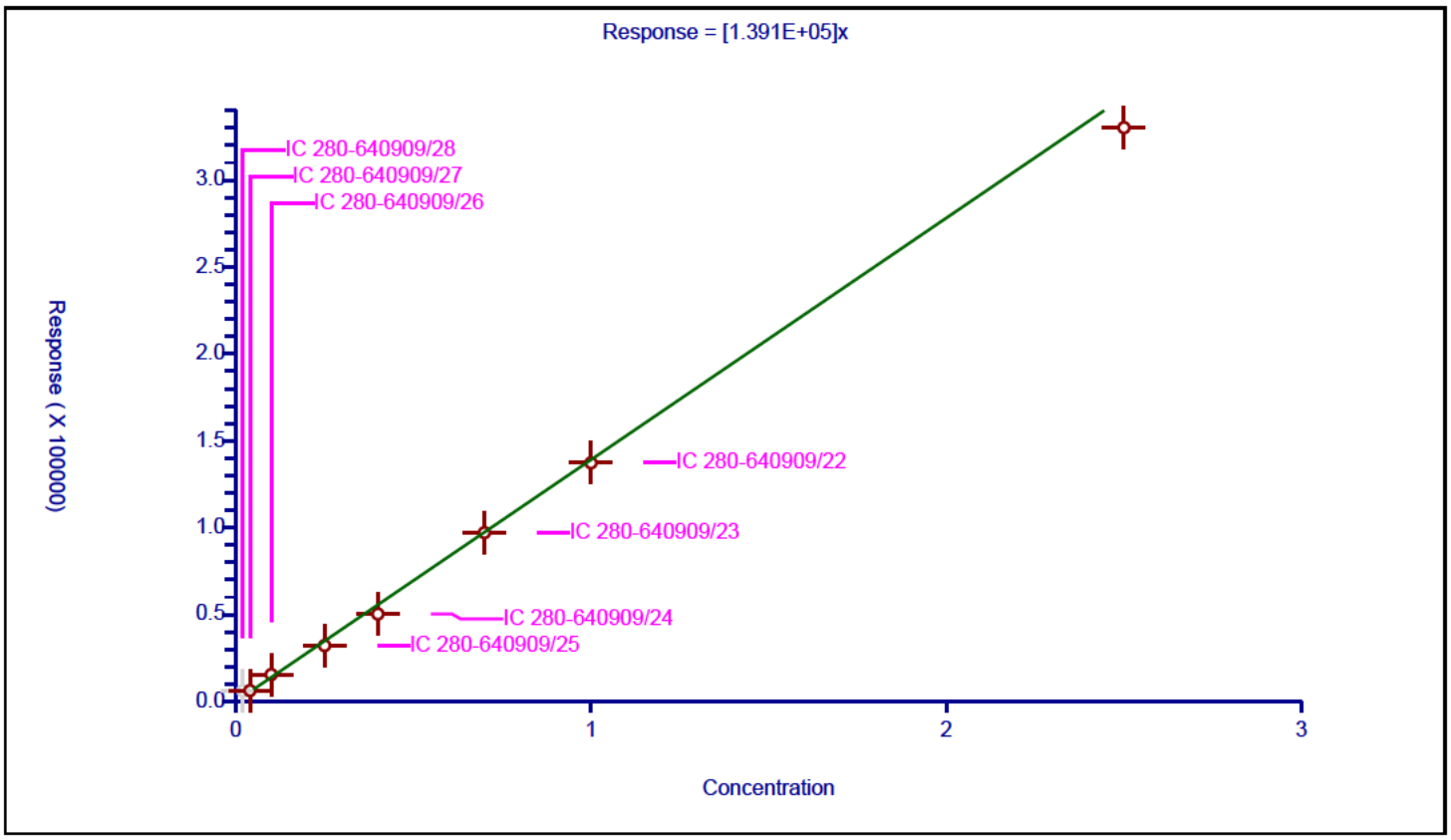
Curve Coefficients

Intercept:	0
Slope:	1.391E+05

Error Coefficients

Relative Standard Deviation:	8.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-640909/28	0.02	6151.0			307550.0	N
2	IC 280-640909/27	0.04	6249.0			156225.0	Y
3	IC 280-640909/26	0.1	15490.0			154900.0	Y
4	IC 280-640909/25	0.25	32159.0			128636.0	Y
5	IC 280-640909/24	0.4	50340.0			125850.0	Y
6	IC 280-640909/23	0.7	97131.0			138758.571429	Y
7	IC 280-640909/22	1.0	137310.0			137310.0	Y
8	IC 280-640909/21	2.5	330184.0			132073.6	Y



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-627290/19 Calibration Date: 09/26/2023 00:06

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 09250019.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Lin2		354446		234	250	-6.4	20.0
DNX	Ave	288240	264076		230	251	-8.4	20.0
HMX	Ave	173471	179932		259	250	3.7	20.0
MNX	Ave	261824	242753		271	293	-7.3	20.0
Picric acid	Ave	143426	142924		249	250	-0.4	20.0
RDX	Ave	207587	205284		247	250	-1.1	20.0
Nitrobenzene	Ave	371392	372800		251	250	0.4	20.0
3,5-Dinitroaniline	Lin2		422768		257	250	2.7	20.0
1,3-Dinitrobenzene	Ave	579530	571728		247	250	-1.3	20.0
Nitroglycerin	Ave	124215	124510		2510	2500	0.2	20.0
2-Nitrotoluene	Ave	247036	244804		248	250	-0.9	20.0
4-Nitrotoluene	Lin2		216100		246	250	-1.7	20.0
4-Amino-2,6-dinitrotoluene	Lin2		276988		252	250	0.8	20.0
3-Nitrotoluene	Lin2		273212		249	250	-0.4	20.0
2-Amino-4,6-dinitrotoluene	Lin2		392380		257	250	2.8	20.0
1,3,5-Trinitrobenzene	Ave	411631	399928		243	250	-2.8	20.0
2,6-Dinitrotoluene	Lin2		266240		252	250	0.8	20.0
2,4-Dinitrotoluene	Ave	545087	541828		249	250	-0.6	20.0
Tetryl	Ave	308340	304404		247	250	-1.3	20.0
2,4,6-Trinitrotoluene	Ave	384986	396652		258	250	3.0	20.0
PETN	Ave	123011	129159		2620	2500	5.0	20.0
1,2-Dinitrobenzene	Ave	256773	258484		252	250	0.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-627290/19 Calibration Date: 09/26/2023 00:06

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 09250019.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.29	5.14	5.44
DNX	6.13	5.99	6.29
HMX	6.78	6.64	6.94
MNX	7.63	7.49	7.79
Picric acid	8.65	8.51	8.81
RDX	9.02	8.89	9.19
Nitrobenzene	11.57	11.45	11.75
3,5-Dinitroaniline	14.37	14.23	14.53
1,3-Dinitrobenzene	14.67	14.52	14.82
Nitroglycerin	15.11	14.96	15.26
2-Nitrotoluene	15.72	15.59	15.89
4-Nitrotoluene	15.95	15.81	16.11
4-Amino-2,6-dinitrotoluene	16.46	16.33	16.63
3-Nitrotoluene	16.78	16.65	16.95
2-Amino-4,6-dinitrotoluene	17.26	17.13	17.43
1,3,5-Trinitrobenzene	17.47	17.35	17.65
2,6-Dinitrotoluene	18.57	18.45	18.75
2,4-Dinitrotoluene	19.02	18.90	19.20
Tetryl	22.23	22.09	22.39
2,4,6-Trinitrotoluene	23.09	22.95	23.25
PETN	24.21	24.06	24.36
1,2-Dinitrobenzene	12.51	12.39	12.69

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250019.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 26-Sep-2023 00:06:31 ALS Bottle#: 7 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\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:30:47 Calib Date: 25-Sep-2023 23:30:18
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:05:06

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.286	5.291	-0.005	88700	0.2503	0.2343	
4 DNX	1	6.132	6.144	-0.012	66283	0.2510	0.2300	
6 HMX	1	6.779	6.791	-0.012	44983	0.2500	0.2593	
7 MNX	1	7.632	7.644	-0.012	71066	0.2928	0.2714	
5 2,4,6-Trinitrophenol	1	8.646	8.664	-0.018	35731	0.2500	0.2491	
8 RDX	1	9.019	9.038	-0.019	51321	0.2500	0.2472	
9 Nitrobenzene	1	11.566	11.598	-0.032	93200	0.2500	0.2509	
$ 10 1,2-Dinitrobenzene	1	12.512	12.538	-0.026	64621	0.2500	0.2517	
11 3,5-Dinitroaniline	1	14.366	14.378	-0.012	105692	0.2500	0.2568	
12 1,3-Dinitrobenzene	1	14.666	14.671	-0.005	142932	0.2500	0.2466	
13 Nitroglycerin	2	15.106	15.111	-0.005	311274	2.50	2.51	
14 o-Nitrotoluene	1	15.719	15.738	-0.019	61201	0.2500	0.2477	
15 p-Nitrotoluene	1	15.946	15.958	-0.012	54025	0.2500	0.2458	
16 4-Amino-2,6-dinitrotoluene	1	16.459	16.478	-0.019	69247	0.2500	0.2520	
17 m-Nitrotoluene	1	16.779	16.804	-0.025	68303	0.2500	0.2491	
18 2-Amino-4,6-dinitrotoluene	1	17.259	17.284	-0.025	98095	0.2500	0.2569	
19 1,3,5-Trinitrobenzene	1	17.472	17.498	-0.026	99982	0.2500	0.2429	
20 2,6-Dinitrotoluene	1	18.566	18.598	-0.032	66560	0.2500	0.2520	
21 2,4-Dinitrotoluene	1	19.019	19.051	-0.032	135457	0.2500	0.2485	
22 Tetryl	1	22.232	22.244	-0.012	76101	0.2500	0.2468	
23 2,4,6-Trinitrotoluene	1	23.092	23.104	-0.012	99163	0.2500	0.2576	
24 PETN	2	24.206	24.211	-0.005	322898	2.50	2.62	

QC Flag Legend
Processing Flags

Reagents:

8330Surrogate_00150	Amount Added:	25.00	Units: uL
8330_OP_DMT_00022	Amount Added:	25.00	Units: uL
8330 LCS_00130	Amount Added:	25.00	Units: uL

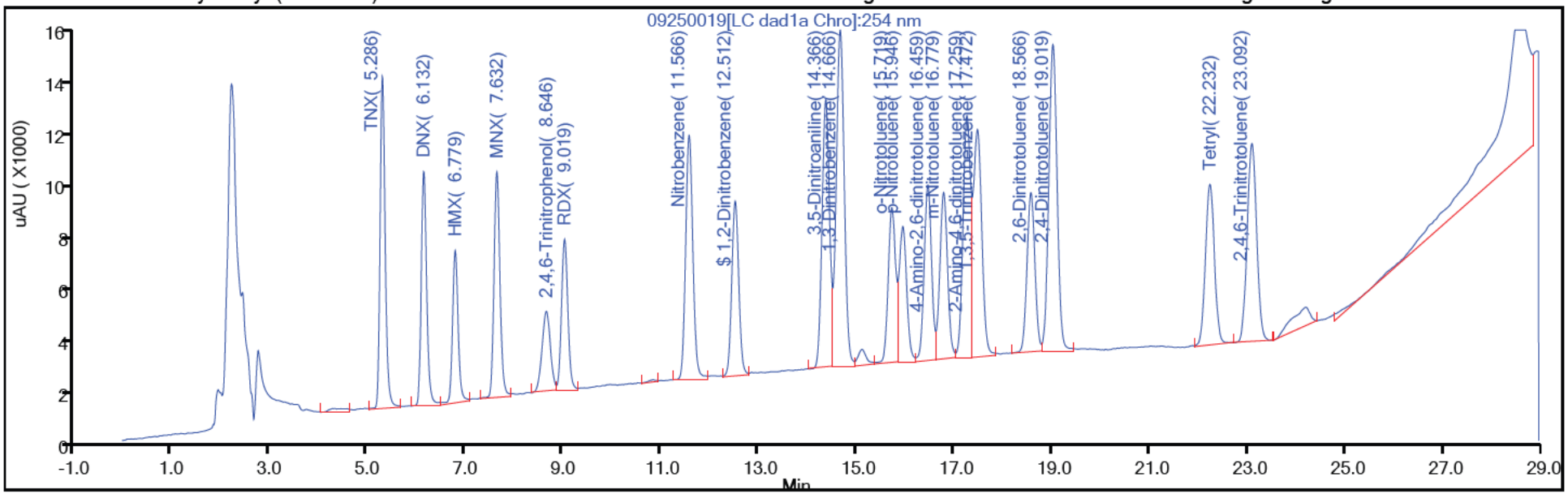
Report Date: 26-Sep-2023 15:31:31 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

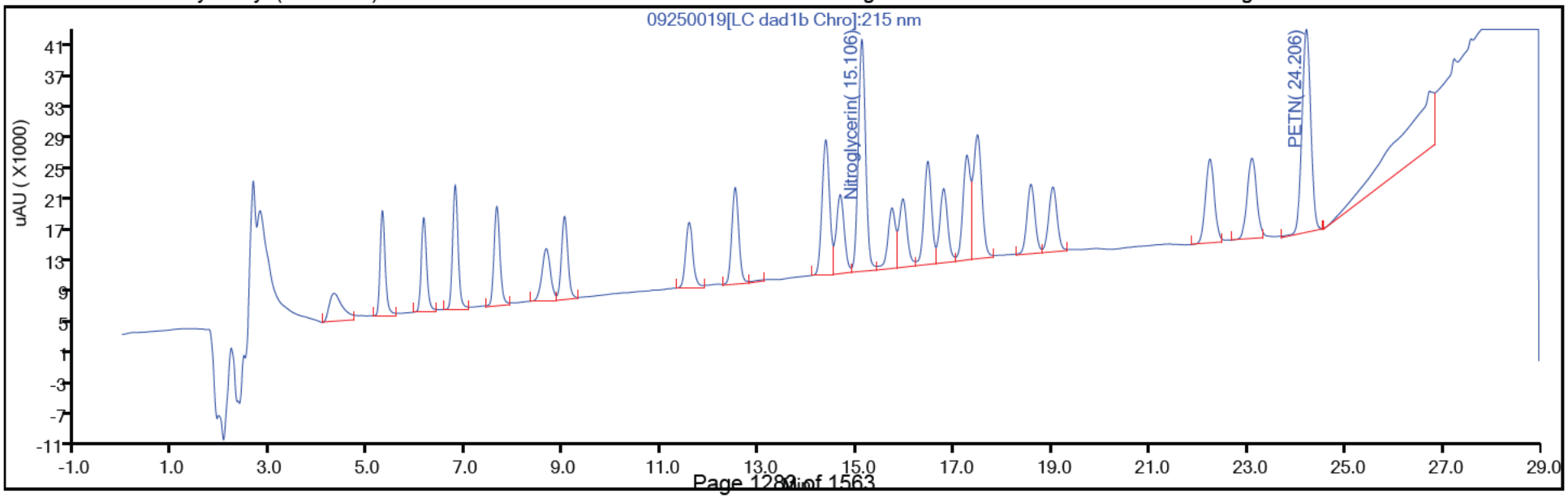
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250019.d

Injection Date:	26-Sep-2023 00:06:31	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#:	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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-627290/28 Calibration Date: 09/26/2023 05:31

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/26/2023 00:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/26/2023 04:54

Lab File ID: 09250028.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	387643	365704		0.236	0.250	-5.7	20.0
2,4-diamino-6-nitrotoluene	Ave	233949	220120		0.235	0.250	-5.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-627290/28 Calibration Date: 09/26/2023 05:31

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/26/2023 00:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/26/2023 04:54

Lab File ID: 09250028.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	4.22	4.08	4.38
2,4-diamino-6-nitrotoluene	4.79	4.66	4.96

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250028.D
Lims ID: ICV ADD
Client ID:
Sample Type: ICV
Inject. Date: 26-Sep-2023 05:31:02 ALS Bottle#: 8 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist:

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-Sep-2023 15:30:47 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1620

First Level Reviewer: LV5D Date: 26-Sep-2023 14:15:24

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.224	4.230	-0.006	91426	0.2500	0.2359	
2 2,4-diamino-6-nitrotoluene	1	4.790	4.810	-0.020	55030	0.2500	0.2352	

QC Flag Legend
Processing Flags

Reagents:
8330DiaminLCS_00060 Amount Added: 12.50 Units: uL

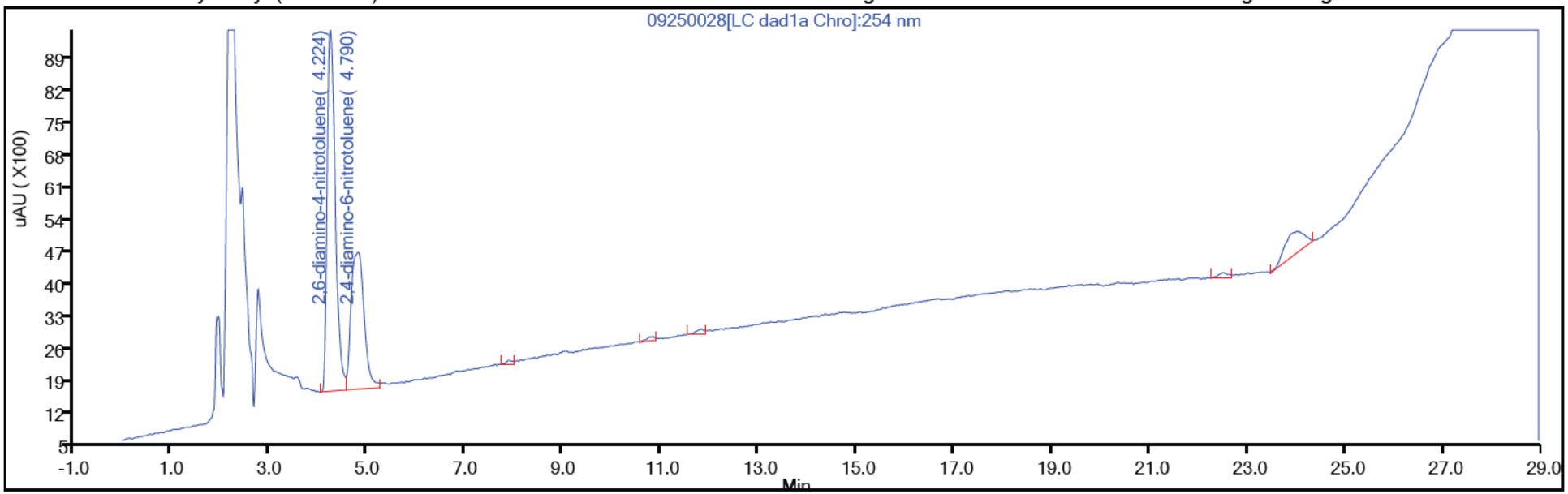
Report Date: 26-Sep-2023 15:31:32 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

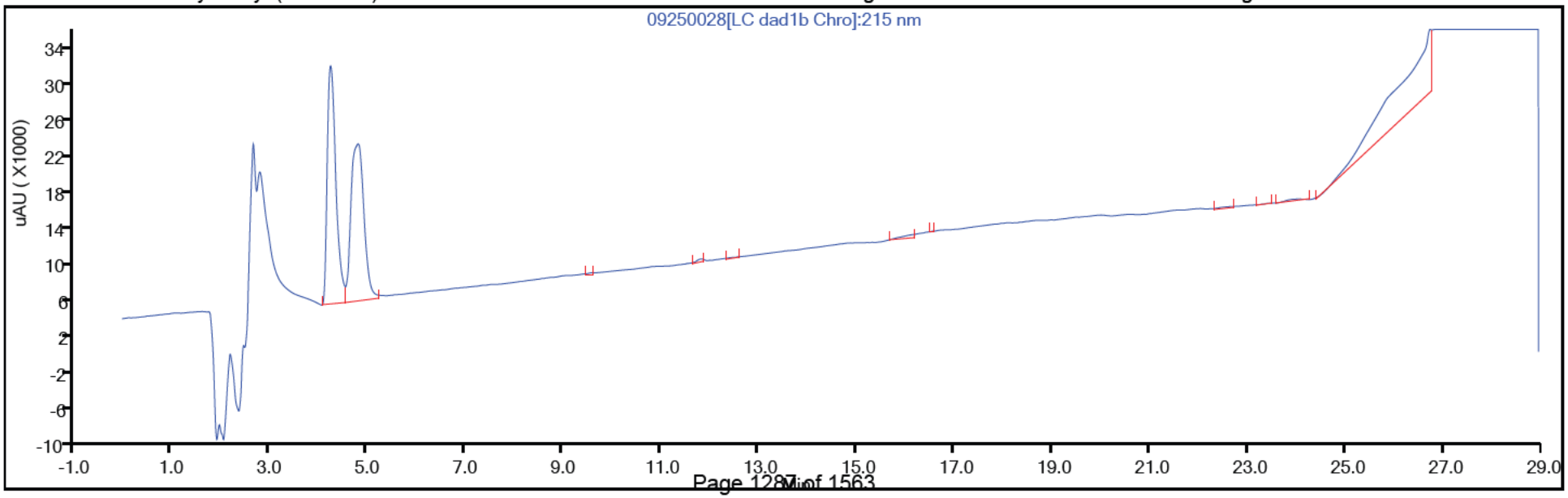
Data File: \\chromfs\denver\chromdata\g2_luna\20230925-125782.b\09250028.d

Injection Date:	26-Sep-2023 05:31:02	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	ICV ADD			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/7 Calibration Date: 03/20/2024 18:28

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	173471	177580		256	250	2.4	20.0
Picric acid	Ave	143426	154660		270	250	7.8	20.0
RDX	Ave	207587	208416		251	250	0.4	20.0
Nitrobenzene	Ave	371392	381988		257	250	2.9	20.0
3,5-Dinitroaniline	Lin2		441228		268	250	7.2	20.0
1,3-Dinitrobenzene	Ave	579530	603228		260	250	4.1	20.0
Nitroglycerin	Ave	124215	117510		2370	2500	-5.4	20.0
2-Nitrotoluene	Ave	247036	252656		256	250	2.3	20.0
4-Nitrotoluene	Lin2		233004		265	250	6.1	20.0
4-Amino-2,6-dinitrotoluene	Lin2		286536		261	250	4.4	20.0
3-Nitrotoluene	Lin2		285820		261	250	4.3	20.0
2-Amino-4,6-dinitrotoluene	Lin2		382156		250	250	0.0	20.0
1,3,5-Trinitrobenzene	Ave	411631	469700		285	250	14.1	20.0
2,6-Dinitrotoluene	Lin2		270864		256	250	2.6	20.0
2,4-Dinitrotoluene	Ave	545087	557388		256	250	2.3	20.0
Tetryl	Ave	308340	330888		268	250	7.3	20.0
2,4,6-Trinitrotoluene	Ave	384986	410012		266	250	6.5	20.0
PETN	Ave	123011	128218		2610	2500	4.2	20.0
1,2-Dinitrobenzene	Ave	256773	263252		256	250	2.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/7 Calibration Date: 03/20/2024 18:28

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.65	6.50	6.80
Picric acid	8.45	8.30	8.60
RDX	8.84	8.69	8.99
Nitrobenzene	11.42	11.27	11.57
3,5-Dinitroaniline	14.14	13.99	14.29
1,3-Dinitrobenzene	14.46	14.31	14.61
Nitroglycerin	14.90	14.75	15.05
2-Nitrotoluene	15.55	15.40	15.70
4-Nitrotoluene	15.77	15.62	15.92
4-Amino-2,6-dinitrotoluene	16.25	16.10	16.40
3-Nitrotoluene	16.61	16.46	16.76
2-Amino-4,6-dinitrotoluene	17.03	16.88	17.18
1,3,5-Trinitrobenzene	17.25	17.10	17.40
2,6-Dinitrotoluene	18.38	18.23	18.53
2,4-Dinitrotoluene	18.82	18.67	18.97
Tetryl	22.02	21.87	22.17
2,4,6-Trinitrotoluene	22.89	22.74	23.04
PETN	24.04	23.89	24.19
1,2-Dinitrobenzene	12.34	12.19	12.49

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200007.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 20-Mar-2024 18:28:41 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:12 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 20-Mar-2024 19:16:52

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.649	6.649	0.000	44395	0.2500	0.2559	
5 2,4,6-Trinitrophenol	1	8.449	8.449	0.000	38665	0.2500	0.2696	
8 RDX	1	8.842	8.842	0.000	52104	0.2500	0.2510	
9 Nitrobenzene	1	11.422	11.422	0.000	95497	0.2500	0.2571	
$ 10 1,2-Dinitrobenzene	1	12.336	12.336	0.000	65813	0.2500	0.2563	
11 3,5-Dinitroaniline	1	14.142	14.142	0.000	110307	0.2500	0.2680	
12 1,3-Dinitrobenzene	1	14.456	14.456	0.000	150807	0.2500	0.2602	
13 Nitroglycerin	2	14.896	14.896	0.000	293776	2.50	2.37	M
14 o-Nitrotoluene	1	15.549	15.549	0.000	63164	0.2500	0.2557	
15 p-Nitrotoluene	1	15.769	15.769	0.000	58251	0.2500	0.2653	
16 4-Amino-2,6-dinitrotoluene	1	16.249	16.249	0.000	71634	0.2500	0.2609	
17 m-Nitrotoluene	1	16.609	16.609	0.000	71455	0.2500	0.2608	
18 2-Amino-4,6-dinitrotoluene	1	17.029	17.029	0.000	95539	0.2500	0.2501	
19 1,3,5-Trinitrobenzene	1	17.249	17.249	0.000	117425	0.2500	0.2853	
20 2,6-Dinitrotoluene	1	18.376	18.376	0.000	67716	0.2500	0.2564	
21 2,4-Dinitrotoluene	1	18.822	18.822	0.000	139347	0.2500	0.2556	
22 Tetryl	1	22.016	22.016	0.000	82722	0.2500	0.2683	
23 2,4,6-Trinitrotoluene	1	22.889	22.889	0.000	102503	0.2500	0.2663	
24 PETN	2	24.036	24.036	0.000	320544	2.50	2.61	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 25.00 Units: uL

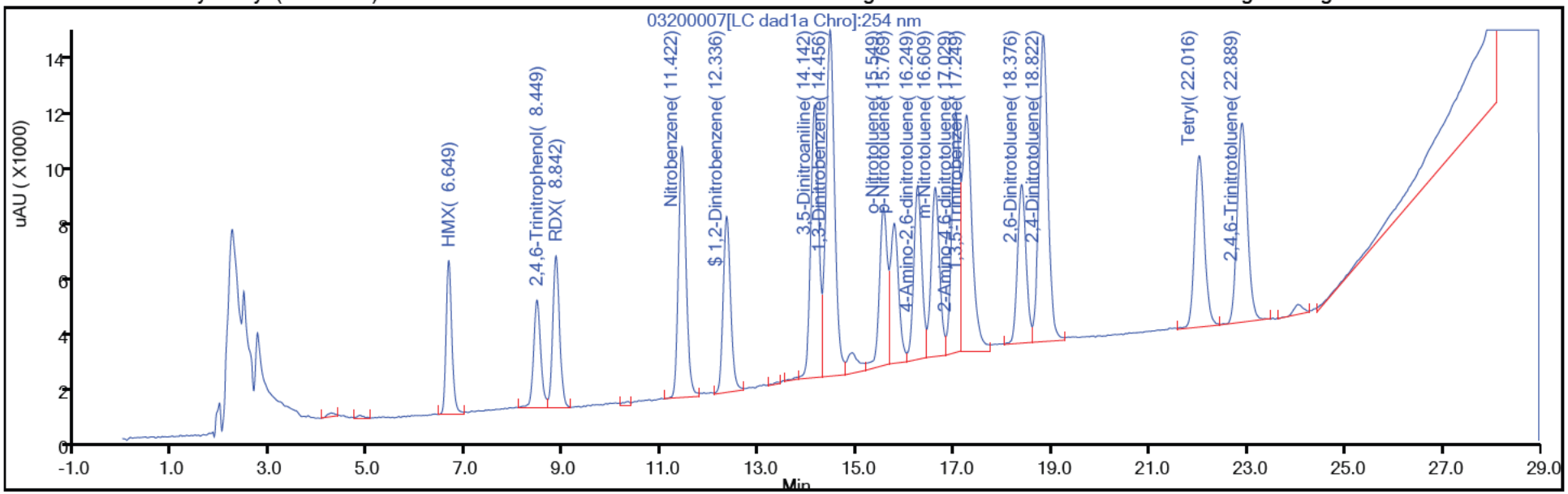
Report Date: 21-Mar-2024 16:20:12 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

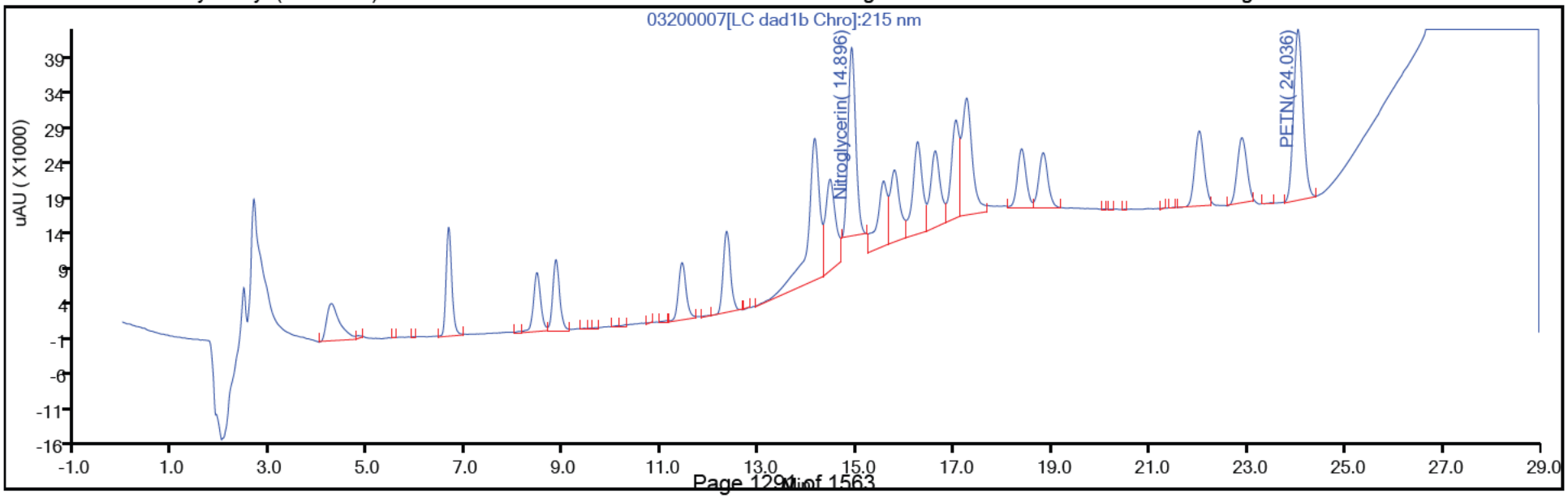
Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200007.d

Injection Date:	20-Mar-2024 18:28:41	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	CCV			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

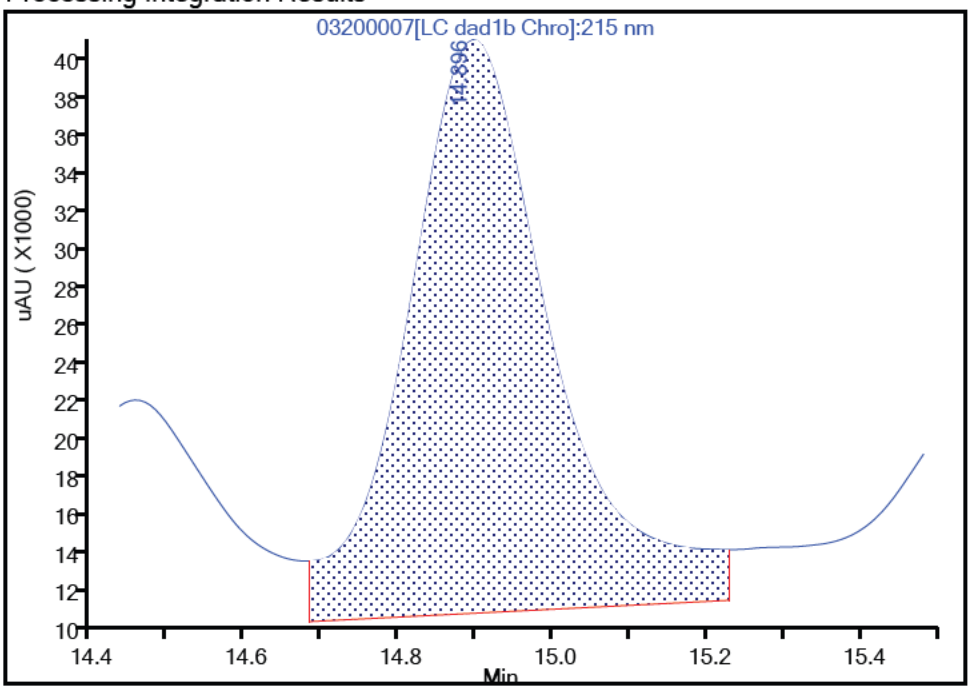
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200007.d				
Injection Date:	20-Mar-2024 18:28:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

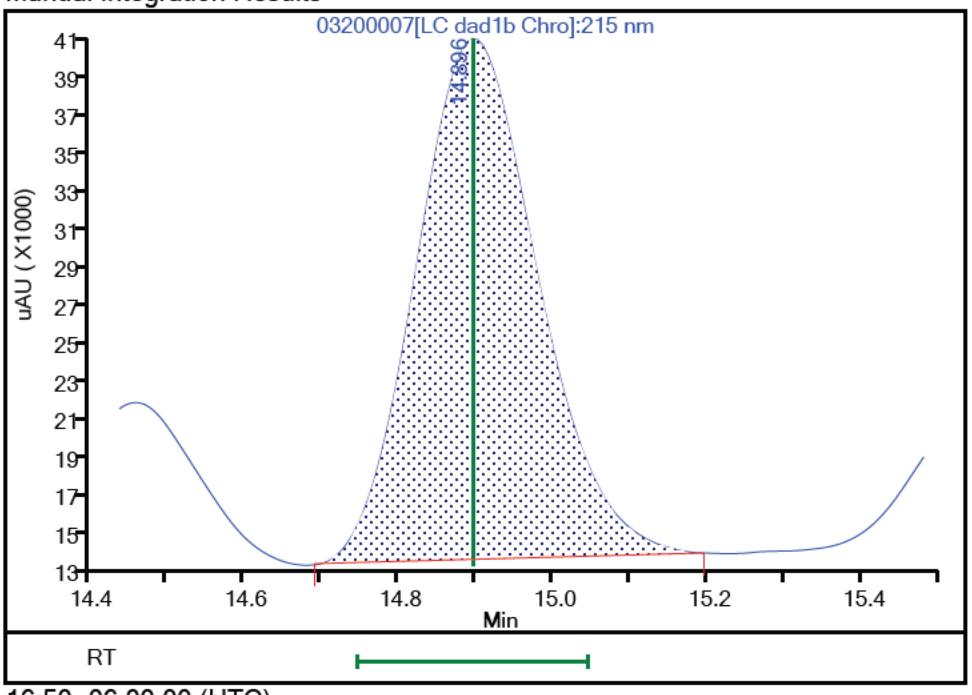
Processing Integration Results

RT: 14.90
Area: 390176
Amount: 3.141135
Amount Units: ug/ml



Manual Integration Results

RT: 14.90
Area: 293776
Amount: 2.365061
Amount Units: ug/ml



Reviewer: LV5D, 20-Mar-2024 19:16:50 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

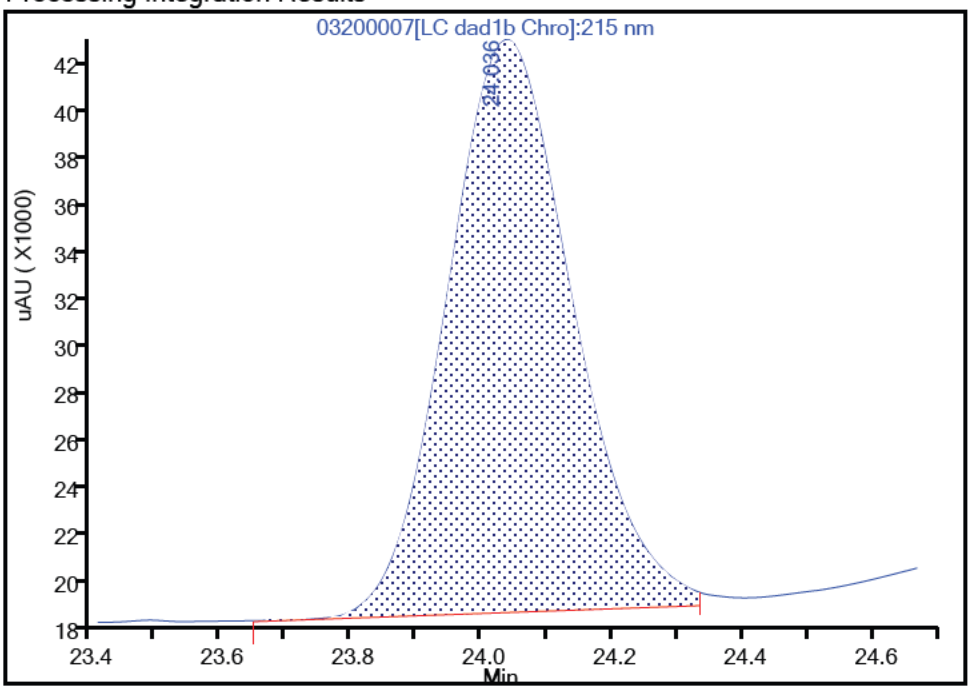
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200007.d				
Injection Date:	20-Mar-2024 18:28:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

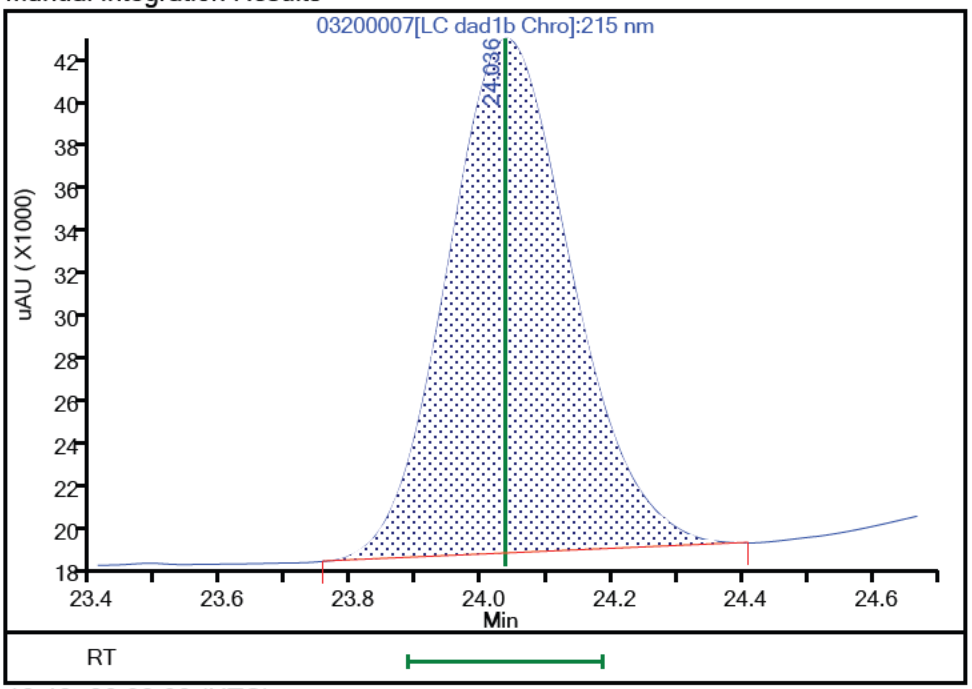
Processing Integration Results

RT: 24.04
Area: 323967
Amount: 2.633634
Amount Units: ug/ml



Manual Integration Results

RT: 24.04
Area: 320544
Amount: 2.605807
Amount Units: ug/ml



Reviewer: LV5D, 20-Mar-2024 19:16:46 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/18 Calibration Date: 03/20/2024 23:52

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200018.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	173471	180348		260	250	4.0	20.0
Picric acid	Ave	143426	150728		263	250	5.1	20.0
RDX	Ave	207587	211176		254	250	1.7	20.0
Nitrobenzene	Ave	371392	371180		250	250	-0.0	20.0
3,5-Dinitroaniline	Lin2		425412		258	250	3.4	20.0
1,3-Dinitrobenzene	Ave	579530	590548		255	250	1.9	20.0
Nitroglycerin	Ave	124215	118387		2380	2500	-4.7	20.0
2-Nitrotoluene	Ave	247036	229640		232	250	-7.0	20.0
4-Nitrotoluene	Lin2		221696		252	250	0.9	20.0
4-Amino-2,6-dinitrotoluene	Lin2		276204		251	250	0.5	20.0
3-Nitrotoluene	Lin2		277844		253	250	1.3	20.0
2-Amino-4,6-dinitrotoluene	Lin2		382580		250	250	0.2	20.0
1,3,5-Trinitrobenzene	Ave	411631	468084		284	250	13.7	20.0
2,6-Dinitrotoluene	Lin2		278504		264	250	5.5	20.0
2,4-Dinitrotoluene	Ave	545087	555696		255	250	1.9	20.0
Tetryl	Ave	308340	339416		275	250	10.1	20.0
2,4,6-Trinitrotoluene	Ave	384986	434092		282	250	12.8	20.0
PETN	Ave	123011	128794		2620	2500	4.7	20.0
1,2-Dinitrobenzene	Ave	256773	258308		251	250	0.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/18 Calibration Date: 03/20/2024 23:52

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200018.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.66	6.50	6.80
Picric acid	8.42	8.30	8.60
RDX	8.86	8.69	8.99
Nitrobenzene	11.44	11.27	11.57
3,5-Dinitroaniline	14.14	13.99	14.29
1,3-Dinitrobenzene	14.46	14.31	14.61
Nitroglycerin	14.89	14.75	15.05
2-Nitrotoluene	15.54	15.40	15.70
4-Nitrotoluene	15.76	15.62	15.92
4-Amino-2,6-dinitrotoluene	16.24	16.10	16.40
3-Nitrotoluene	16.60	16.46	16.76
2-Amino-4,6-dinitrotoluene	17.02	16.88	17.18
1,3,5-Trinitrobenzene	17.24	17.10	17.40
2,6-Dinitrotoluene	18.36	18.23	18.53
2,4-Dinitrotoluene	18.80	18.67	18.97
Tetryl	22.00	21.87	22.17
2,4,6-Trinitrotoluene	22.88	22.74	23.04
PETN	24.02	23.89	24.19
1,2-Dinitrobenzene	12.34	12.19	12.49

Report Date: 21-Mar-2024 16:20:17 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200018.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 20-Mar-2024 23:52:10 ALS Bottle#: 7 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:17 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 16:15:24

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	6 HMX	1	6.657	6.649	0.008	45087	0.2500	0.2599	
	5 2,4,6-Trinitrophenol	1	8.417	8.449	-0.032	37682	0.2500	0.2627	
	8 RDX	1	8.857	8.842	0.015	52794	0.2500	0.2543	
	9 Nitrobenzene	1	11.437	11.422	0.015	92795	0.2500	0.2499	M
$	10 1,2-Dinitrobenzene	1	12.344	12.336	0.008	64577	0.2500	0.2515	M
	11 3,5-Dinitroaniline	1	14.137	14.142	-0.005	106353	0.2500	0.2584	M
	12 1,3-Dinitrobenzene	1	14.457	14.456	0.001	147637	0.2500	0.2548	M
	13 Nitroglycerin	2	14.890	14.896	-0.006	295968	2.50	2.38	M
	14 o-Nitrotoluene	1	15.544	15.549	-0.005	57410	0.2500	0.2324	M
	15 p-Nitrotoluene	1	15.764	15.769	-0.005	55424	0.2500	0.2522	M
	16 4-Amino-2,6-dinitrotoluene	1	16.237	16.249	-0.012	69051	0.2500	0.2513	M
	17 m-Nitrotoluene	1	16.597	16.609	-0.012	69461	0.2500	0.2534	M
	18 2-Amino-4,6-dinitrotoluene	1	17.017	17.029	-0.012	95645	0.2500	0.2504	M
	19 1,3,5-Trinitrobenzene	1	17.244	17.249	-0.005	117021	0.2500	0.2843	M
	20 2,6-Dinitrotoluene	1	18.364	18.376	-0.012	69626	0.2500	0.2637	M
	21 2,4-Dinitrotoluene	1	18.804	18.822	-0.018	138924	0.2500	0.2549	M
	22 Tetryl	1	21.997	22.016	-0.019	84854	0.2500	0.2752	
	23 2,4,6-Trinitrotoluene	1	22.877	22.889	-0.012	108523	0.2500	0.2819	
	24 PETN	2	24.017	24.036	-0.019	321985	2.50	2.62	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 25.00 Units: uL

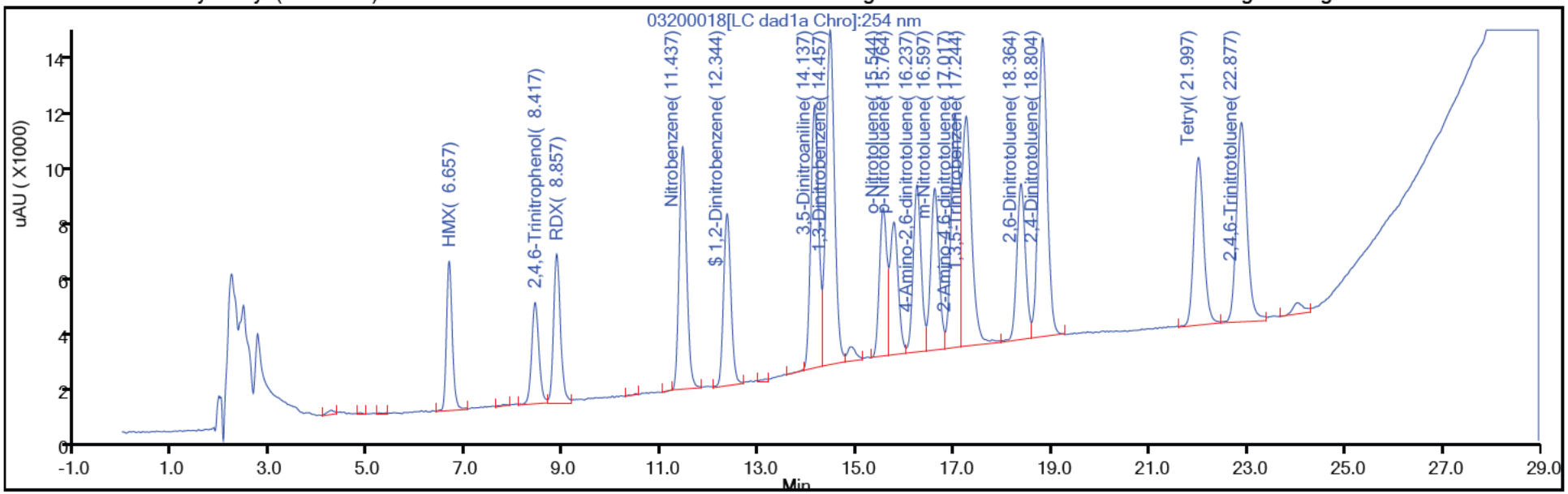
Report Date: 21-Mar-2024 16:20:17 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

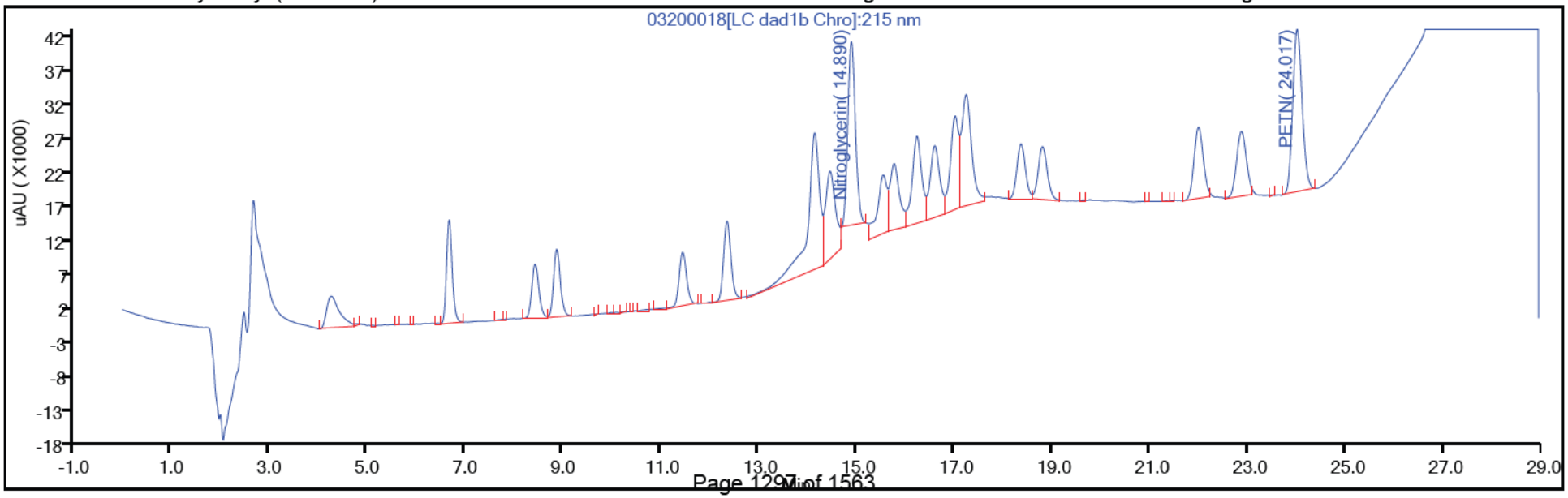
Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d

Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	CCV			Worklist Smp#:	18
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



Manual Integration/User Assign Peak Report

Eurofins Denver

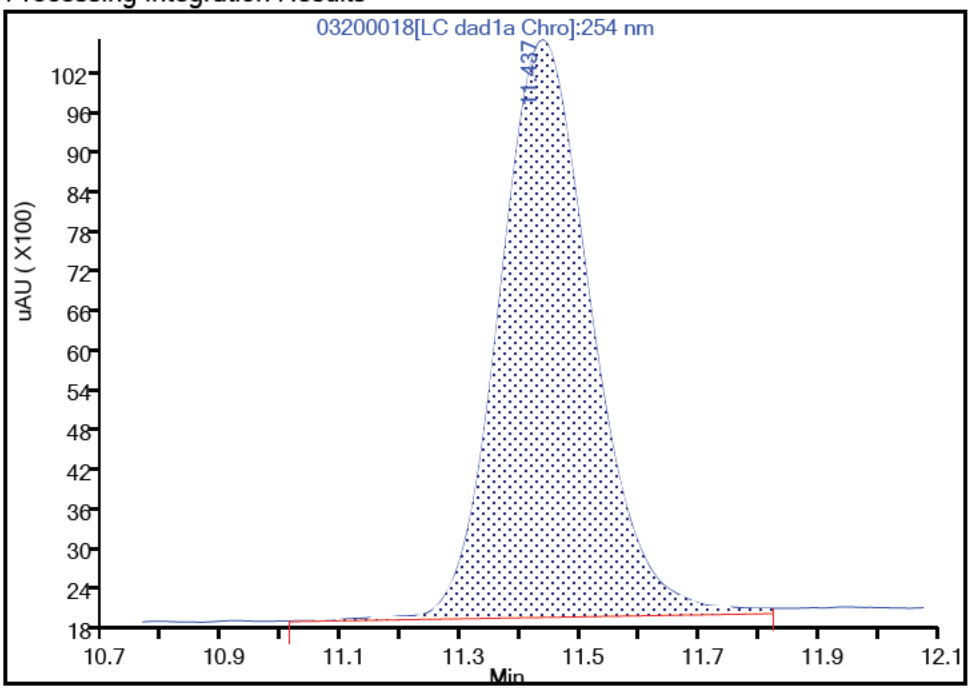
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

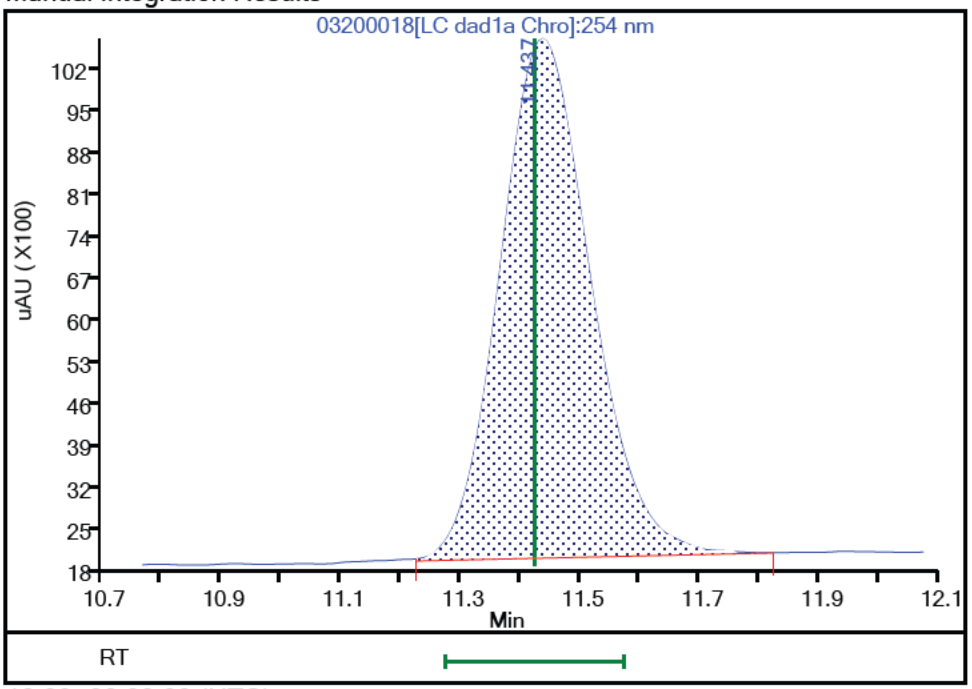
Processing Integration Results

RT: 11.44
Area: 95090
Amount: 0.256037
Amount Units: ug/ml



Manual Integration Results

RT: 11.44
Area: 92795
Amount: 0.249857
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:16:00 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

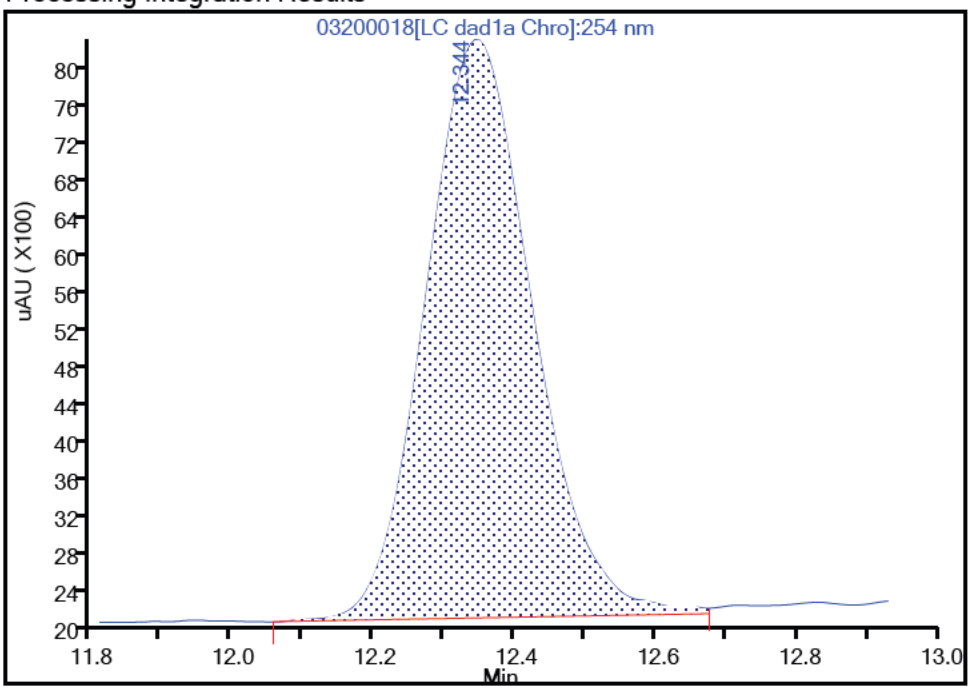
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit 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

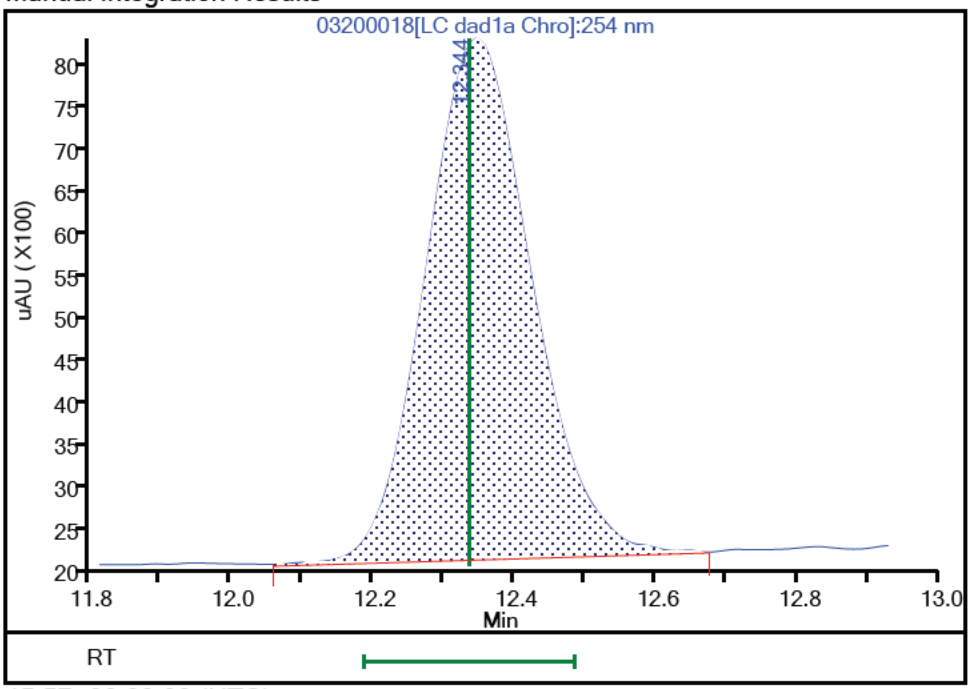
Processing Integration Results

RT: 12.34
Area: 65396
Amount: 0.254684
Amount Units: ug/ml



Manual Integration Results

RT: 12.34
Area: 64577
Amount: 0.251494
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

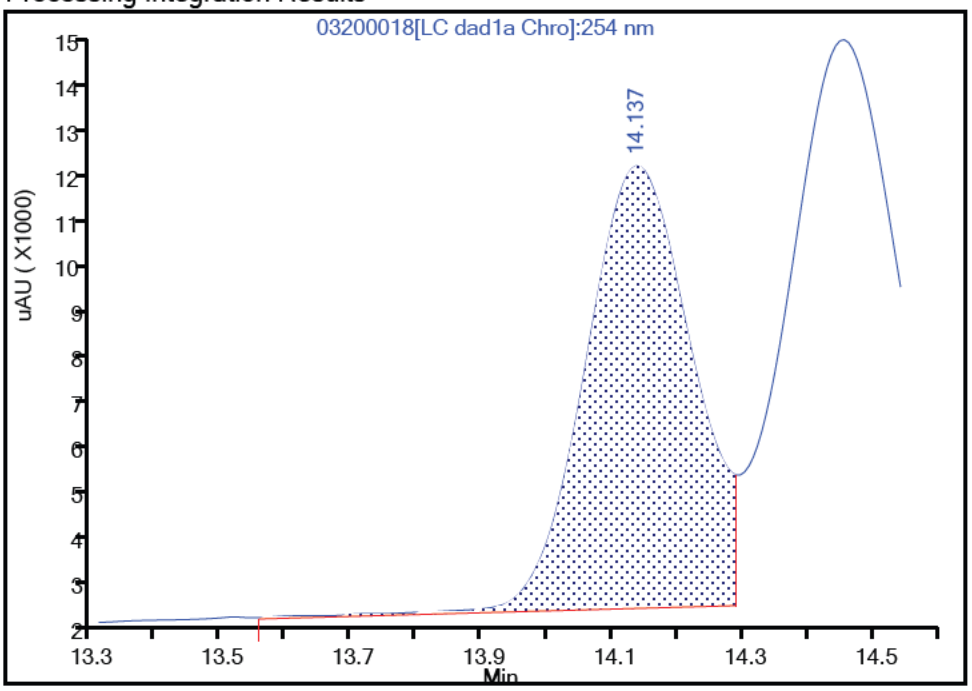
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit 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

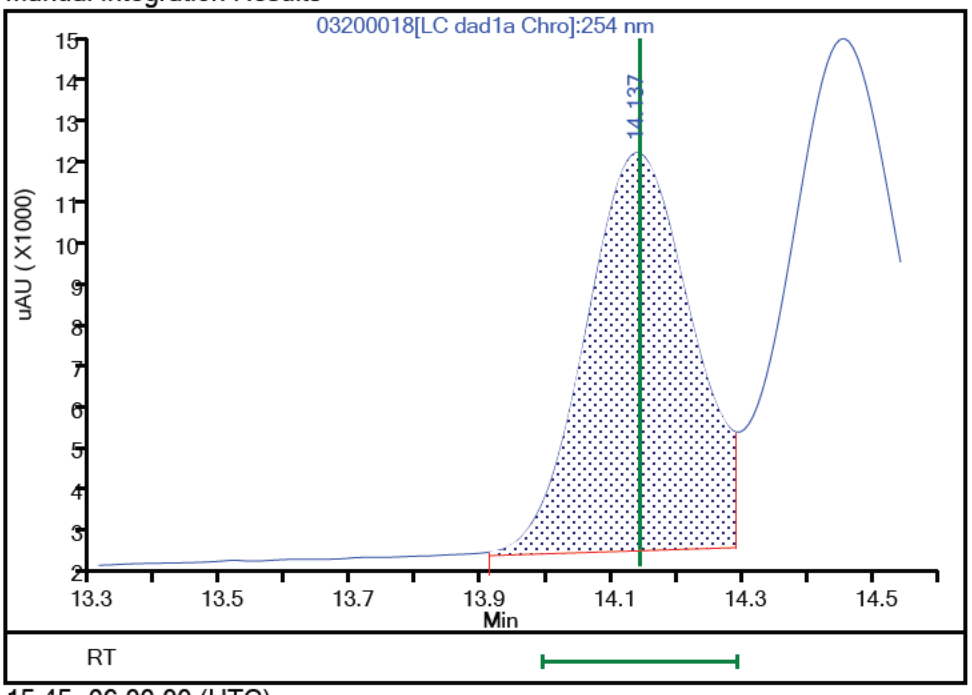
Processing Integration Results

RT: 14.14
Area: 107570
Amount: 0.261345
Amount Units: ug/ml



Manual Integration Results

RT: 14.14
Area: 106353
Amount: 0.258378
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:45 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

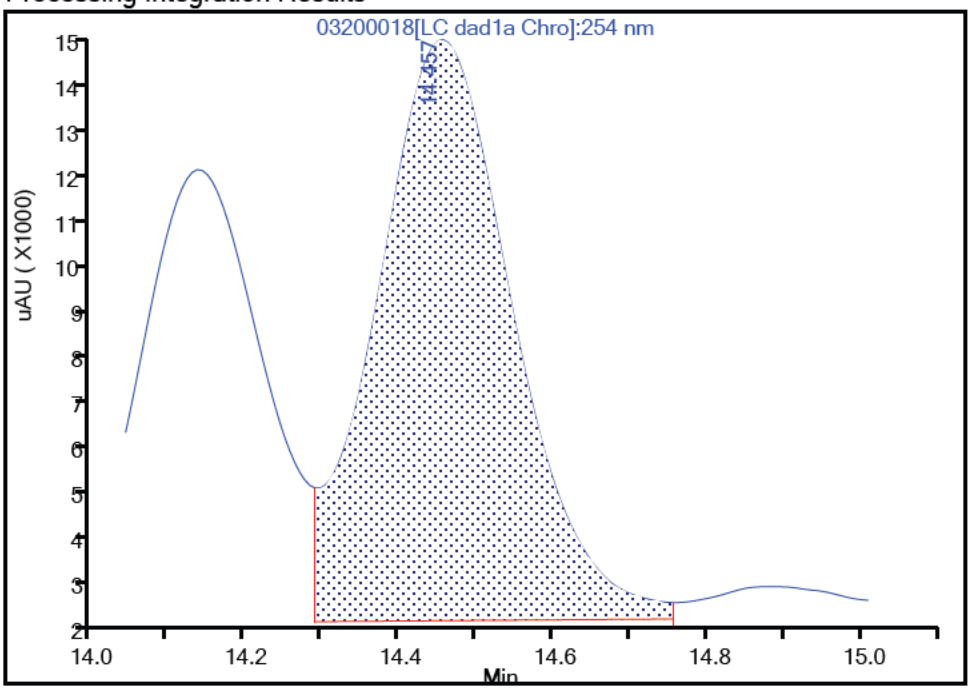
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit 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

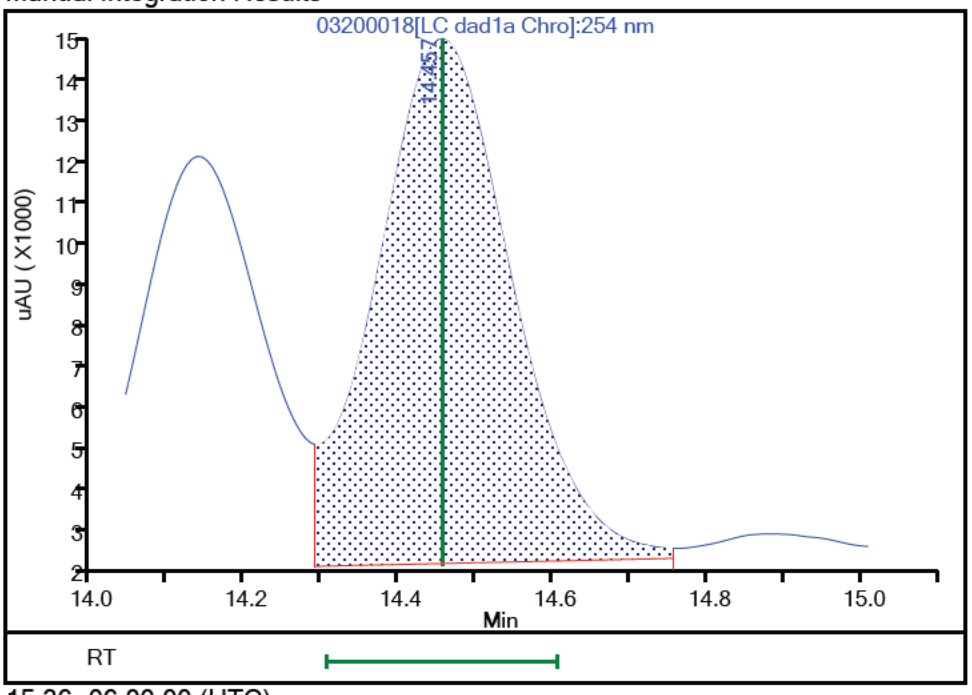
Processing Integration Results

RT: 14.46
Area: 149751
Amount: 0.258401
Amount Units: ug/ml



Manual Integration Results

RT: 14.46
Area: 147637
Amount: 0.254753
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:36 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

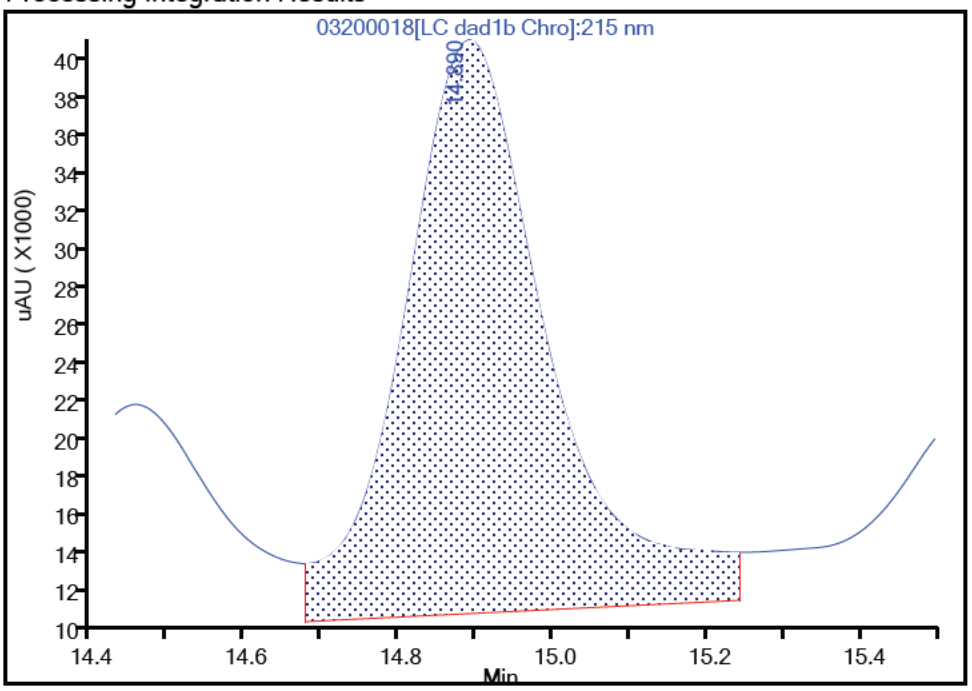
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

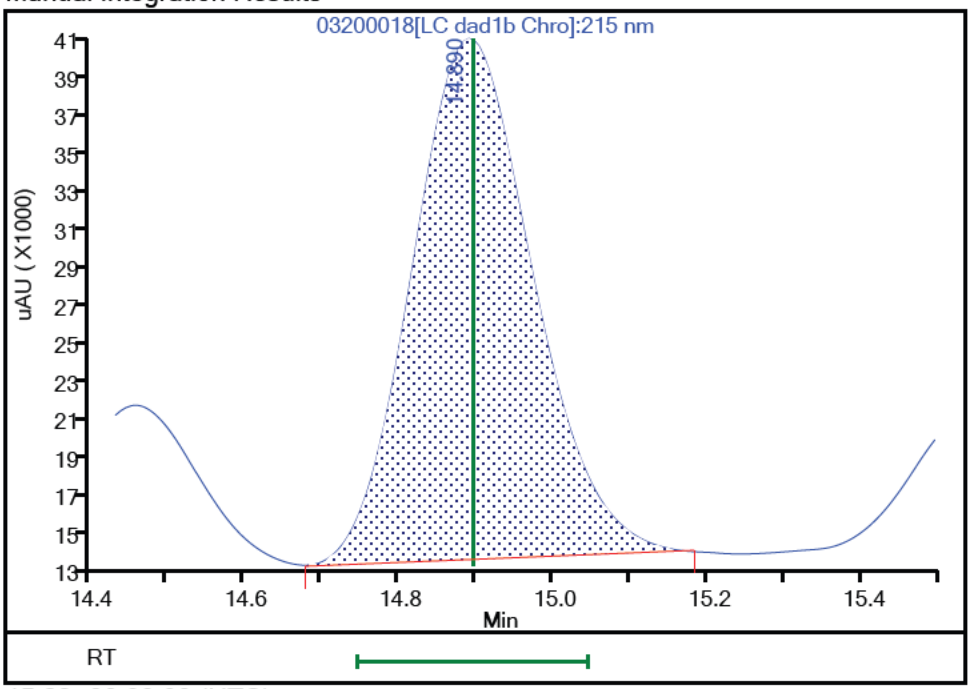
Processing Integration Results

RT: 14.89
Area: 394232
Amount: 3.173788
Amount Units: ug/ml



Manual Integration Results

RT: 14.89
Area: 295968
Amount: 2.382708
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:23 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

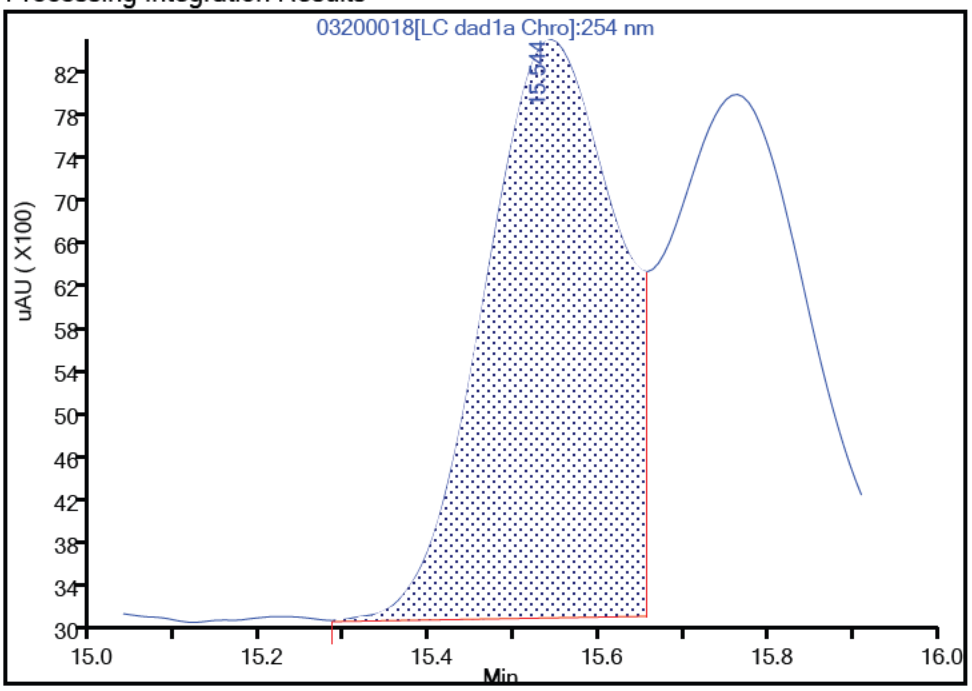
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

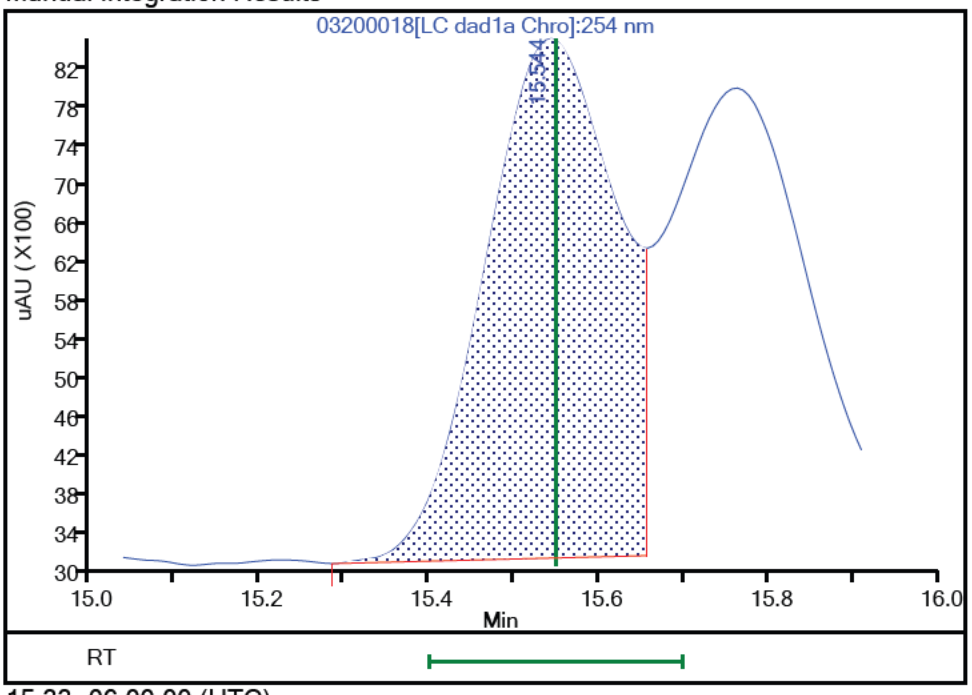
Processing Integration Results

RT: 15.54
Area: 57970
Amount: 0.234662
Amount Units: ug/ml



Manual Integration Results

RT: 15.54
Area: 57410
Amount: 0.232395
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:33 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

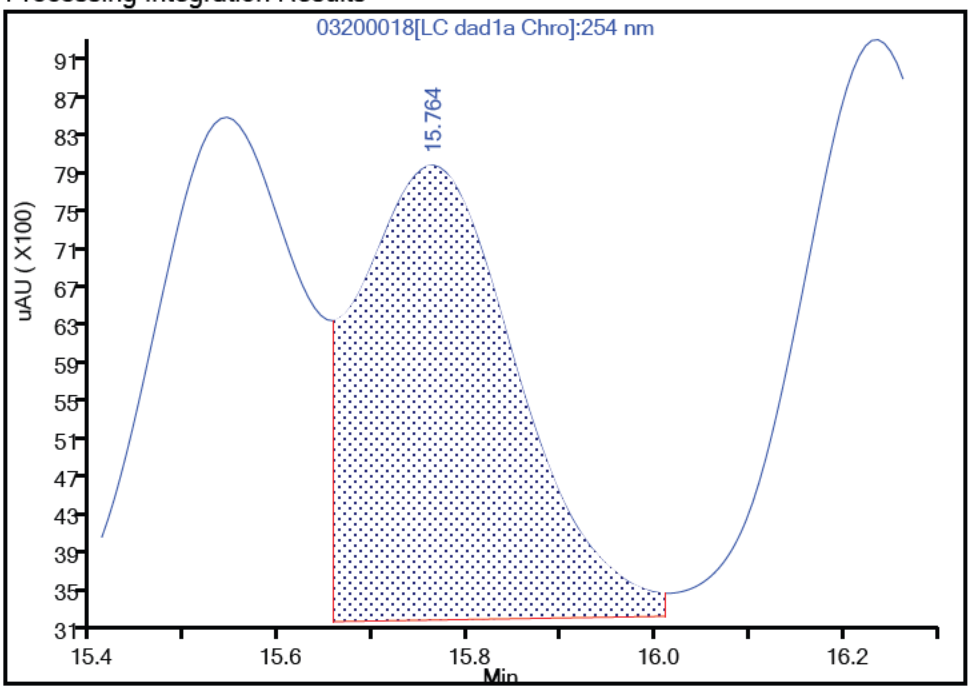
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

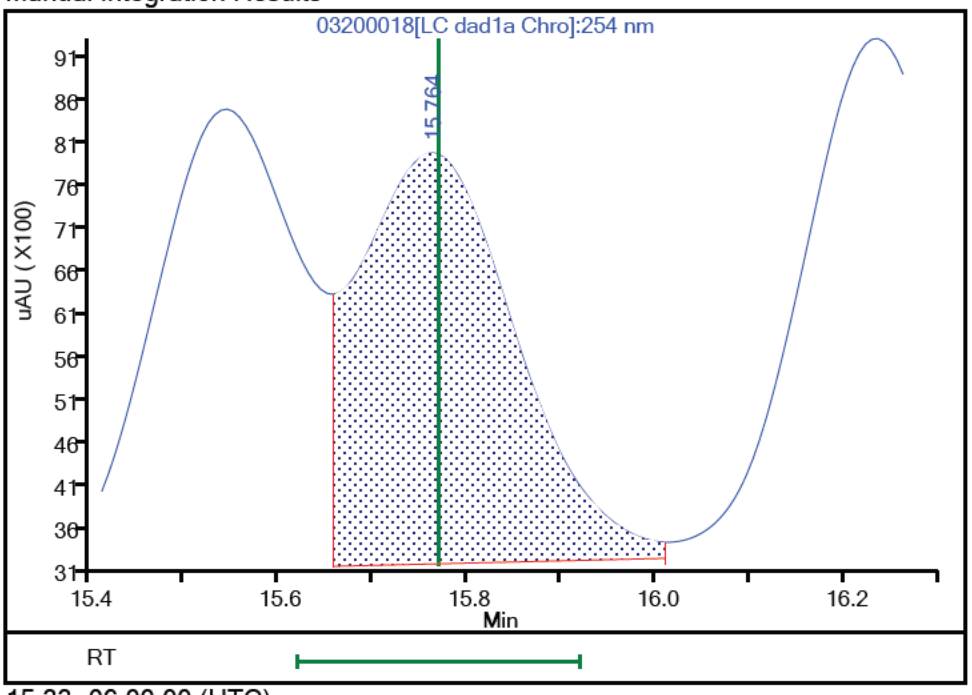
Processing Integration Results

RT: 15.76
Area: 56516
Amount: 0.257260
Amount Units: ug/ml



Manual Integration Results

RT: 15.76
Area: 55424
Amount: 0.252225
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:33 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

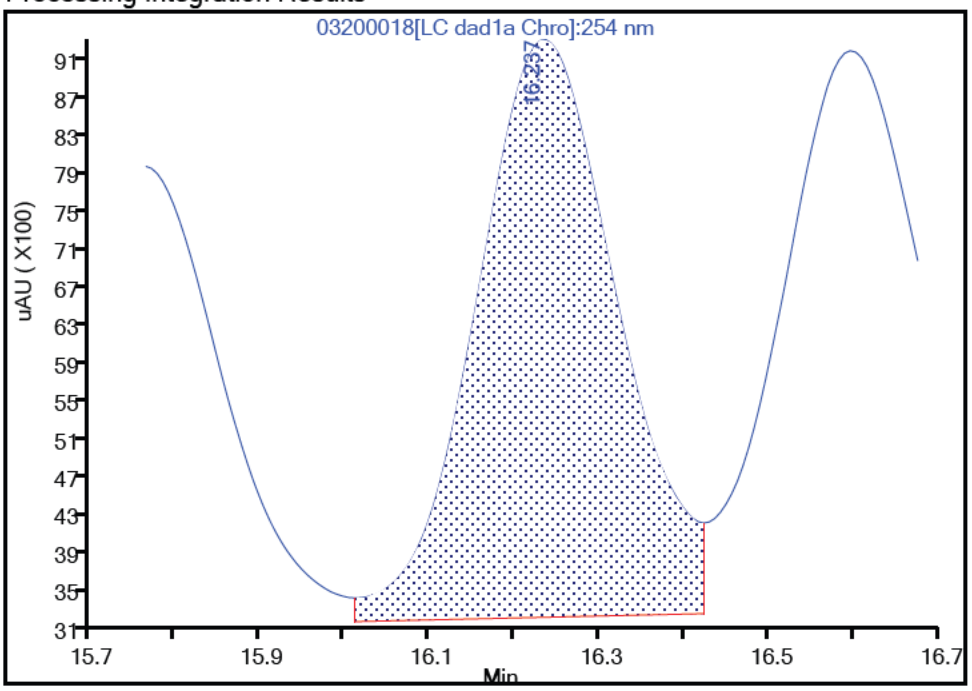
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit 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

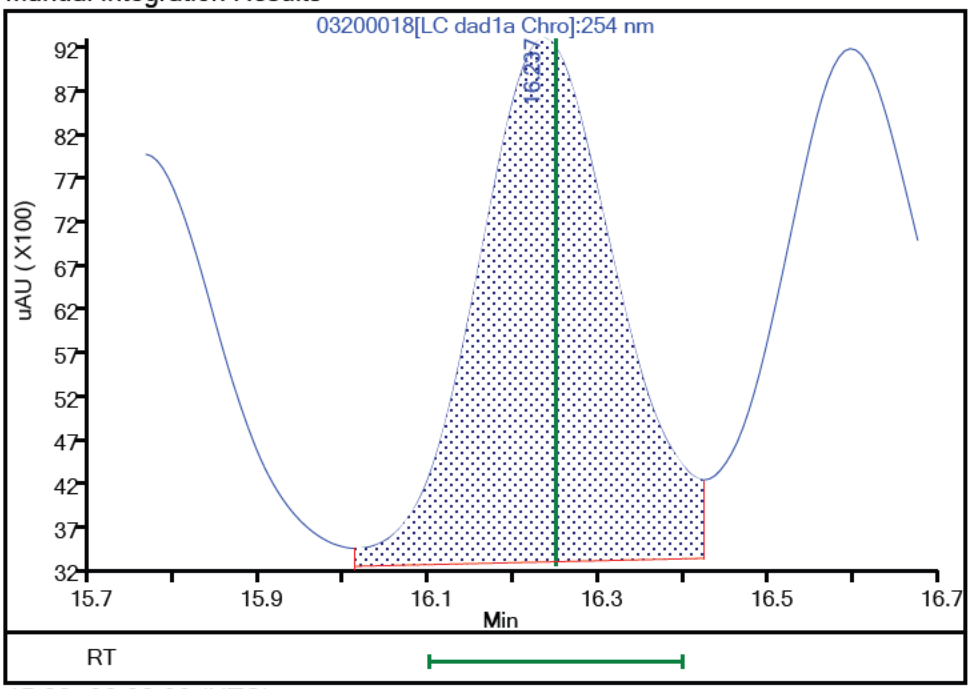
Processing Integration Results

RT: 16.24
Area: 70614
Amount: 0.257123
Amount Units: ug/ml



Manual Integration Results

RT: 16.24
Area: 69051
Amount: 0.251320
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:33 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

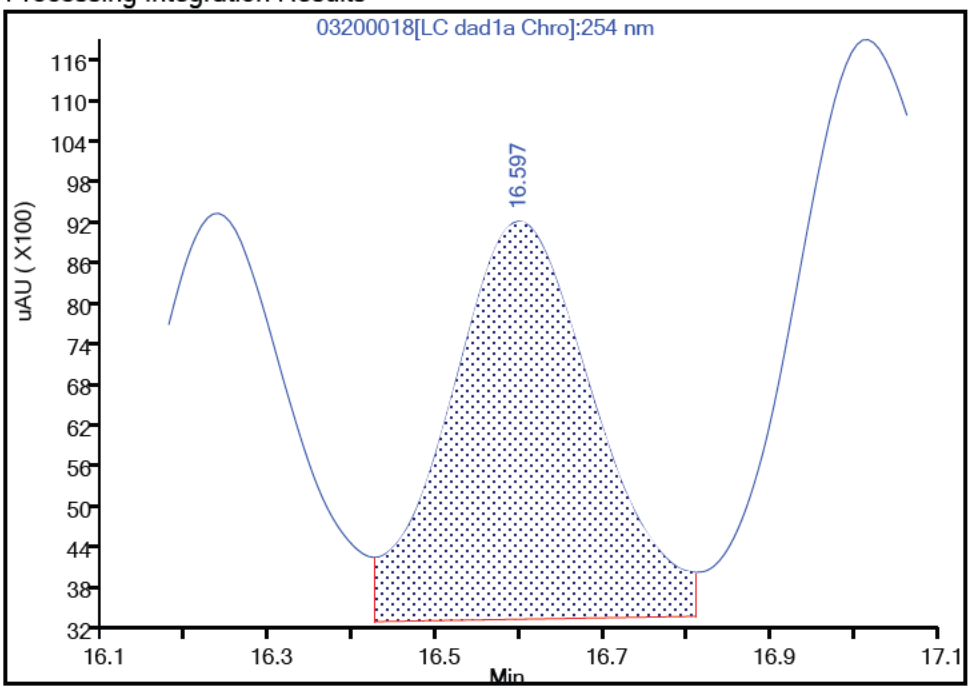
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

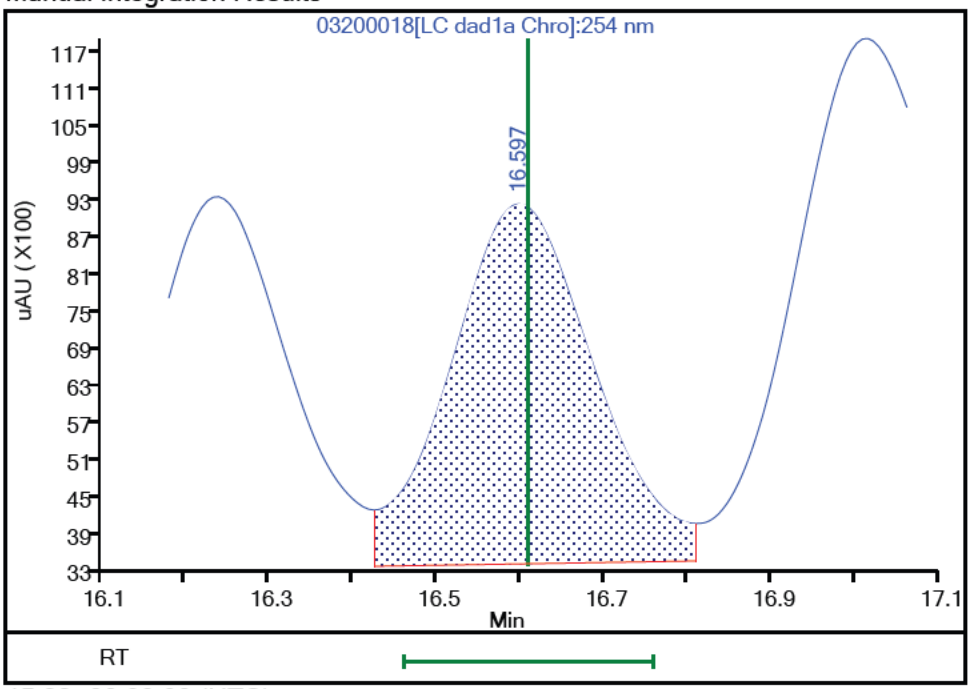
Processing Integration Results

RT: 16.60
Area: 70807
Amount: 0.258359
Amount Units: ug/ml



Manual Integration Results

RT: 16.60
Area: 69461
Amount: 0.253364
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:33 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

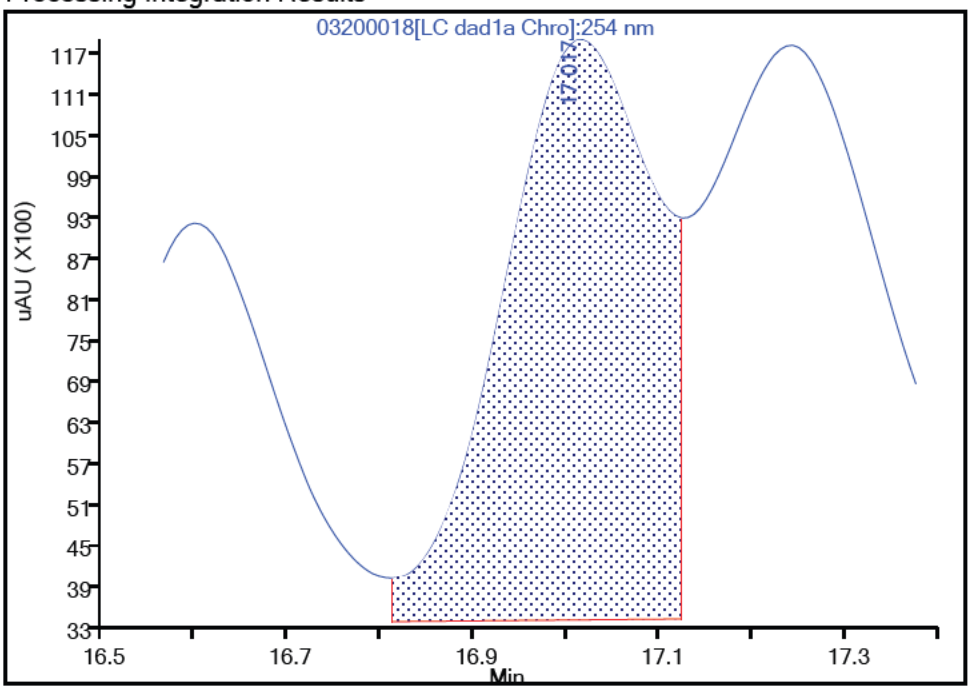
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit 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

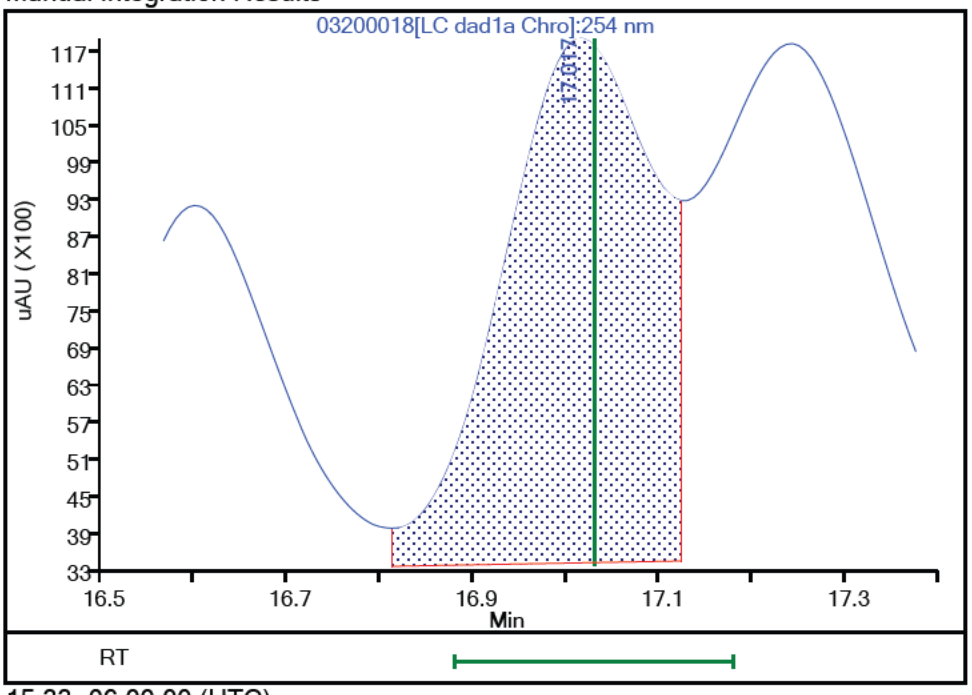
Processing Integration Results

RT: 17.02
Area: 96614
Amount: 0.252982
Amount Units: ug/ml



Manual Integration Results

RT: 17.02
Area: 95645
Amount: 0.250407
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:33 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

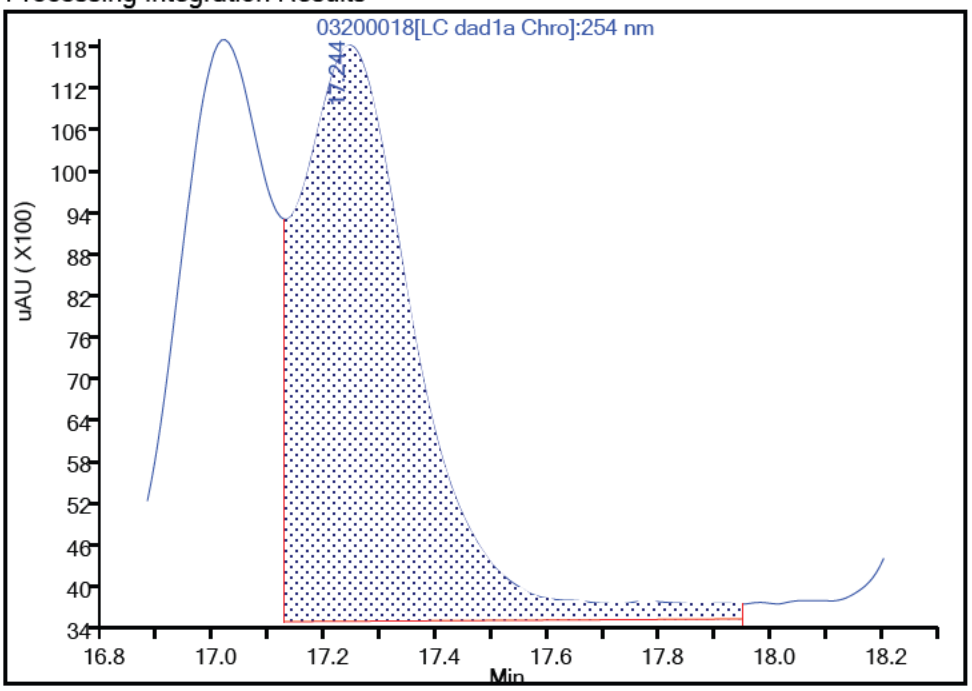
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit 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

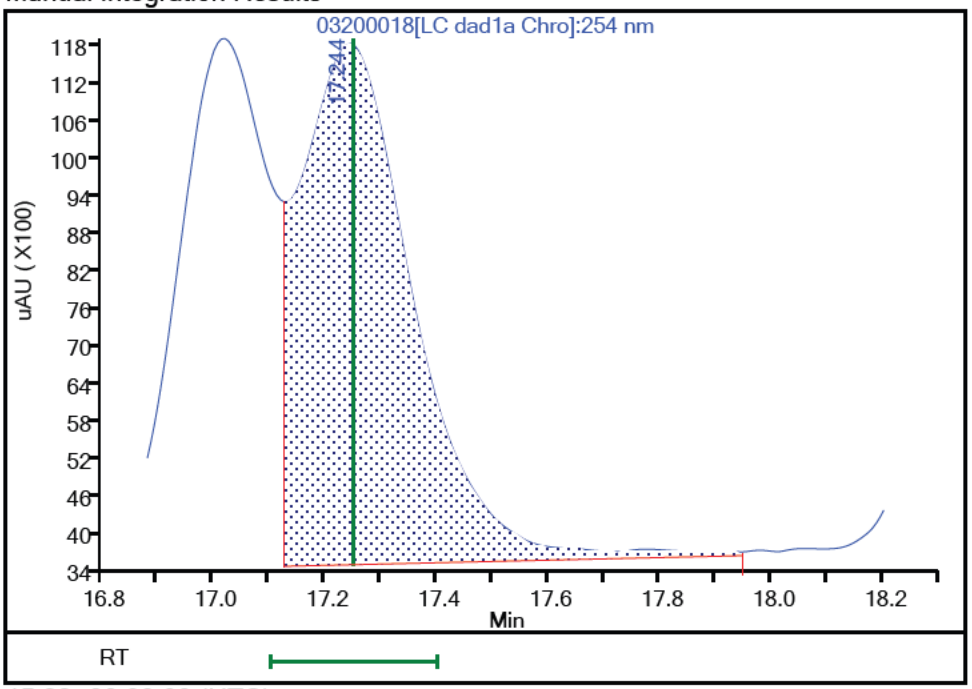
Processing Integration Results

RT: 17.24
Area: 123047
Amount: 0.298926
Amount Units: ug/ml



Manual Integration Results

RT: 17.24
Area: 117021
Amount: 0.284286
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:33 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

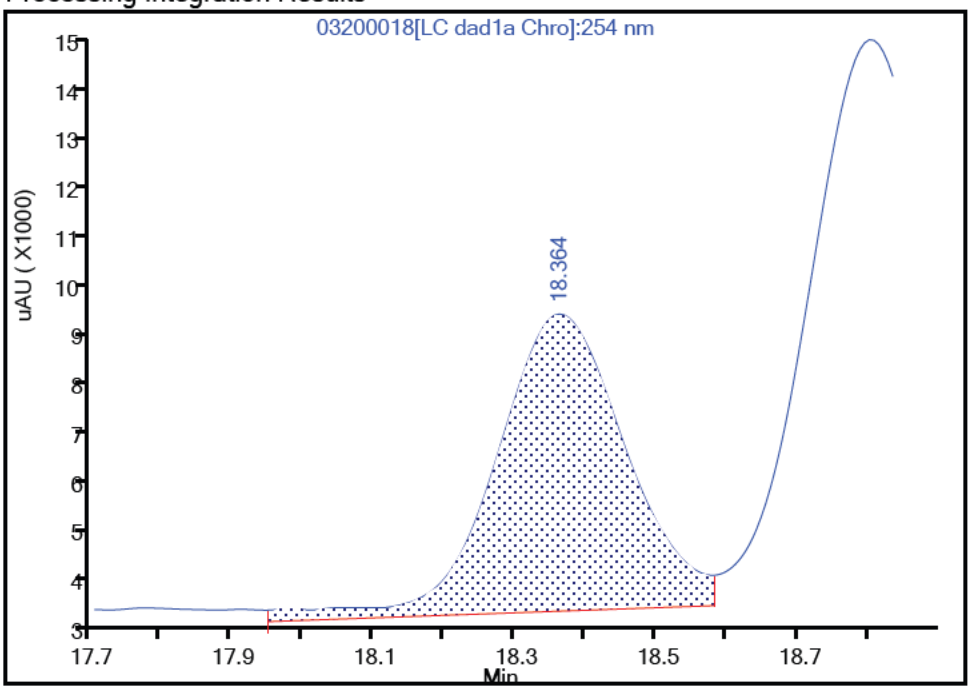
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit 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

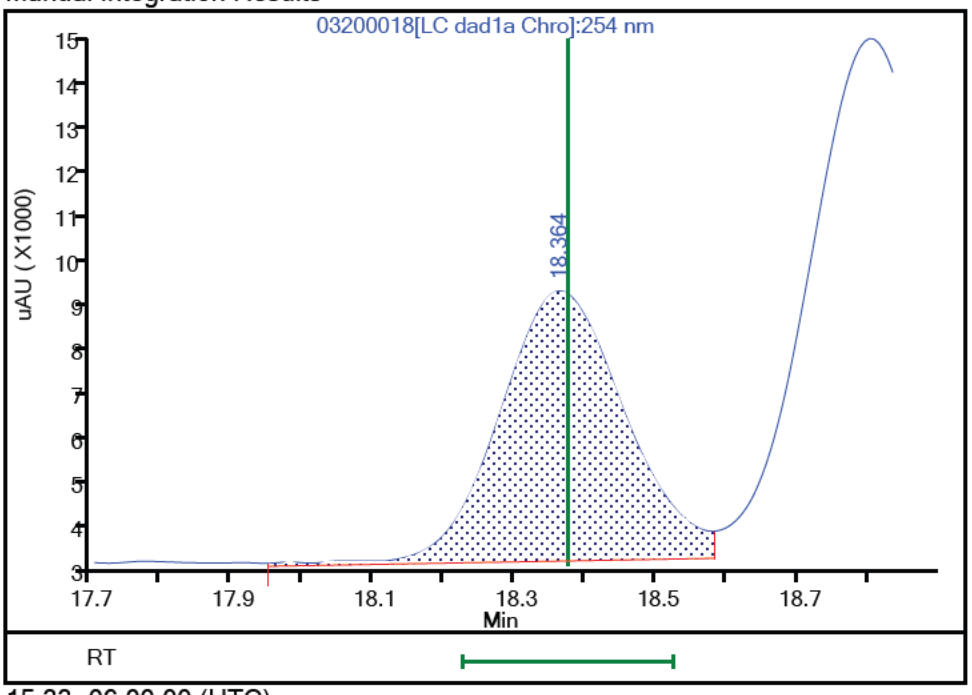
Processing Integration Results

RT: 18.36
Area: 73692
Amount: 0.279319
Amount Units: ug/ml



Manual Integration Results

RT: 18.36
Area: 69626
Amount: 0.263725
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:33 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

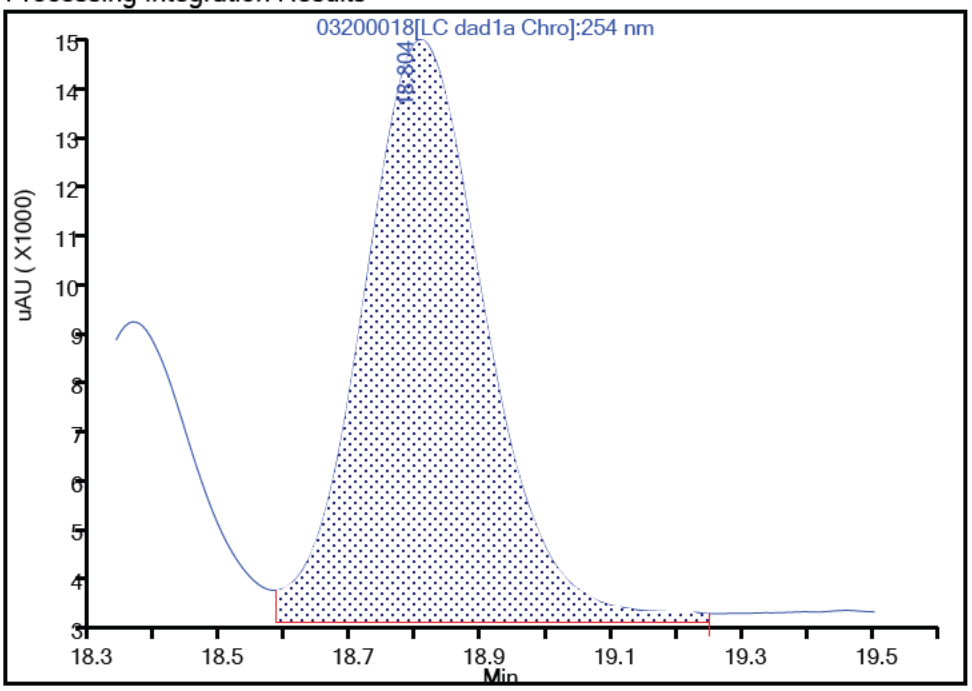
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit 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

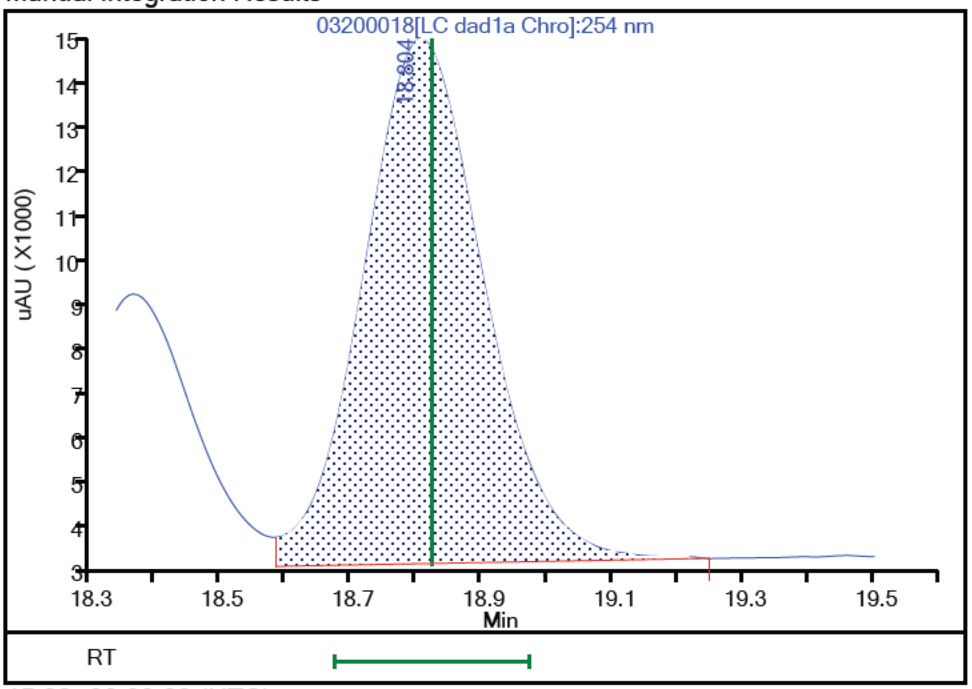
Processing Integration Results

RT: 18.80
Area: 142524
Amount: 0.261470
Amount Units: ug/ml



Manual Integration Results

RT: 18.80
Area: 138924
Amount: 0.254866
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:33 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

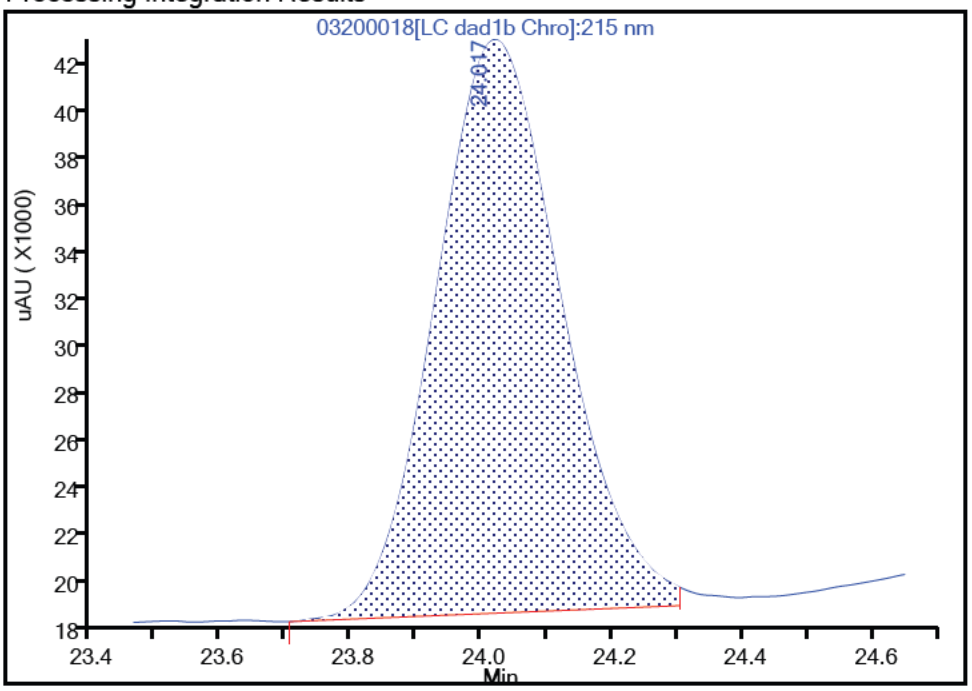
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200018.d				
Injection Date:	20-Mar-2024 23:52:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

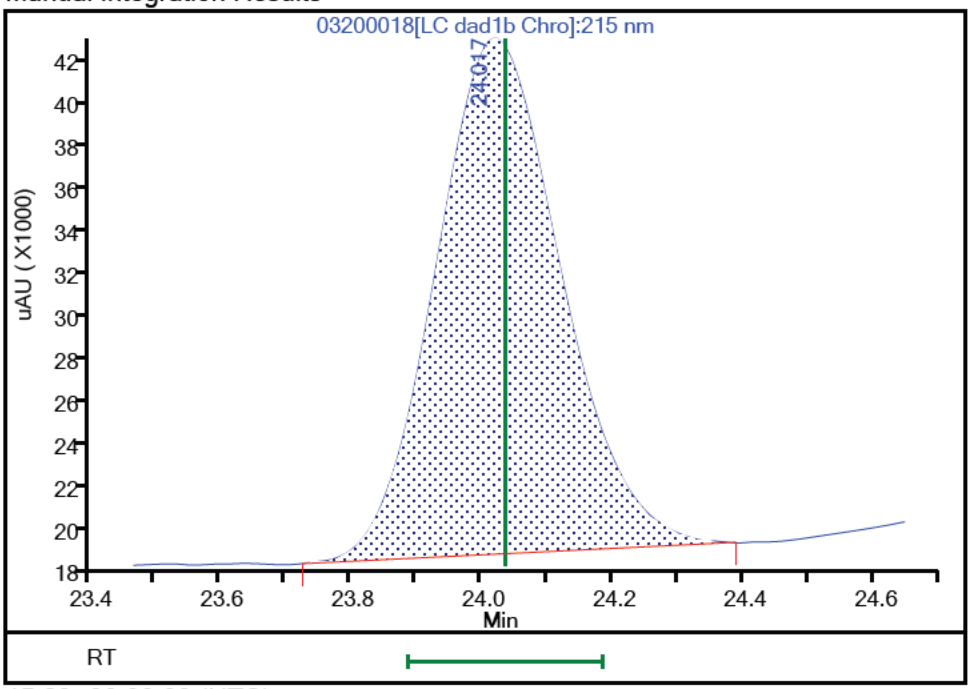
Processing Integration Results

RT: 24.02
Area: 324699
Amount: 2.639585
Amount Units: ug/ml



Manual Integration Results

RT: 24.02
Area: 321985
Amount: 2.617522
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:15:29 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/24 Calibration Date: 03/21/2024 03:27

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200024.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	173471	182888		264	250	5.4	20.0
Picric acid	Ave	143426	149980		261	250	4.6	20.0
RDX	Ave	207587	209376		252	250	0.9	20.0
Nitrobenzene	Ave	371392	376600		254	250	1.4	20.0
3,5-Dinitroaniline	Lin2		430308		261	250	4.5	20.0
1,3-Dinitrobenzene	Ave	579530	594324		256	250	2.6	20.0
Nitroglycerin	Ave	124215	117659		2370	2500	-5.3	20.0
2-Nitrotoluene	Ave	247036	231776		235	250	-6.2	20.0
4-Nitrotoluene	Lin2		229736		261	250	4.6	20.0
4-Amino-2,6-dinitrotoluene	Lin2		279744		255	250	1.8	20.0
3-Nitrotoluene	Lin2		272672		249	250	-0.6	20.0
2-Amino-4,6-dinitrotoluene	Lin2		383416		251	250	0.4	20.0
1,3,5-Trinitrobenzene	Ave	411631	463312		281	250	12.6	20.0
2,6-Dinitrotoluene	Lin2		272120		258	250	3.0	20.0
2,4-Dinitrotoluene	Ave	545087	554640		254	250	1.8	20.0
Tetryl	Ave	308340	349660		284	250	13.4	20.0
2,4,6-Trinitrotoluene	Ave	384986	434328		282	250	12.8	20.0
PETN	Ave	123011	129696		2640	2500	5.4	20.0
1,2-Dinitrobenzene	Ave	256773	266660		260	250	3.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/24 Calibration Date: 03/21/2024 03:27

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200024.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.65	6.50	6.80
Picric acid	8.37	8.30	8.60
RDX	8.84	8.69	8.99
Nitrobenzene	11.43	11.27	11.57
3,5-Dinitroaniline	14.13	13.99	14.29
1,3-Dinitrobenzene	14.45	14.31	14.61
Nitroglycerin	14.89	14.75	15.05
2-Nitrotoluene	15.54	15.40	15.70
4-Nitrotoluene	15.76	15.62	15.92
4-Amino-2,6-dinitrotoluene	16.24	16.10	16.40
3-Nitrotoluene	16.60	16.46	16.76
2-Amino-4,6-dinitrotoluene	17.03	16.88	17.18
1,3,5-Trinitrobenzene	17.25	17.10	17.40
2,6-Dinitrotoluene	18.38	18.23	18.53
2,4-Dinitrotoluene	18.82	18.67	18.97
Tetryl	22.00	21.87	22.17
2,4,6-Trinitrotoluene	22.87	22.74	23.04
PETN	24.01	23.89	24.19
1,2-Dinitrobenzene	12.33	12.19	12.49

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200024.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 21-Mar-2024 03:27:54 ALS Bottle#: 7 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:21 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 16:20:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.647	6.649	-0.002	45722	0.2500	0.2636	
5 2,4,6-Trinitrophenol	1	8.367	8.449	-0.082	37495	0.2500	0.2614	
8 RDX	1	8.840	8.842	-0.002	52344	0.2500	0.2522	
9 Nitrobenzene	1	11.426	11.422	0.004	94150	0.2500	0.2535	
$ 10 1,2-Dinitrobenzene	1	12.333	12.336	-0.003	66665	0.2500	0.2596	
11 3,5-Dinitroaniline	1	14.133	14.142	-0.009	107577	0.2500	0.2614	M
12 1,3-Dinitrobenzene	1	14.453	14.456	-0.003	148581	0.2500	0.2564	M
13 Nitroglycerin	2	14.886	14.896	-0.010	294147	2.50	2.37	M
14 o-Nitrotoluene	1	15.540	15.549	-0.009	57944	0.2500	0.2346	M
15 p-Nitrotoluene	1	15.760	15.769	-0.009	57434	0.2500	0.2615	M
16 4-Amino-2,6-dinitrotoluene	1	16.240	16.249	-0.009	69936	0.2500	0.2546	M
17 m-Nitrotoluene	1	16.600	16.609	-0.009	68168	0.2500	0.2486	M
18 2-Amino-4,6-dinitrotoluene	1	17.026	17.029	-0.003	95854	0.2500	0.2510	M
19 1,3,5-Trinitrobenzene	1	17.246	17.249	-0.003	115828	0.2500	0.2814	M
20 2,6-Dinitrotoluene	1	18.380	18.376	0.004	68030	0.2500	0.2576	M
21 2,4-Dinitrotoluene	1	18.820	18.822	-0.002	138660	0.2500	0.2544	M
22 Tetryl	1	22.000	22.016	-0.016	87415	0.2500	0.2835	
23 2,4,6-Trinitrotoluene	1	22.873	22.889	-0.016	108582	0.2500	0.2820	
24 PETN	2	24.013	24.036	-0.023	324240	2.50	2.64	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 25.00 Units: uL

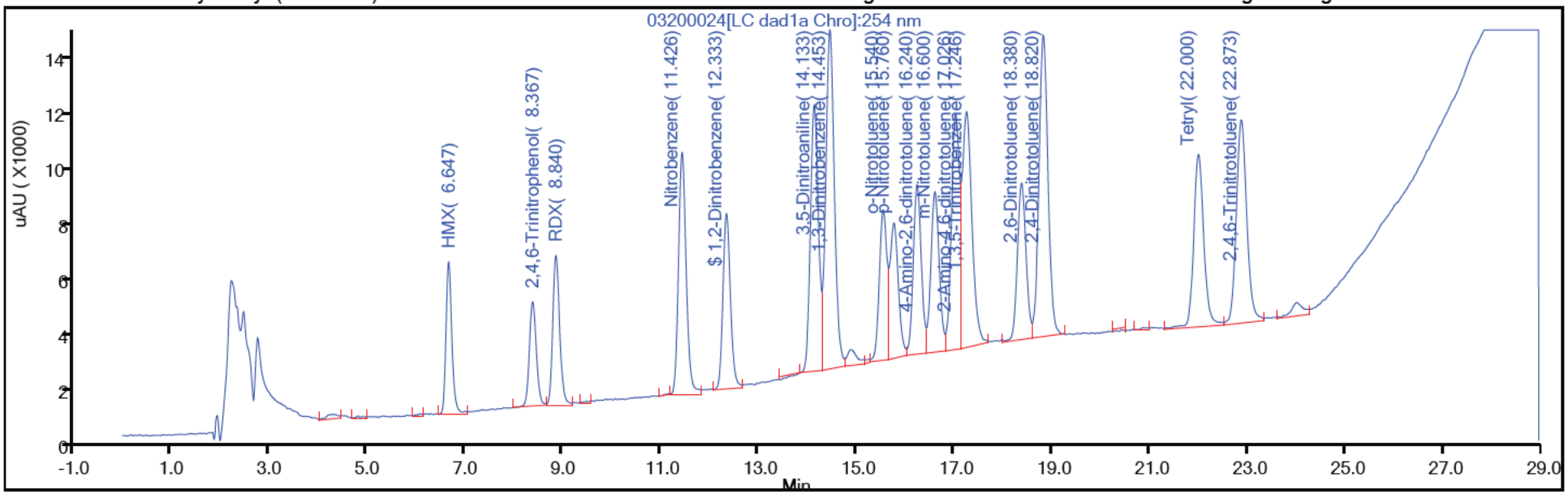
Report Date: 21-Mar-2024 16:20:21 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

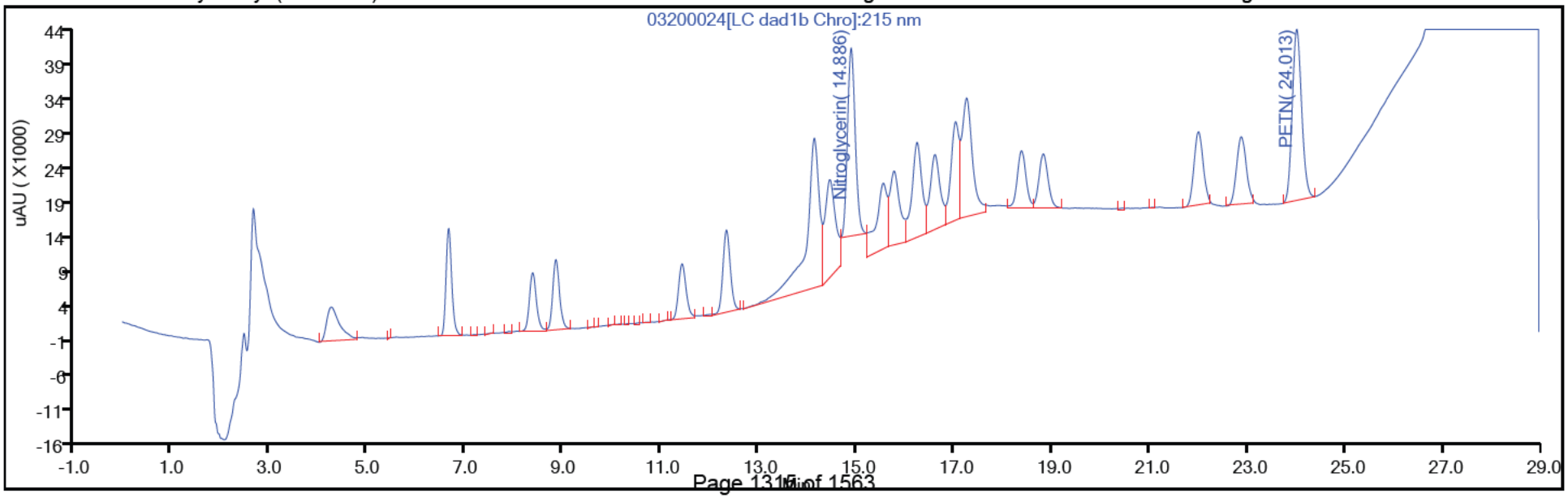
Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d

Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	CCV			Worklist Smp#:	24
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



Manual Integration/User Assign Peak Report

Eurofins Denver

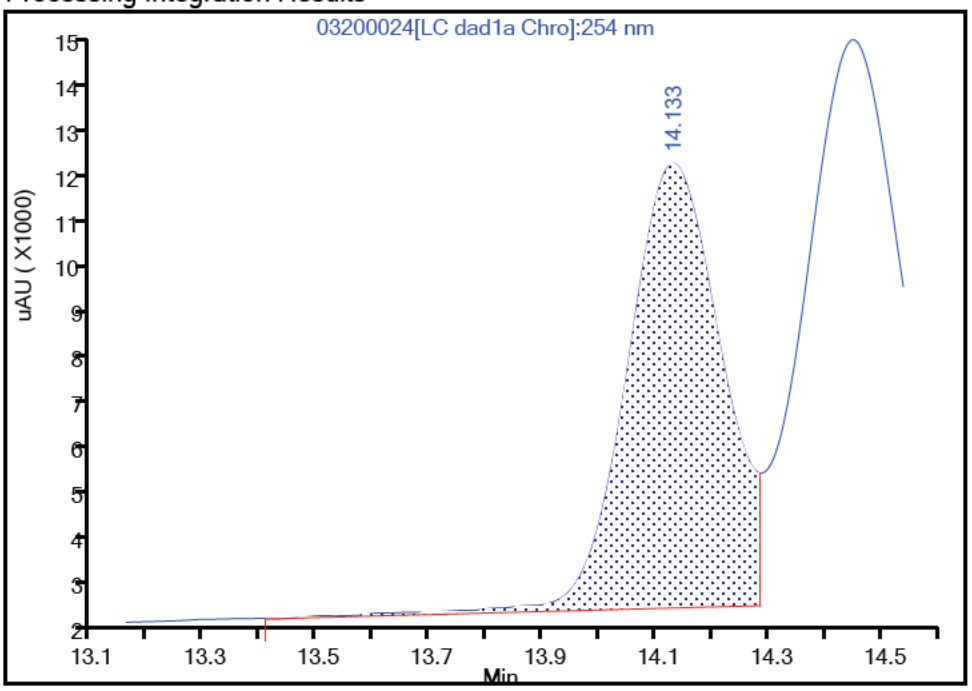
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit 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

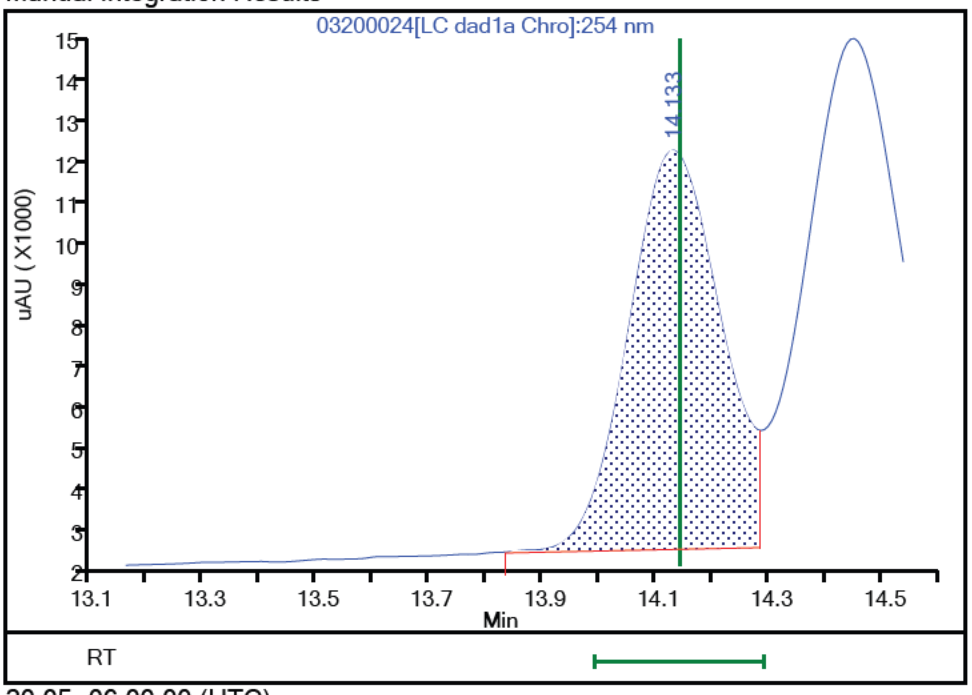
Processing Integration Results

RT: 14.13
Area: 111681
Amount: 0.271369
Amount Units: ug/ml



Manual Integration Results

RT: 14.13
Area: 107577
Amount: 0.261362
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:20:05 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

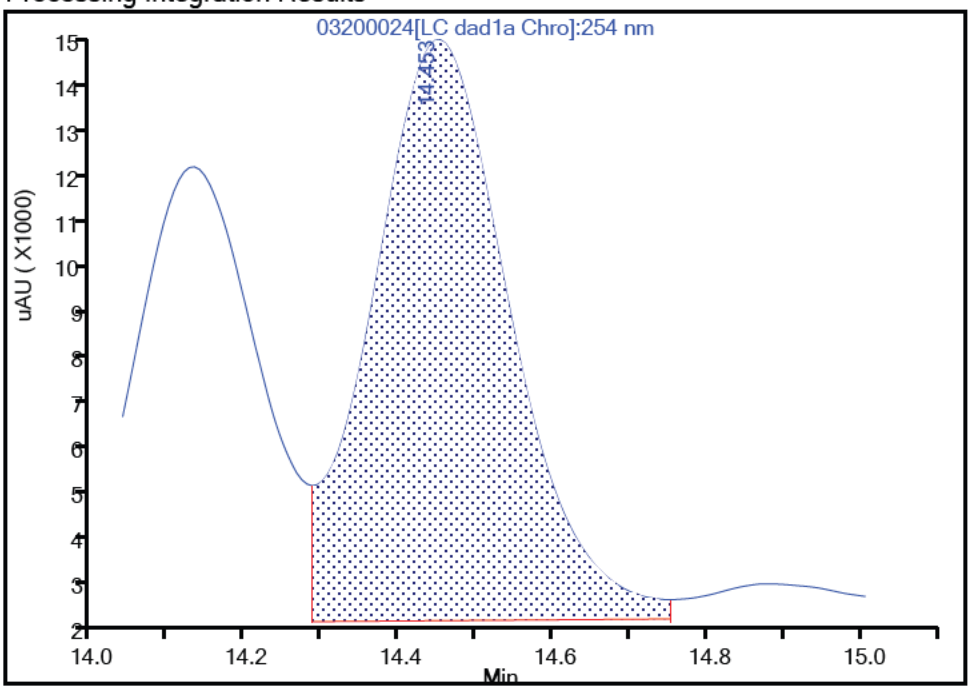
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

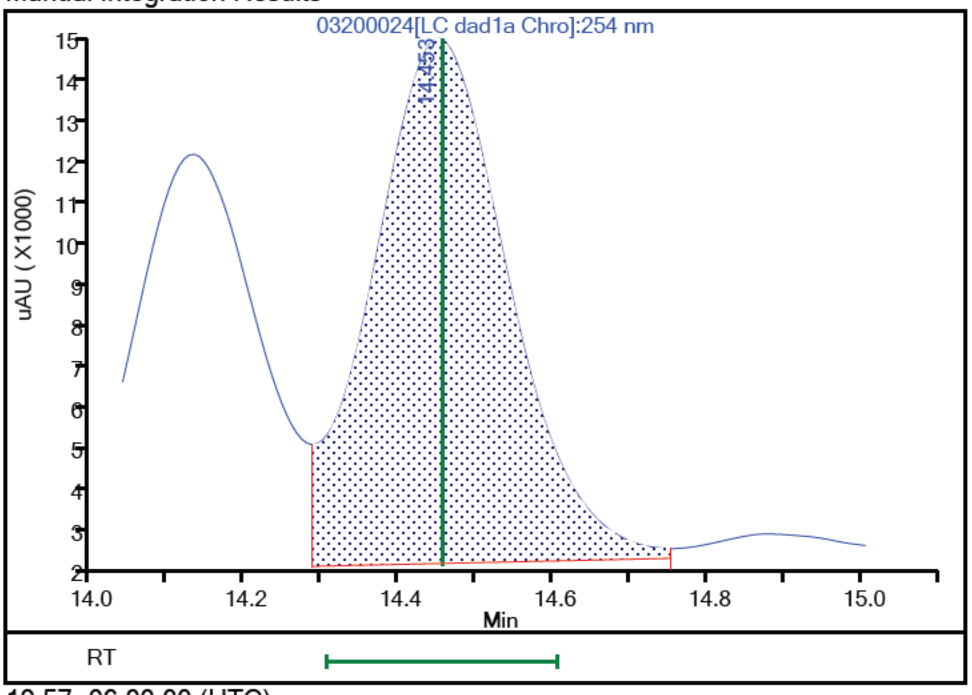
Processing Integration Results

RT: 14.45
Area: 151983
Amount: 0.262252
Amount Units: ug/ml



Manual Integration Results

RT: 14.45
Area: 148581
Amount: 0.256382
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

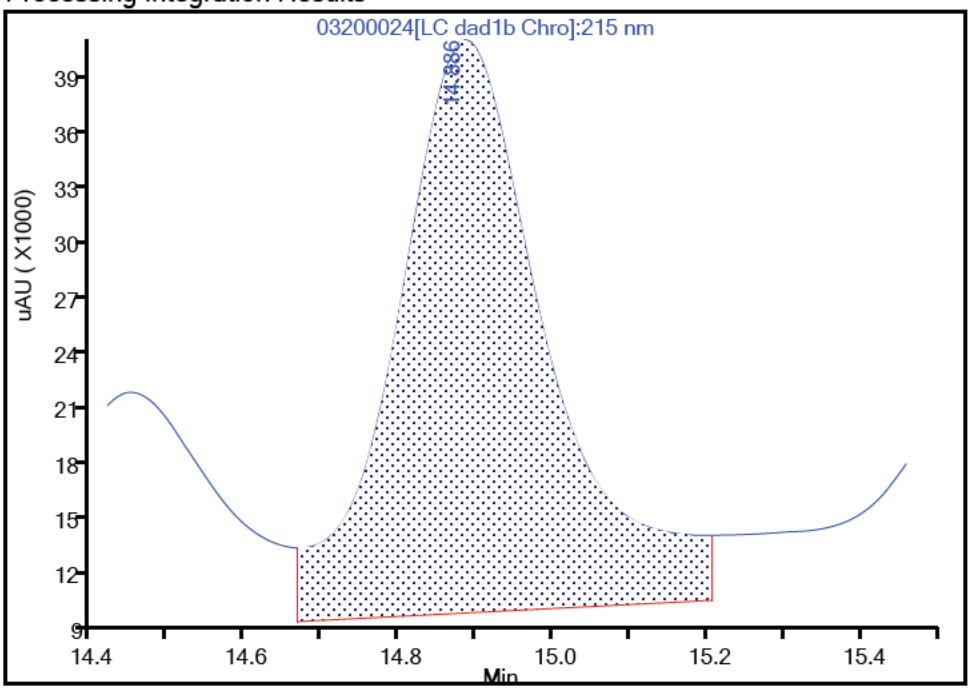
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

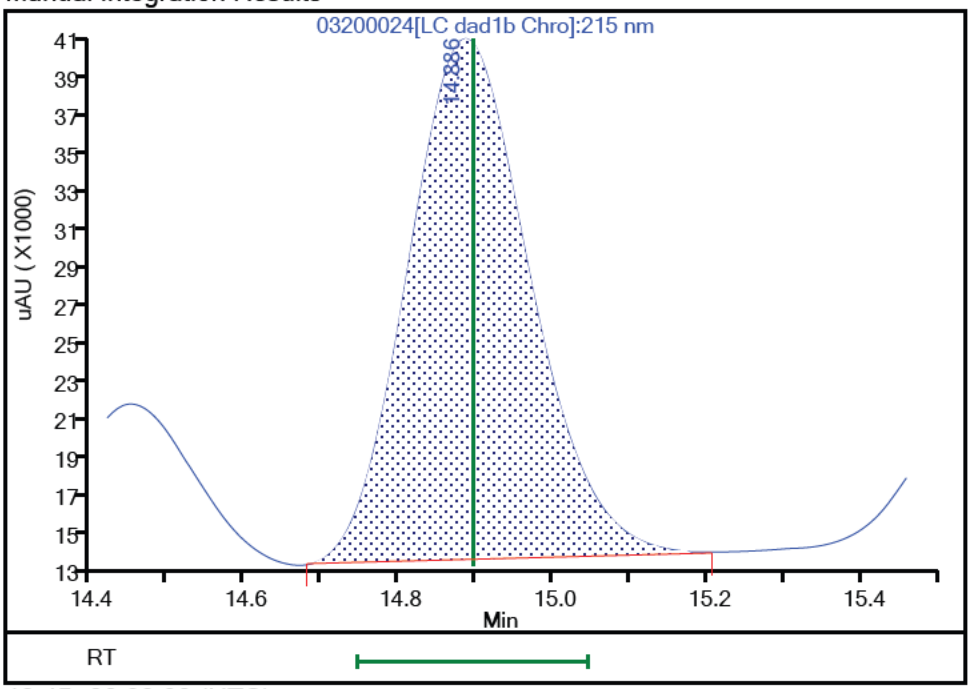
Processing Integration Results

RT: 14.89
Area: 413315
Amount: 3.327417
Amount Units: ug/ml



Manual Integration Results

RT: 14.89
Area: 294147
Amount: 2.368048
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:45 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

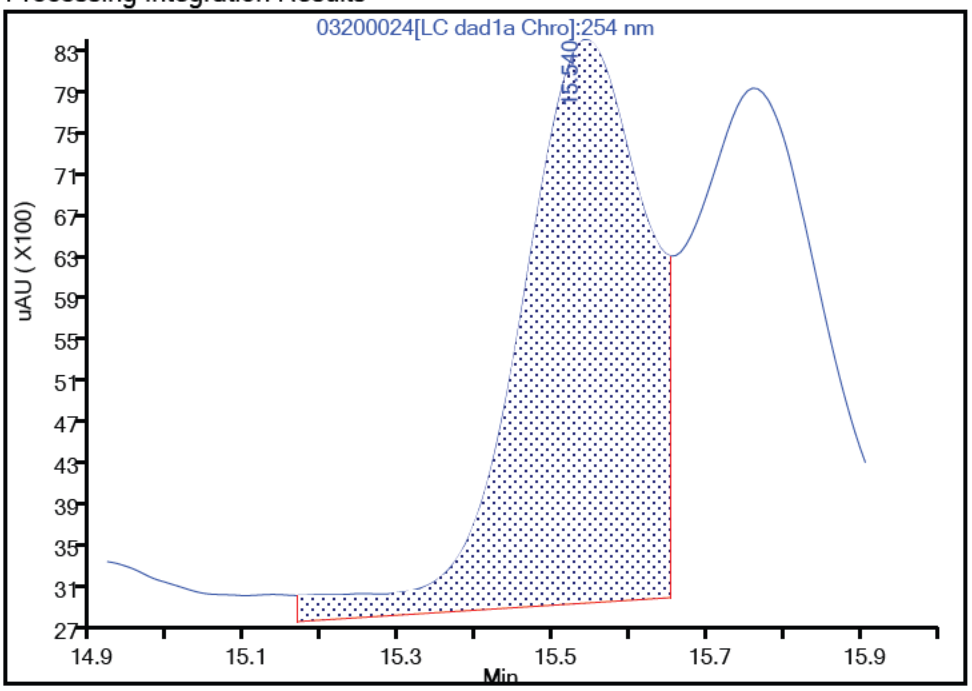
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

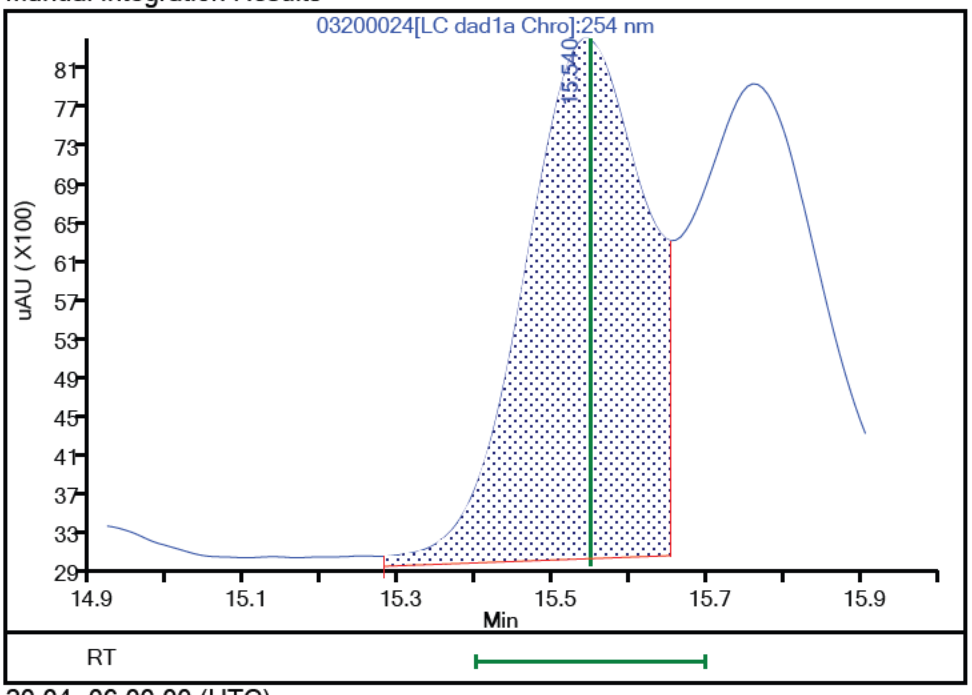
Processing Integration Results

RT: 15.54
Area: 61446
Amount: 0.248733
Amount Units: ug/ml



Manual Integration Results

RT: 15.54
Area: 57944
Amount: 0.234557
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:20:04 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

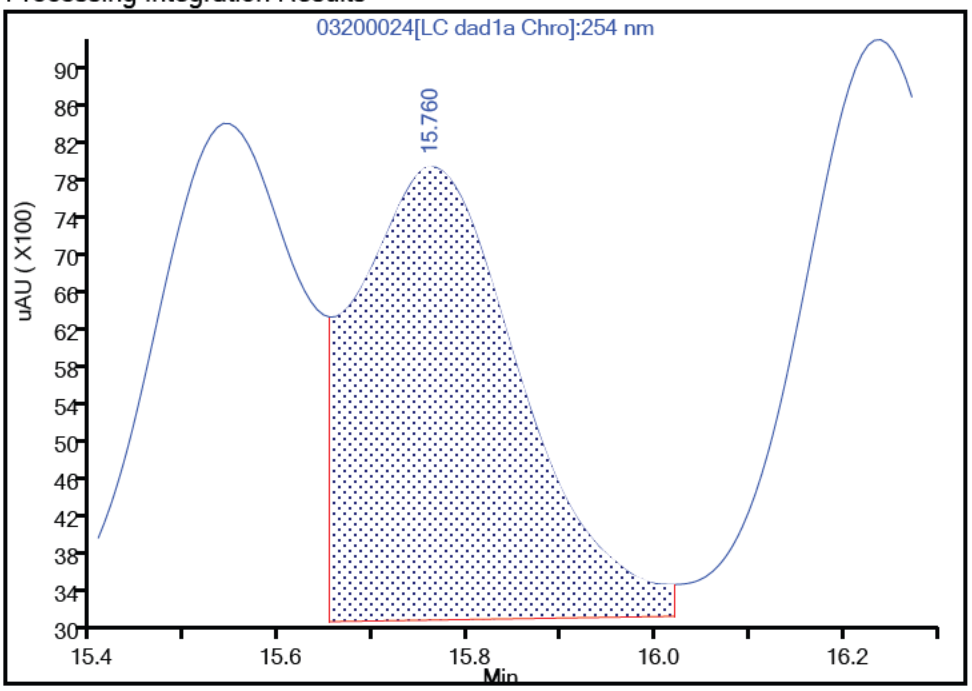
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

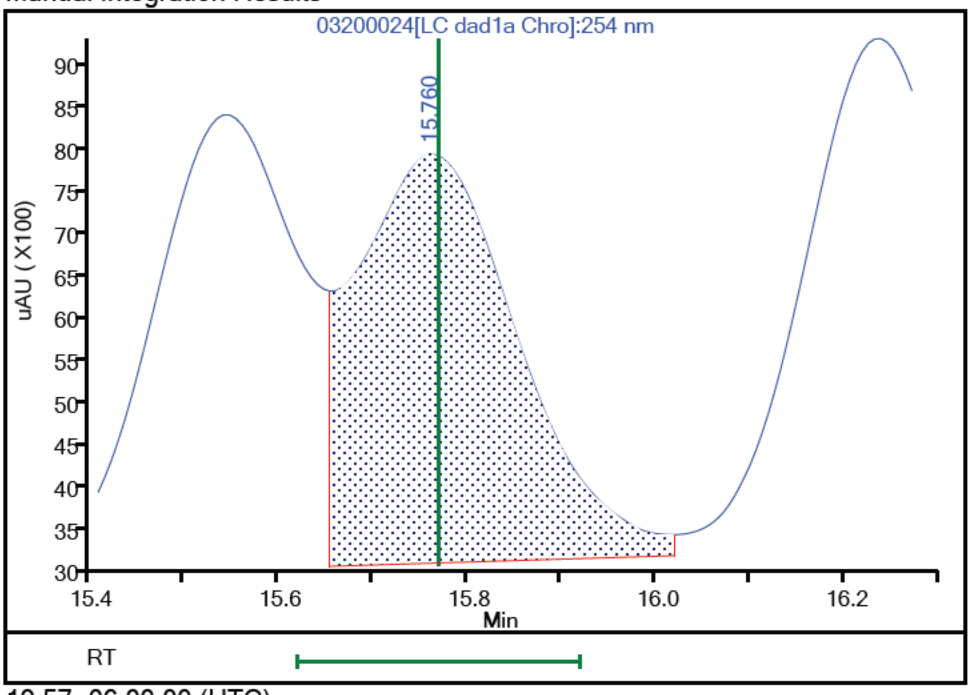
Processing Integration Results

RT: 15.76
Area: 58908
Amount: 0.268290
Amount Units: ug/ml



Manual Integration Results

RT: 15.76
Area: 57434
Amount: 0.261493
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

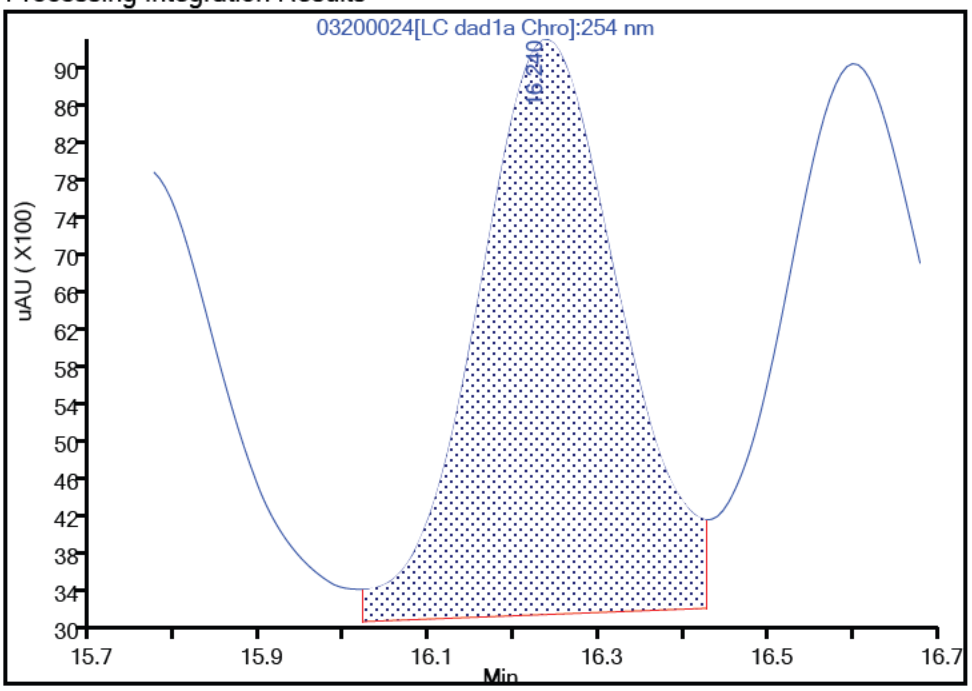
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit 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

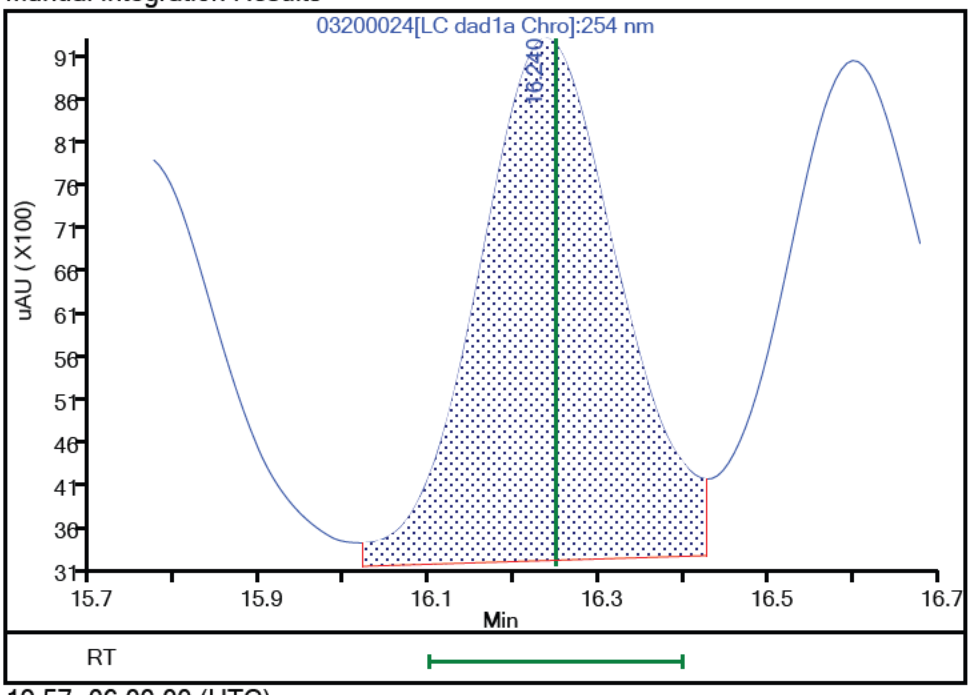
Processing Integration Results

RT: 16.24
Area: 71815
Amount: 0.261581
Amount Units: ug/ml



Manual Integration Results

RT: 16.24
Area: 69936
Amount: 0.254606
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

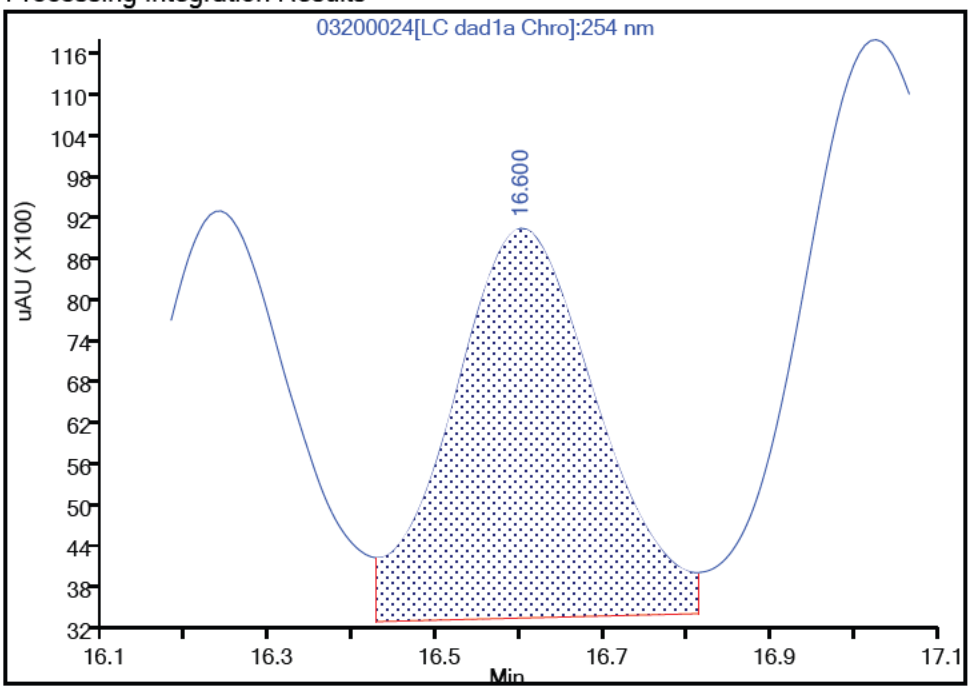
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

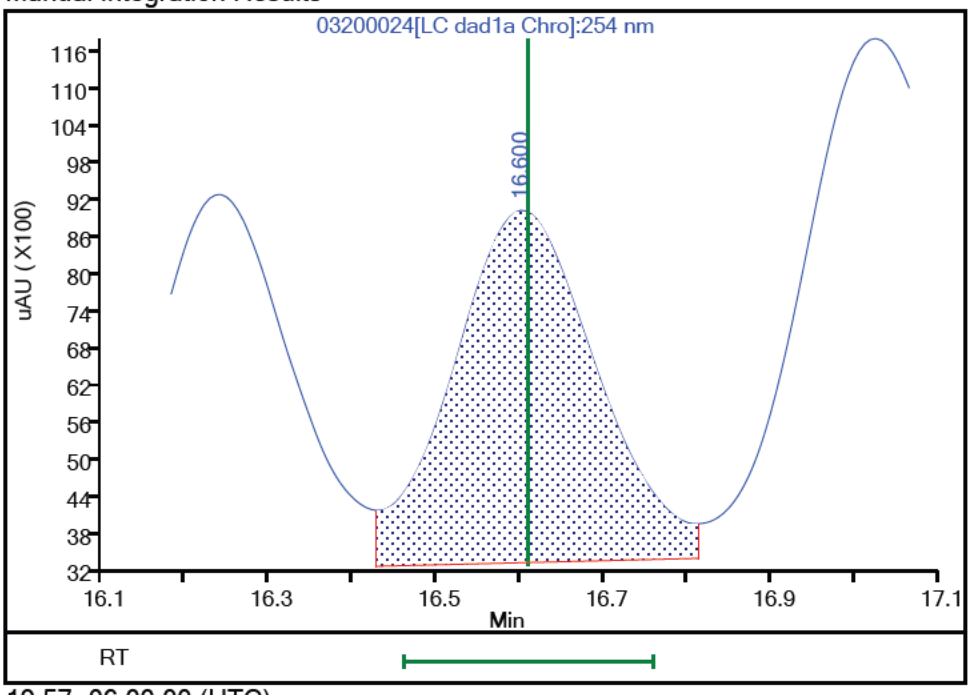
Processing Integration Results

RT: 16.60
Area: 69270
Amount: 0.252655
Amount Units: ug/ml



Manual Integration Results

RT: 16.60
Area: 68168
Amount: 0.248566
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

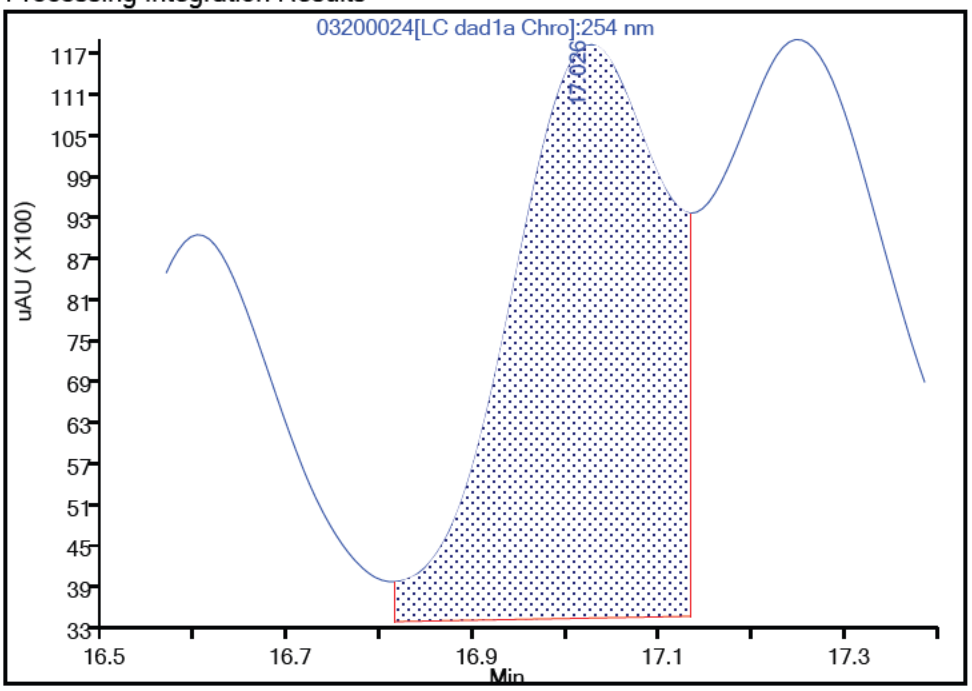
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit 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

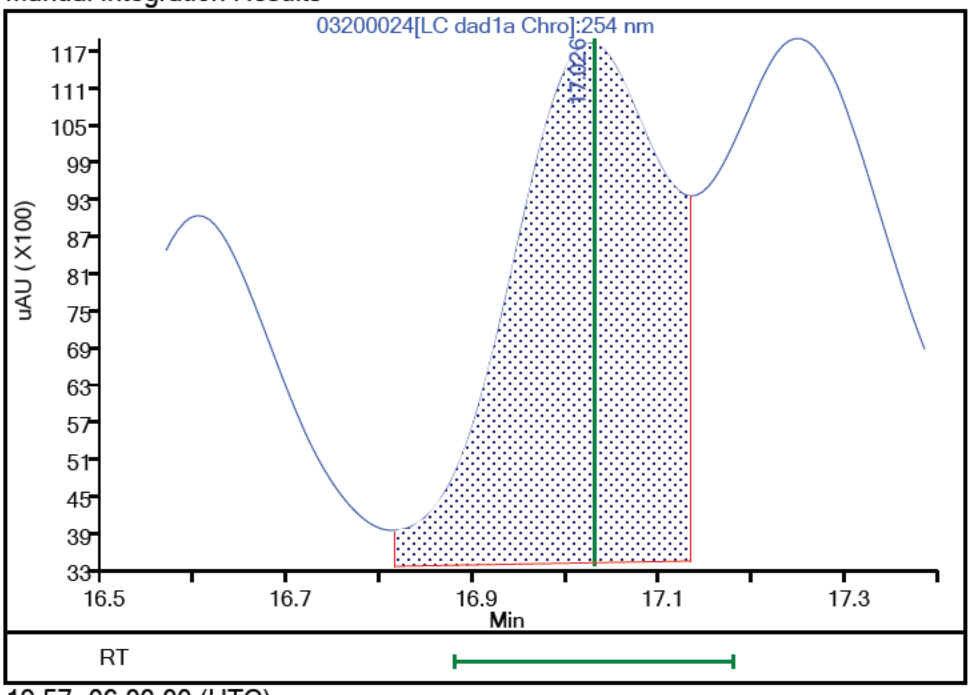
Processing Integration Results

RT: 17.03
Area: 96382
Amount: 0.252366
Amount Units: ug/ml



Manual Integration Results

RT: 17.03
Area: 95854
Amount: 0.250963
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

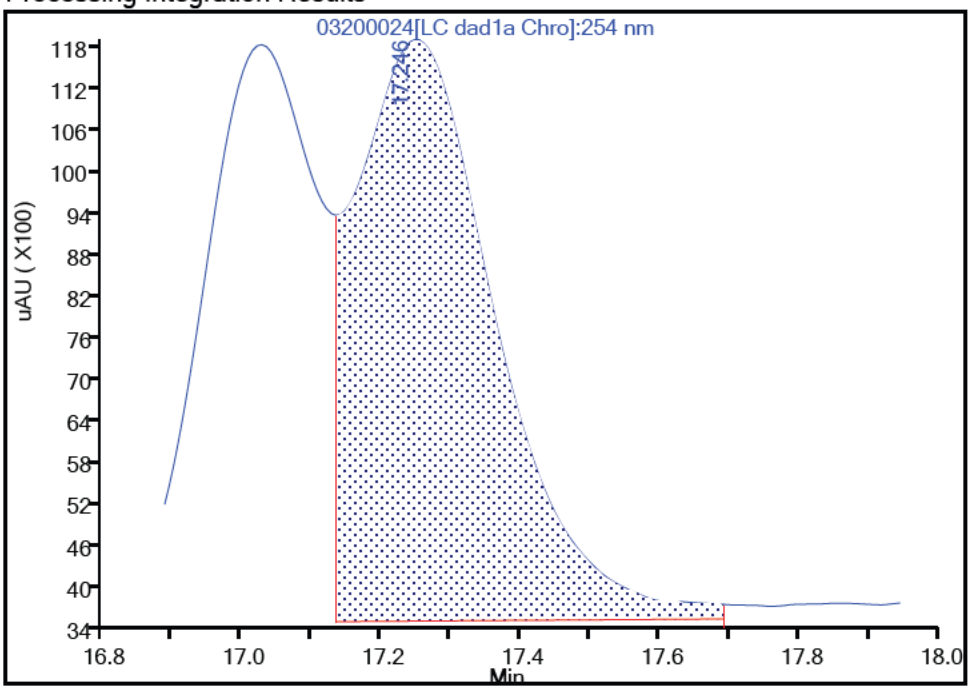
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

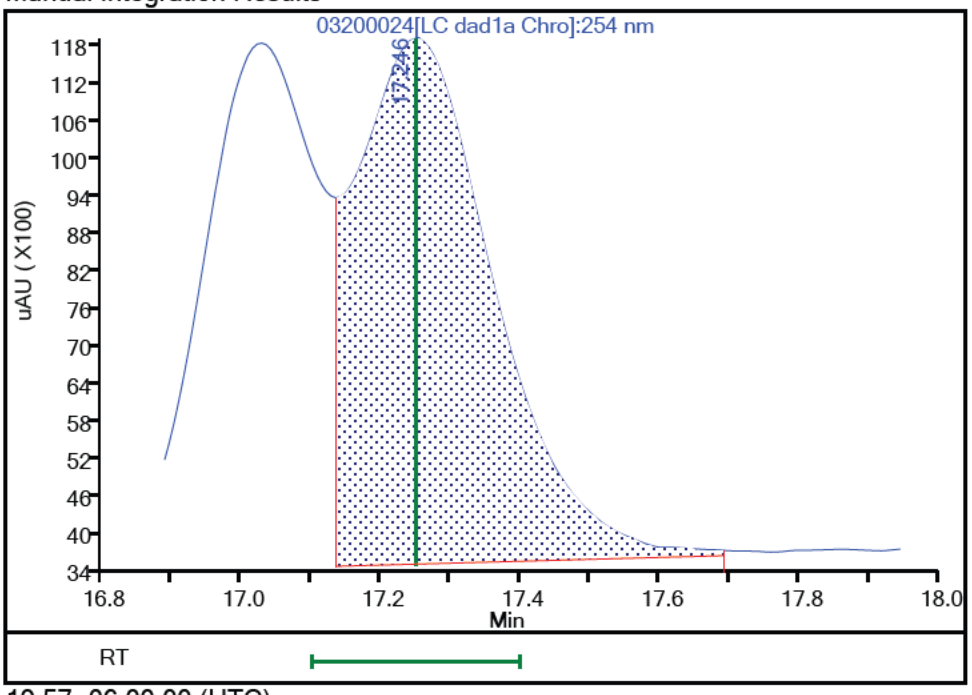
Processing Integration Results

RT: 17.25
Area: 118617
Amount: 0.288164
Amount Units: ug/ml



Manual Integration Results

RT: 17.25
Area: 115828
Amount: 0.281388
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

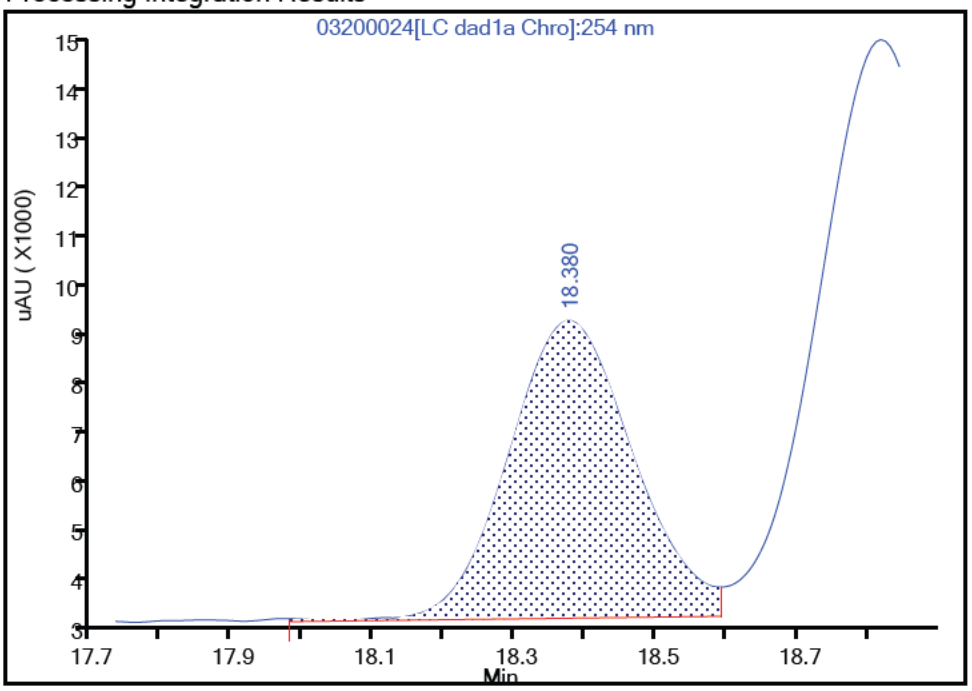
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

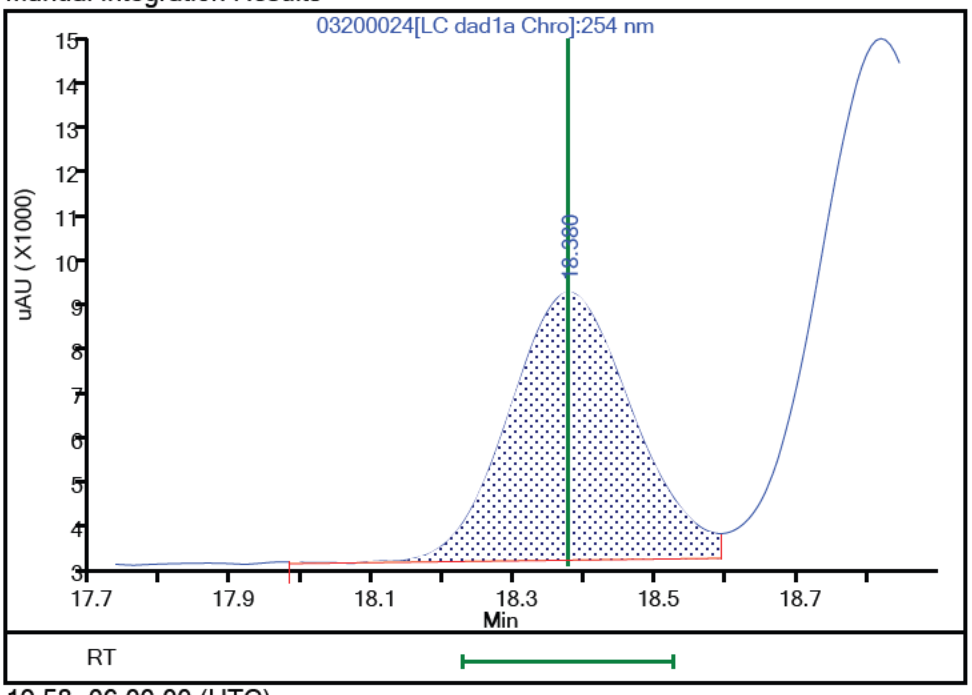
Processing Integration Results

RT: 18.38
Area: 67698
Amount: 0.256331
Amount Units: ug/ml



Manual Integration Results

RT: 18.38
Area: 68030
Amount: 0.257604
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:58 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

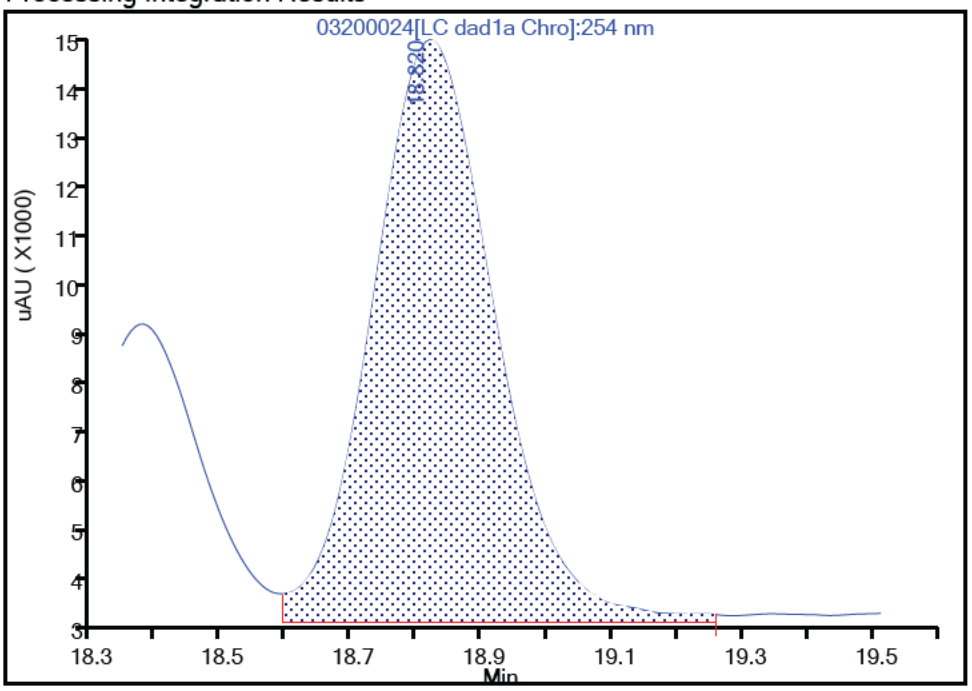
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

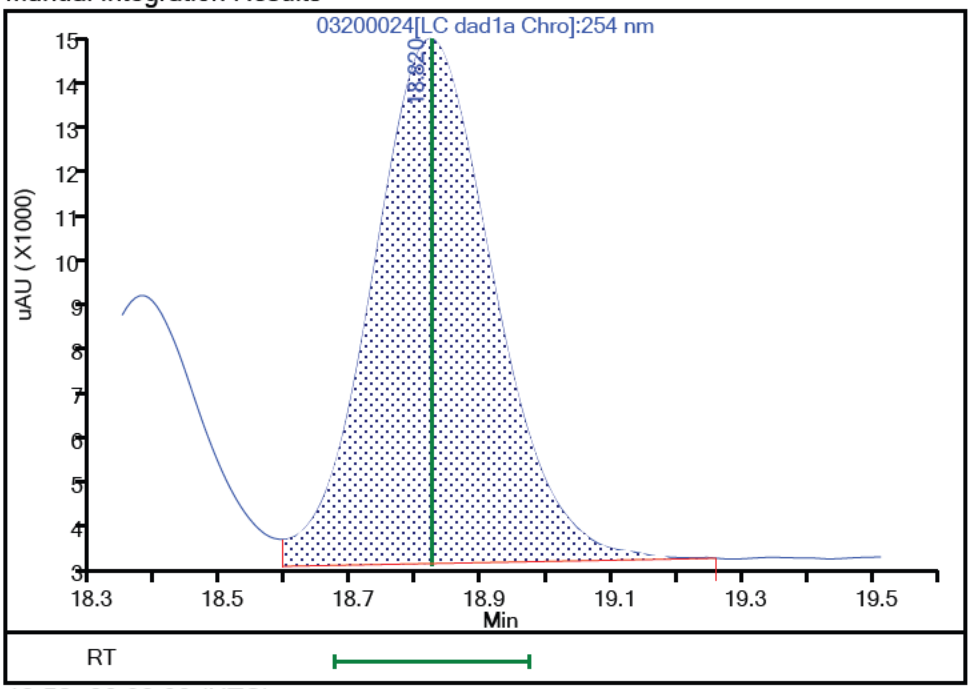
Processing Integration Results

RT: 18.82
Area: 140500
Amount: 0.257757
Amount Units: ug/ml



Manual Integration Results

RT: 18.82
Area: 138660
Amount: 0.254381
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:58 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

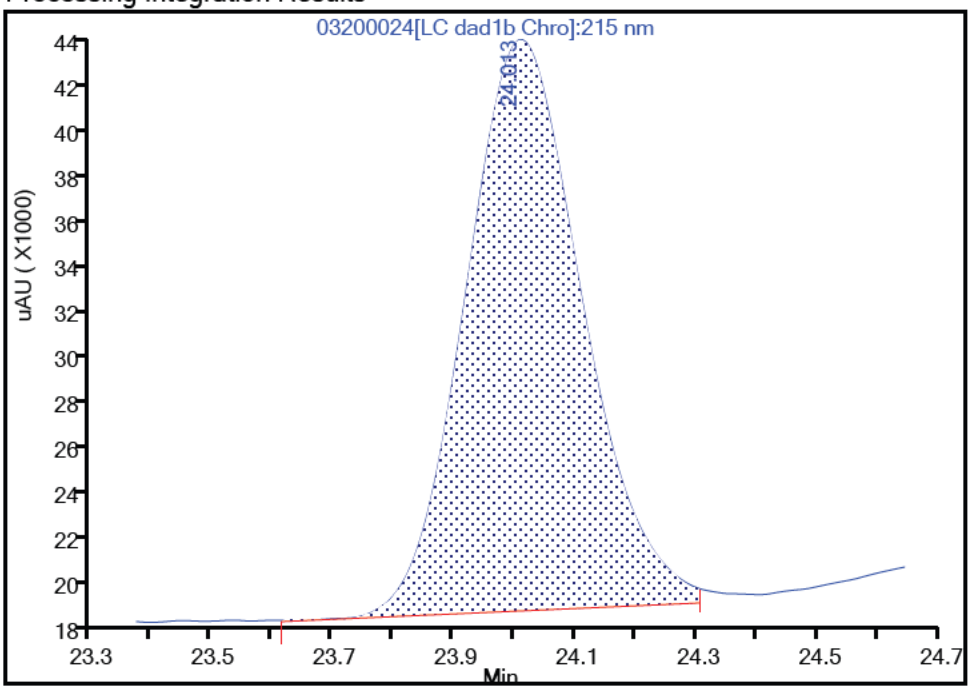
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200024.d				
Injection Date:	21-Mar-2024 03:27:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

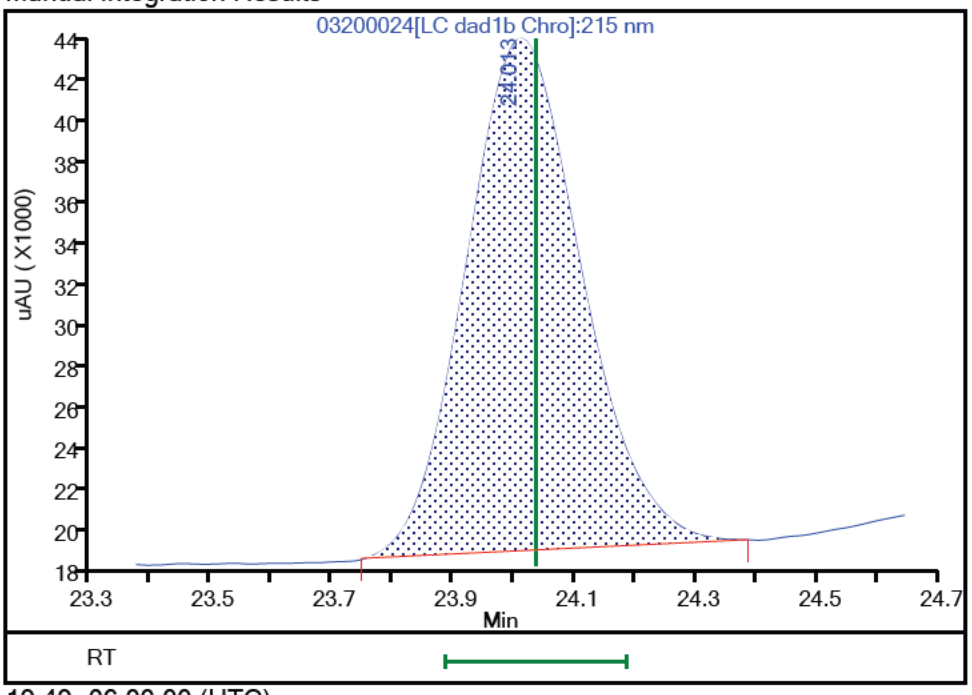
Processing Integration Results

RT: 24.01
Area: 330092
Amount: 2.683426
Amount Units: ug/ml



Manual Integration Results

RT: 24.01
Area: 324240
Amount: 2.635853
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:49 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-640909/20 Calibration Date: 01/24/2024 20:01

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 0124X020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	192087	187538		490	502	-2.4	20.0
HMX	Ave	95315	85476		448	500	-10.3	20.0
DNX	Lin1		144984		487	501	-2.8	20.0
MNX	Lin2		134955		583	585	-0.2	20.0
RDX	Lin2		96586		459	500	-8.1	20.0
Picric acid	Ave	75502	80894		536	500	7.1	20.0
1,3,5-Trinitrobenzene	Ave	216030	217776		504	500	0.8	20.0
1,3-Dinitrobenzene	Ave	292609	291816		499	500	-0.3	20.0
Nitrobenzene	Ave	184983	187346		506	500	1.3	20.0
3,5-Dinitroaniline	Lin2		207586		475	500	-4.9	20.0
Tetryl	Ave	180864	180568		499	500	-0.2	20.0
Nitroglycerin	Ave	61824	63893		5170	5000	3.3	20.0
2,4,6-Trinitrotoluene	Lin2		196558		461	500	-7.8	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	142142		474	500	-5.3	20.0
2-Amino-4,6-dinitrotoluene	Lin2		191684		483	500	-3.5	20.0
2,6-Dinitrotoluene	Lin2		141626		495	500	-0.9	20.0
2,4-Dinitrotoluene	Ave	292766	284434		486	500	-2.8	20.0
2-Nitrotoluene	Lin2		119028		490	500	-2.0	20.0
4-Nitrotoluene	Lin2		103024		492	500	-1.5	20.0
3-Nitrotoluene	Lin2		131416		493	500	-1.4	20.0
PETN	Ave	72603	72373		4980	5000	-0.3	20.0
1,2-Dinitrobenzene	Lin2		125666		485	500	-3.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-640909/20 Calibration Date: 01/24/2024 20:01

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 0124X020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.51	6.42	6.62
HMX	6.62	6.48	6.78
DNX	6.84	6.74	6.94
MNX	7.26	7.12	7.42
RDX	7.66	7.51	7.81
Picric acid	7.78	7.65	7.95
1,3,5-Trinitrobenzene	8.74	8.59	8.89
1,3-Dinitrobenzene	9.37	9.23	9.53
Nitrobenzene	9.74	9.59	9.89
3,5-Dinitroaniline	9.98	9.83	10.13
Tetryl	10.08	9.93	10.23
Nitroglycerin	10.55	10.39	10.69
2,4,6-Trinitrotoluene	10.99	10.88	11.08
4-Amino-2,6-dinitrotoluene	11.18	11.08	11.28
2-Amino-4,6-dinitrotoluene	11.44	11.33	11.53
2,6-Dinitrotoluene	11.59	11.48	11.68
2,4-Dinitrotoluene	11.76	11.66	11.86
2-Nitrotoluene	12.57	12.41	12.71
4-Nitrotoluene	13.00	12.84	13.14
3-Nitrotoluene	13.56	13.40	13.70
PETN	14.66	14.49	14.79
1,2-Dinitrobenzene	8.62	8.47	8.77

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\0124X020.D
Lims ID: ICV INT/DMT
Client ID:
Sample Type: ICV
Inject. Date: 24-Jan-2024 20:01:05 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\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:59:16 Calib Date: 24-Jan-2024 19:38:07
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240020.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

First Level Reviewer: LV5D Date: 30-Jan-2024 16:50:58

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.511	6.515	-0.004	94144	0.5020	0.4901	
4 HMX	1	6.624	6.628	-0.004	42738	0.5000	0.4484	
6 DNX	1	6.837	6.842	-0.005	72637	0.5010	0.4868	
7 MNX	1	7.264	7.268	-0.004	78881	0.5845	0.5830	
8 RDX	1	7.657	7.655	0.002	48293	0.5000	0.4595	
9 2,4,6-Trinitrophenol	1	7.784	7.795	-0.011	40447	0.5000	0.5357	
$ 10 1,2-Dinitrobenzene	1	8.617	8.615	0.002	62833	0.5000	0.4847	
11 1,3,5-Trinitrobenzene	1	8.744	8.742	0.002	108888	0.5000	0.5040	
12 1,3-Dinitrobenzene	1	9.370	9.375	-0.005	145908	0.5000	0.4986	
13 Nitrobenzene	1	9.737	9.742	-0.005	93673	0.5000	0.5064	
14 3,5-Dinitroaniline	1	9.977	9.975	0.002	103793	0.5000	0.4754	
15 Tetryl	1	10.084	10.075	0.009	90284	0.5000	0.4992	
16 Nitroglycerin	2	10.550	10.542	0.008	319467	5.00	5.17	
17 2,4,6-Trinitrotoluene	1	10.990	10.982	0.008	98279	0.5000	0.4612	
18 4-Amino-2,6-dinitrotoluene	1	11.184	11.175	0.009	71071	0.5000	0.4737	
19 2-Amino-4,6-dinitrotoluene	1	11.437	11.428	0.009	95842	0.5000	0.4825	
20 2,6-Dinitrotoluene	1	11.590	11.582	0.008	70813	0.5000	0.4953	
21 2,4-Dinitrotoluene	1	11.764	11.755	0.009	142217	0.5000	0.4858	
22 o-Nitrotoluene	1	12.570	12.562	0.008	59514	0.5000	0.4902	
23 p-Nitrotoluene	1	12.997	12.988	0.009	51512	0.5000	0.4924	
24 m-Nitrotoluene	1	13.557	13.548	0.009	65708	0.5000	0.4930	
25 PETN	2	14.664	14.642	0.022	361867	5.00	4.98	

QC Flag Legend
Processing Flags

Reagents:

8330Surrogate_00152	Amount Added:	50.00	Units: uL
8330 LCS_00133	Amount Added:	50.00	Units: uL
8330_OP_DMT_00026	Amount Added:	50.00	Units: uL

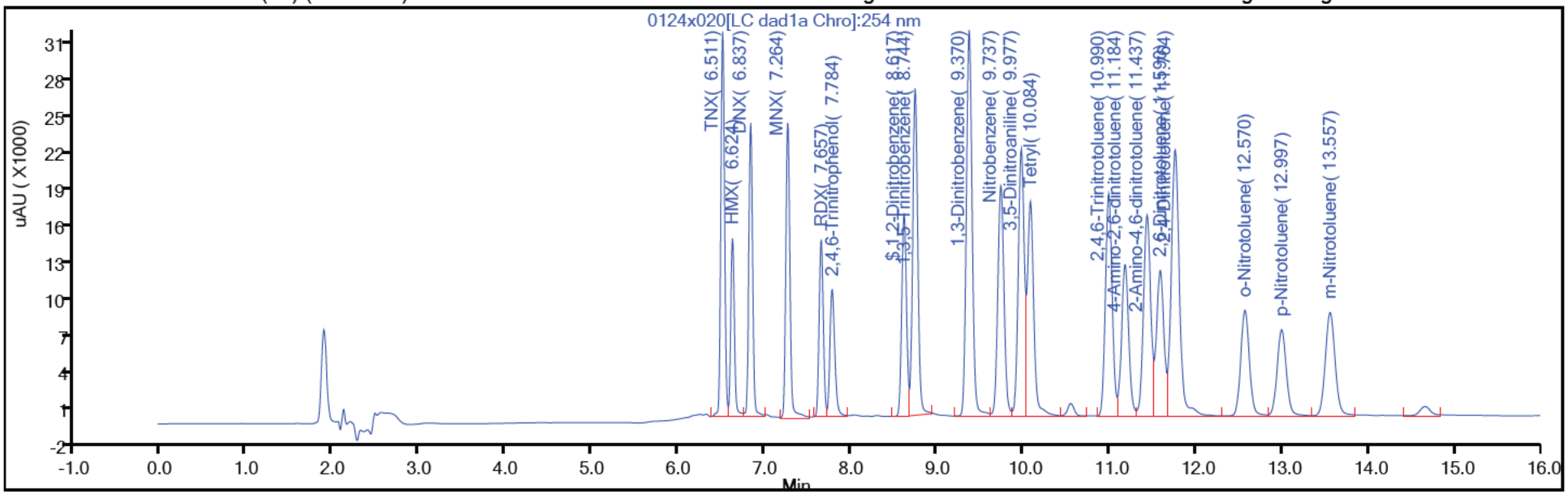
Report Date: 30-Jan-2024 17:02:14 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

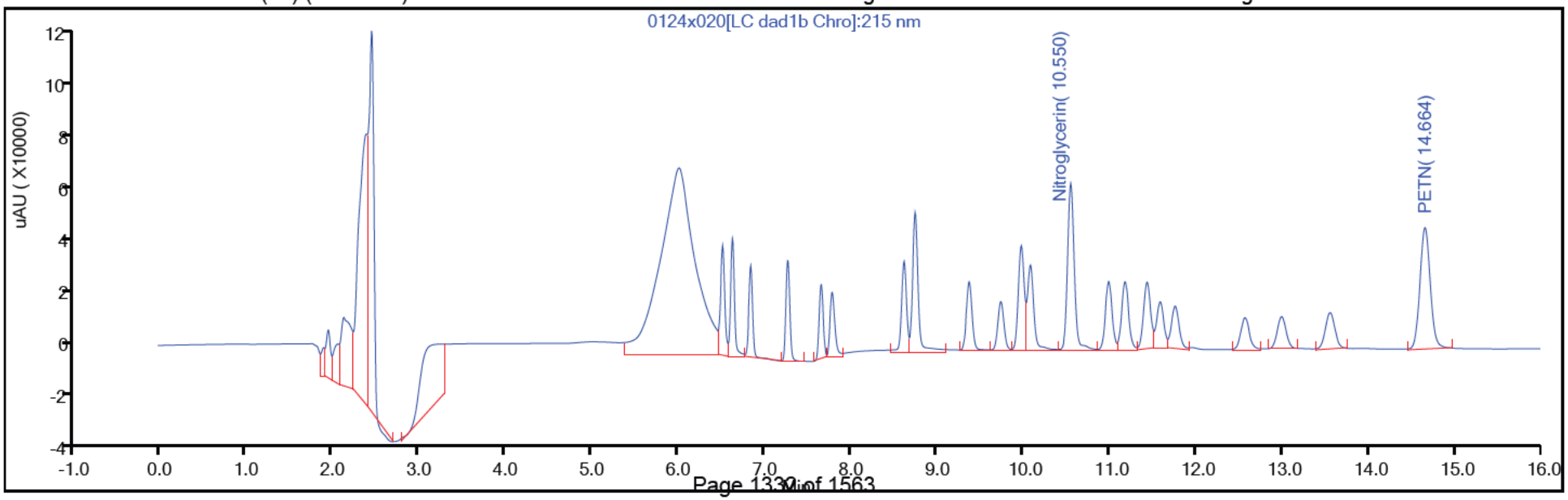
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\0124x020.d

Injection Date:	24-Jan-2024 20:01:05	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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-640909/29 Calibration Date: 01/24/2024 23:27

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 01240029.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	223759	195058		0.436	0.500	-12.8	20.0
2,4-diamino-6-nitrotoluene	Ave	139108	120098		0.432	0.500	-13.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-640909/29 Calibration Date: 01/24/2024 23:27

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 01240029.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.50	6.36	6.66
2,4-diamino-6-nitrotoluene	6.69	6.54	6.84

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240029.D
Lims ID: ICV ADD
Client ID:
Sample Type: ICV
Inject. Date: 24-Jan-2024 23:27:35 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 30-Jan-2024 16:59:16 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1603

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.500	6.505	-0.005	97529	0.5000	0.4359	
5 2,4-diamino-6-nitrotoluene	1	6.686	6.685	0.001	60049	0.5000	0.4317	

Reagents:

8330DiaminLCS_00064 Amount Added: 25.00 Units: uL

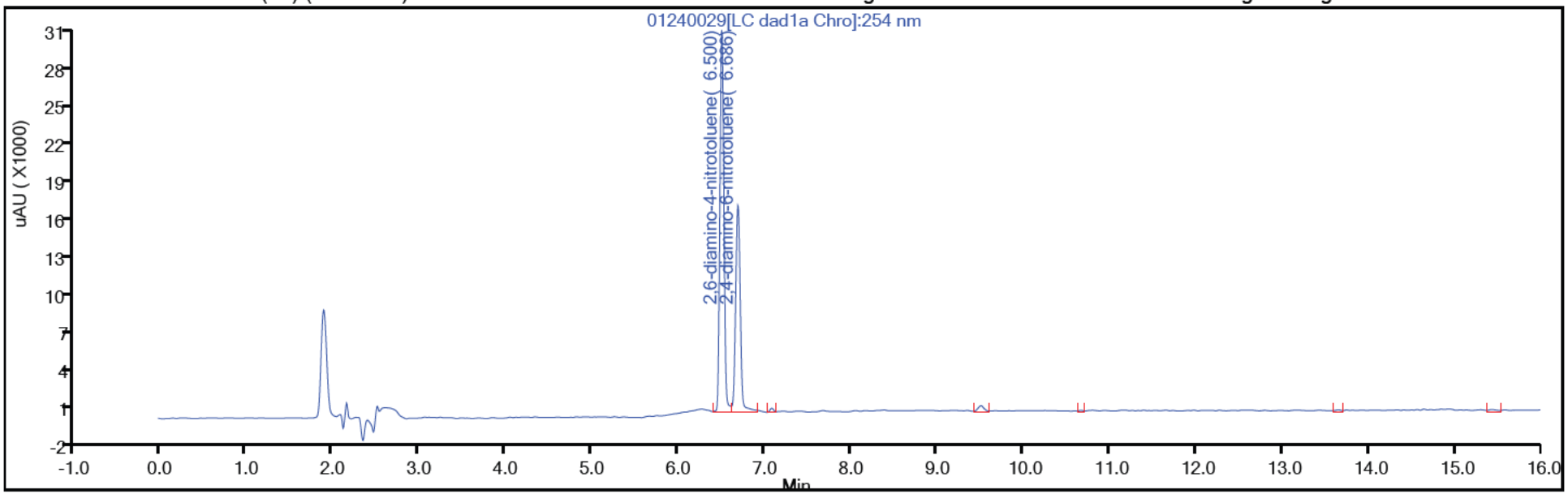
Report Date: 30-Jan-2024 16:59:19 Chrom Revision: 2.3 24-Jan-2024 12:19:54

Eurofins Denver

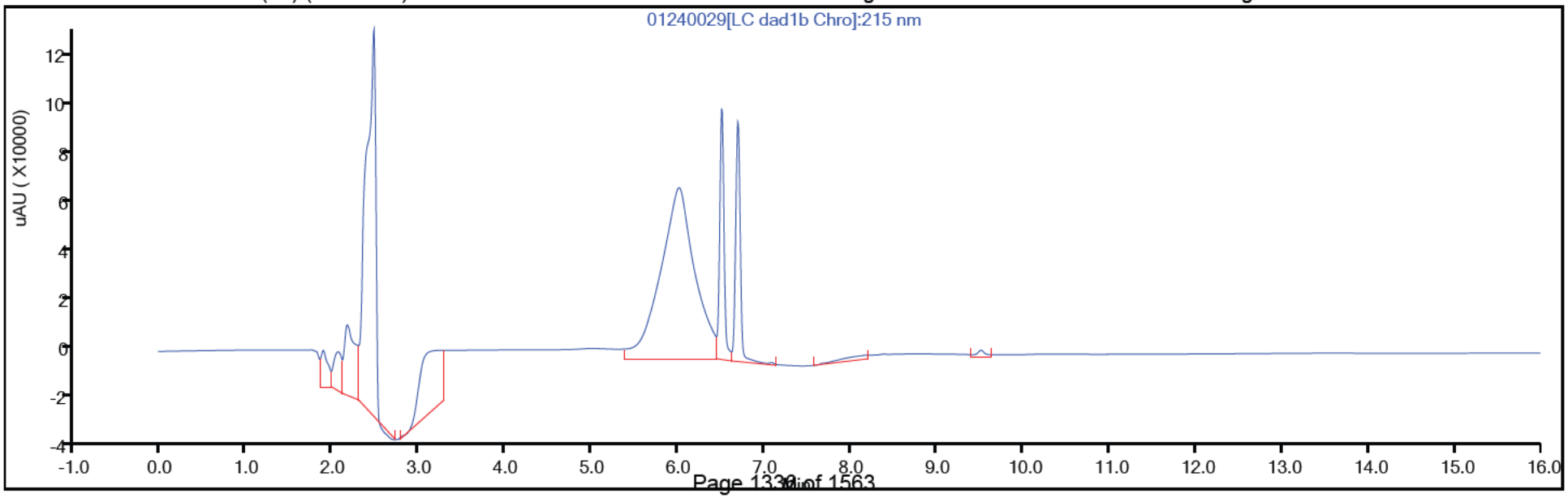
Data File: \\chromfs\denver\chromdata\chhplc_x\20240124-129631.b\01240029.d

Injection Date:	24-Jan-2024 23:27:35	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	ICV ADD			Worklist Smp#:	29
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/39 | Calibration Date: 03/20/2024 04:03

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/24/2024 19:38

Lab File ID: 03190039.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95315	93732		246	250	-1.7	20.0
RDX	Lin2		105060		250	250	-0.1	20.0
Picric acid	Ave	75502	73700		244	250	-2.4	20.0
1,3,5-Trinitrobenzene	Ave	216030	215668		250	250	-0.2	20.0
1,3-Dinitrobenzene	Ave	292609	296244		253	250	1.2	20.0
Nitrobenzene	Ave	184983	182588		247	250	-1.3	20.0
3,5-Dinitroaniline	Lin2		219600		252	250	0.7	20.0
Tetryl	Ave	180864	178840		247	250	-1.1	20.0
Nitroglycerin	Ave	61824	66785		2700	2500	8.0	20.0
2,4,6-Trinitrotoluene	Lin2		215344		253	250	1.0	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	149504		249	250	-0.3	20.0
2-Amino-4,6-dinitrotoluene	Lin2		198072		249	250	-0.5	20.0
2,6-Dinitrotoluene	Lin2		145820		255	250	1.9	20.0
2,4-Dinitrotoluene	Ave	292766	294716		252	250	0.7	20.0
2-Nitrotoluene	Lin2		119256		245	250	-2.2	20.0
4-Nitrotoluene	Lin2		104392		248	250	-0.9	20.0
3-Nitrotoluene	Lin2		130828		243	250	-2.8	20.0
PETN	Ave	72603	73695		2540	2500	1.5	20.0
1,2-Dinitrobenzene	Lin2		128152		247	250	-1.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/39 Calibration Date: 03/20/2024 04:03

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 03190039.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.47	6.77
RDX	7.65	7.50	7.80
Picric acid	7.88	7.72	8.02
1,3,5-Trinitrobenzene	8.73	8.58	8.88
1,3-Dinitrobenzene	9.36	9.21	9.51
Nitrobenzene	9.72	9.58	9.88
3,5-Dinitroaniline	9.96	9.82	10.12
Tetryl	10.06	9.92	10.22
Nitroglycerin	10.52	10.38	10.68
2,4,6-Trinitrotoluene	10.96	10.87	11.07
4-Amino-2,6-dinitrotoluene	11.15	11.06	11.26
2-Amino-4,6-dinitrotoluene	11.41	11.32	11.52
2,6-Dinitrotoluene	11.55	11.46	11.66
2,4-Dinitrotoluene	11.72	11.64	11.84
2-Nitrotoluene	12.52	12.39	12.69
4-Nitrotoluene	12.94	12.81	13.11
3-Nitrotoluene	13.50	13.37	13.67
PETN	14.60	14.47	14.77
1,2-Dinitrobenzene	8.60	8.46	8.76

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190039.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 20-Mar-2024 04:03:26 ALS Bottle#: 7 Worklist Smp#: 39
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:28:52 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	4 HMX	1	6.616	6.620	-0.004	23433	0.2500	0.2458	
	8 RDX	1	7.650	7.647	0.003	26265	0.2500	0.2497	
	9 2,4,6-Trinitrophenol	1	7.876	7.874	0.002	18425	0.2500	0.2440	
$	10 1,2-Dinitrobenzene	1	8.603	8.607	-0.004	32038	0.2500	0.2470	
	11 1,3,5-Trinitrobenzene	1	8.730	8.734	-0.004	53917	0.2500	0.2496	
	12 1,3-Dinitrobenzene	1	9.356	9.360	-0.004	74061	0.2500	0.2531	
	13 Nitrobenzene	1	9.716	9.727	-0.011	45647	0.2500	0.2468	
	14 3,5-Dinitroaniline	1	9.963	9.967	-0.004	54900	0.2500	0.2517	
	15 Tetryl	1	10.063	10.067	-0.004	44710	0.2500	0.2472	
	16 Nitroglycerin	2	10.523	10.533	-0.010	166963	2.50	2.70	
	17 2,4,6-Trinitrotoluene	1	10.963	10.967	-0.004	53836	0.2500	0.2525	
	18 4-Amino-2,6-dinitrotoluene	1	11.150	11.160	-0.010	37376	0.2500	0.2491	
	19 2-Amino-4,6-dinitrotoluene	1	11.410	11.420	-0.010	49518	0.2500	0.2488	
	20 2,6-Dinitrotoluene	1	11.550	11.560	-0.010	36455	0.2500	0.2546	
	21 2,4-Dinitrotoluene	1	11.723	11.740	-0.017	73679	0.2500	0.2517	
	22 o-Nitrotoluene	1	12.523	12.540	-0.017	29814	0.2500	0.2445	
	23 p-Nitrotoluene	1	12.943	12.960	-0.017	26098	0.2500	0.2477	
	24 m-Nitrotoluene	1	13.503	13.520	-0.017	32707	0.2500	0.2429	
	25 PETN	2	14.596	14.620	-0.024	184237	2.50	2.54	

Reagents:

8330IntermStk_00079 Amount Added: 25.00 Units: uL

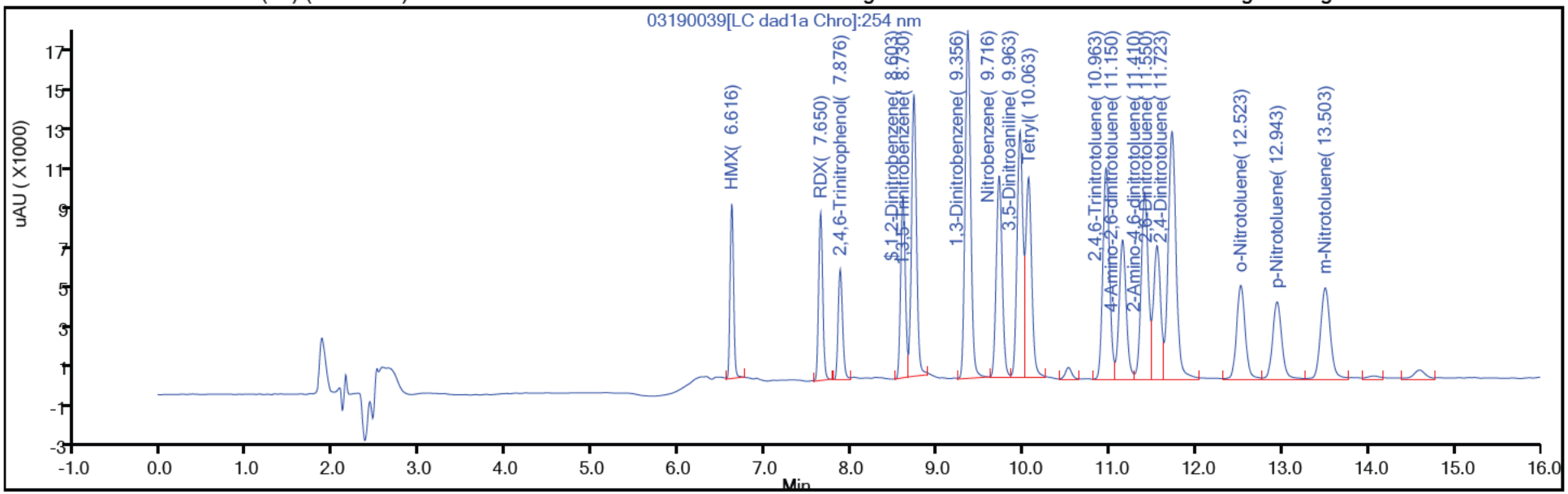
Report Date: 20-Mar-2024 12:28:53 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

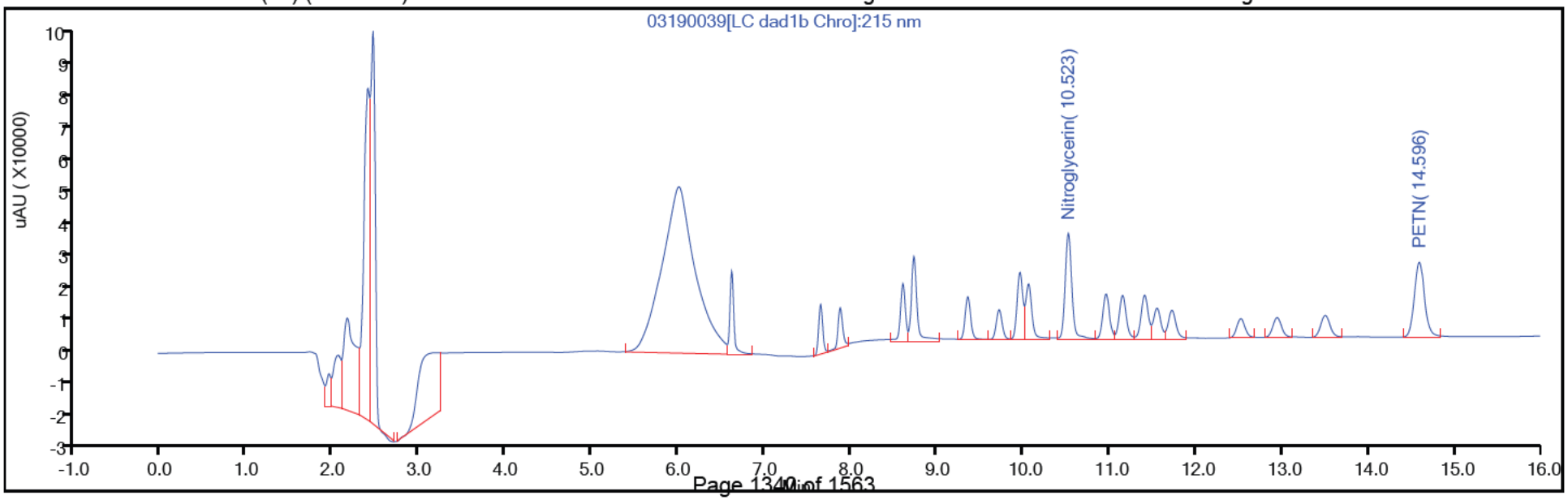
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190039.d

Injection Date:	20-Mar-2024 04:03:26	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV INT			Worklist Smp#:	39
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/40 Calibration Date: 03/20/2024 04:26

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190040.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	223759	216864		0.242	0.250	-3.1	20.0
2,4-diamino-6-nitrotoluene	Ave	139108	131192		0.236	0.250	-5.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/40 Calibration Date: 03/20/2024 04:26

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190040.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.50	6.35	6.65
2,4-diamino-6-nitrotoluene	6.68	6.53	6.83

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190040.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 20-Mar-2024 04:26:20 ALS Bottle#: 8 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:28:54 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:26:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.496	6.496	0.000	54216	0.2500	0.2423	
5 2,4-diamino-6-nitrotoluene	1	6.683	6.683	0.000	32798	0.2500	0.2358	

Reagents:

8330_ADDs_00038 Amount Added: 12.50 Units: uL

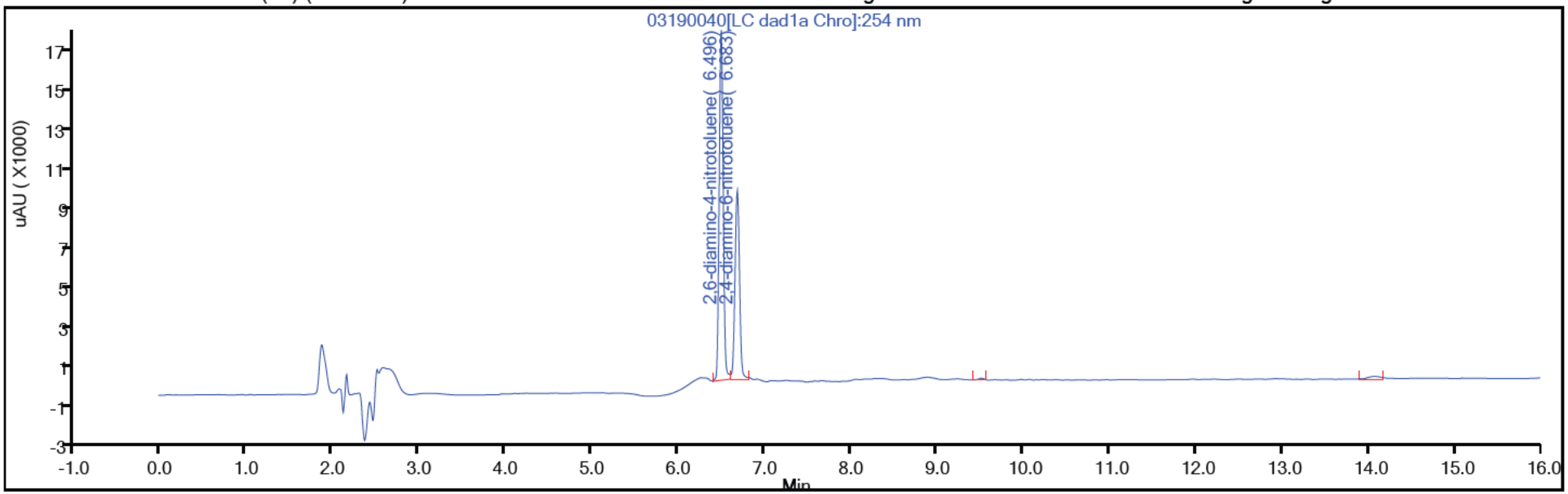
Report Date: 20-Mar-2024 12:28:54 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

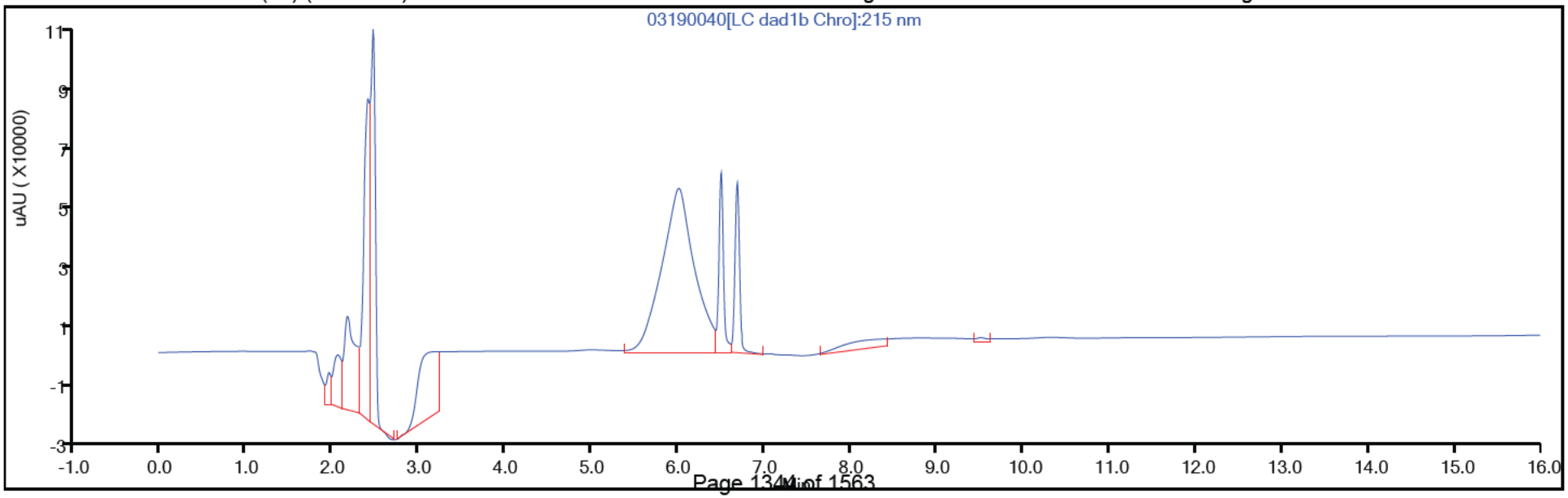
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190040.d

Injection Date:	20-Mar-2024 04:26:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	40
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/47 | Calibration Date: 03/20/2024 07:06

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/24/2024 19:38

Lab File ID: 03190047.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95315	92548		243	250	-2.9	20.0
RDX	Lin2		107204		255	250	1.9	20.0
Picric acid	Ave	75502	74616		247	250	-1.2	20.0
1,3,5-Trinitrobenzene	Ave	216030	215988		250	250	-0.0	20.0
1,3-Dinitrobenzene	Ave	292609	297732		254	250	1.8	20.0
Nitrobenzene	Ave	184983	179968		243	250	-2.7	20.0
3,5-Dinitroaniline	Lin2		219216		251	250	0.5	20.0
Tetryl	Ave	180864	179676		248	250	-0.7	20.0
Nitroglycerin	Ave	61824	67186		2720	2500	8.7	20.0
2,4,6-Trinitrotoluene	Lin2		216212		254	250	1.4	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	150252		250	250	0.2	20.0
2-Amino-4,6-dinitrotoluene	Lin2		199904		251	250	0.5	20.0
2,6-Dinitrotoluene	Lin2		146412		256	250	2.3	20.0
2,4-Dinitrotoluene	Ave	292766	296516		253	250	1.3	20.0
2-Nitrotoluene	Lin2		117580		241	250	-3.6	20.0
4-Nitrotoluene	Lin2		102424		243	250	-2.8	20.0
3-Nitrotoluene	Lin2		128640		239	250	-4.5	20.0
PETN	Ave	72603	74191		2550	2500	2.2	20.0
1,2-Dinitrobenzene	Lin2		130672		252	250	0.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/47 Calibration Date: 03/20/2024 07:06

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 03190047.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.47	6.77
RDX	7.64	7.50	7.80
Picric acid	7.87	7.72	8.02
1,3,5-Trinitrobenzene	8.72	8.58	8.88
1,3-Dinitrobenzene	9.35	9.21	9.51
Nitrobenzene	9.72	9.58	9.88
3,5-Dinitroaniline	9.96	9.82	10.12
Tetryl	10.06	9.92	10.22
Nitroglycerin	10.52	10.38	10.68
2,4,6-Trinitrotoluene	10.95	10.87	11.07
4-Amino-2,6-dinitrotoluene	11.14	11.06	11.26
2-Amino-4,6-dinitrotoluene	11.40	11.32	11.52
2,6-Dinitrotoluene	11.54	11.46	11.66
2,4-Dinitrotoluene	11.72	11.64	11.84
2-Nitrotoluene	12.52	12.39	12.69
4-Nitrotoluene	12.94	12.81	13.11
3-Nitrotoluene	13.50	13.37	13.67
PETN	14.58	14.47	14.77
1,2-Dinitrobenzene	8.60	8.46	8.76

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190047.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 20-Mar-2024 07:06:55 ALS Bottle#: 7 Worklist Smp#: 47
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:00 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.618	6.620	-0.002	23137	0.2500	0.2427	
8 RDX	1	7.644	7.647	-0.003	26801	0.2500	0.2548	
9 2,4,6-Trinitrophenol	1	7.871	7.874	-0.003	18654	0.2500	0.2471	
$ 10 1,2-Dinitrobenzene	1	8.598	8.607	-0.009	32668	0.2500	0.2519	
11 1,3,5-Trinitrobenzene	1	8.724	8.734	-0.010	53997	0.2500	0.2500	
12 1,3-Dinitrobenzene	1	9.351	9.360	-0.009	74433	0.2500	0.2544	
13 Nitrobenzene	1	9.718	9.727	-0.009	44992	0.2500	0.2432	
14 3,5-Dinitroaniline	1	9.958	9.967	-0.009	54804	0.2500	0.2512	
15 Tetryl	1	10.058	10.067	-0.009	44919	0.2500	0.2484	
16 Nitroglycerin	2	10.518	10.533	-0.015	167965	2.50	2.72	
17 2,4,6-Trinitrotoluene	1	10.951	10.967	-0.016	54053	0.2500	0.2535	
18 4-Amino-2,6-dinitrotoluene	1	11.144	11.160	-0.016	37563	0.2500	0.2504	
19 2-Amino-4,6-dinitrotoluene	1	11.398	11.420	-0.022	49976	0.2500	0.2511	
20 2,6-Dinitrotoluene	1	11.544	11.560	-0.016	36603	0.2500	0.2557	
21 2,4-Dinitrotoluene	1	11.718	11.740	-0.022	74129	0.2500	0.2532	
22 o-Nitrotoluene	1	12.518	12.540	-0.022	29395	0.2500	0.2411	
23 p-Nitrotoluene	1	12.938	12.960	-0.022	25606	0.2500	0.2429	
24 m-Nitrotoluene	1	13.498	13.520	-0.022	32160	0.2500	0.2388	
25 PETN	2	14.584	14.620	-0.036	185478	2.50	2.55	

Reagents:

8330IntermStk_00079 Amount Added: 25.00 Units: uL

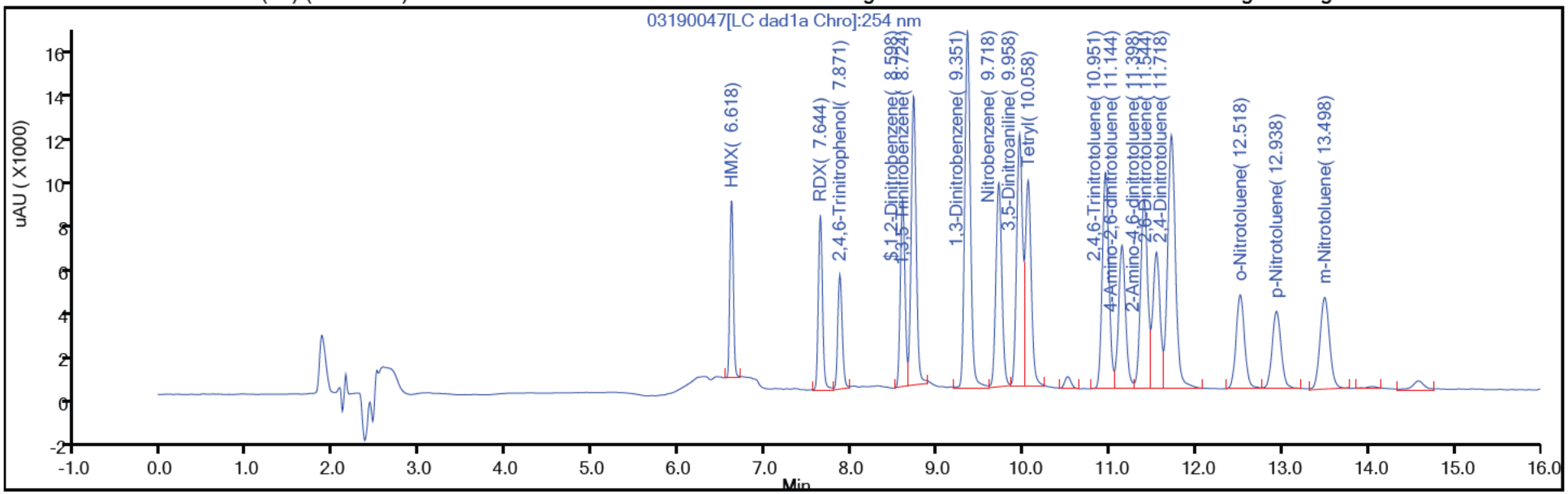
Report Date: 20-Mar-2024 12:29:00 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

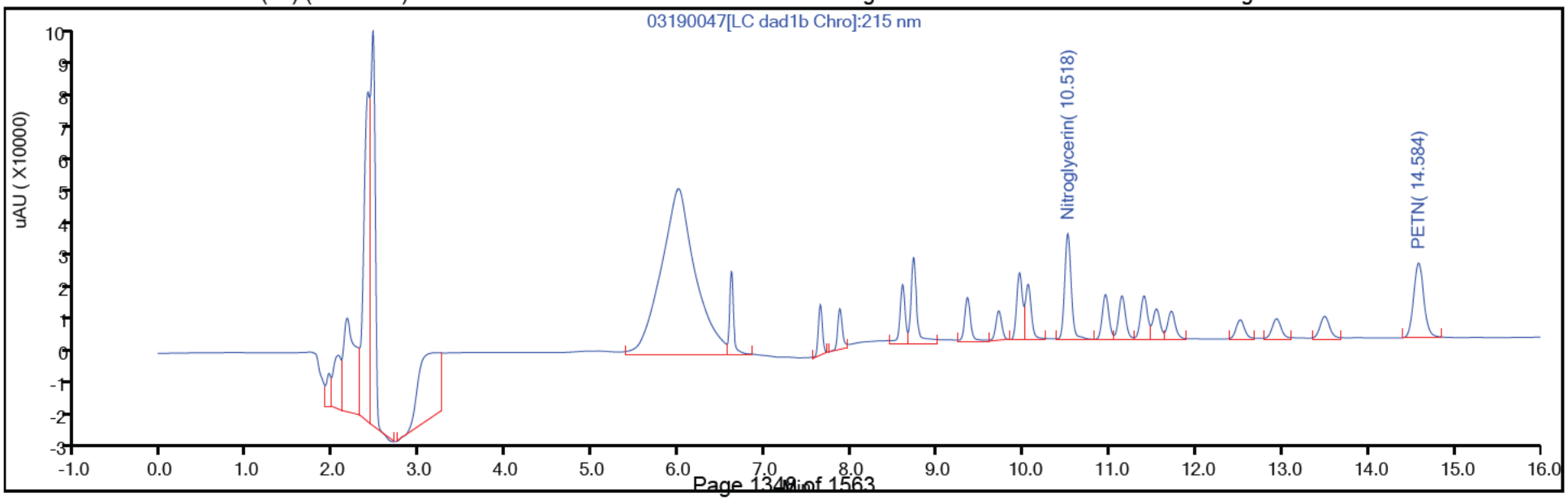
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190047.d

Injection Date:	20-Mar-2024 07:06:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV INT			Worklist Smp#:	47
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/48 Calibration Date: 03/20/2024 07:29

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190048.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	223759	214812		0.240	0.250	-4.0	20.0
2,4-diamino-6-nitrotoluene	Ave	139108	129088		0.232	0.250	-7.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/48 Calibration Date: 03/20/2024 07:29

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190048.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.49	6.35	6.65
2,4-diamino-6-nitrotoluene	6.68	6.53	6.83

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190048.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 20-Mar-2024 07:29:51 ALS Bottle#: 8 Worklist Smp#: 48
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:00 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.494	6.496	-0.002	53703	0.2500	0.2400	
5 2,4-diamino-6-nitrotoluene	1	6.681	6.683	-0.002	32272	0.2500	0.2320	

Reagents:

8330_ADDs_00038 Amount Added: 12.50 Units: uL

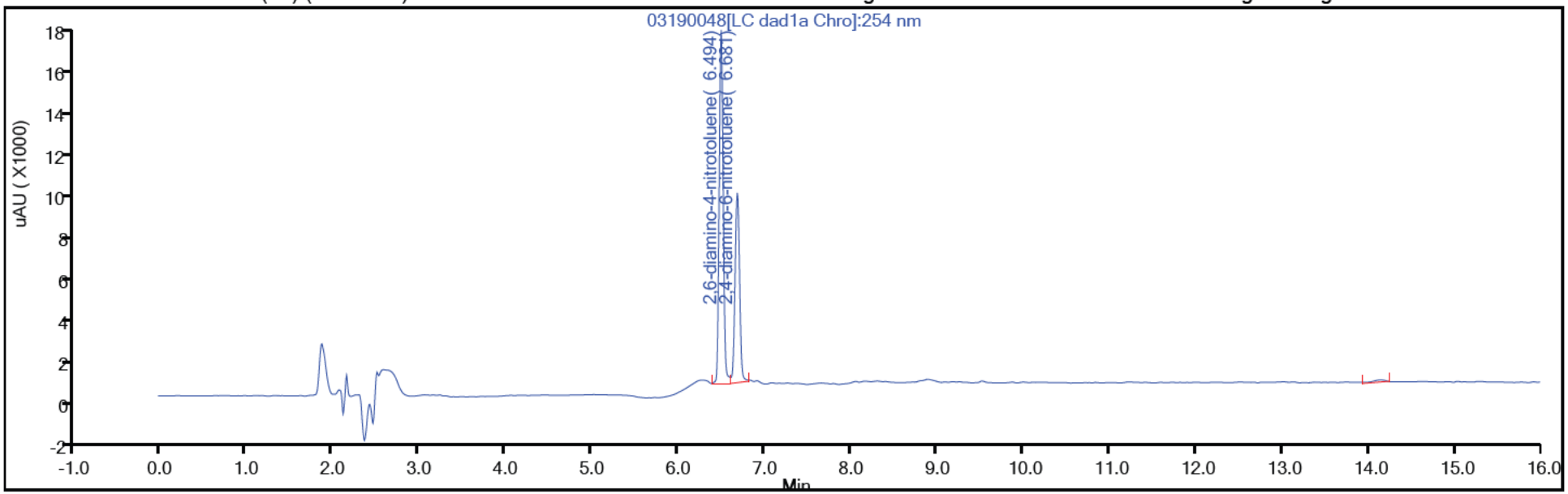
Report Date: 20-Mar-2024 12:29:00 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

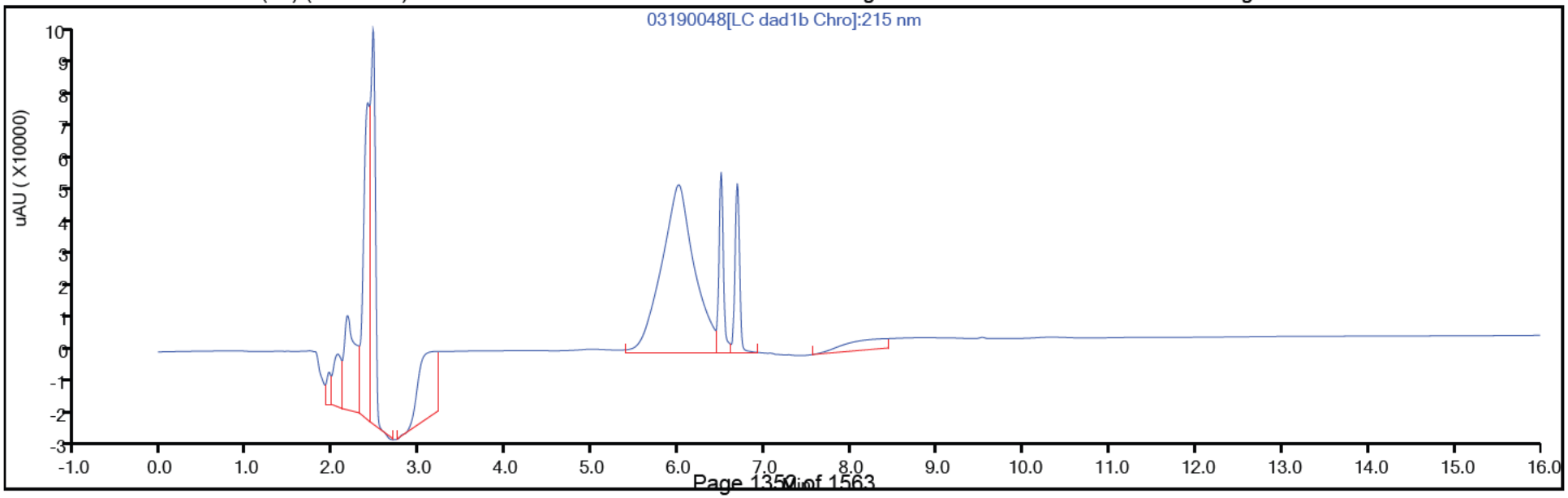
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190048.d

Injection Date:	20-Mar-2024 07:29:51	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	48
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/56 | Calibration Date: 03/20/2024 10:33

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/24/2024 19:38

Lab File ID: 03190056.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95315	93644		246	250	-1.8	20.0
RDX	Lin2		106868		254	250	1.6	20.0
Picric acid	Ave	75502	73508		243	250	-2.6	20.0
1,3,5-Trinitrobenzene	Ave	216030	215056		249	250	-0.5	20.0
1,3-Dinitrobenzene	Ave	292609	296856		254	250	1.5	20.0
Nitrobenzene	Ave	184983	178496		241	250	-3.5	20.0
3,5-Dinitroaniline	Lin2		219600		252	250	0.7	20.0
Tetryl	Ave	180864	179840		249	250	-0.6	20.0
Nitroglycerin	Ave	61824	66848		2700	2500	8.1	20.0
2,4,6-Trinitrotoluene	Lin2		215544		253	250	1.1	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	149668		249	250	-0.2	20.0
2-Amino-4,6-dinitrotoluene	Lin2		199732		251	250	0.4	20.0
2,6-Dinitrotoluene	Lin2		145988		255	250	2.0	20.0
2,4-Dinitrotoluene	Ave	292766	297052		254	250	1.5	20.0
2-Nitrotoluene	Lin2		117052		240	250	-4.0	20.0
4-Nitrotoluene	Lin2		102808		244	250	-2.5	20.0
3-Nitrotoluene	Lin2		128156		238	250	-4.9	20.0
PETN	Ave	72603	74148		2550	2500	2.1	20.0
1,2-Dinitrobenzene	Lin2		129836		250	250	0.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/56 Calibration Date: 03/20/2024 10:33

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 03190056.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.47	6.77
RDX	7.65	7.50	7.80
Picric acid	7.88	7.72	8.02
1,3,5-Trinitrobenzene	8.74	8.58	8.88
1,3-Dinitrobenzene	9.36	9.21	9.51
Nitrobenzene	9.72	9.58	9.88
3,5-Dinitroaniline	9.96	9.82	10.12
Tetryl	10.06	9.92	10.22
Nitroglycerin	10.52	10.38	10.68
2,4,6-Trinitrotoluene	10.96	10.87	11.07
4-Amino-2,6-dinitrotoluene	11.15	11.06	11.26
2-Amino-4,6-dinitrotoluene	11.40	11.32	11.52
2,6-Dinitrotoluene	11.55	11.46	11.66
2,4-Dinitrotoluene	11.72	11.64	11.84
2-Nitrotoluene	12.52	12.39	12.69
4-Nitrotoluene	12.94	12.81	13.11
3-Nitrotoluene	13.50	13.37	13.67
PETN	14.60	14.47	14.77
1,2-Dinitrobenzene	8.60	8.46	8.76

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190056.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 20-Mar-2024 10:33:34 ALS Bottle#: 7 Worklist Smp#: 56
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:06 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	4 HMX	1	6.622	6.620	0.002	23411	0.2500	0.2456	
	8 RDX	1	7.649	7.647	0.002	26717	0.2500	0.2540	
	9 2,4,6-Trinitrophenol	1	7.875	7.874	0.001	18377	0.2500	0.2434	
$	10 1,2-Dinitrobenzene	1	8.602	8.607	-0.005	32459	0.2500	0.2503	
	11 1,3,5-Trinitrobenzene	1	8.735	8.734	0.001	53764	0.2500	0.2489	
	12 1,3-Dinitrobenzene	1	9.355	9.360	-0.005	74214	0.2500	0.2536	
	13 Nitrobenzene	1	9.722	9.727	-0.005	44624	0.2500	0.2412	
	14 3,5-Dinitroaniline	1	9.962	9.967	-0.005	54900	0.2500	0.2517	
	15 Tetryl	1	10.062	10.067	-0.005	44960	0.2500	0.2486	
	16 Nitroglycerin	2	10.522	10.533	-0.011	167121	2.50	2.70	
	17 2,4,6-Trinitrotoluene	1	10.962	10.967	-0.005	53886	0.2500	0.2528	
	18 4-Amino-2,6-dinitrotoluene	1	11.149	11.160	-0.011	37417	0.2500	0.2494	
	19 2-Amino-4,6-dinitrotoluene	1	11.402	11.420	-0.018	49933	0.2500	0.2509	
	20 2,6-Dinitrotoluene	1	11.549	11.560	-0.011	36497	0.2500	0.2549	
	21 2,4-Dinitrotoluene	1	11.722	11.740	-0.018	74263	0.2500	0.2537	
	22 o-Nitrotoluene	1	12.522	12.540	-0.018	29263	0.2500	0.2400	
	23 p-Nitrotoluene	1	12.942	12.960	-0.018	25702	0.2500	0.2439	
	24 m-Nitrotoluene	1	13.502	13.520	-0.018	32039	0.2500	0.2378	
	25 PETN	2	14.595	14.620	-0.025	185370	2.50	2.55	

Reagents:

8330IntermStk_00079 Amount Added: 25.00 Units: uL

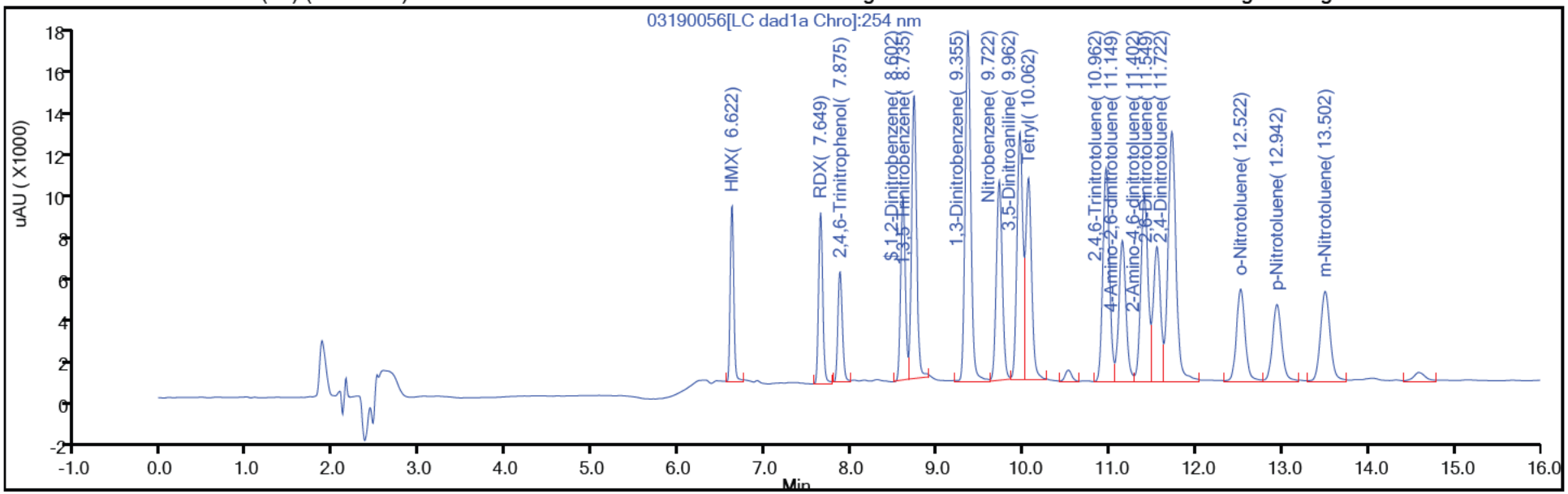
Report Date: 20-Mar-2024 12:29:07 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

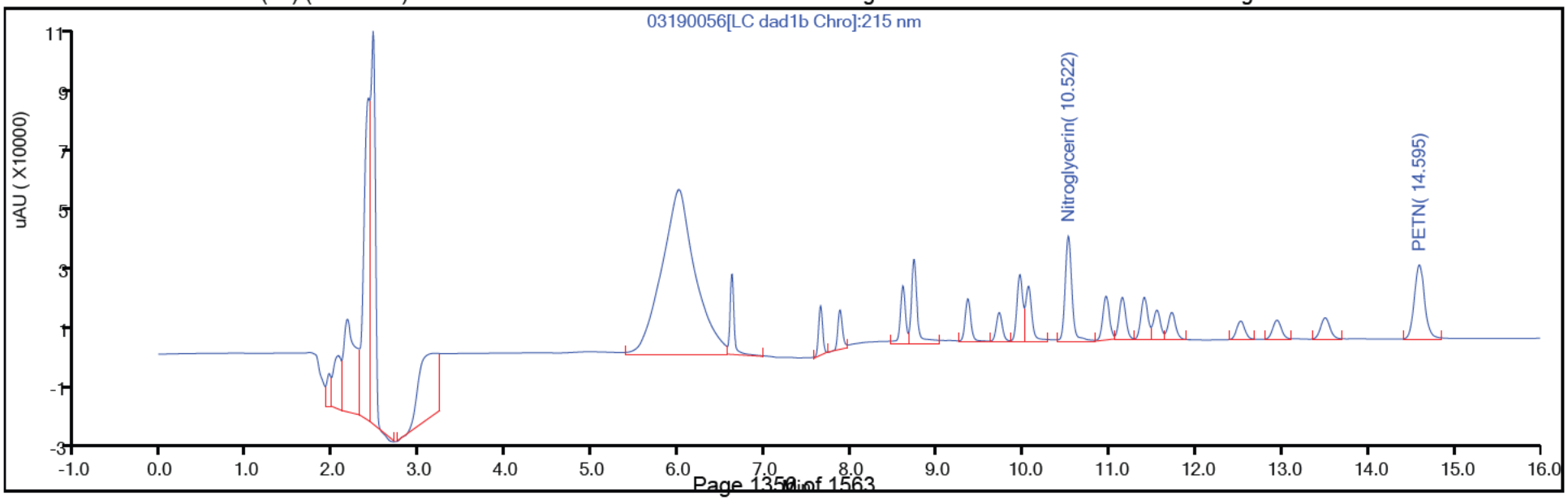
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190056.d

Injection Date:	20-Mar-2024 10:33:34	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV INT			Worklist Smp#:	56
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/57 Calibration Date: 03/20/2024 10:56

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190057.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	223759	214620		0.240	0.250	-4.1	20.0
2,4-diamino-6-nitrotoluene	Ave	139108	129932		0.234	0.250	-6.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/57 Calibration Date: 03/20/2024 10:56

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190057.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.50	6.35	6.65
2,4-diamino-6-nitrotoluene	6.69	6.53	6.83

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190057.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 20-Mar-2024 10:56:29 ALS Bottle#: 8 Worklist Smp#: 57
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:07 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.499	6.496	0.003	53655	0.2500	0.2398	
5 2,4-diamino-6-nitrotoluene	1	6.685	6.683	0.002	32483	0.2500	0.2335	

Reagents:

8330_ADDs_00038 Amount Added: 12.50 Units: uL

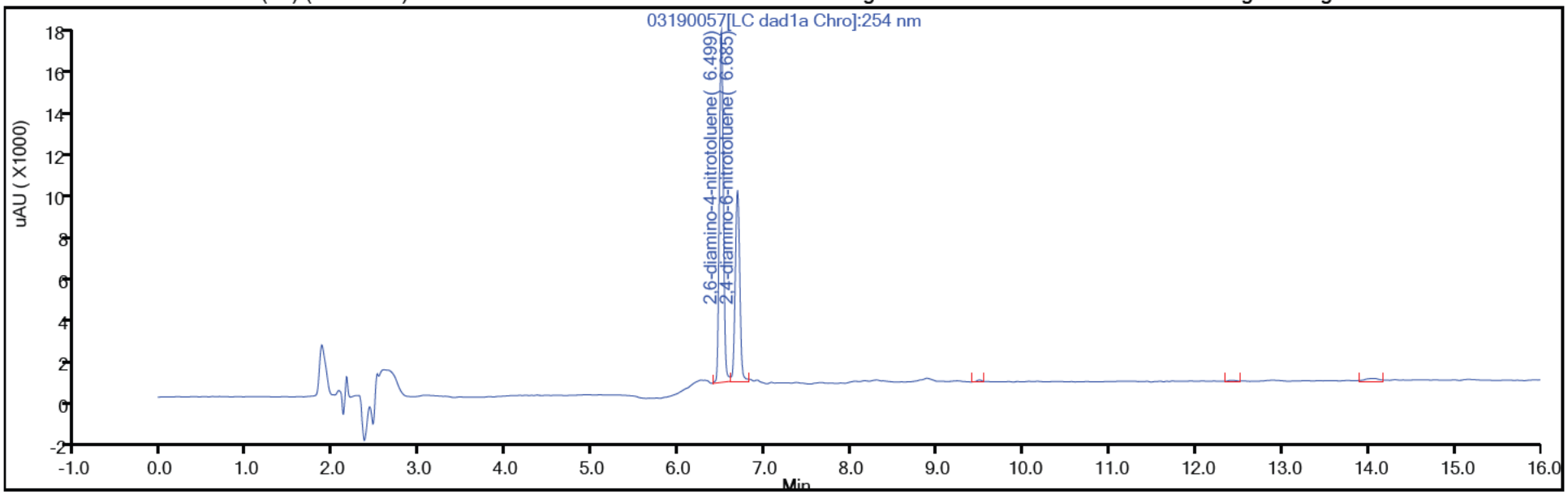
Report Date: 20-Mar-2024 12:29:07 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

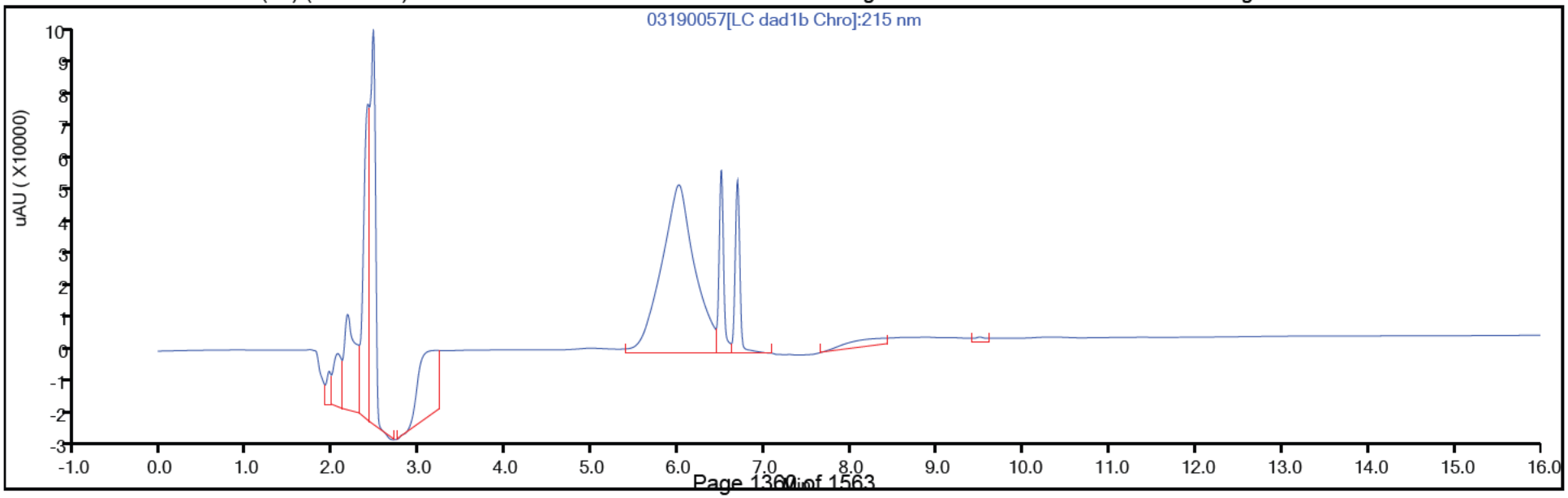
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190057.d

Injection Date:	20-Mar-2024 10:56:29	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	57
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646567/7 | Calibration Date: 03/20/2024 17:06

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/24/2024 19:38

Lab File ID: 03200007.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95315	91832		241	250	-3.7	20.0
RDX	Lin2		105696		251	250	0.5	20.0
Picric acid	Ave	75502	73336		243	250	-2.9	20.0
1,3,5-Trinitrobenzene	Ave	216030	215304		249	250	-0.3	20.0
1,3-Dinitrobenzene	Ave	292609	294864		252	250	0.8	20.0
Nitrobenzene	Ave	184983	190000		257	250	2.7	20.0
3,5-Dinitroaniline	Lin2		216576		248	250	-0.7	20.0
Tetryl	Ave	180864	180024		249	250	-0.5	20.0
Nitroglycerin	Ave	61824	66500		2690	2500	7.6	20.0
2,4,6-Trinitrotoluene	Lin2		214096		251	250	0.4	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	149904		250	250	-0.0	20.0
2-Amino-4,6-dinitrotoluene	Lin2		199376		250	250	0.2	20.0
2,6-Dinitrotoluene	Lin2		145644		254	250	1.7	20.0
2,4-Dinitrotoluene	Ave	292766	294412		251	250	0.6	20.0
2-Nitrotoluene	Lin2		124484		255	250	2.1	20.0
4-Nitrotoluene	Lin2		106608		253	250	1.2	20.0
3-Nitrotoluene	Lin2		137208		255	250	2.0	20.0
PETN	Ave	72603	73350		2530	2500	1.0	20.0
1,2-Dinitrobenzene	Lin2		129556		250	250	-0.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646567/7 Calibration Date: 03/20/2024 17:06

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 03200007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.46	6.76
RDX	7.64	7.49	7.79
Picric acid	7.87	7.72	8.02
1,3,5-Trinitrobenzene	8.73	8.58	8.88
1,3-Dinitrobenzene	9.35	9.20	9.50
Nitrobenzene	9.71	9.56	9.86
3,5-Dinitroaniline	9.95	9.80	10.10
Tetryl	10.05	9.90	10.20
Nitroglycerin	10.51	10.36	10.66
2,4,6-Trinitrotoluene	10.95	10.85	11.05
4-Amino-2,6-dinitrotoluene	11.14	11.04	11.24
2-Amino-4,6-dinitrotoluene	11.39	11.29	11.49
2,6-Dinitrotoluene	11.54	11.44	11.64
2,4-Dinitrotoluene	11.71	11.61	11.81
2-Nitrotoluene	12.51	12.36	12.66
4-Nitrotoluene	12.93	12.78	13.08
3-Nitrotoluene	13.49	13.34	13.64
PETN	14.58	14.43	14.73
1,2-Dinitrobenzene	8.59	8.44	8.74

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\03200007.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 20-Mar-2024 17:06:18 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 12:36:17 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 20-Mar-2024 18:05:18

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	6.614	0.000	22958	0.2500	0.2409	
8 RDX	1	7.640	7.640	0.000	26424	0.2500	0.2512	
9 2,4,6-Trinitrophenol	1	7.867	7.867	0.000	18334	0.2500	0.2428	
$ 10 1,2-Dinitrobenzene	1	8.594	8.594	0.000	32389	0.2500	0.2498	
11 1,3,5-Trinitrobenzene	1	8.727	8.727	0.000	53826	0.2500	0.2492	
12 1,3-Dinitrobenzene	1	9.347	9.347	0.000	73716	0.2500	0.2519	
13 Nitrobenzene	1	9.713	9.713	0.000	47500	0.2500	0.2568	
14 3,5-Dinitroaniline	1	9.953	9.953	0.000	54144	0.2500	0.2482	
15 Tetryl	1	10.053	10.053	0.000	45006	0.2500	0.2488	
16 Nitroglycerin	2	10.513	10.513	0.000	166251	2.50	2.69	
17 2,4,6-Trinitrotoluene	1	10.953	10.953	0.000	53524	0.2500	0.2511	
18 4-Amino-2,6-dinitrotoluene	1	11.140	11.140	0.000	37476	0.2500	0.2498	
19 2-Amino-4,6-dinitrotoluene	1	11.393	11.393	0.000	49844	0.2500	0.2505	
20 2,6-Dinitrotoluene	1	11.540	11.540	0.000	36411	0.2500	0.2543	
21 2,4-Dinitrotoluene	1	11.713	11.713	0.000	73603	0.2500	0.2514	
22 o-Nitrotoluene	1	12.513	12.513	0.000	31121	0.2500	0.2553	
23 p-Nitrotoluene	1	12.933	12.933	0.000	26652	0.2500	0.2530	
24 m-Nitrotoluene	1	13.493	13.493	0.000	34302	0.2500	0.2550	
25 PETN	2	14.580	14.580	0.000	183374	2.50	2.53	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00079 Amount Added: 25.00 Units: uL

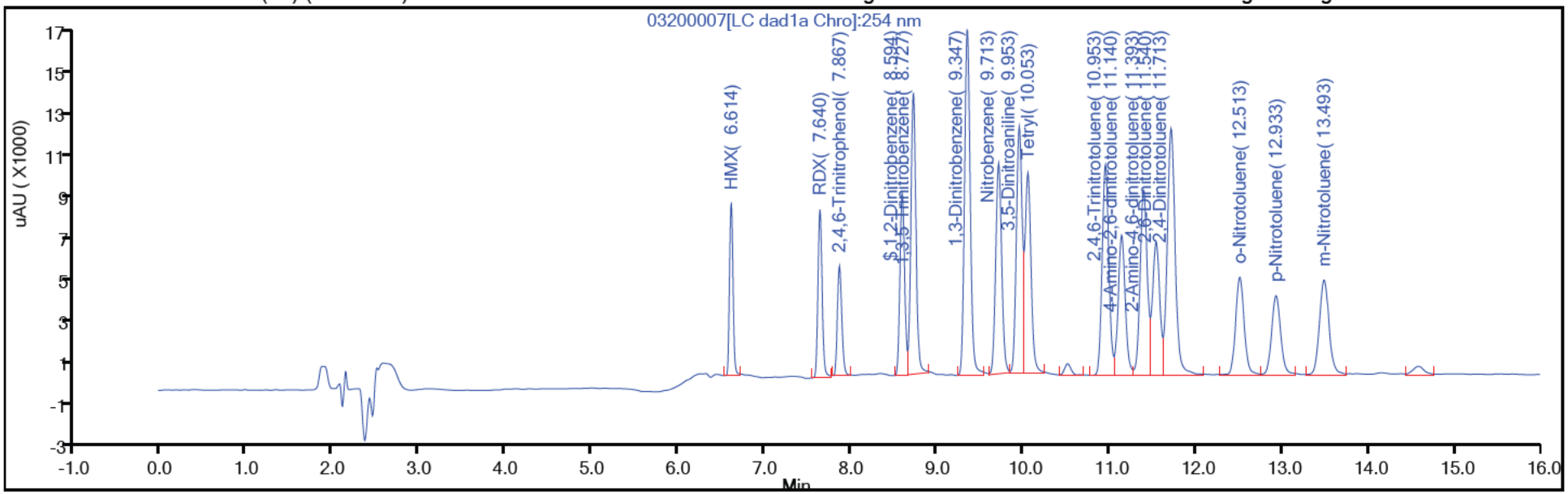
Report Date: 21-Mar-2024 12:36:18 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

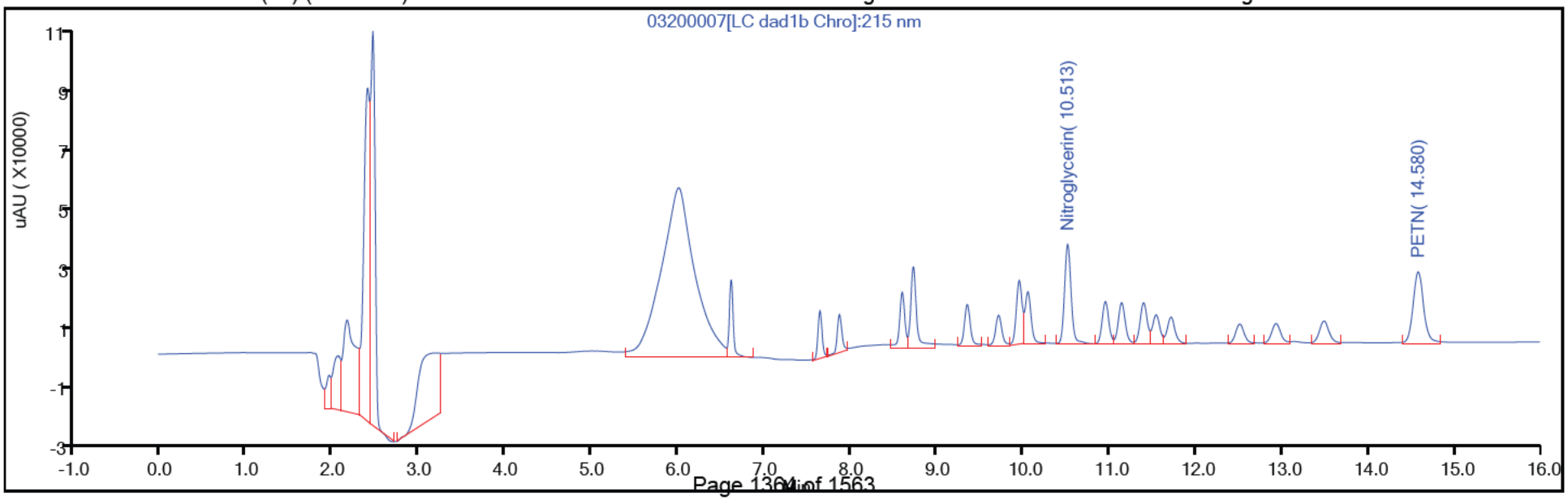
Data File: \\chromfs\denver\chromdata\chhplc_x\20240320-131364.b\03200007.d

Injection Date:	20-Mar-2024 17:06:18	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV INT			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646567/15 | Calibration Date: 03/20/2024 19:01

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/24/2024 19:38

Lab File ID: 03200015.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95315	92132		242	250	-3.3	20.0
RDX	Lin2		106432		253	250	1.2	20.0
Picric acid	Ave	75502	74476		247	250	-1.4	20.0
1,3,5-Trinitrobenzene	Ave	216030	216616		251	250	0.3	20.0
1,3-Dinitrobenzene	Ave	292609	298260		255	250	1.9	20.0
Nitrobenzene	Ave	184983	191392		259	250	3.5	20.0
3,5-Dinitroaniline	Lin2		221732		254	250	1.6	20.0
Tetryl	Ave	180864	176644		244	250	-2.3	20.0
Nitroglycerin	Ave	61824	66865		2700	2500	8.2	20.0
2,4,6-Trinitrotoluene	Lin2		214996		252	250	0.8	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	150000		250	250	-0.0	20.0
2-Amino-4,6-dinitrotoluene	Lin2		198868		250	250	-0.0	20.0
2,6-Dinitrotoluene	Lin2		145660		254	250	1.7	20.0
2,4-Dinitrotoluene	Ave	292766	294884		252	250	0.7	20.0
2-Nitrotoluene	Lin2		125172		257	250	2.7	20.0
4-Nitrotoluene	Lin2		106444		253	250	1.0	20.0
3-Nitrotoluene	Lin2		136476		254	250	1.4	20.0
PETN	Ave	72603	73640		2540	2500	1.4	20.0
1,2-Dinitrobenzene	Lin2		130212		251	250	0.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646567/15 Calibration Date: 03/20/2024 19:01

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 03200015.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.46	6.76
RDX	7.65	7.49	7.79
Picric acid	7.88	7.72	8.02
1,3,5-Trinitrobenzene	8.73	8.58	8.88
1,3-Dinitrobenzene	9.36	9.20	9.50
Nitrobenzene	9.72	9.56	9.86
3,5-Dinitroaniline	9.96	9.80	10.10
Tetryl	10.07	9.90	10.20
Nitroglycerin	10.53	10.36	10.66
2,4,6-Trinitrotoluene	10.97	10.85	11.05
4-Amino-2,6-dinitrotoluene	11.16	11.04	11.24
2-Amino-4,6-dinitrotoluene	11.41	11.29	11.49
2,6-Dinitrotoluene	11.56	11.44	11.64
2,4-Dinitrotoluene	11.73	11.61	11.81
2-Nitrotoluene	12.53	12.36	12.66
4-Nitrotoluene	12.95	12.78	13.08
3-Nitrotoluene	13.51	13.34	13.64
PETN	14.60	14.43	14.73
1,2-Dinitrobenzene	8.60	8.44	8.74

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\03200015.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 20-Mar-2024 19:01:05 ALS Bottle#: 7 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240320-131364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 12:36:23 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1668

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4	HMX	1	6.617	6.614	0.003	23033	0.2500	0.2417	
8	RDX	1	7.650	7.640	0.010	26608	0.2500	0.2529	
9	2,4,6-Trinitrophenol	1	7.877	7.867	0.010	18619	0.2500	0.2466	
$ 10	1,2-Dinitrobenzene	1	8.603	8.594	0.009	32553	0.2500	0.2510	
11	1,3,5-Trinitrobenzene	1	8.730	8.727	0.003	54154	0.2500	0.2507	
12	1,3-Dinitrobenzene	1	9.357	9.347	0.010	74565	0.2500	0.2548	
13	Nitrobenzene	1	9.723	9.713	0.010	47848	0.2500	0.2587	
14	3,5-Dinitroaniline	1	9.963	9.953	0.010	55433	0.2500	0.2541	
15	Tetryl	1	10.070	10.053	0.017	44161	0.2500	0.2442	
16	Nitroglycerin	2	10.530	10.513	0.017	167163	2.50	2.70	
17	2,4,6-Trinitrotoluene	1	10.970	10.953	0.017	53749	0.2500	0.2521	
18	4-Amino-2,6-dinitrotoluene	1	11.157	11.140	0.017	37500	0.2500	0.2500	
19	2-Amino-4,6-dinitrotoluene	1	11.410	11.393	0.017	49717	0.2500	0.2498	
20	2,6-Dinitrotoluene	1	11.557	11.540	0.017	36415	0.2500	0.2544	
21	2,4-Dinitrotoluene	1	11.730	11.713	0.017	73721	0.2500	0.2518	
22	o-Nitrotoluene	1	12.530	12.513	0.017	31293	0.2500	0.2568	
23	p-Nitrotoluene	1	12.950	12.933	0.017	26611	0.2500	0.2526	
24	m-Nitrotoluene	1	13.510	13.493	0.017	34119	0.2500	0.2536	
25	PETN	2	14.603	14.580	0.023	184100	2.50	2.54	

Reagents:

8330IntermStk_00079 Amount Added: 25.00 Units: uL

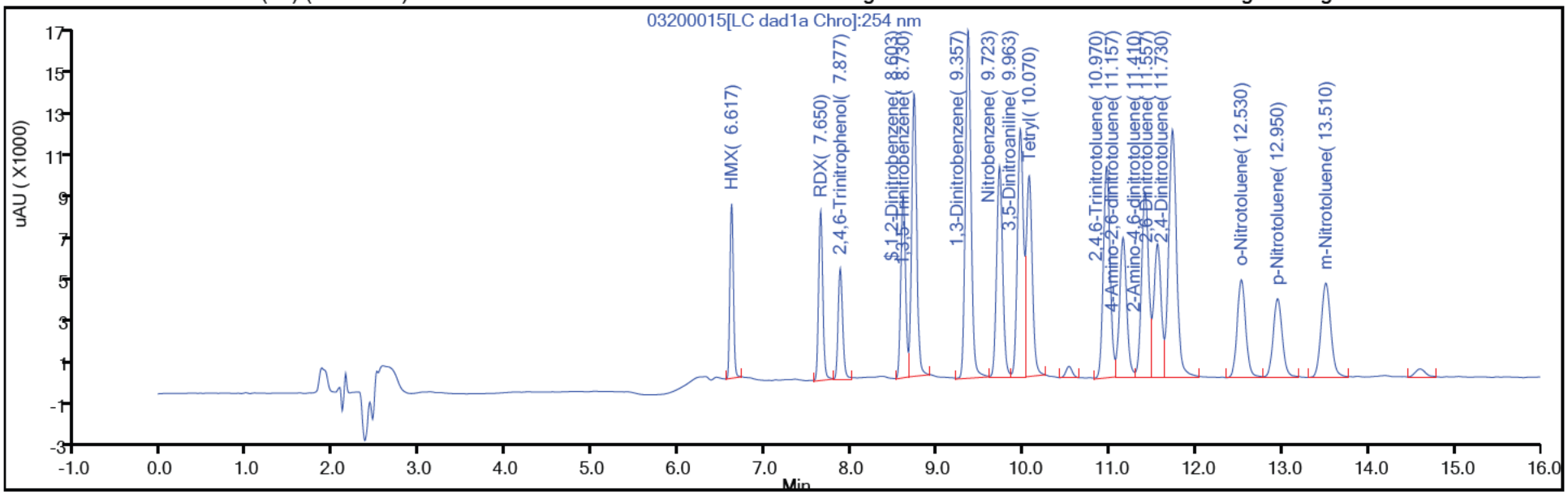
Report Date: 21-Mar-2024 12:36:23 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

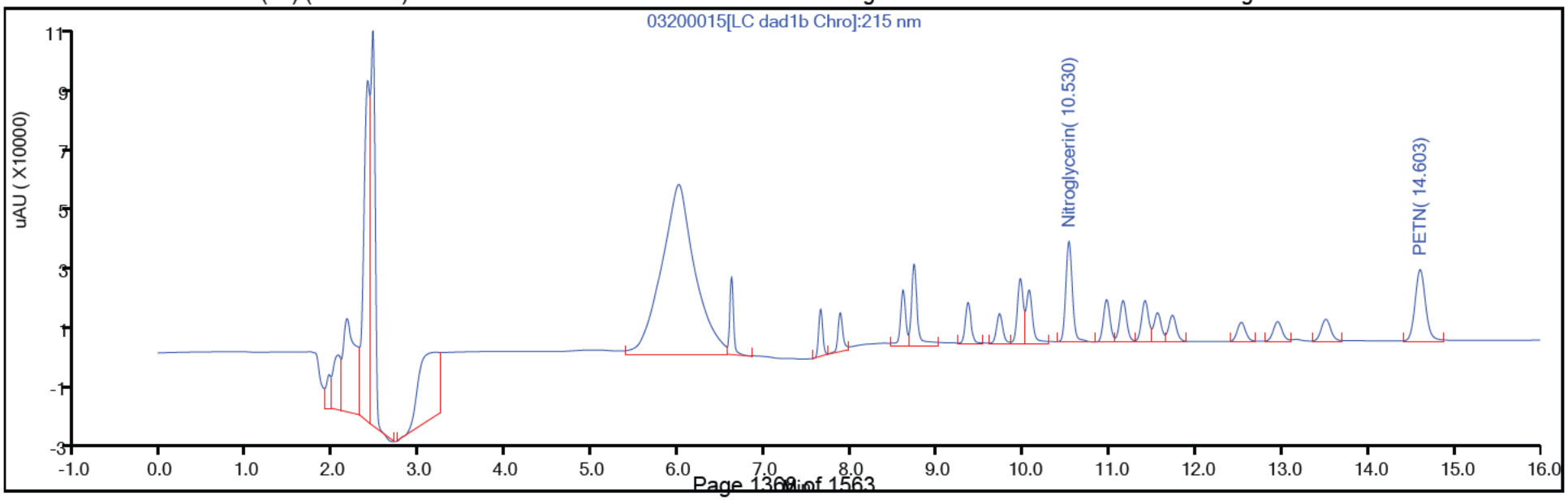
Data File: \\chromfs\denver\chromdata\chhplc_x\20240320-131364.b\03200015.d

Injection Date:	20-Mar-2024 19:01:05	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV INT			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-645871/1-A

Matrix: Solid | Lab File ID: 03190041.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10(g) | Date Analyzed: 03/20/2024 04:49

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	40	U	100	40	14
99-65-0	1,3-Dinitrobenzene	40	U	100	40	17
118-96-7	2,4,6-Trinitrotoluene	70	U	100	70	31
618-87-1	3,5-Dinitroaniline	20	U	100	20	9.0
121-14-2	2,4-Dinitrotoluene	40	U	100	40	15
606-20-2	2,6-Dinitrotoluene	40	U	100	40	19
35572-78-2	2-Amino-4,6-dinitrotoluene	70	U	100	70	33
88-72-2	2-Nitrotoluene	100	U	200	100	47
99-08-1	3-Nitrotoluene	150	U	200	150	64
19406-51-0	4-Amino-2,6-dinitrotoluene	70	U	100	70	30
99-99-0	4-Nitrotoluene	100	U	200	100	37
98-95-3	Nitrobenzene	200	U	300	200	85
55-63-0	Nitroglycerin	700	U	2000	700	220
2691-41-0	HMX	70	U	100	70	23
78-11-5	PETN	1000	U	2000	1000	490
88-89-1	Picric acid	80	U	100	80	56
121-82-4	RDX	100	U	200	100	43
479-45-8	Tetryl	100	U	200	100	44
6629-29-4	2,4-diamino-6-nitrotoluene	1000	U	2000	1000	520
59229-75-3	2,6-diamino-4-nitrotoluene	1000	U	2000	1000	330

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190041.D
Lims ID: MB 280-645871/1-A
Client ID:
Sample Type: MB
Inject. Date: 20-Mar-2024 04:49:16 ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-645871/1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:28:54 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

	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		6.496				ND	7
3	TNX	1		6.506				ND	
4	HMX	1		6.620				ND	
5	2,4-diamino-6-nitrotoluene	1		6.683				ND	
6	DNX	1		6.833				ND	
7	MNX	1		7.266				ND	
8	RDX	1		7.647				ND	
9	2,4,6-Trinitrophenol	1		7.874				ND	
$ 10	1,2-Dinitrobenzene	1	8.594	8.607	-0.013	32715	0.2500	0.2523	
11	1,3,5-Trinitrobenzene	1		8.734				ND	
12	1,3-Dinitrobenzene	1		9.360				ND	
13	Nitrobenzene	1		9.727				ND	
14	3,5-Dinitroaniline	1		9.967				ND	
15	Tetryl	1		10.067				ND	
16	Nitroglycerin	2		10.533				ND	
17	2,4,6-Trinitrotoluene	1		10.967				ND	
18	4-Amino-2,6-dinitrotoluene	1		11.160				ND	
19	2-Amino-4,6-dinitrotoluene	1		11.420				ND	
20	2,6-Dinitrotoluene	1		11.560				ND	
21	2,4-Dinitrotoluene	1		11.740				ND	
22	o-Nitrotoluene	1		12.540				ND	
23	p-Nitrotoluene	1		12.960				ND	
24	m-Nitrotoluene	1		13.520				ND	
25	PETN	2		14.620				ND	
26	Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

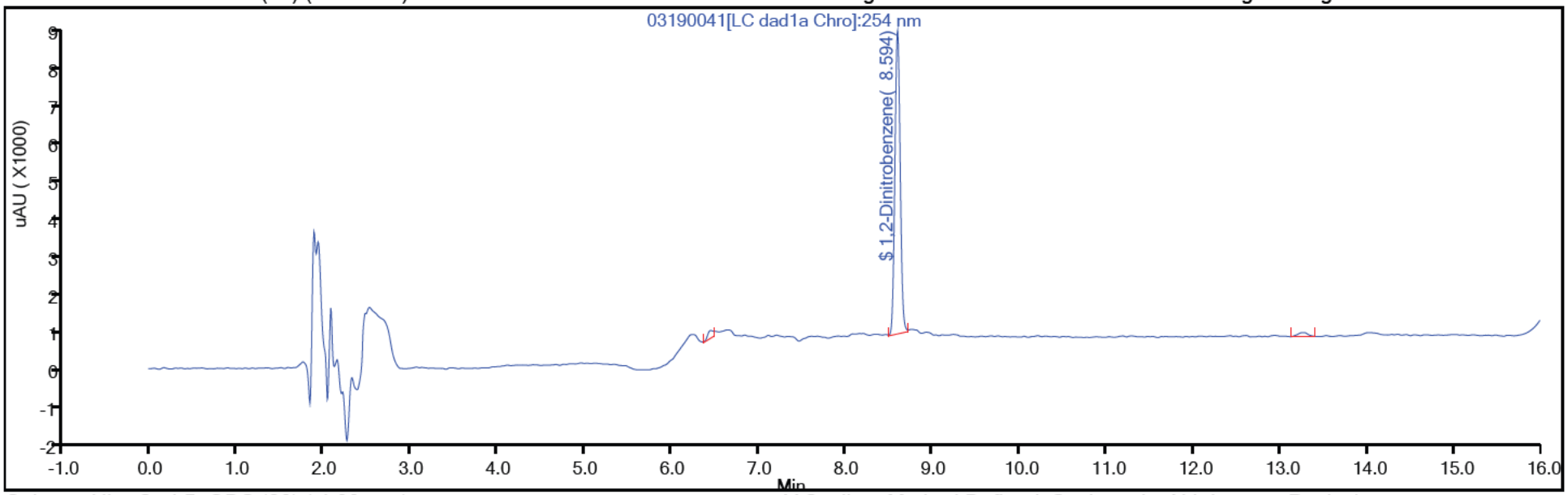
Report Date: 20-Mar-2024 12:28:54 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

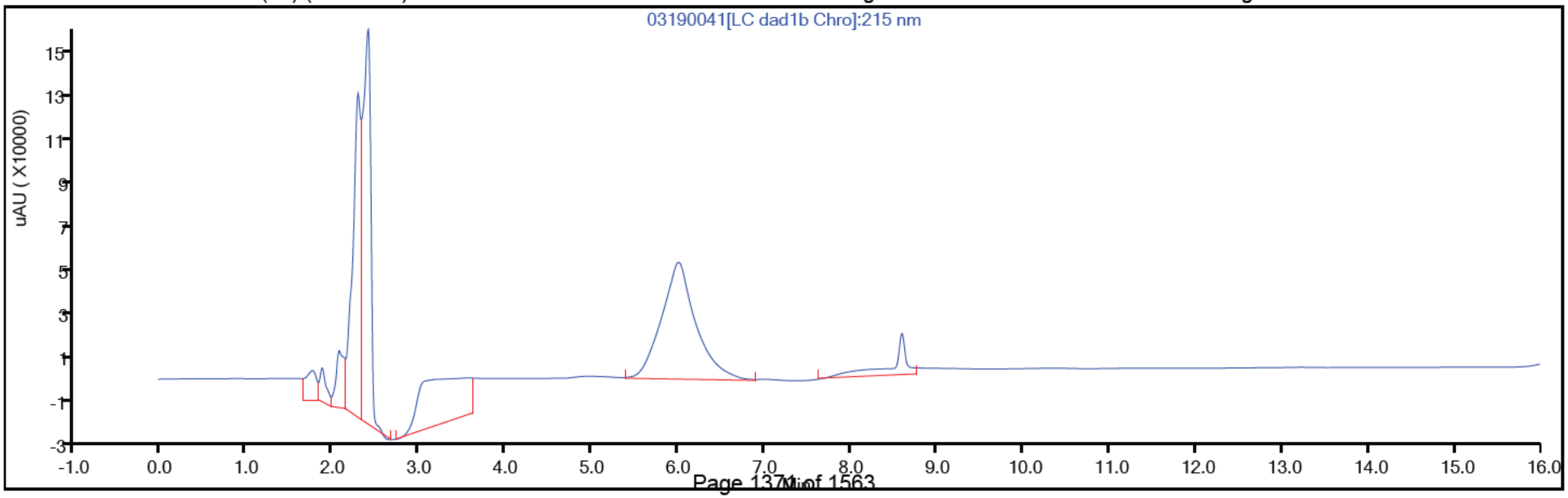
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190041.d

Injection Date:	20-Mar-2024 04:49:16	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	MB 280-645871/1-A			Worklist Smp#:	41
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	41
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190041.D
Lims ID: MB 280-645871/1-A
Client ID:
Sample Type: MB
Inject. Date: 20-Mar-2024 04:49:16 ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-645871/1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:28:54 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2523	100.91

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-645871/2-A

Matrix: Solid | Lab File ID: 03190042.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10(g) | Date Analyzed: 03/20/2024 05:12

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	1140		100	40	14
99-65-0	1,3-Dinitrobenzene	1110		100	40	17
118-96-7	2,4,6-Trinitrotoluene	1040		100	70	31
618-87-1	3,5-Dinitroaniline	1090		100	20	9.0
121-14-2	2,4-Dinitrotoluene	1060		100	40	15
606-20-2	2,6-Dinitrotoluene	1080		100	40	19
35572-78-2	2-Amino-4,6-dinitrotoluene	1070		100	70	33
88-72-2	2-Nitrotoluene	1100		200	100	47
99-08-1	3-Nitrotoluene	1100		200	150	64
19406-51-0	4-Amino-2,6-dinitrotoluene	1060		100	70	30
99-99-0	4-Nitrotoluene	1100		200	100	37
98-95-3	Nitrobenzene	1140		300	200	85
55-63-0	Nitroglycerin	11800		2000	700	220
2691-41-0	HMX	918	M	100	70	23
78-11-5	PETN	11100		2000	1000	490
88-89-1	Picric acid	1190		100	80	56
121-82-4	RDX	1020		200	100	43
479-45-8	Tetryl	1060		200	100	44

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		78-119

Report Date: 20-Mar-2024 12:28:55 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190042.D
Lims ID: LCS 280-645871/2-A
Client ID:
Sample Type: LCS
Inject. Date: 20-Mar-2024 05:12:13 ALS Bottle#: 42 Worklist Smp#: 42
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-645871/2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:28:54 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:26:14

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4	HMX	1	6.611	6.620	-0.009	21874	0.2500	0.2295	M
8	RDX	1	7.637	7.647	-0.010	26954	0.2500	0.2562	
9	2,4,6-Trinitrophenol	1	7.864	7.874	-0.010	22542	0.2500	0.2986	
$ 10	1,2-Dinitrobenzene	1	8.591	8.607	-0.016	32656	0.2500	0.2518	
11	1,3,5-Trinitrobenzene	1	8.717	8.734	-0.017	61438	0.2500	0.2844	
12	1,3-Dinitrobenzene	1	9.344	9.360	-0.016	81150	0.2500	0.2773	
13	Nitrobenzene	1	9.704	9.727	-0.023	52625	0.2500	0.2845	
14	3,5-Dinitroaniline	1	9.944	9.967	-0.023	59653	0.2500	0.2734	
15	Tetryl	1	10.050	10.067	-0.017	47943	0.2500	0.2651	
16	Nitroglycerin	2	10.510	10.533	-0.023	181930	2.50	2.94	
17	2,4,6-Trinitrotoluene	1	10.950	10.967	-0.017	55456	0.2500	0.2601	
18	4-Amino-2,6-dinitrotoluene	1	11.137	11.160	-0.023	39760	0.2500	0.2650	
19	2-Amino-4,6-dinitrotoluene	1	11.390	11.420	-0.030	53298	0.2500	0.2679	
20	2,6-Dinitrotoluene	1	11.537	11.560	-0.023	38618	0.2500	0.2698	
21	2,4-Dinitrotoluene	1	11.710	11.740	-0.030	77863	0.2500	0.2660	
22	o-Nitrotoluene	1	12.504	12.540	-0.036	33395	0.2500	0.2742	
23	p-Nitrotoluene	1	12.924	12.960	-0.036	28932	0.2500	0.2750	
24	m-Nitrotoluene	1	13.484	13.520	-0.036	37060	0.2500	0.2759	
25	PETN	2	14.577	14.620	-0.043	201374	2.50	2.77	
26	Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

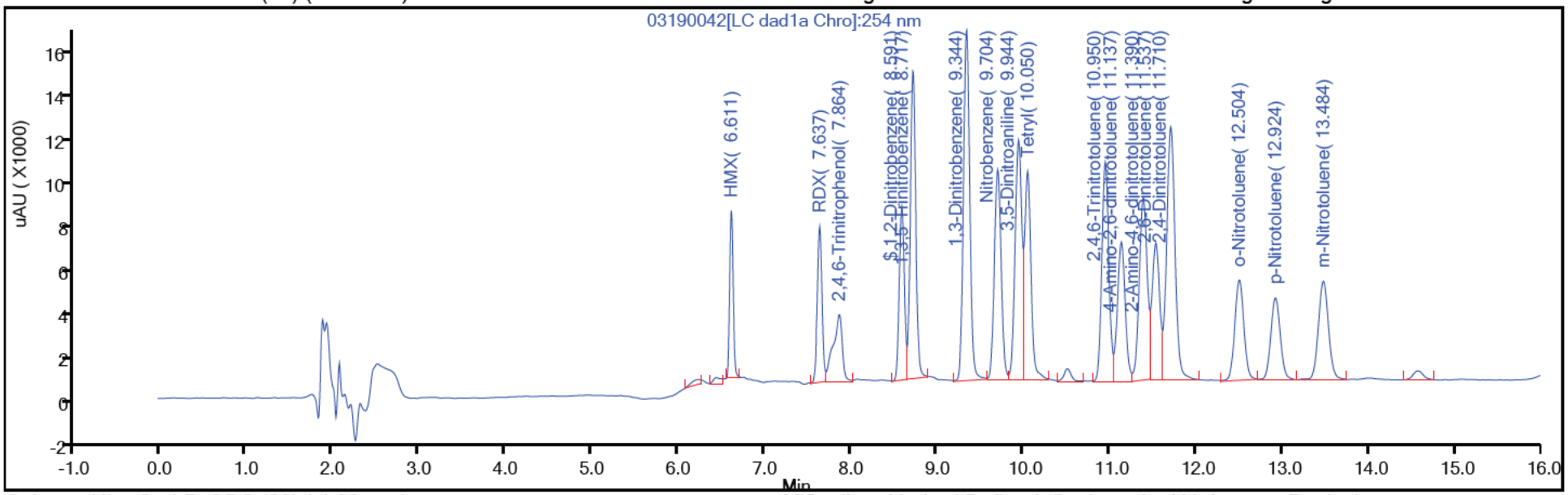
Report Date: 20-Mar-2024 12:28:56 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

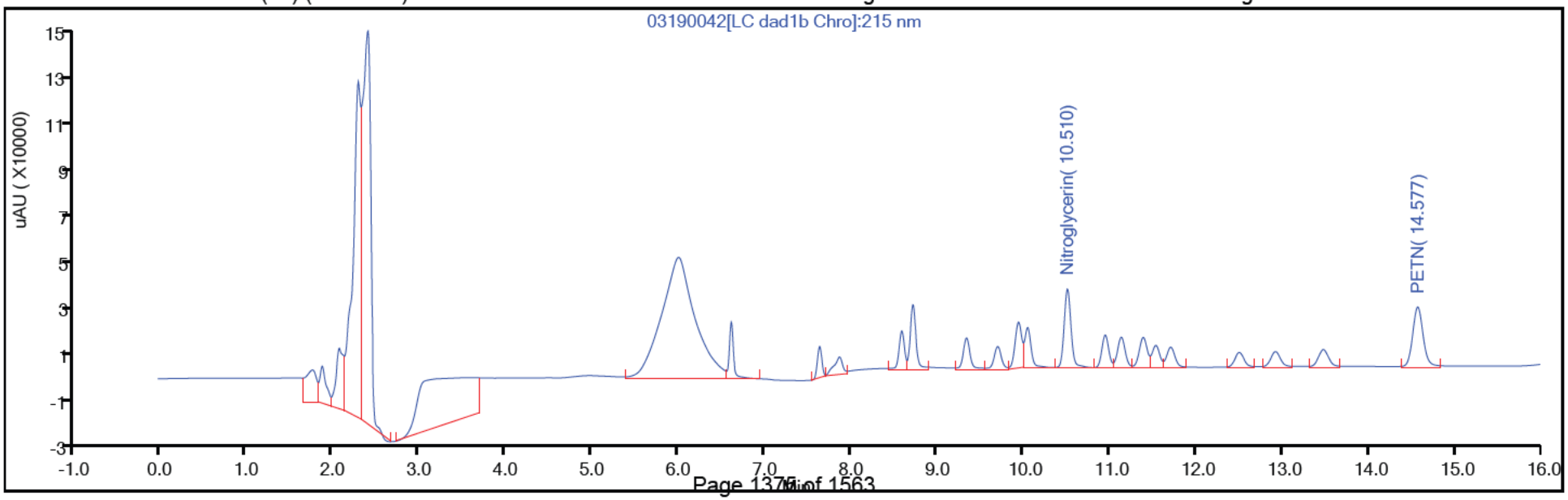
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190042.d

Injection Date:	20-Mar-2024 05:12:13	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCS 280-645871/2-A			Worklist Smp#:	42
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	42
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 20-Mar-2024 12:28:55 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190042.D
Lims ID: LCS 280-645871/2-A
Client ID:
Sample Type: LCS
Inject. Date: 20-Mar-2024 05:12:13 ALS Bottle#: 42 Worklist Smp#: 42
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-645871/2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:28:54 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:26:14

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2518	100.72

Manual Integration/User Assign Peak Report

Eurofins Denver

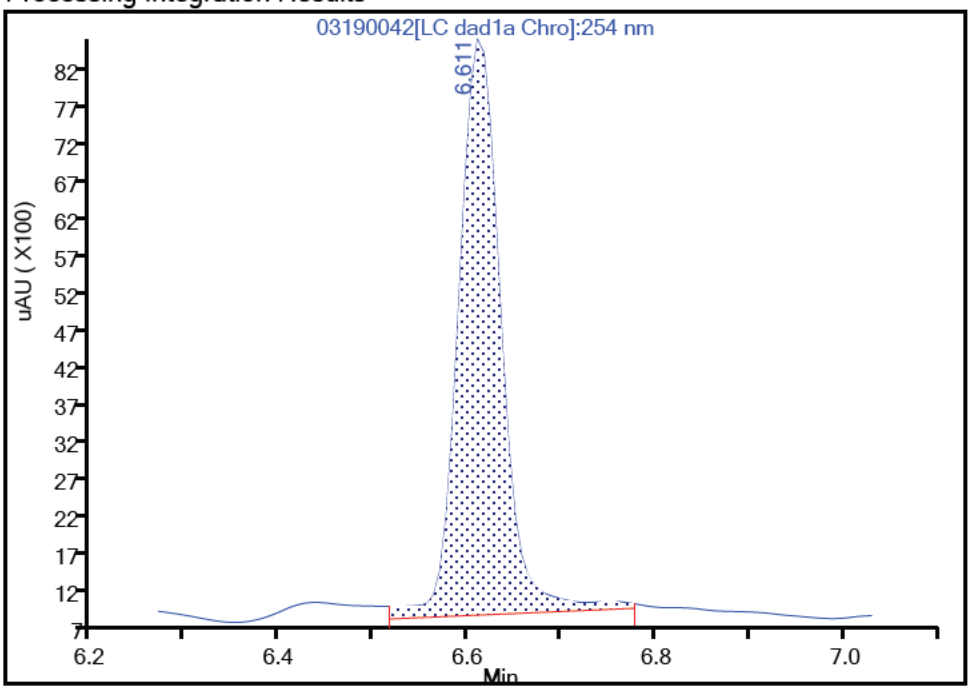
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190042.d				
Injection Date:	20-Mar-2024 05:12:13	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-645871/2-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	42	Worklist Smp#:	42
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

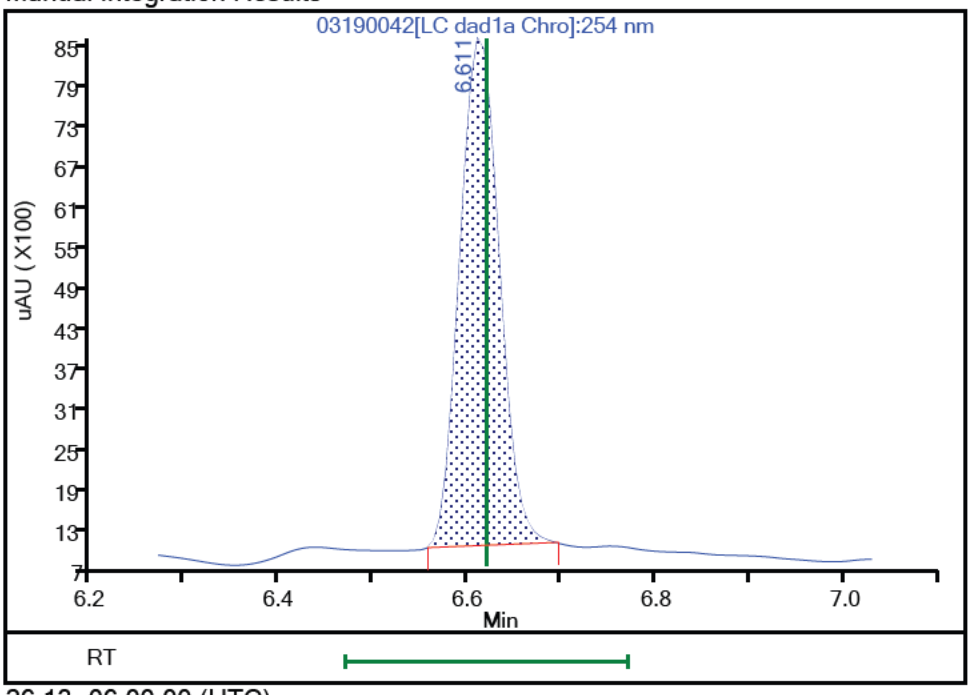
Processing Integration Results

RT: 6.61
Area: 24444
Amount: 0.256454
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 21874
Amount: 0.229491
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:26:13 -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.: 280-188555-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-645871/3-A

Matrix: Solid | Lab File ID: 03190043.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10(g) | Date Analyzed: 03/20/2024 05:35

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
6629-29-4	2,4-diamino-6-nitrotoluene	1590	J	2000	1000	520
59229-75-3	2,6-diamino-4-nitrotoluene	1860	J	2000	1000	330

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190043.D				
Lims ID:	LCS 280-645871/3-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	20-Mar-2024 05:35:07	ALS Bottle#:	43	Worklist Smp#:	43
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-645871/3-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-Mar-2024 12:28:54	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1651				

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2	2,6-diamino-4-nitrotoluene	1	6.491	6.496	-0.005	104097	0.5000	0.4652	
5	2,4-diamino-6-nitrotoluene	1	6.684	6.683	0.001	55422	0.5000	0.3984	
$ 10	1,2-Dinitrobenzene	1	8.598	8.607	-0.009	32690	0.2500	0.2521	

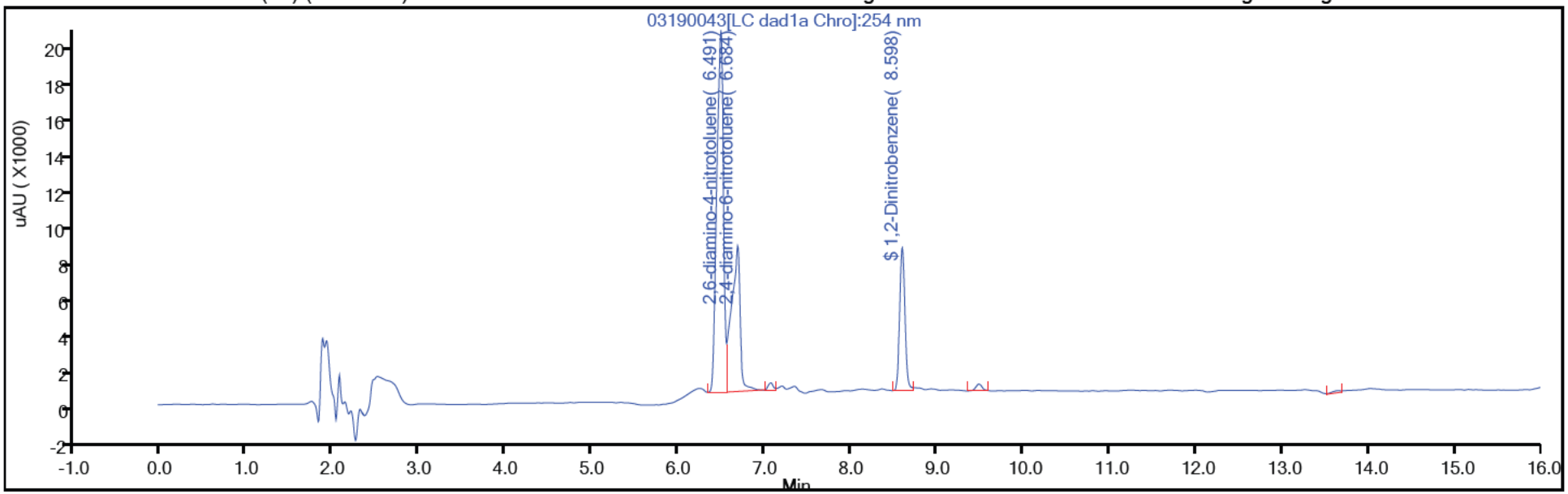
Report Date: 20-Mar-2024 12:28:56 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

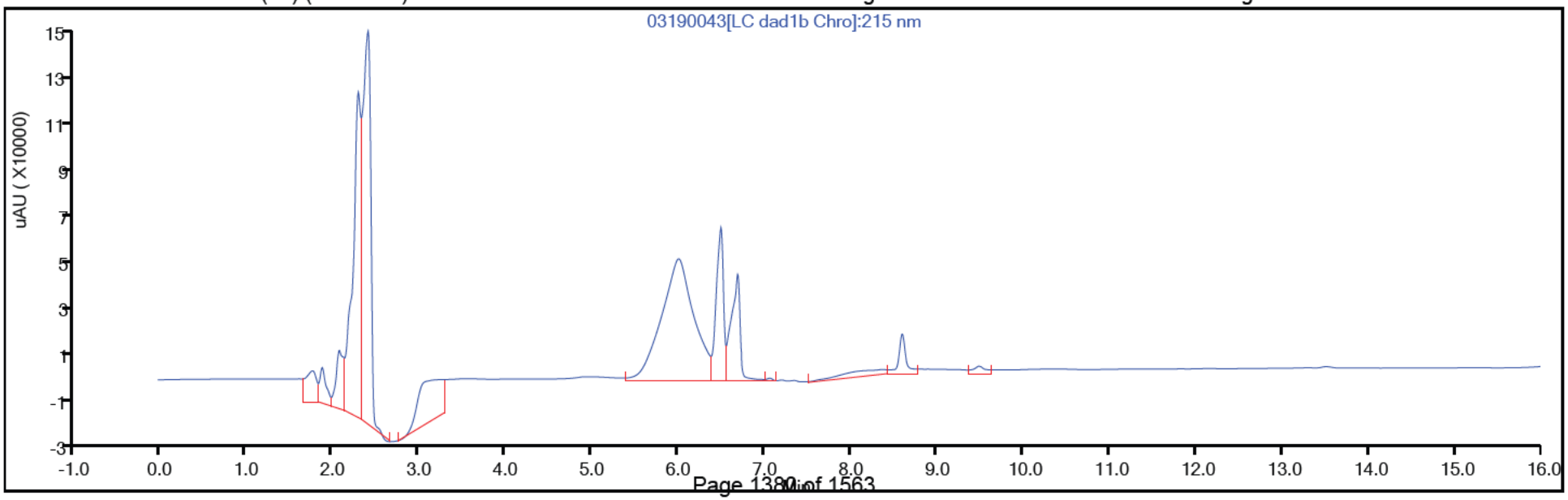
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190043.d

Injection Date:	20-Mar-2024 05:35:07	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCS 280-645871/3-A			Worklist Smp#:	43
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	43
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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\20240319-131313.b\03190043.D
Lims ID: LCS 280-645871/3-A
Client ID:
Sample Type: LCS
Inject. Date: 20-Mar-2024 05:35:07 ALS Bottle#: 43 Worklist Smp#: 43
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-645871/3-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:28:54 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2521	100.83

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MS | Lab Sample ID: 280-188555-4 MS

Matrix: Solid | Lab File ID: 03190050.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.10(g) | Date Analyzed: 03/20/2024 08:15

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	1110		99	40	14
99-65-0	1,3-Dinitrobenzene	1090		99	40	16
618-87-1	3,5-Dinitroaniline	958		99	20	8.9
121-14-2	2,4-Dinitrotoluene	1060	M	99	40	15
606-20-2	2,6-Dinitrotoluene	1070	M	99	40	19
35572-78-2	2-Amino-4,6-dinitrotoluene	1000	M	99	69	33
88-72-2	2-Nitrotoluene	1090	M	200	99	47
99-08-1	3-Nitrotoluene	1070	M	200	150	63
19406-51-0	4-Amino-2,6-dinitrotoluene	855	M	99	69	30
99-99-0	4-Nitrotoluene	1080	M	200	99	36
98-95-3	Nitrobenzene	1110		300	200	84
55-63-0	Nitroglycerin	11400		2000	690	210
2691-41-0	HMX	879	M	99	69	22
78-11-5	PETN	11000		2000	990	490
88-89-1	Picric acid	291	J1	99	79	56
479-45-8	Tetryl	974		200	99	43

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100		78-119

Report Date: 20-Mar-2024 12:29:01 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190050.D
Lims ID: 280-188555-B-4-G MS
Client ID: X7-TP-C03-2436
Sample Type: MS
Inject. Date: 20-Mar-2024 08:15:48 ALS Bottle#: 50 Worklist Smp#: 50
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-G MS
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:00 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:27:22

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4	HMX	1	6.611	6.620	-0.009	21156	0.2500	0.2220	M
8	RDX	1	7.638	7.647	-0.009	26033	0.2500	0.2475	
9	2,4,6-Trinitrophenol	1	7.864	7.874	-0.010	5545	0.2500	0.0734	
$ 10	1,2-Dinitrobenzene	1	8.591	8.607	-0.016	32466	0.2500	0.2503	
11	1,3,5-Trinitrobenzene	1	8.718	8.734	-0.016	60726	0.2500	0.2811	
12	1,3-Dinitrobenzene	1	9.338	9.360	-0.022	80308	0.2500	0.2745	
13	Nitrobenzene	1	9.704	9.727	-0.023	51887	0.2500	0.2805	
14	3,5-Dinitroaniline	1	9.944	9.967	-0.023	52758	0.2500	0.2419	
15	Tetryl	1	10.051	10.067	-0.016	44479	0.2500	0.2459	
16	Nitroglycerin	2	10.511	10.533	-0.022	177614	2.50	2.87	
17	2,4,6-Trinitrotoluene	1	10.944	10.967	-0.023	55737	0.2500	0.2614	M
18	4-Amino-2,6-dinitrotoluene	1	11.131	11.160	-0.029	32383	0.2500	0.2159	M
19	2-Amino-4,6-dinitrotoluene	1	11.384	11.420	-0.036	50386	0.2500	0.2532	M
20	2,6-Dinitrotoluene	1	11.531	11.560	-0.029	38572	0.2500	0.2695	M
21	2,4-Dinitrotoluene	1	11.704	11.740	-0.036	78610	0.2500	0.2685	M
22	o-Nitrotoluene	1	12.498	12.540	-0.042	33639	0.2500	0.2762	M
23	p-Nitrotoluene	1	12.924	12.960	-0.036	28813	0.2500	0.2738	M
24	m-Nitrotoluene	1	13.478	13.520	-0.042	36390	0.2500	0.2708	M
25	PETN	2	14.578	14.620	-0.042	202561	2.50	2.79	
26	Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

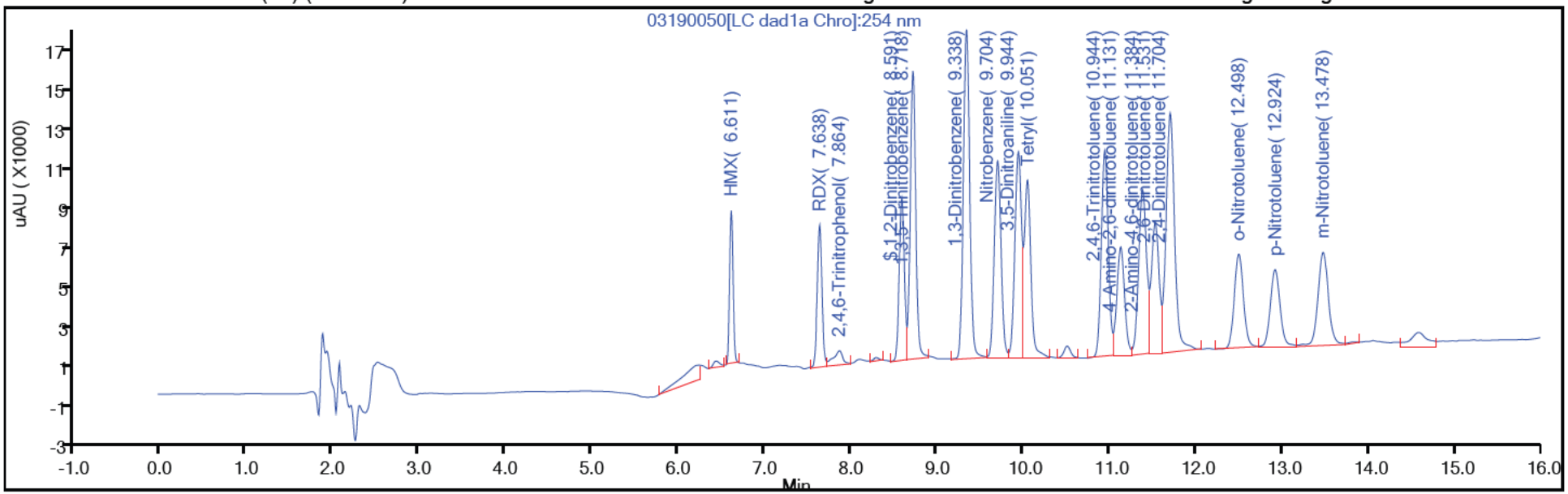
Report Date: 20-Mar-2024 12:29:01 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

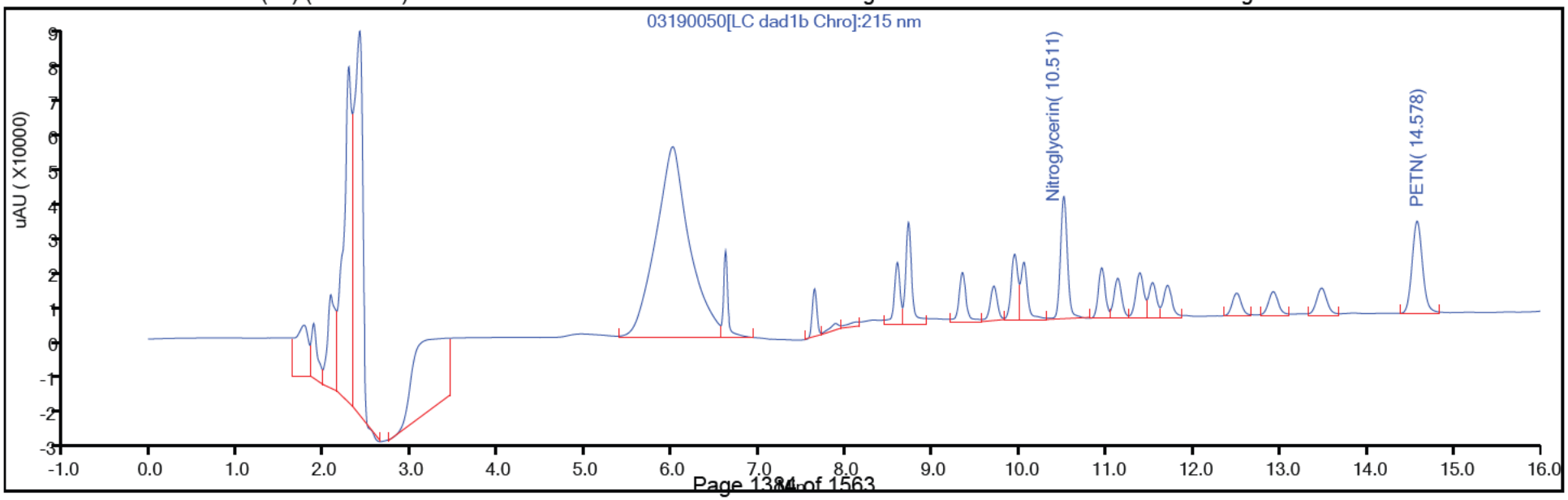
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190050.d

Injection Date:	20-Mar-2024 08:15:48	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-G MS			Worklist Smp#:	50
Client ID:	X7-TP-C03-2436				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	50
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 20-Mar-2024 12:29:01 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190050.D				
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Sample Type:	MS				
Inject. Date:	20-Mar-2024 08:15:48	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-4-G MS				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-Mar-2024 12:29:00	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1651				

First Level Reviewer: LV5D Date: 20-Mar-2024 12:27:22

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2503	100.14

Manual Integration/User Assign Peak Report

Eurofins Denver

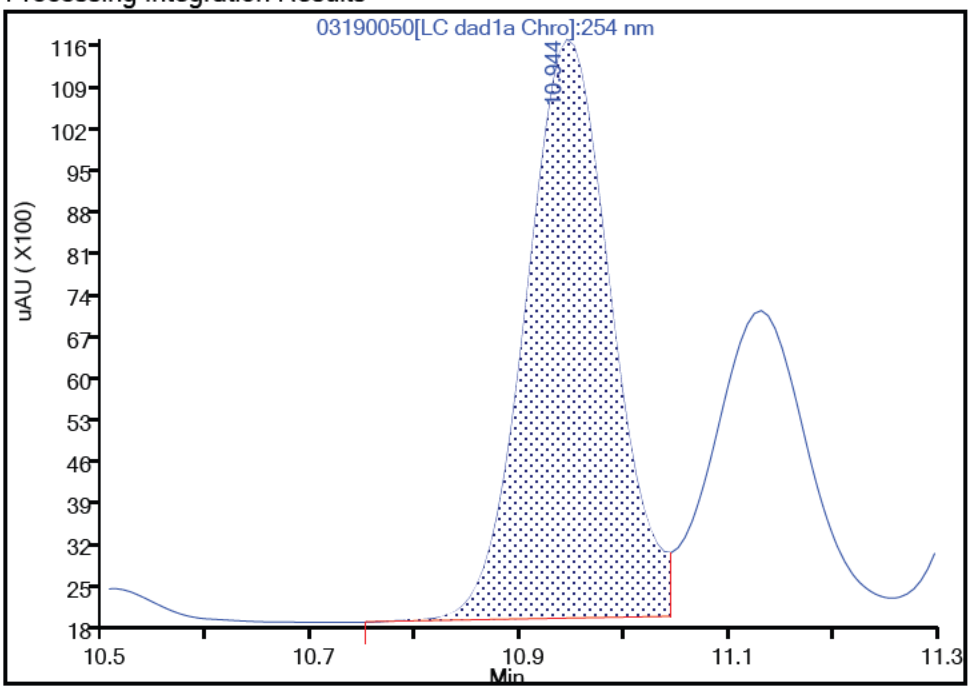
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190050.d				
Injection Date:	20-Mar-2024 08:15:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

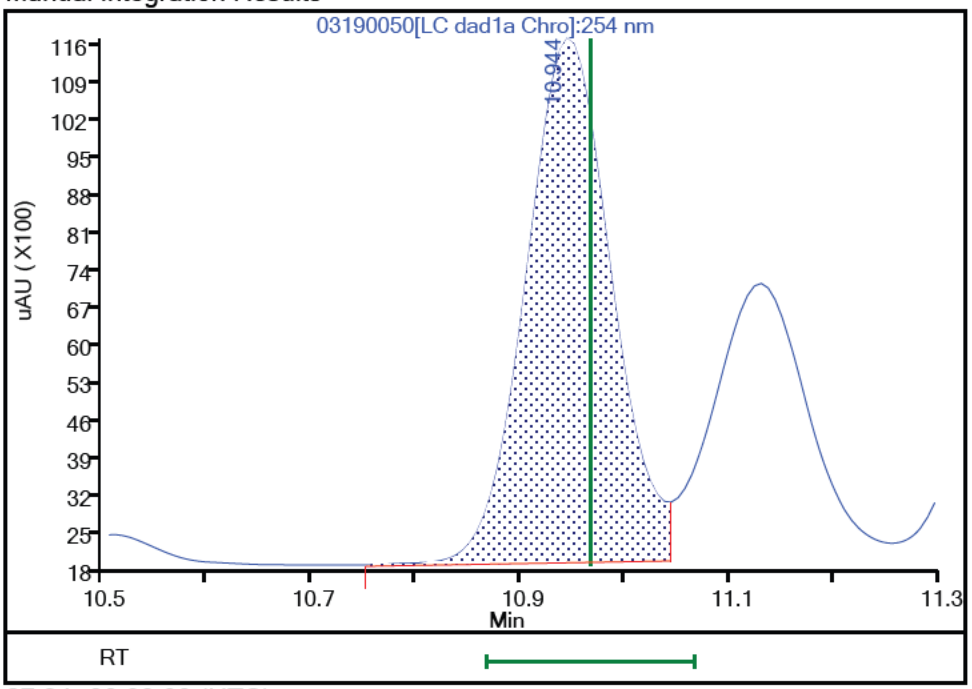
Processing Integration Results

RT: 10.94
Area: 55685
Amount: 0.261203
Amount Units: ug/mL



Manual Integration Results

RT: 10.94
Area: 55737
Amount: 0.261447
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:27:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

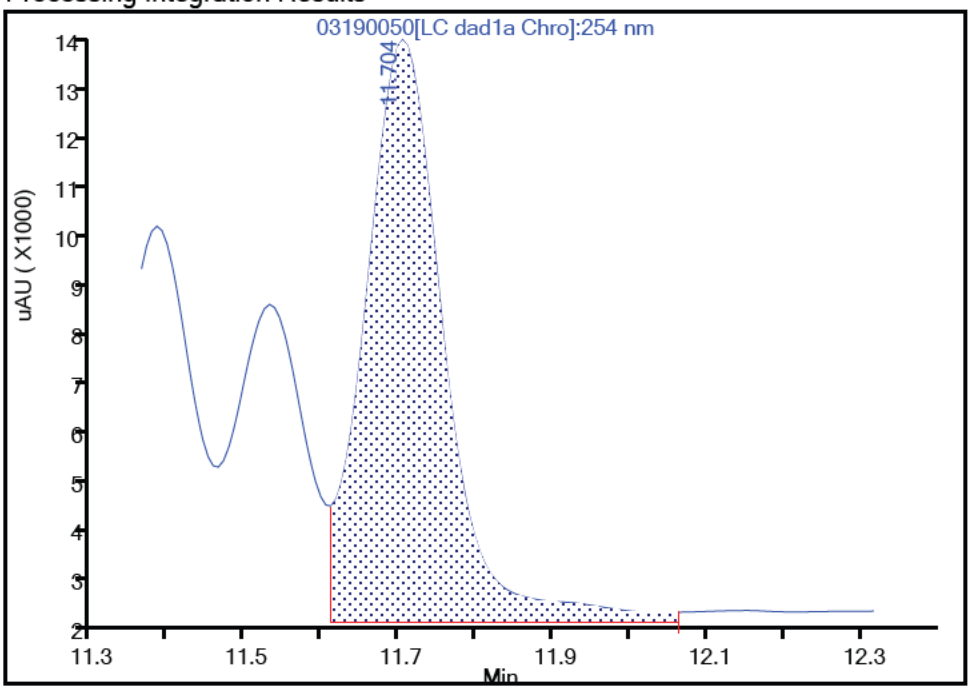
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190050.d				
Injection Date:	20-Mar-2024 08:15:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

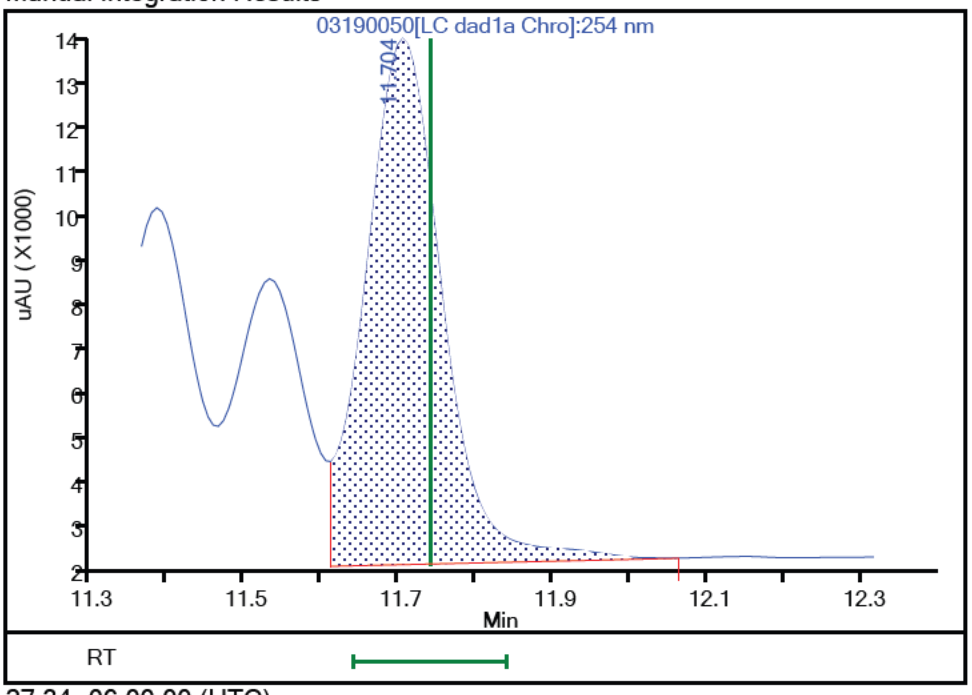
Processing Integration Results

RT: 11.70
Area: 81411
Amount: 0.278076
Amount Units: ug/mL



Manual Integration Results

RT: 11.70
Area: 78610
Amount: 0.268508
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:27:34 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

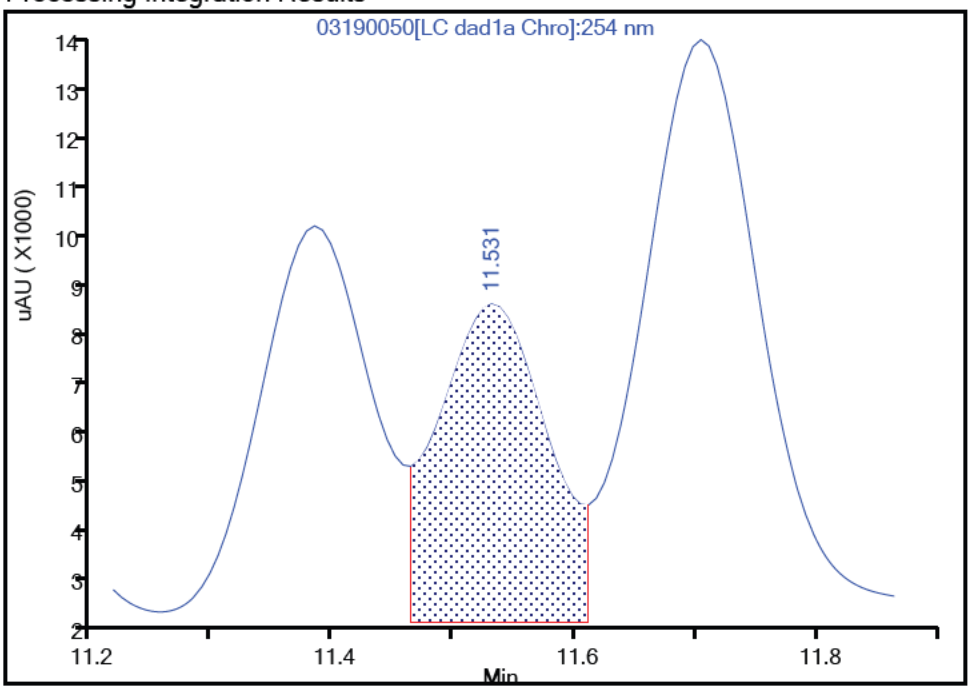
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190050.d				
Injection Date:	20-Mar-2024 08:15:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

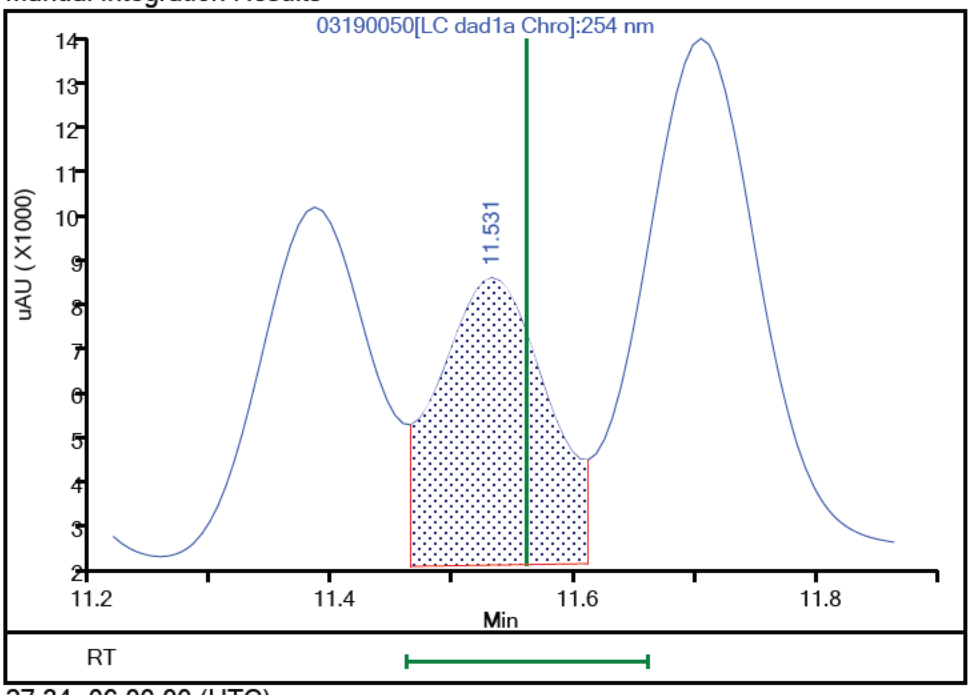
Processing Integration Results

RT: 11.53
Area: 38832
Amount: 0.271297
Amount Units: ug/mL



Manual Integration Results

RT: 11.53
Area: 38572
Amount: 0.269476
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:27:34 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

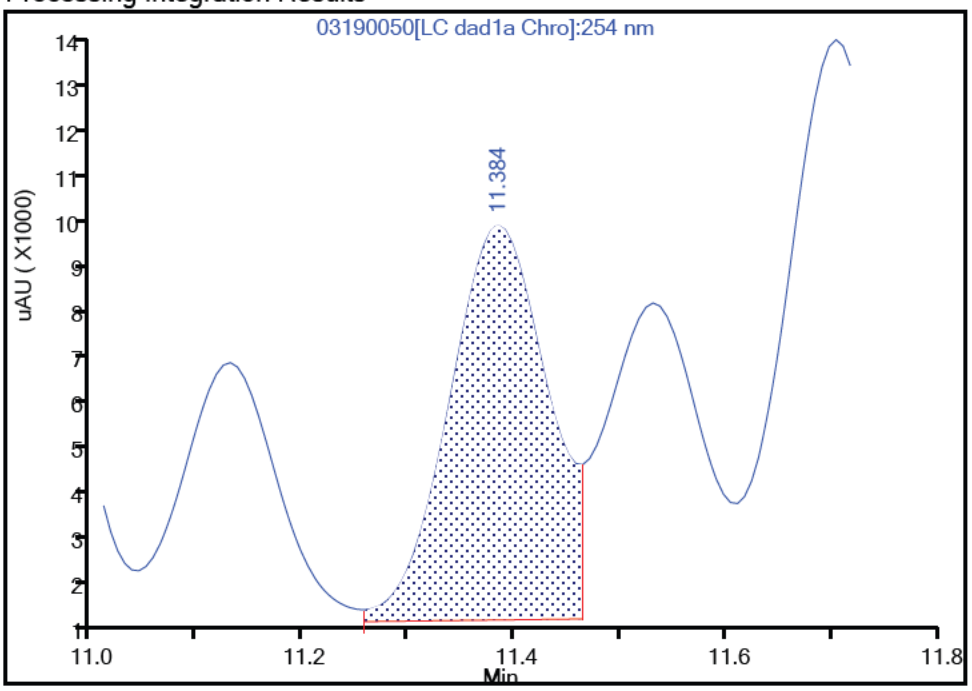
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190050.d				
Injection Date:	20-Mar-2024 08:15:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

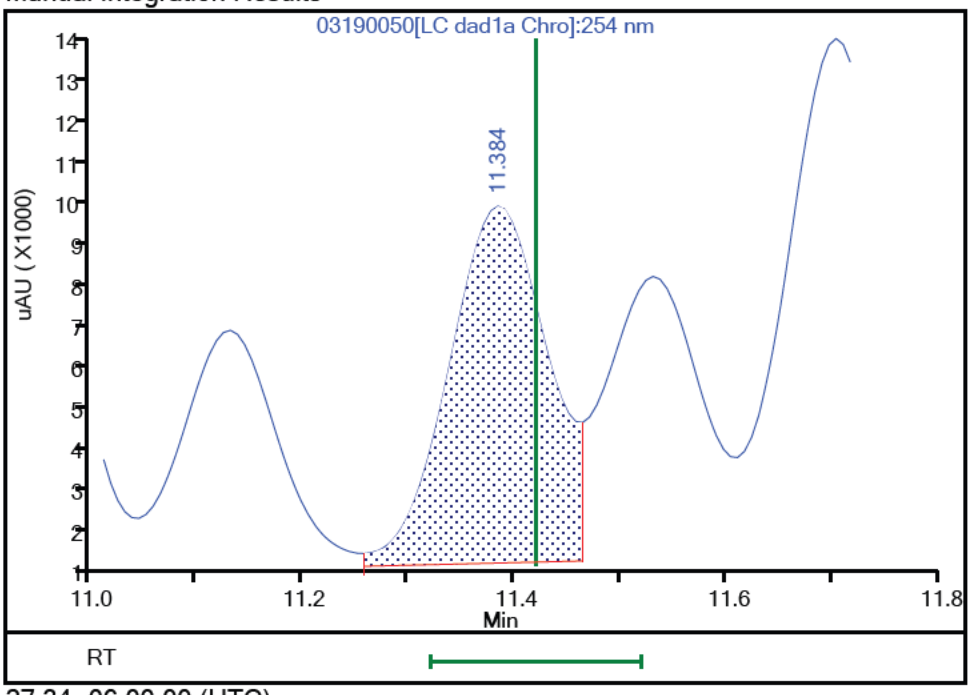
Processing Integration Results

RT: 11.38
Area: 50448
Amount: 0.253516
Amount Units: ug/mL



Manual Integration Results

RT: 11.38
Area: 50386
Amount: 0.253203
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:27:34 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

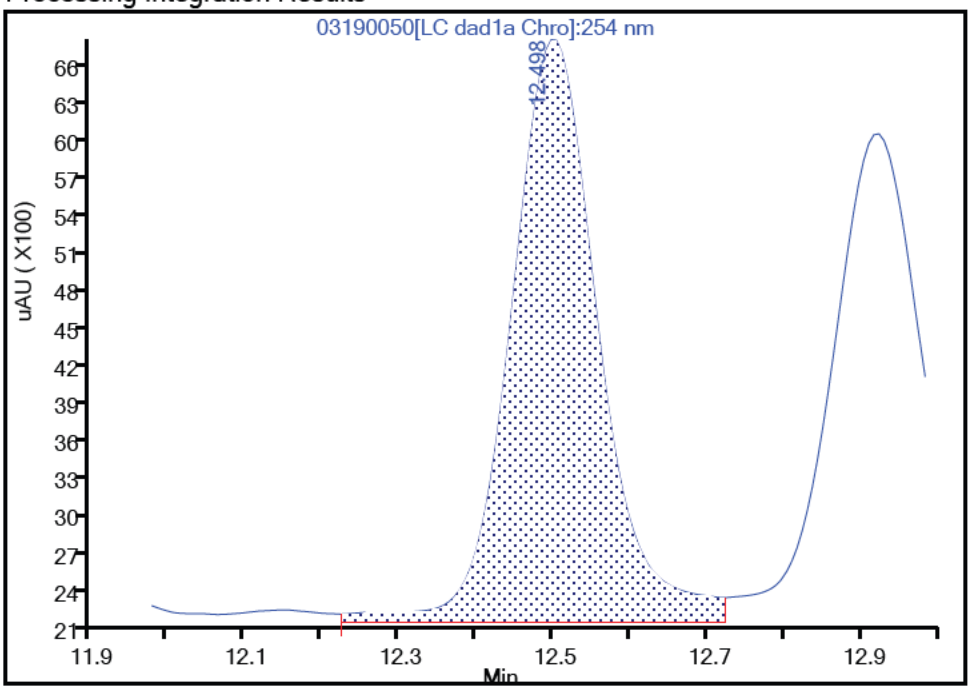
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190050.d				
Injection Date:	20-Mar-2024 08:15:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

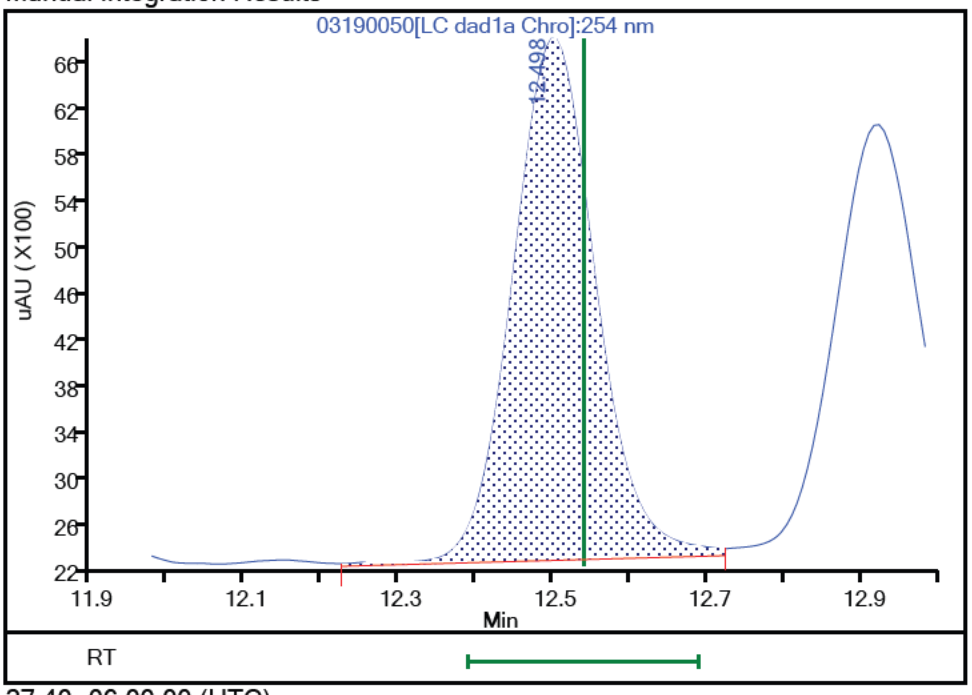
Processing Integration Results

RT: 12.50
Area: 36519
Amount: 0.300005
Amount Units: ug/mL



Manual Integration Results

RT: 12.50
Area: 33639
Amount: 0.276179
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:27:40 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

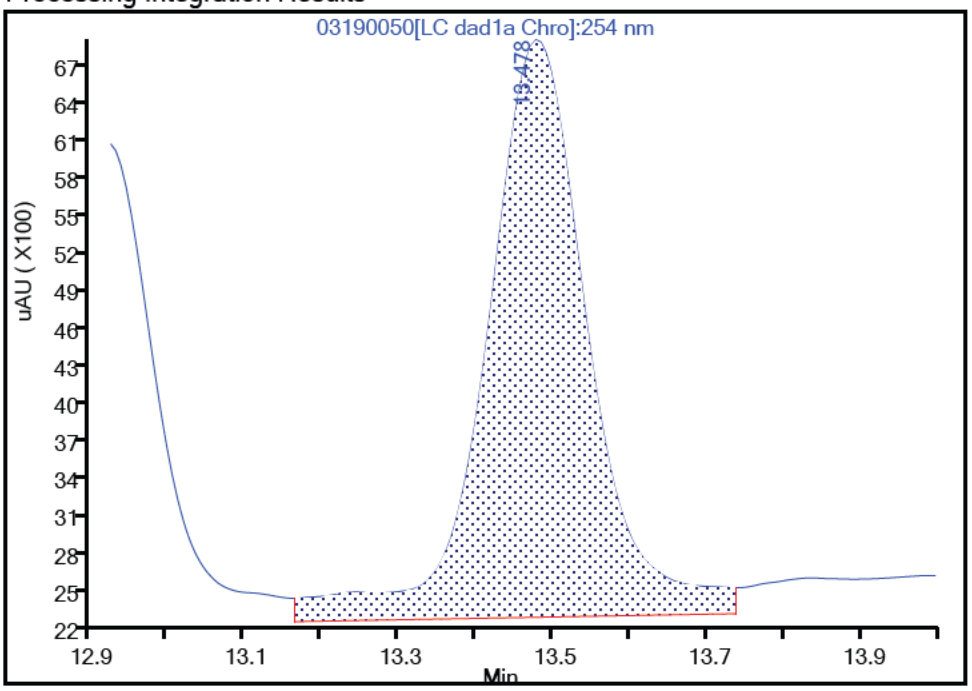
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190050.d				
Injection Date:	20-Mar-2024 08:15:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

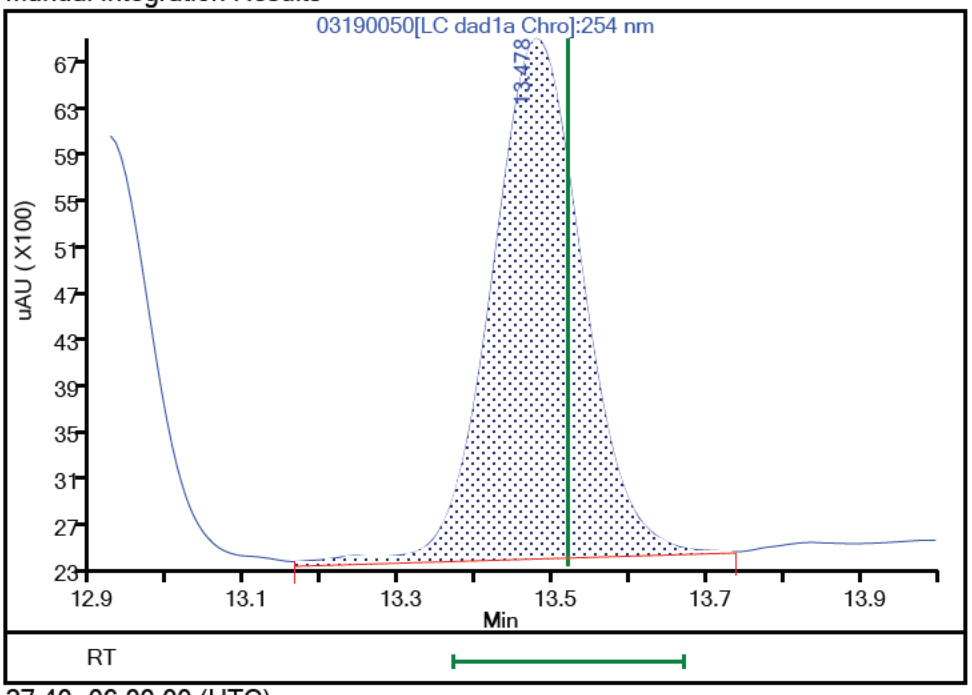
Processing Integration Results

RT: 13.48
Area: 42496
Amount: 0.317096
Amount Units: ug/mL



Manual Integration Results

RT: 13.48
Area: 36390
Amount: 0.270818
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:27:40 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

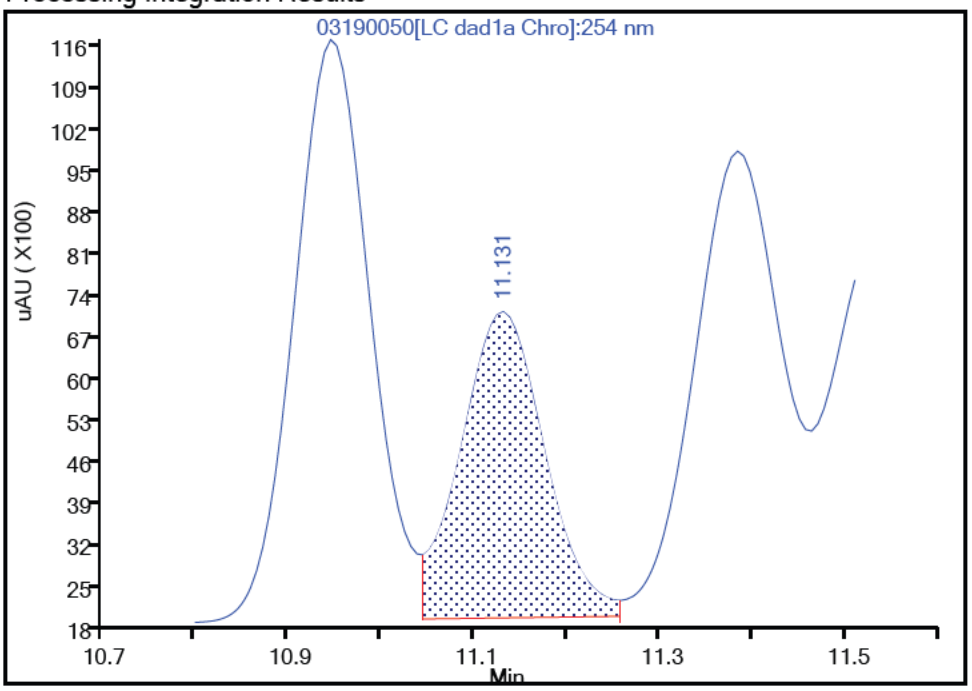
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190050.d				
Injection Date:	20-Mar-2024 08:15:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

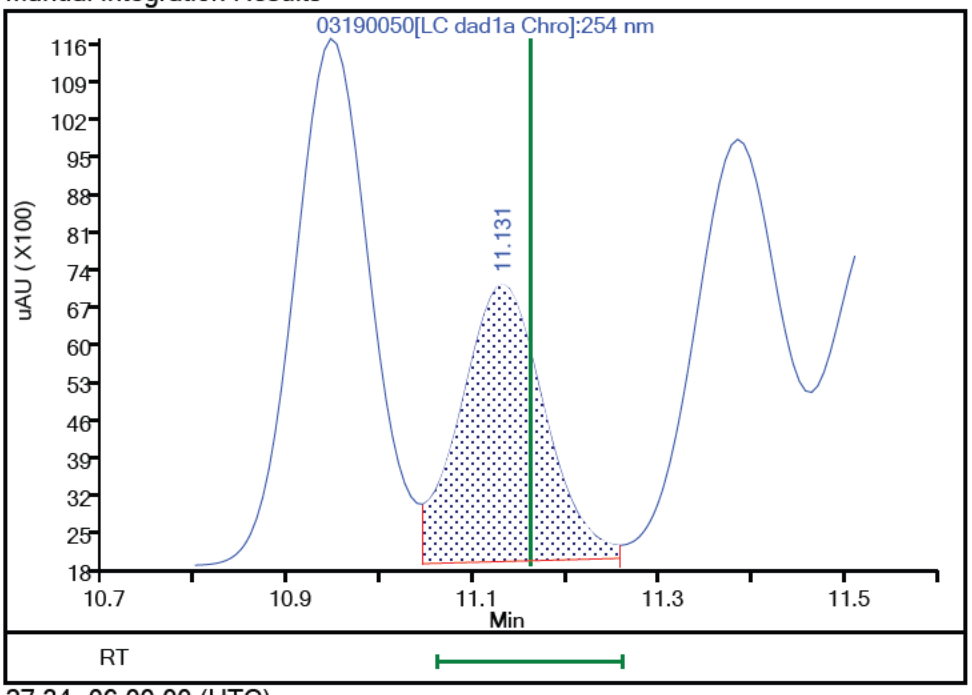
Processing Integration Results

RT: 11.13
Area: 32319
Amount: 0.215424
Amount Units: ug/mL



Manual Integration Results

RT: 11.13
Area: 32383
Amount: 0.215851
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:27:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins Denver

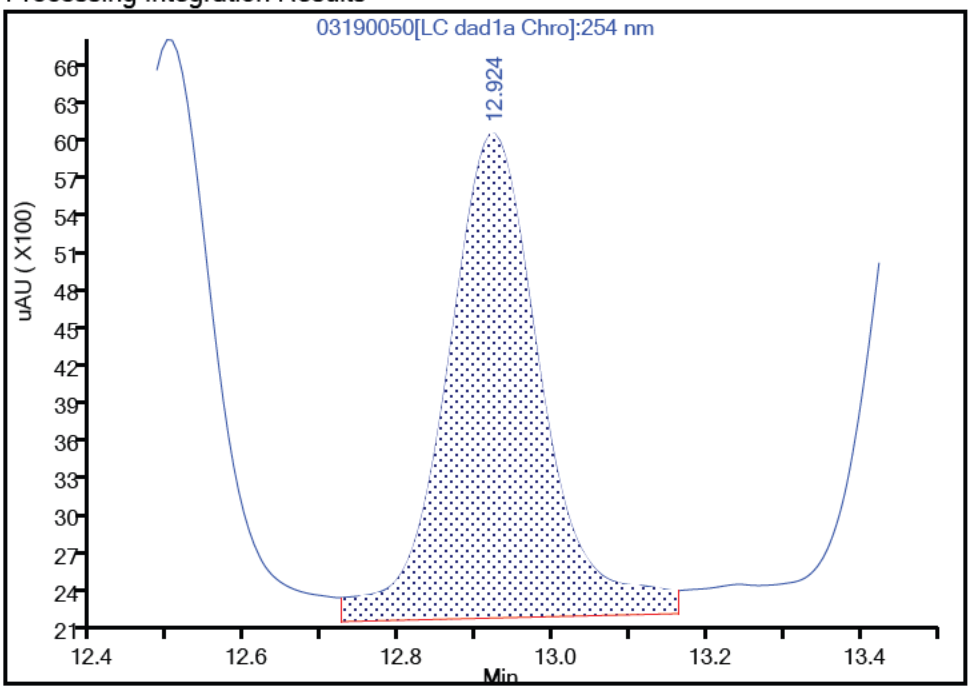
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190050.d				
Injection Date:	20-Mar-2024 08:15:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

23 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

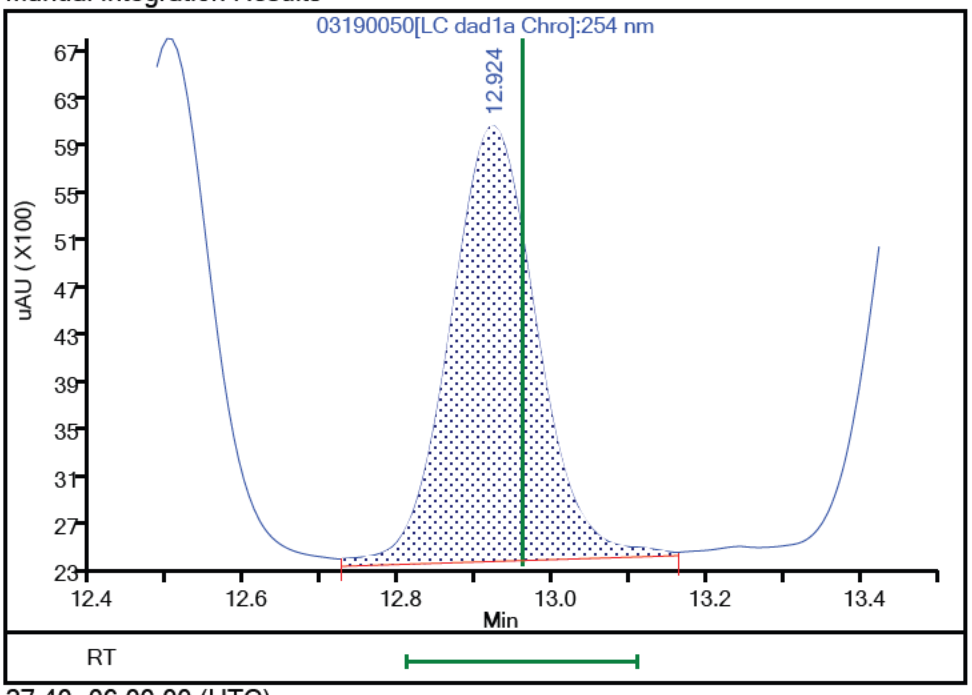
Processing Integration Results

RT: 12.92
Area: 32747
Amount: 0.311702
Amount Units: ug/mL



Manual Integration Results

RT: 12.92
Area: 28813
Amount: 0.273814
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:27:40 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

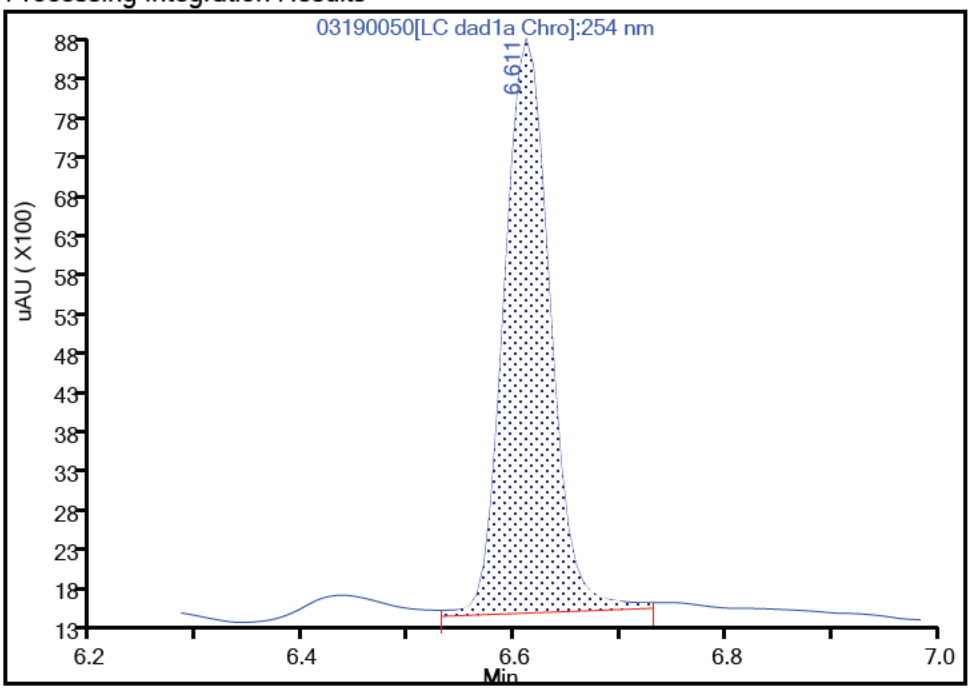
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190050.d				
Injection Date:	20-Mar-2024 08:15:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

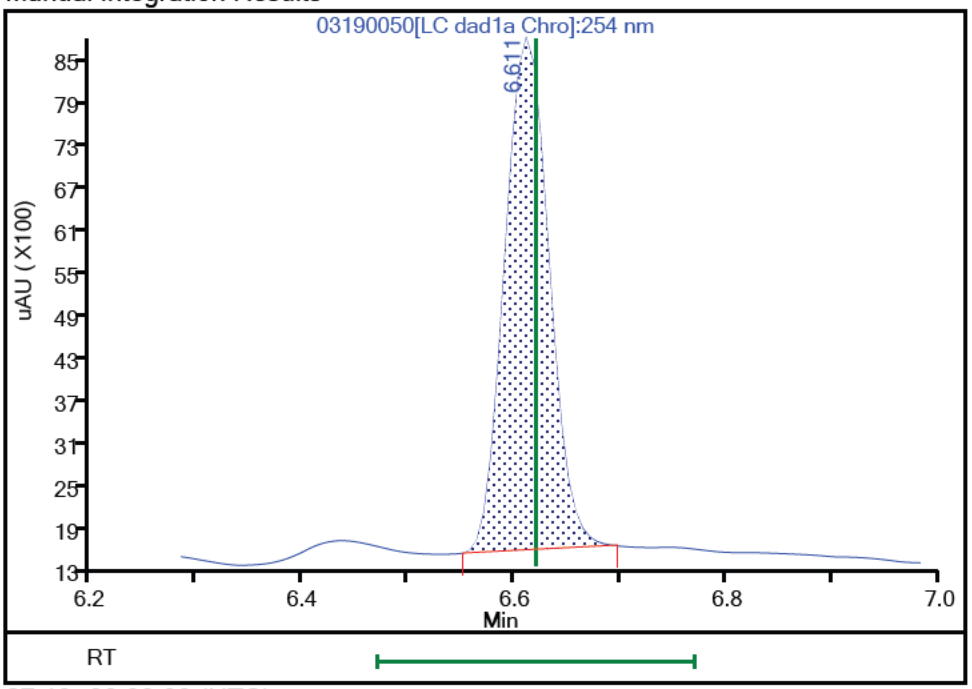
Processing Integration Results

RT: 6.61
Area: 22343
Amount: 0.234412
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 21156
Amount: 0.221958
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:27:19 -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.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MS | Lab Sample ID: 280-188555-4 MS

Matrix: Solid | Lab File ID: 03190052.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.37(g) | Date Analyzed: 03/20/2024 09:01

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
6629-29-4	2,4-diamino-6-nitrotoluene	960	U M J1	1900	960	500
59229-75-3	2,6-diamino-4-nitrotoluene	960	U M J1	1900	960	320

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		78-119

Report Date: 20-Mar-2024 12:29:04 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190052.D
Lims ID: 280-188555-B-4-I MS
Client ID: X7-TP-C03-2436
Sample Type: MS
Inject. Date: 20-Mar-2024 09:01:47 ALS Bottle#: 52 Worklist Smp#: 52
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-I MS
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:00 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:28:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.502	6.496	0.006	9672	0.5000	0.0432	M
5 2,4-diamino-6-nitrotoluene	1	6.629	6.683	-0.054	1551	0.5000	0.0111	M
$ 10 1,2-Dinitrobenzene	1	8.595	8.607	-0.012	32868	0.2500	0.2534	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

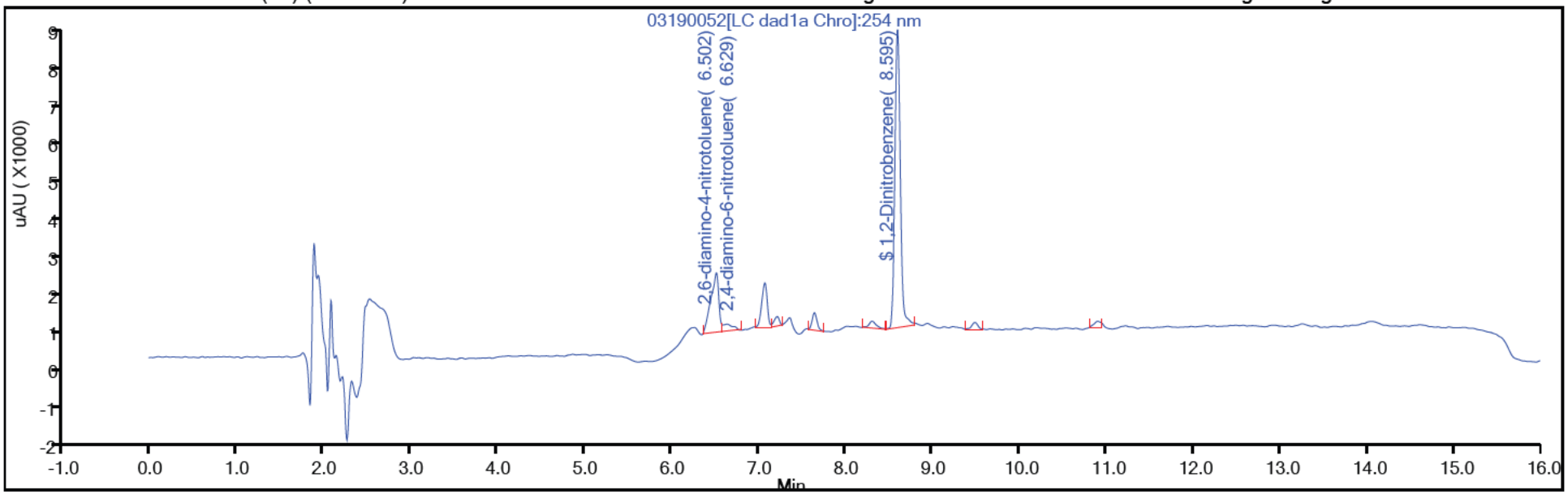
Report Date: 20-Mar-2024 12:29:04 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

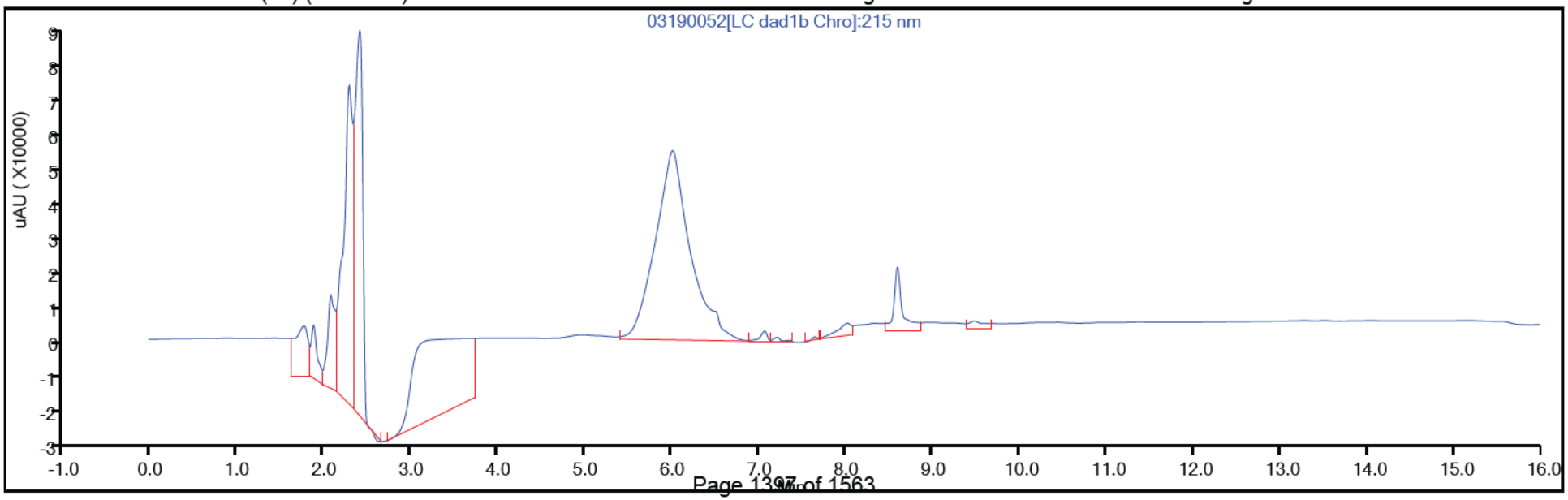
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190052.d

Injection Date:	20-Mar-2024 09:01:47	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-I MS			Worklist Smp#:	52
Client ID:	X7-TP-C03-2436				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	52
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



Report Date: 20-Mar-2024 12:29:04 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190052.D				
Lims ID:	280-188555-B-4-I MS				
Client ID:	X7-TP-C03-2436				
Sample Type:	MS				
Inject. Date:	20-Mar-2024 09:01:47	ALS Bottle#:	52	Worklist Smp#:	52
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-4-I MS				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-Mar-2024 12:29:00	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1651				

First Level Reviewer: LV5D Date: 20-Mar-2024 12:28:01

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2534	101.38

Manual Integration/User Assign Peak Report

Eurofins Denver

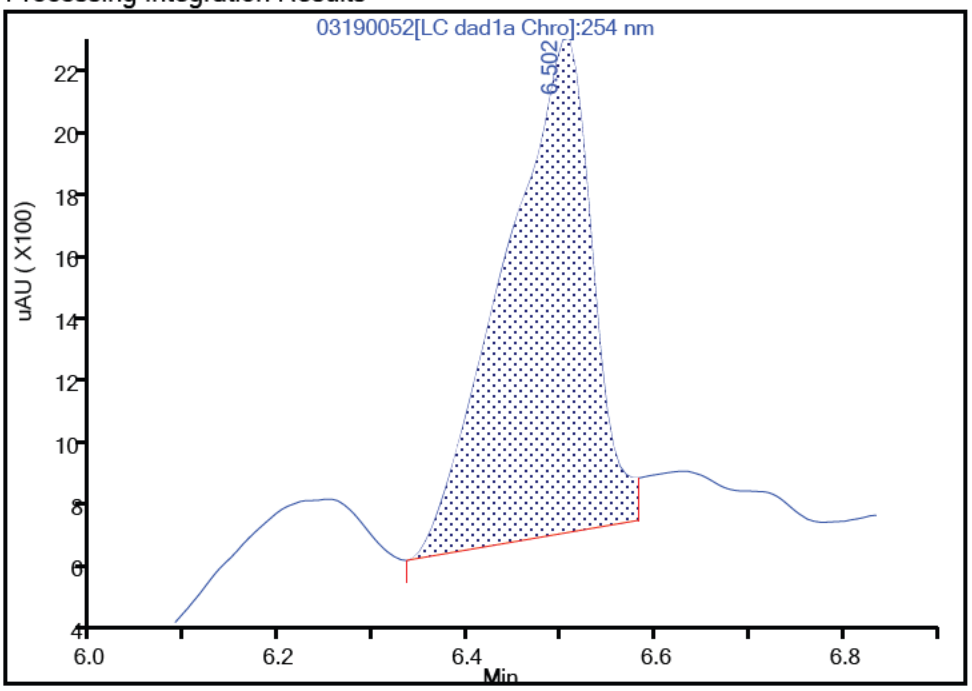
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190052.d				
Injection Date:	20-Mar-2024 09:01:47	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-4-I MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	52	Worklist Smp#:	52
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

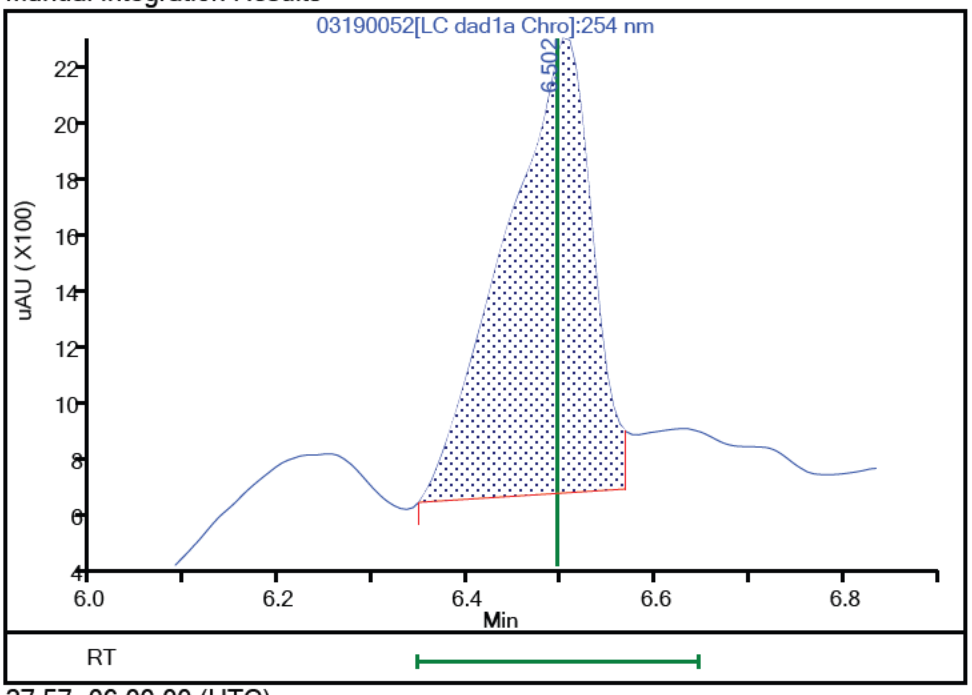
Processing Integration Results

RT: 6.50
Area: 9603
Amount: 0.042917
Amount Units: ug/mL



Manual Integration Results

RT: 6.50
Area: 9672
Amount: 0.043225
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:27:57 -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.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MS | Lab Sample ID: 280-188555-4 MS

Matrix: Solid | Lab File ID: 03200020.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.10(g) | Date Analyzed: 03/21/2024 01:04

Con. Extract Vol.: 40(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.: 646572 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	1100		99	69	30
121-82-4	RDX	958		200	99	43

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	108		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200020.D
Lims ID: 280-188555-B-4-G MS
Client ID: X7-TP-C03-2436
Sample Type: MS
Inject. Date: 21-Mar-2024 01:04:05 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-G MS
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:17 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 16:17:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.585	6.649	-0.064	42035	0.2500	0.2423	
5 2,4,6-Trinitrophenol	1	8.305	8.449	-0.144	2212	0.2500	0.0154	
8 RDX	1	8.758	8.842	-0.084	50193	0.2500	0.2418	
9 Nitrobenzene	1	11.338	11.422	-0.084	104122	0.2500	0.2804	
$ 10 1,2-Dinitrobenzene	1	12.271	12.336	-0.065	69366	0.2500	0.2701	
11 3,5-Dinitroaniline	1	14.071	14.142	-0.071	91362	0.2500	0.2218	M
12 1,3-Dinitrobenzene	1	14.384	14.456	-0.072	169703	0.2500	0.2928	M
13 Nitroglycerin	2	14.851	14.896	-0.045	303642	2.50	2.44	M
14 o-Nitrotoluene	1	15.504	15.549	-0.045	59216	0.2500	0.2397	M
15 p-Nitrotoluene	1	15.664	15.769	-0.105	62795	0.2500	0.2862	M
16 4-Amino-2,6-dinitrotoluene	1	16.178	16.249	-0.071	49642	0.2500	0.1793	M
17 m-Nitrotoluene	1	16.544	16.609	-0.065	75135	0.2500	0.2744	M
18 2-Amino-4,6-dinitrotoluene	1	17.091	17.029	0.062	100675	0.2500	0.2638	Ma
19 1,3,5-Trinitrobenzene	1	17.198	17.249	-0.051	118917	0.2500	0.2889	M
20 2,6-Dinitrotoluene	1	18.324	18.376	-0.052	78454	0.2500	0.2976	M
21 2,4-Dinitrotoluene	1	18.764	18.822	-0.058	151667	0.2500	0.2782	M
22 Tetryl	1	21.965	22.016	-0.051	82904	0.2500	0.2689	
23 2,4,6-Trinitrotoluene	1	22.845	22.889	-0.044	106775	0.2500	0.2773	
24 PETN	2	24.011	24.036	-0.025	354009	2.50	2.88	M
25 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

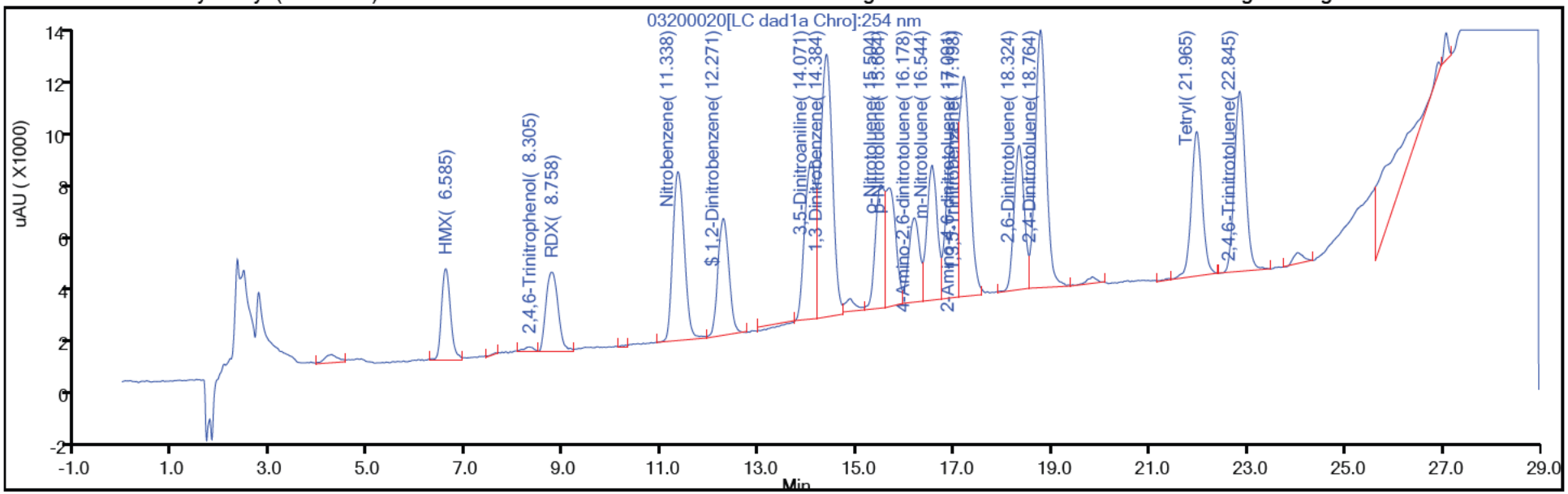
Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 21-Mar-2024 16:20:18 Chrom Revision: 2.3 23-Feb-2024 16:51:14

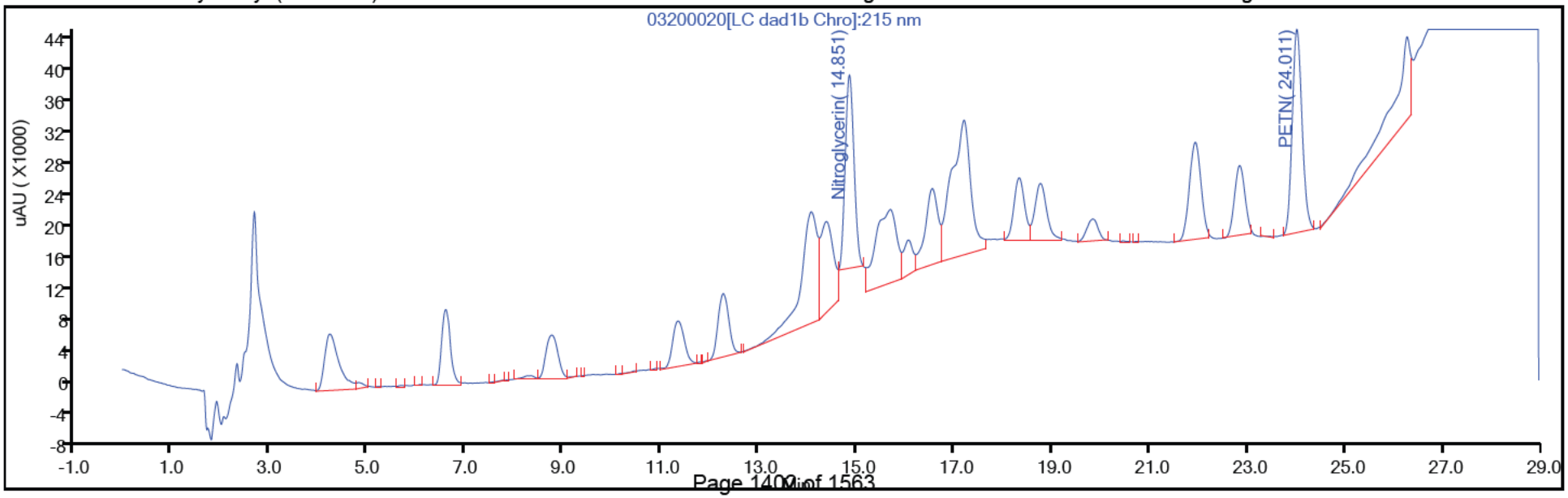
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-G MS			Worklist Smp#:	20
Client ID:	X7-TP-C03-2436				
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



Report Date: 21-Mar-2024 16:20:18 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200020.D				
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Sample Type:	MS				
Inject. Date:	21-Mar-2024 01:04:05	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-4-G MS				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Mar-2024 16:20:17	Calib Date:	26-Sep-2023 04:54:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1668				

First Level Reviewer: LV5D Date: 21-Mar-2024 16:17:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2701	108.06

Manual Integration/User Assign Peak Report

Eurofins Denver

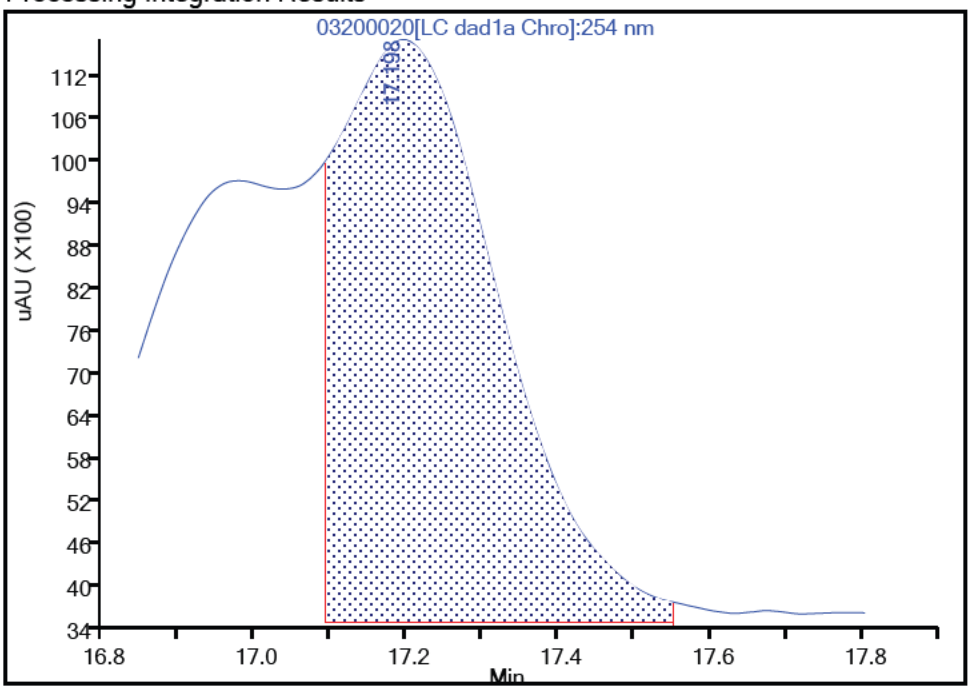
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

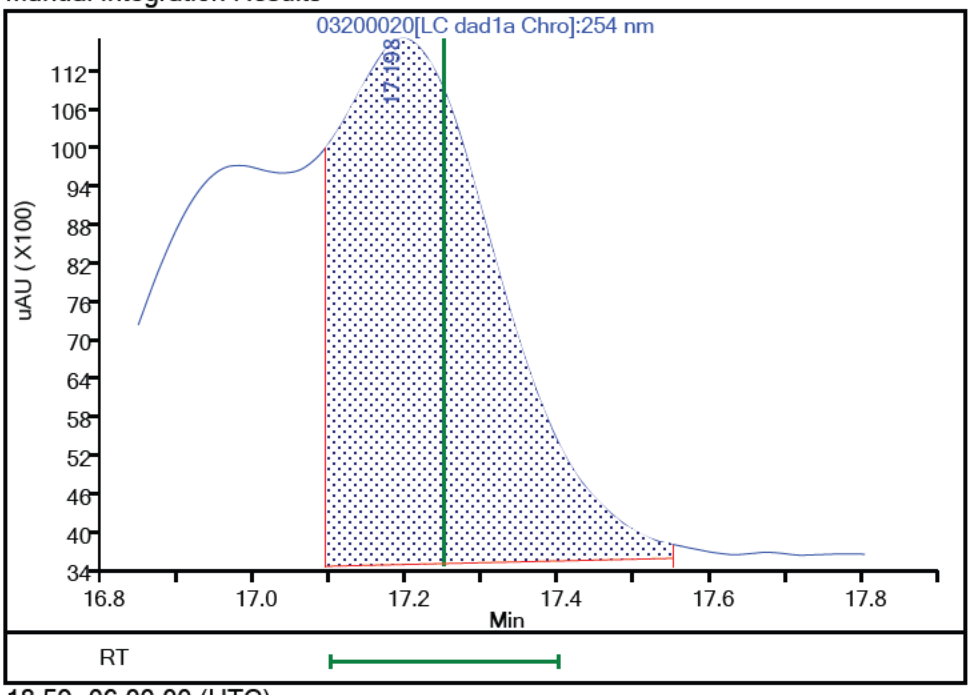
Processing Integration Results

RT: 17.20
Area: 119027
Amount: 0.289160
Amount Units: ug/ml



Manual Integration Results

RT: 17.20
Area: 118917
Amount: 0.288892
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:59 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

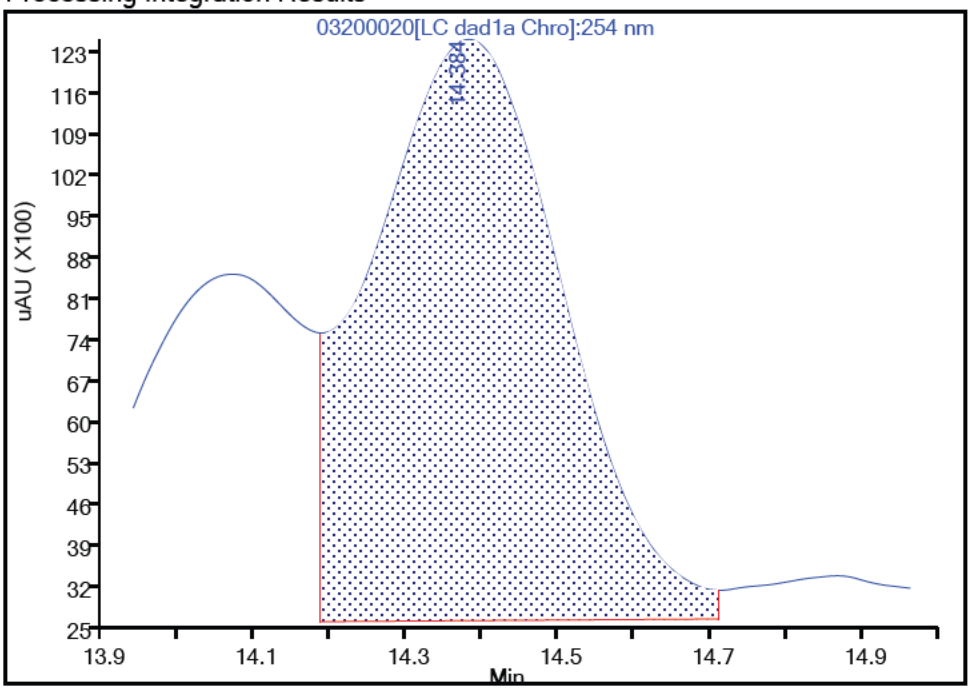
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

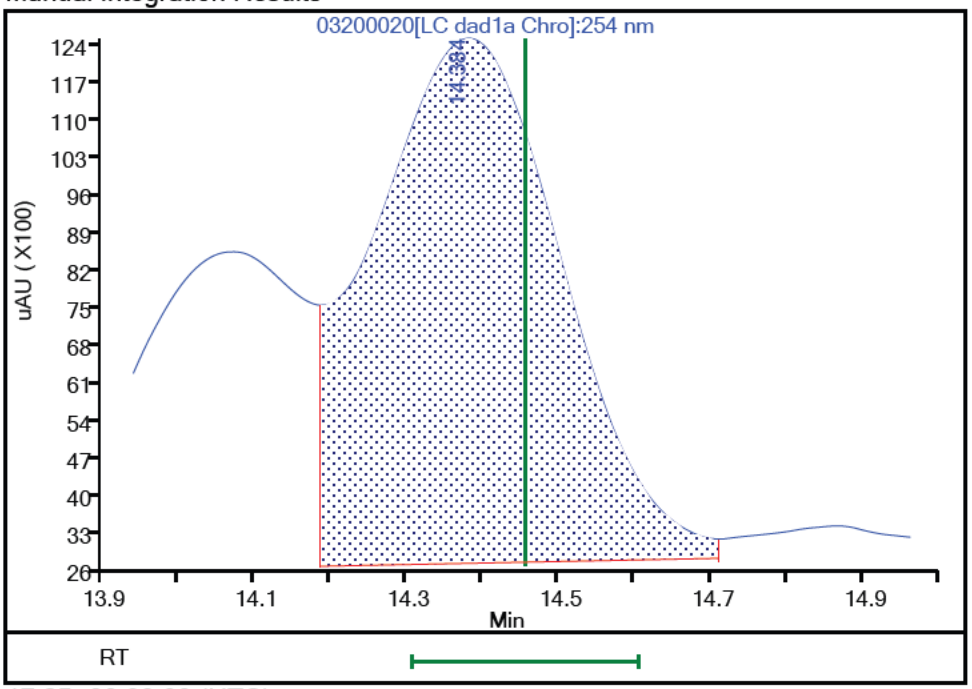
Processing Integration Results

RT: 14.38
Area: 172894
Amount: 0.298335
Amount Units: ug/ml



Manual Integration Results

RT: 14.38
Area: 169703
Amount: 0.292829
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:17:25 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

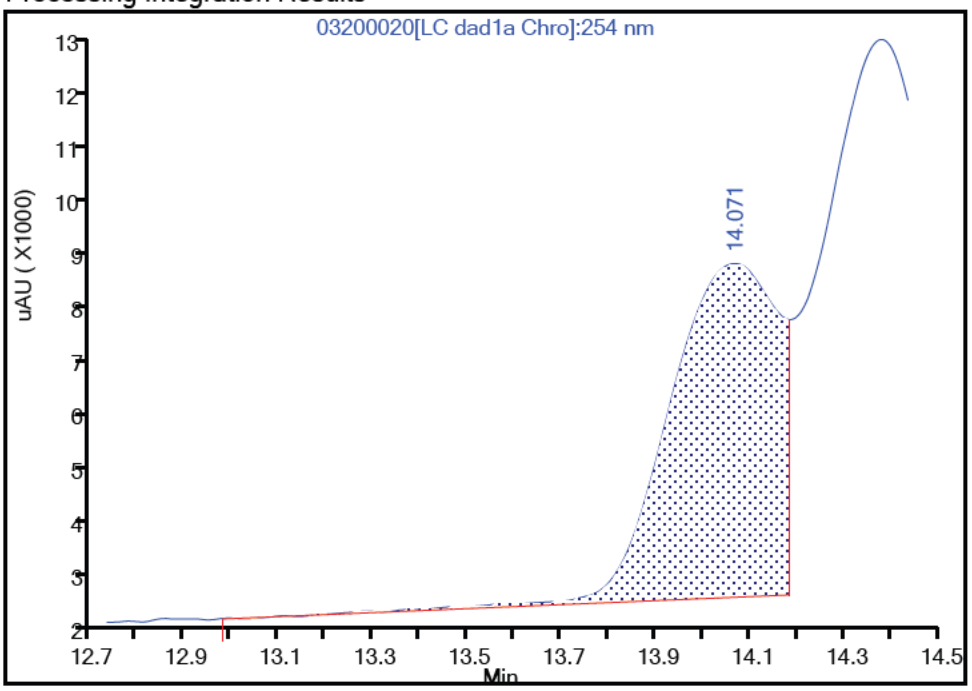
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

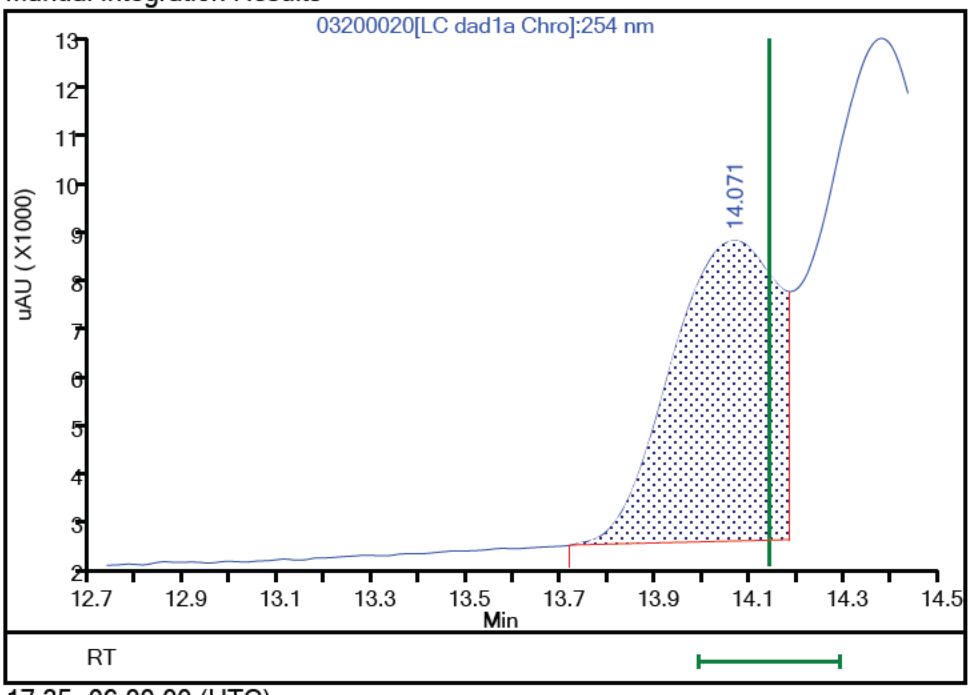
Processing Integration Results

RT: 14.07
Area: 95341
Amount: 0.231526
Amount Units: ug/ml



Manual Integration Results

RT: 14.07
Area: 91362
Amount: 0.221823
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:17:35 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

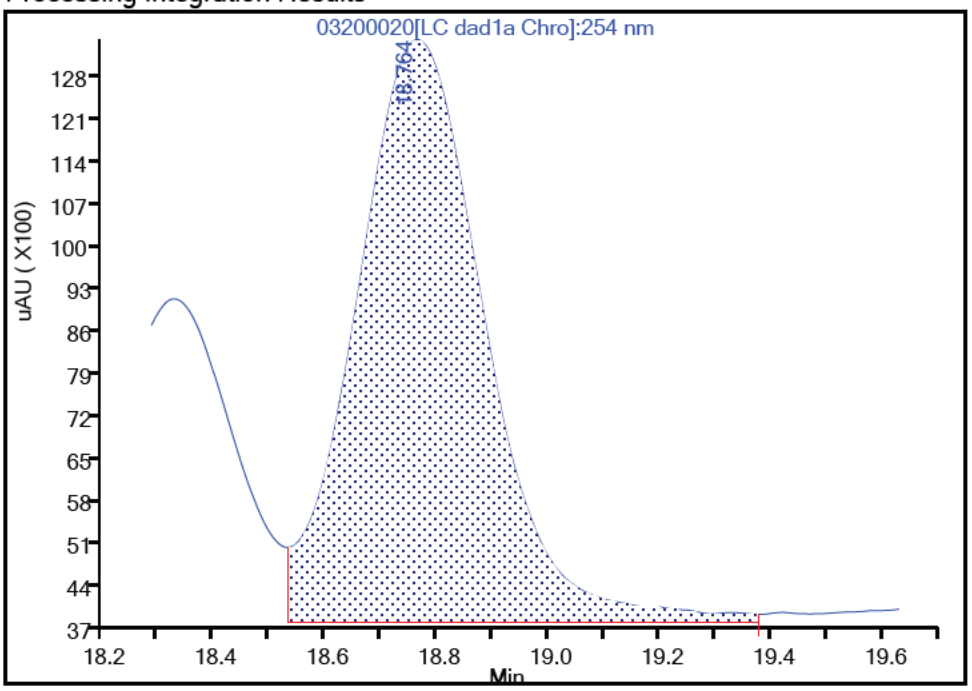
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

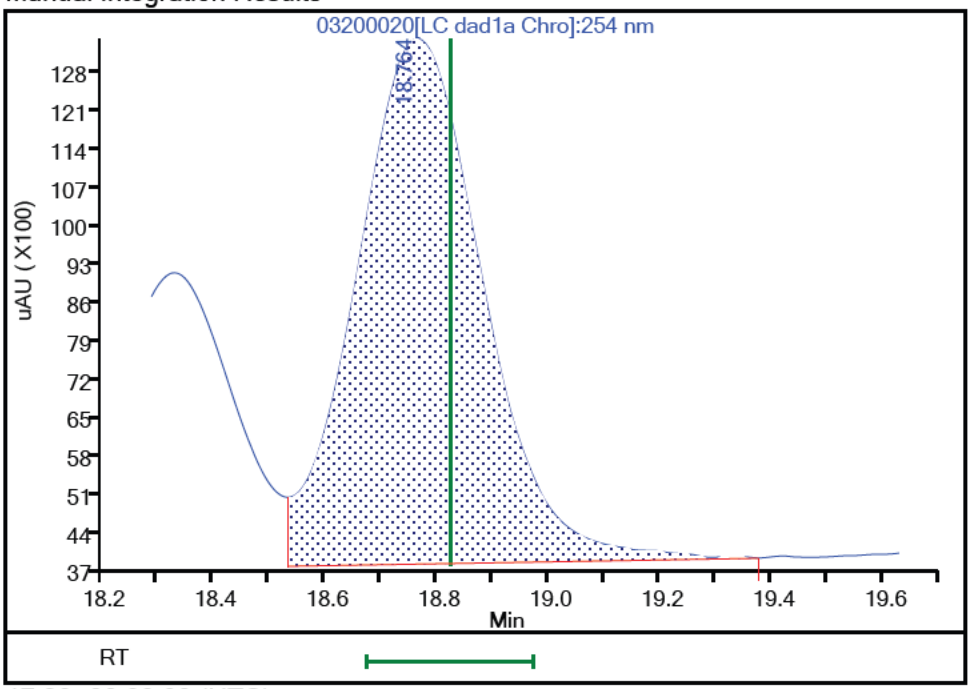
Processing Integration Results

RT: 18.76
Area: 154080
Amount: 0.282670
Amount Units: ug/ml



Manual Integration Results

RT: 18.76
Area: 151667
Amount: 0.278243
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:17:30 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

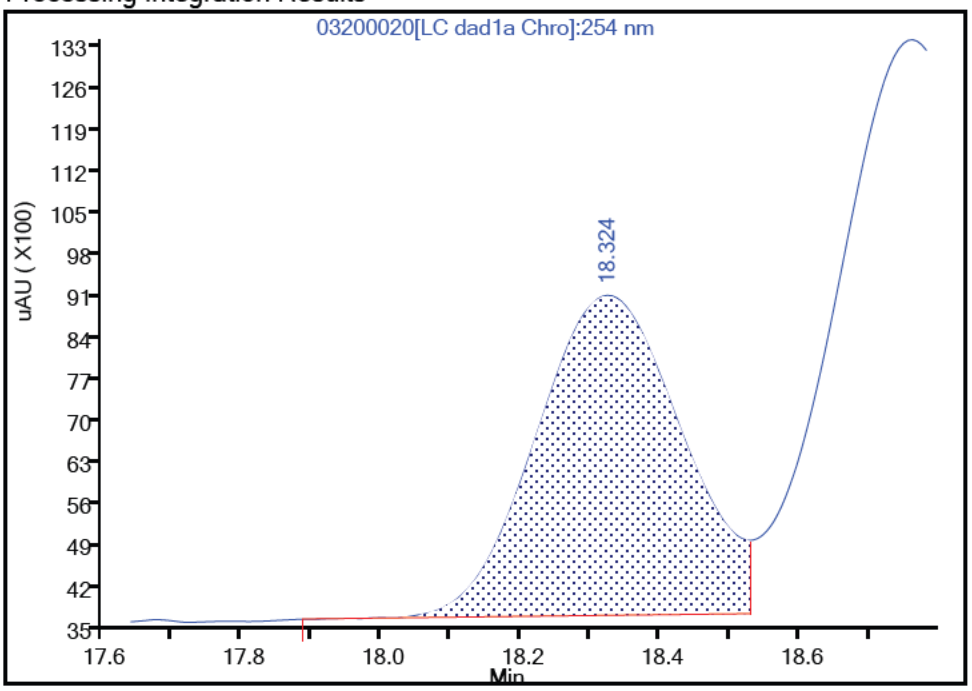
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

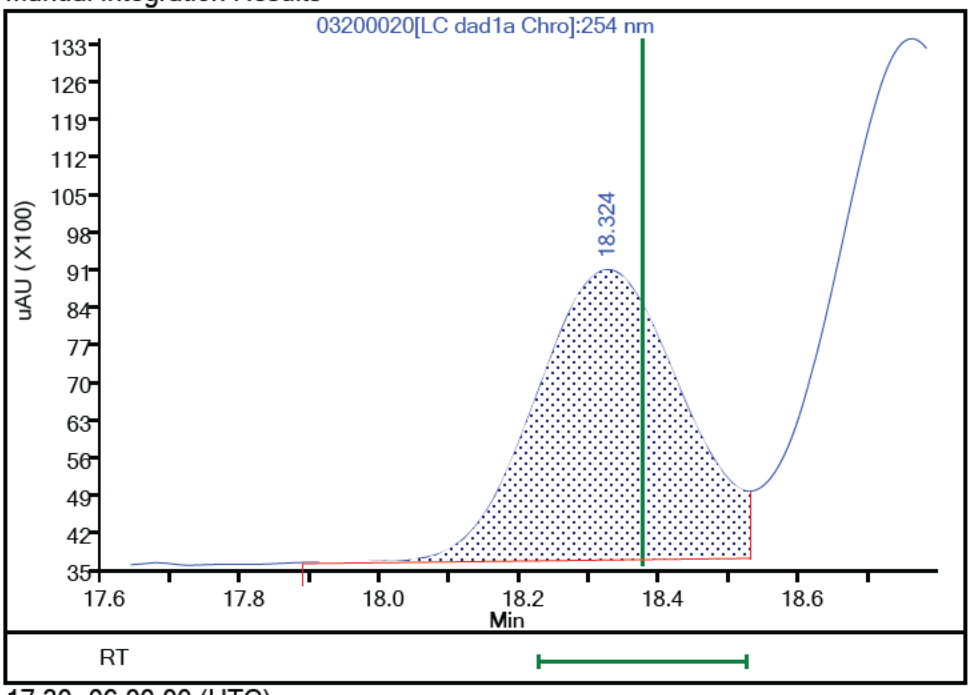
Processing Integration Results

RT: 18.32
Area: 78066
Amount: 0.296095
Amount Units: ug/ml



Manual Integration Results

RT: 18.32
Area: 78454
Amount: 0.297583
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:17:30 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

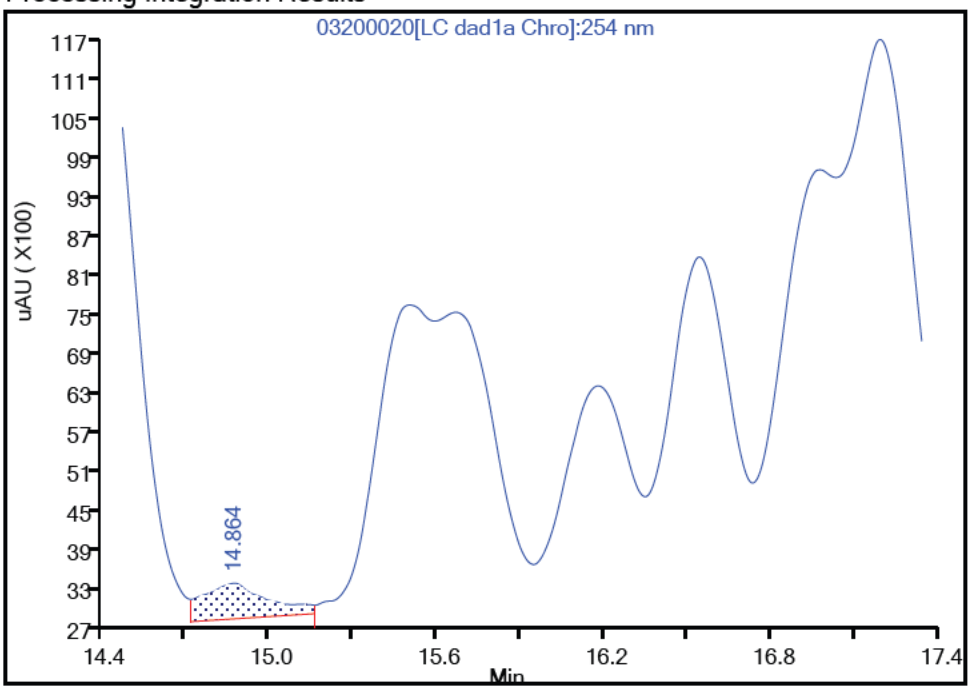
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	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

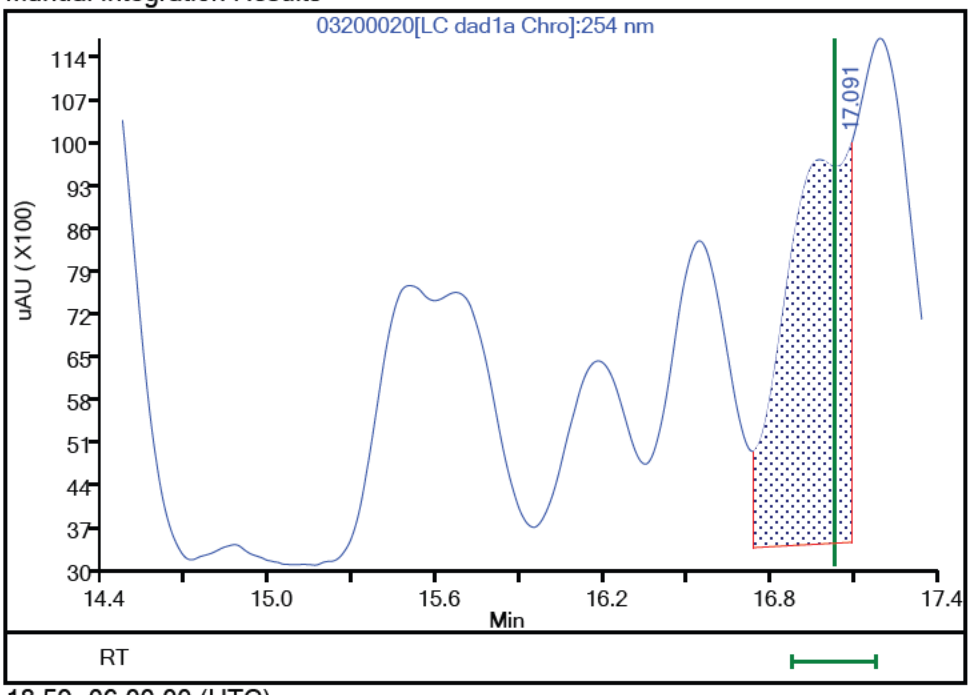
Processing Integration Results

RT: 14.86
Area: 9051
Amount: 0.020272
Amount Units: ug/ml



Manual Integration Results

RT: 17.09
Area: 100675
Amount: 0.263775
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:59 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

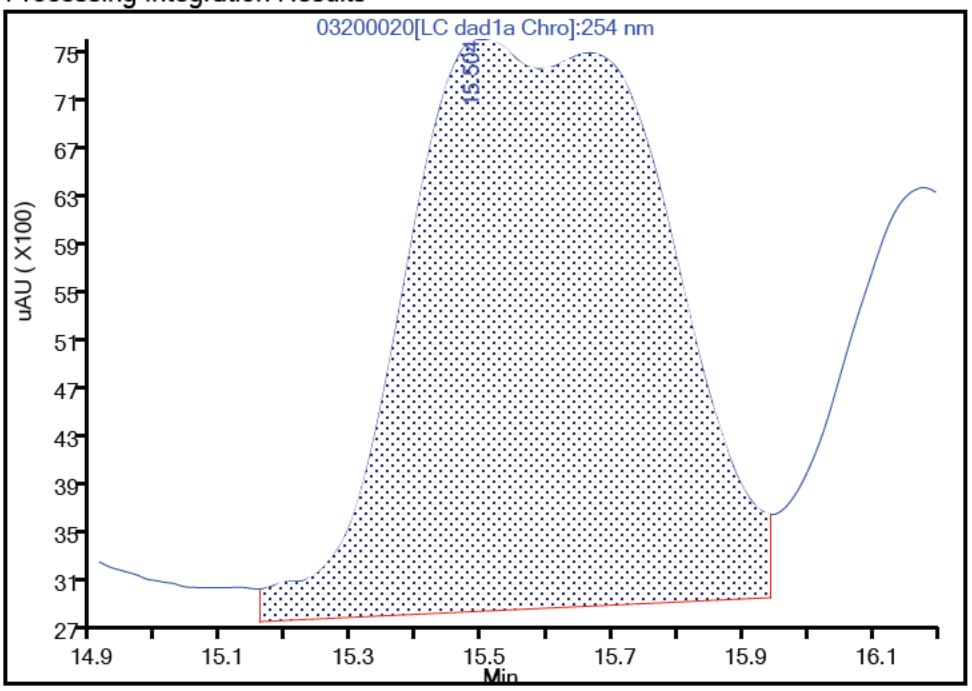
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	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

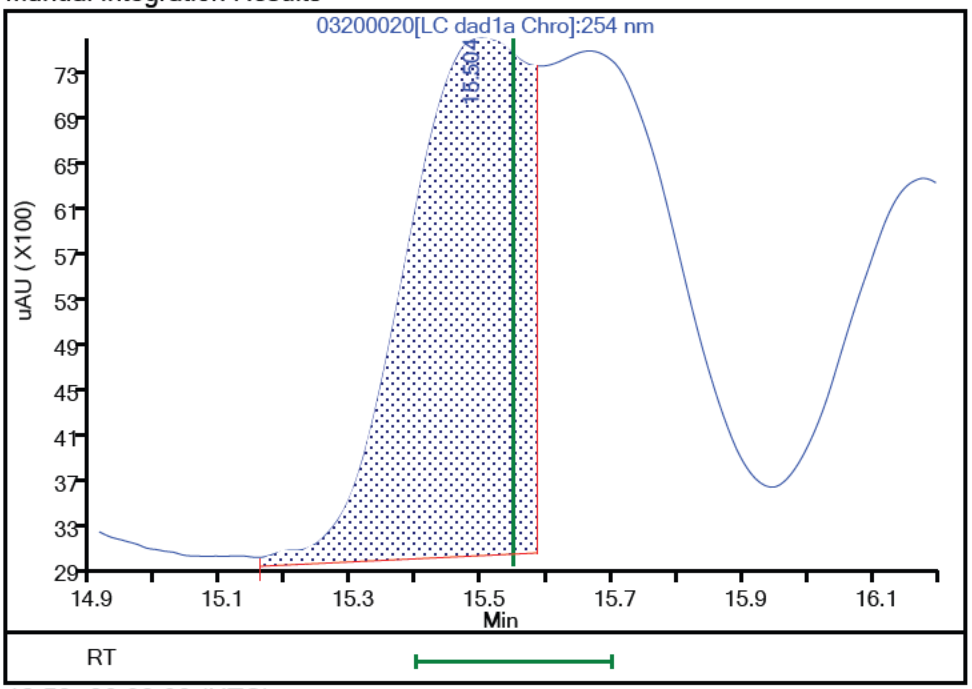
Processing Integration Results

RT: 15.50
Area: 131478
Amount: 0.532222
Amount Units: ug/ml



Manual Integration Results

RT: 15.50
Area: 59216
Amount: 0.239706
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:59 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

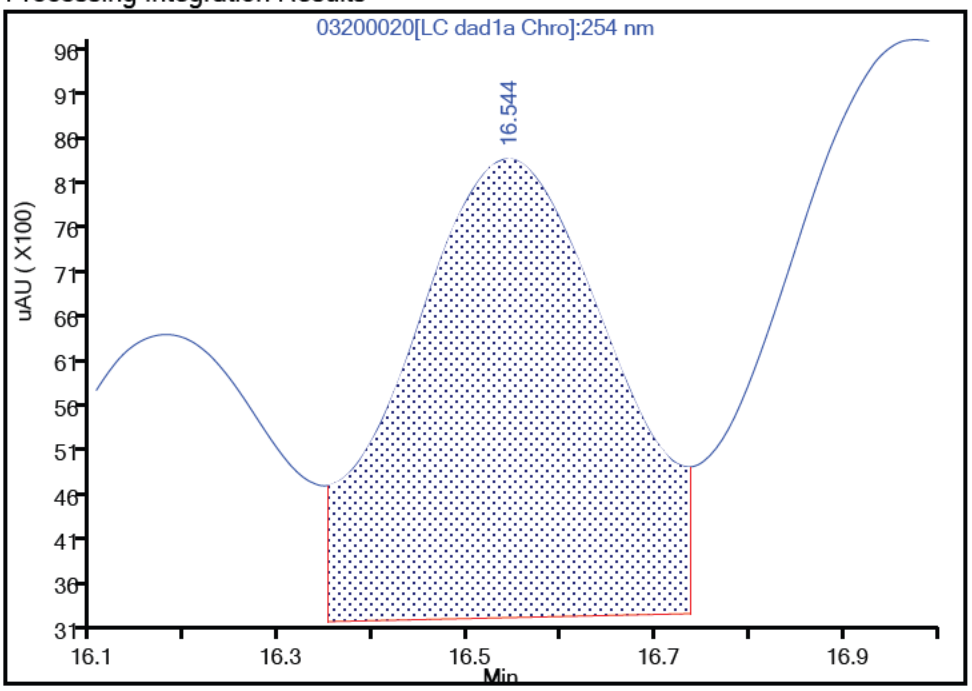
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

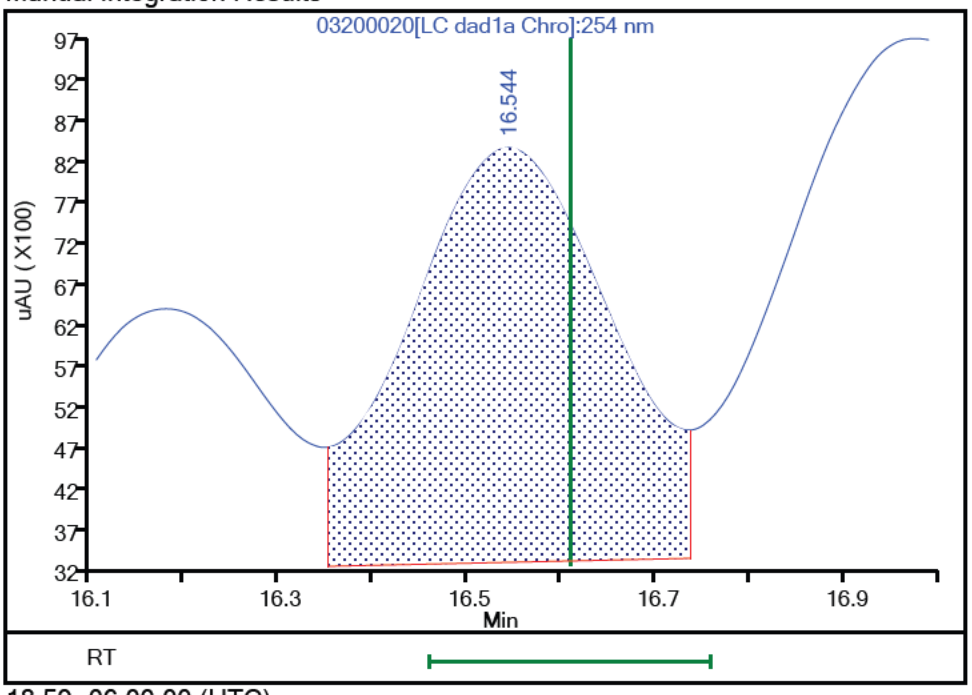
Processing Integration Results

RT: 16.54
Area: 77061
Amount: 0.281567
Amount Units: ug/ml



Manual Integration Results

RT: 16.54
Area: 75135
Amount: 0.274420
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:59 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

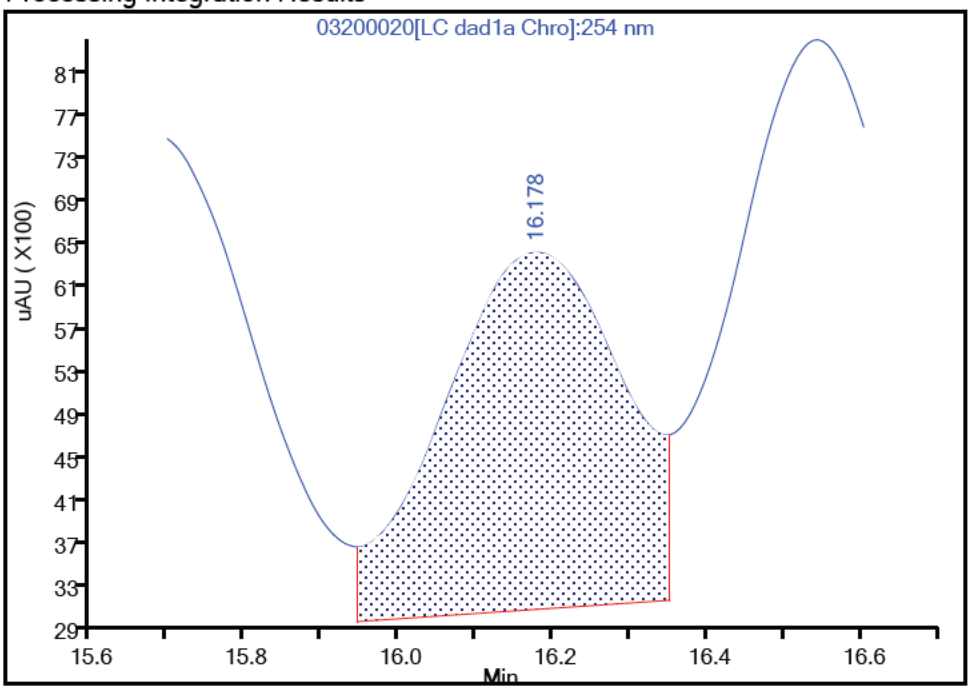
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	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

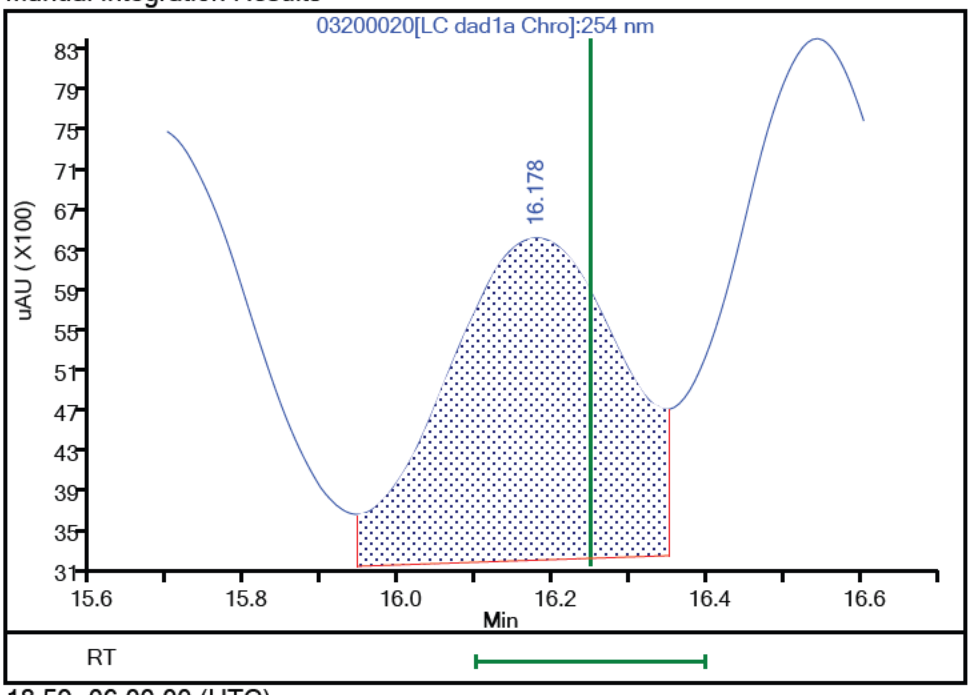
Processing Integration Results

RT: 16.18
Area: 53082
Amount: 0.192038
Amount Units: ug/ml



Manual Integration Results

RT: 16.18
Area: 49642
Amount: 0.179268
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:59 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

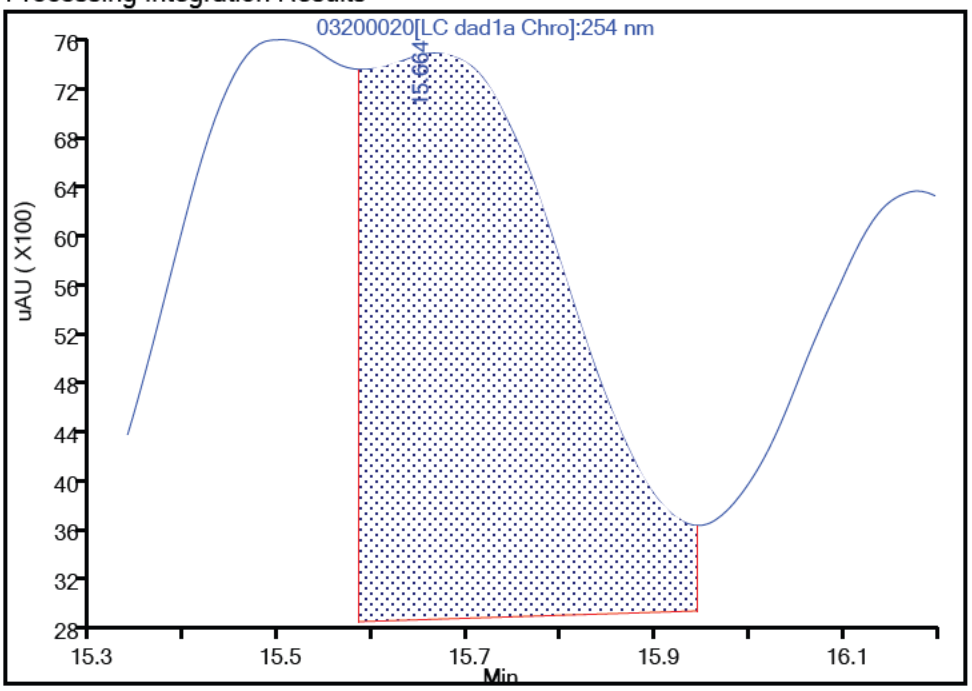
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

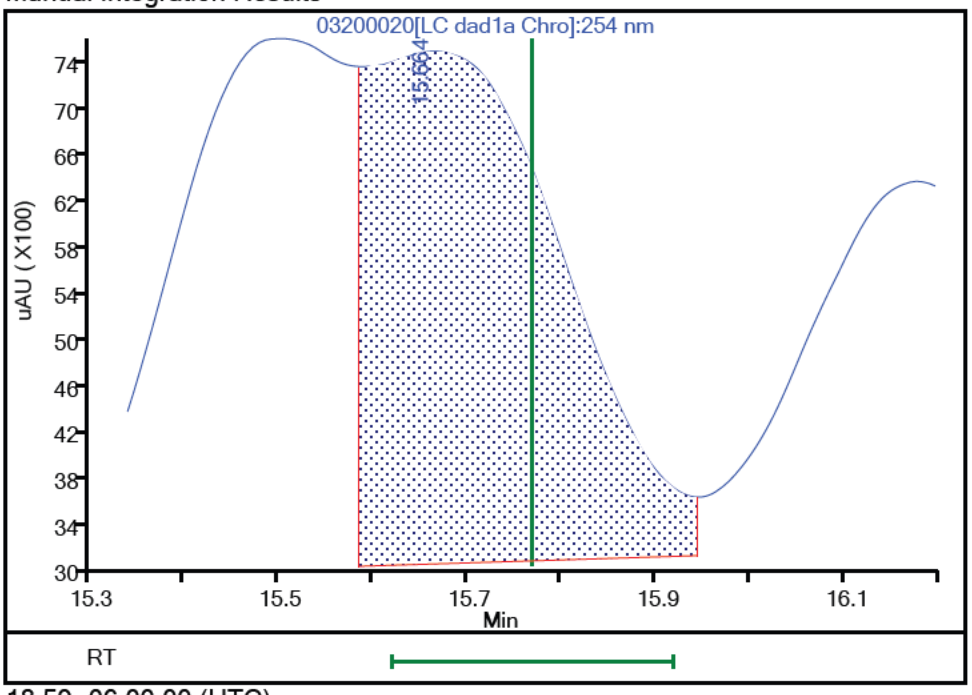
Processing Integration Results

RT: 15.66
Area: 67039
Amount: 0.305782
Amount Units: ug/ml



Manual Integration Results

RT: 15.66
Area: 62795
Amount: 0.286213
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:59 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

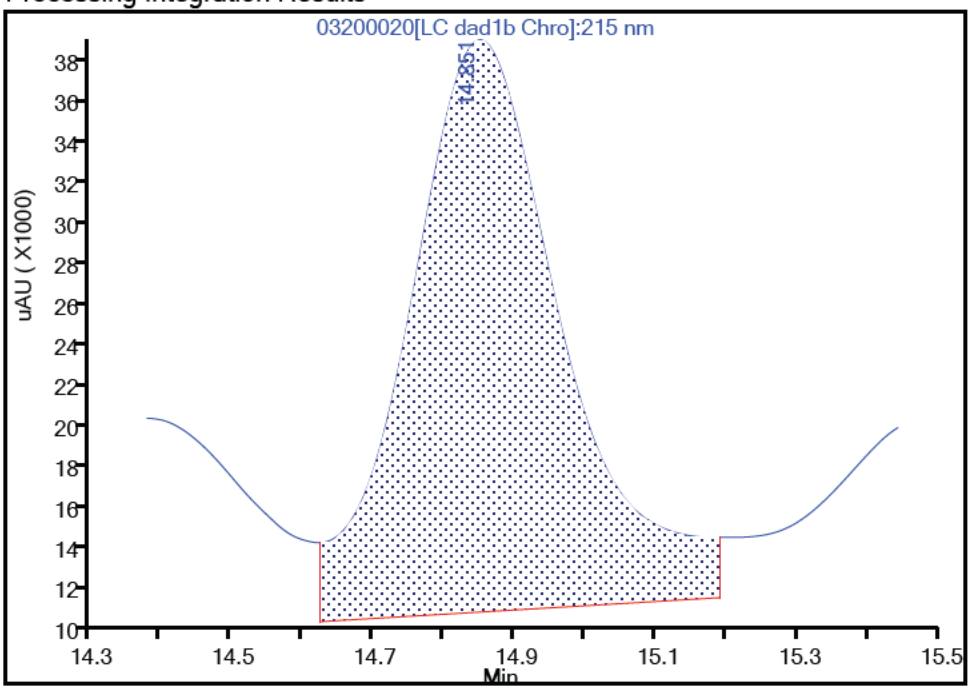
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

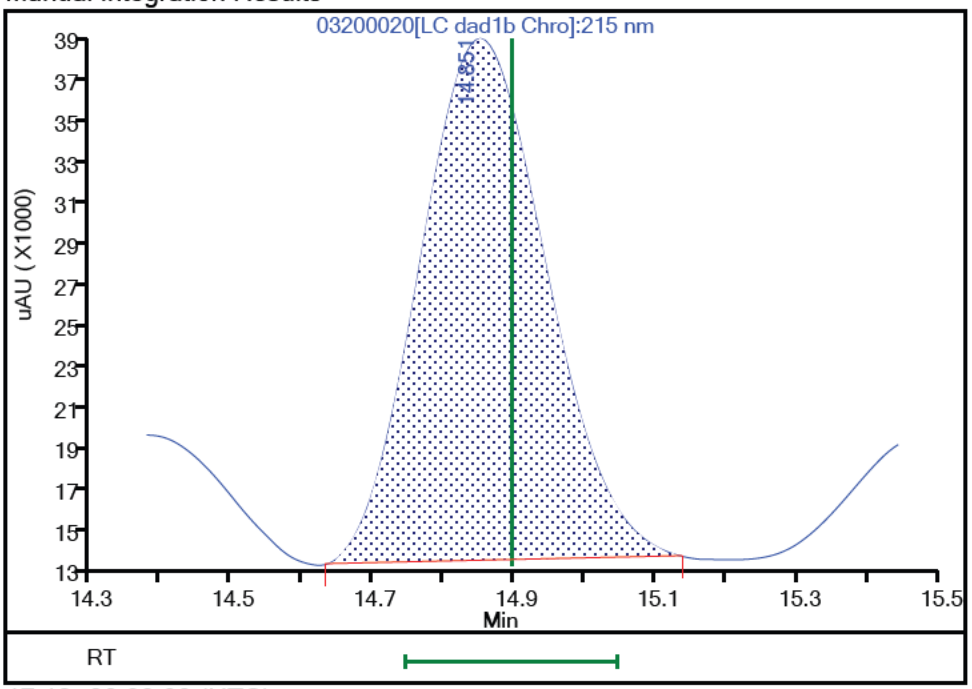
Processing Integration Results

RT: 14.85
Area: 423887
Amount: 3.412527
Amount Units: ug/ml



Manual Integration Results

RT: 14.85
Area: 303642
Amount: 2.444488
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:17:13 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

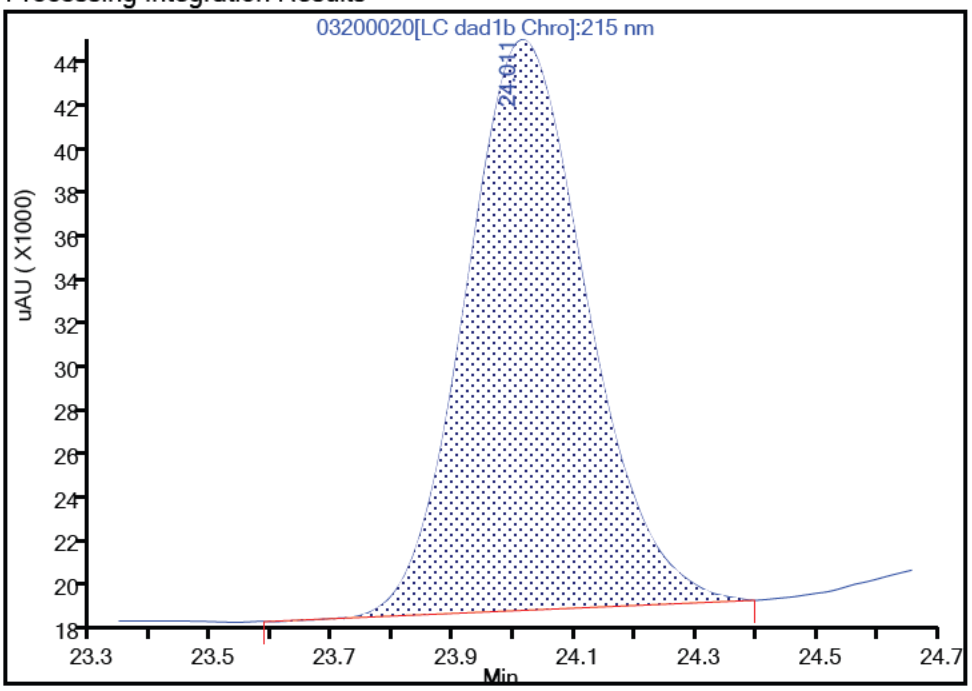
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200020.d				
Injection Date:	21-Mar-2024 01:04:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-G MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

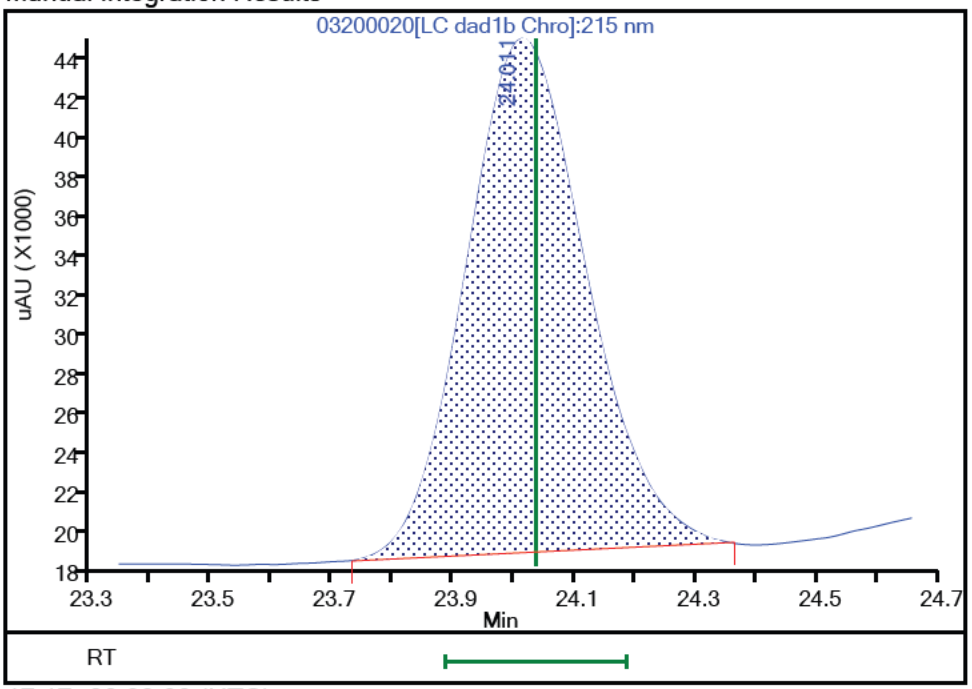
Processing Integration Results

RT: 24.01
Area: 358190
Amount: 2.911844
Amount Units: ug/ml



Manual Integration Results

RT: 24.01
Area: 354009
Amount: 2.877855
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:17:17 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MSD | Lab Sample ID: 280-188555-4 MSD

Matrix: Solid | Lab File ID: 03190051.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.54(g) | Date Analyzed: 03/20/2024 08:38

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	1060		95	38	13
99-65-0	1,3-Dinitrobenzene	1040		95	38	16
618-87-1	3,5-Dinitroaniline	940		95	19	8.5
121-14-2	2,4-Dinitrotoluene	1010		95	38	14
606-20-2	2,6-Dinitrotoluene	1020		95	38	18
35572-78-2	2-Amino-4,6-dinitrotoluene	976		95	66	31
88-72-2	2-Nitrotoluene	1030		190	95	45
99-08-1	3-Nitrotoluene	1020		190	140	61
19406-51-0	4-Amino-2,6-dinitrotoluene	884		95	66	28
99-99-0	4-Nitrotoluene	1020		190	95	35
98-95-3	Nitrobenzene	1060		280	190	81
55-63-0	Nitroglycerin	11000		1900	660	200
2691-41-0	HMX	878		95	66	22
78-11-5	PETN	10400		1900	950	470
88-89-1	Picric acid	107	J1	95	76	53
479-45-8	Tetryl	901		190	95	42

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190051.D
Lims ID: 280-188555-B-4-H MSD
Client ID: X7-TP-C03-2436
Sample Type: MSD
Inject. Date: 20-Mar-2024 08:38:50 ALS Bottle#: 51 Worklist Smp#: 51
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-H MSD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:00 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.611	6.620	-0.009	22050	0.2500	0.2313	
8 RDX	1	7.637	7.647	-0.010	25522	0.2500	0.2426	
9 2,4,6-Trinitrophenol	1	7.871	7.874	-0.003	2119	0.2500	0.0281	
$ 10 1,2-Dinitrobenzene	1	8.597	8.607	-0.010	32574	0.2500	0.2512	
11 1,3,5-Trinitrobenzene	1	8.724	8.734	-0.010	60393	0.2500	0.2796	
12 1,3-Dinitrobenzene	1	9.344	9.360	-0.016	79932	0.2500	0.2732	
13 Nitrobenzene	1	9.704	9.727	-0.023	51662	0.2500	0.2793	
14 3,5-Dinitroaniline	1	9.944	9.967	-0.023	54037	0.2500	0.2477	
15 Tetryl	1	10.051	10.067	-0.016	42947	0.2500	0.2375	
16 Nitroglycerin	2	10.511	10.533	-0.022	179703	2.50	2.91	
17 2,4,6-Trinitrotoluene	1	10.951	10.967	-0.016	55814	0.2500	0.2618	
18 4-Amino-2,6-dinitrotoluene	1	11.137	11.160	-0.023	34943	0.2500	0.2329	
19 2-Amino-4,6-dinitrotoluene	1	11.391	11.420	-0.029	51167	0.2500	0.2571	
20 2,6-Dinitrotoluene	1	11.537	11.560	-0.023	38384	0.2500	0.2682	
21 2,4-Dinitrotoluene	1	11.711	11.740	-0.029	78145	0.2500	0.2669	
22 o-Nitrotoluene	1	12.504	12.540	-0.036	33195	0.2500	0.2725	
23 p-Nitrotoluene	1	12.924	12.960	-0.036	28405	0.2500	0.2699	
24 m-Nitrotoluene	1	13.484	13.520	-0.036	35978	0.2500	0.2677	
25 PETN	2	14.584	14.620	-0.036	199631	2.50	2.75	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

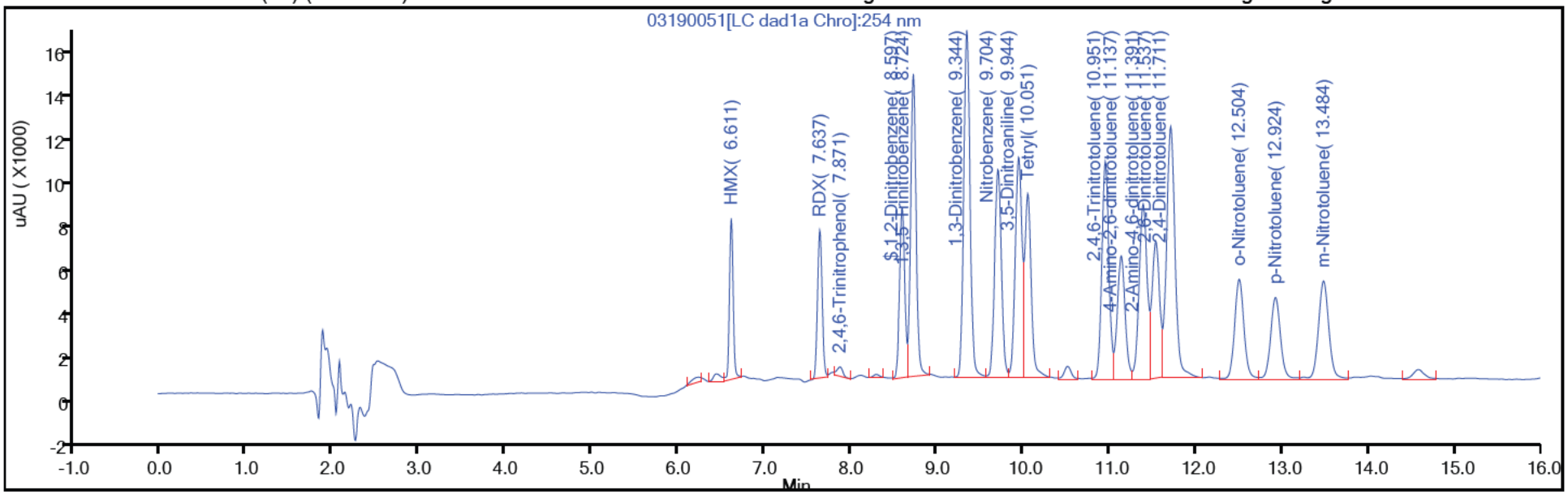
Report Date: 20-Mar-2024 12:29:03 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

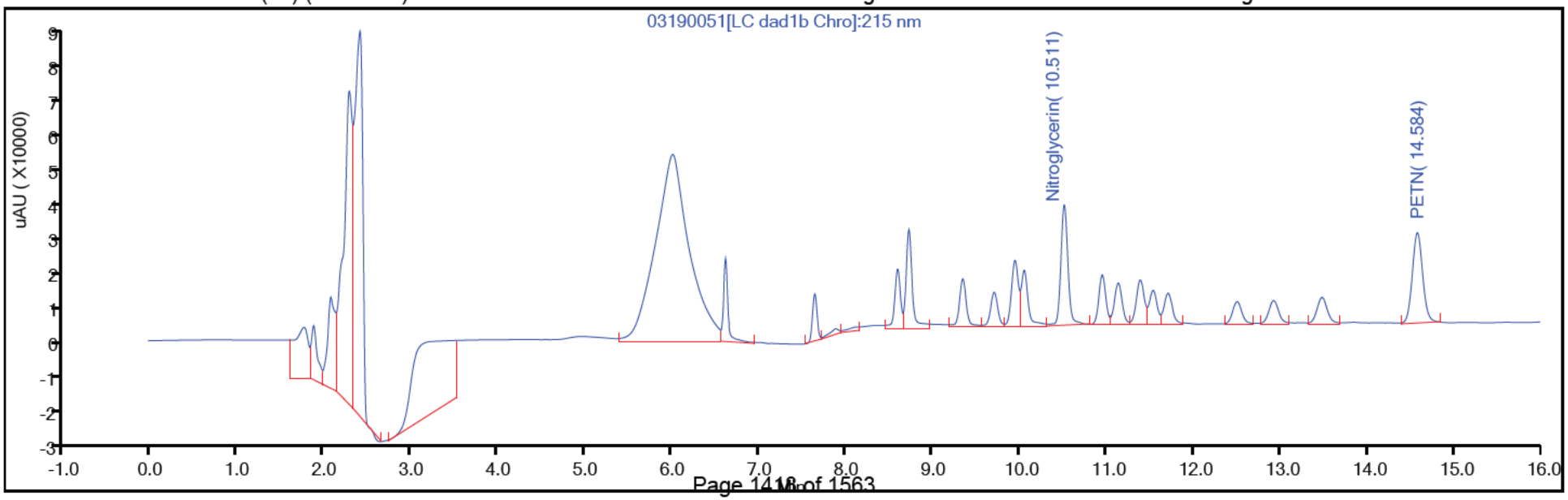
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190051.d

Injection Date:	20-Mar-2024 08:38:50	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-H MSD			Worklist Smp#:	51
Client ID:	X7-TP-C03-2436				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	51
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\20240319-131313.b\03190051.D				
Lims ID:	280-188555-B-4-H MSD				
Client ID:	X7-TP-C03-2436				
Sample Type:	MSD				
Inject. Date:	20-Mar-2024 08:38:50	ALS Bottle#:	51	Worklist Smp#:	51
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-4-H MSD				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-Mar-2024 12:29:00	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1651				

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2512	100.47

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MSD | Lab Sample ID: 280-188555-4 MSD

Matrix: Solid | Lab File ID: 03190053.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.3(g) | Date Analyzed: 03/20/2024 09:24

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
6629-29-4	2,4-diamino-6-nitrotoluene	970	U M J1	1900	970	500
59229-75-3	2,6-diamino-4-nitrotoluene	970	U M J1	1900	970	320

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104		78-119

Report Date: 20-Mar-2024 12:29:04 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190053.D
Lims ID: 280-188555-B-4-J MSD
Client ID: X7-TP-C03-2436
Sample Type: MSD
Inject. Date: 20-Mar-2024 09:24:43 ALS Bottle#: 53 Worklist Smp#: 53
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-J MSD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:00 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:28:17

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	2 2,6-diamino-4-nitrotoluene	1	6.506	6.496	0.010	9002	0.5000	0.0402	M
	5 2,4-diamino-6-nitrotoluene	1	6.626	6.683	-0.057	1363	0.5000	0.009798	7M
$	10 1,2-Dinitrobenzene	1	8.612	8.607	0.005	33739	0.2500	0.2602	

QC Flag Legend

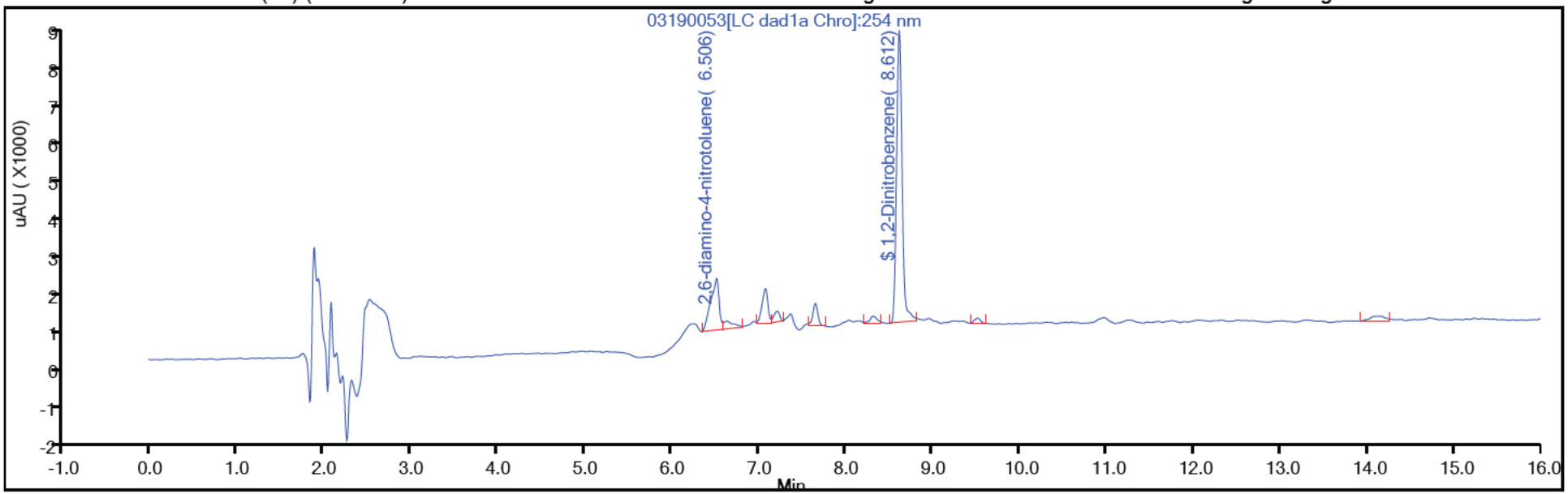
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

Report Date: 20-Mar-2024 12:29:04 Chrom Revision: 2.3 23-Feb-2024 16:51:14

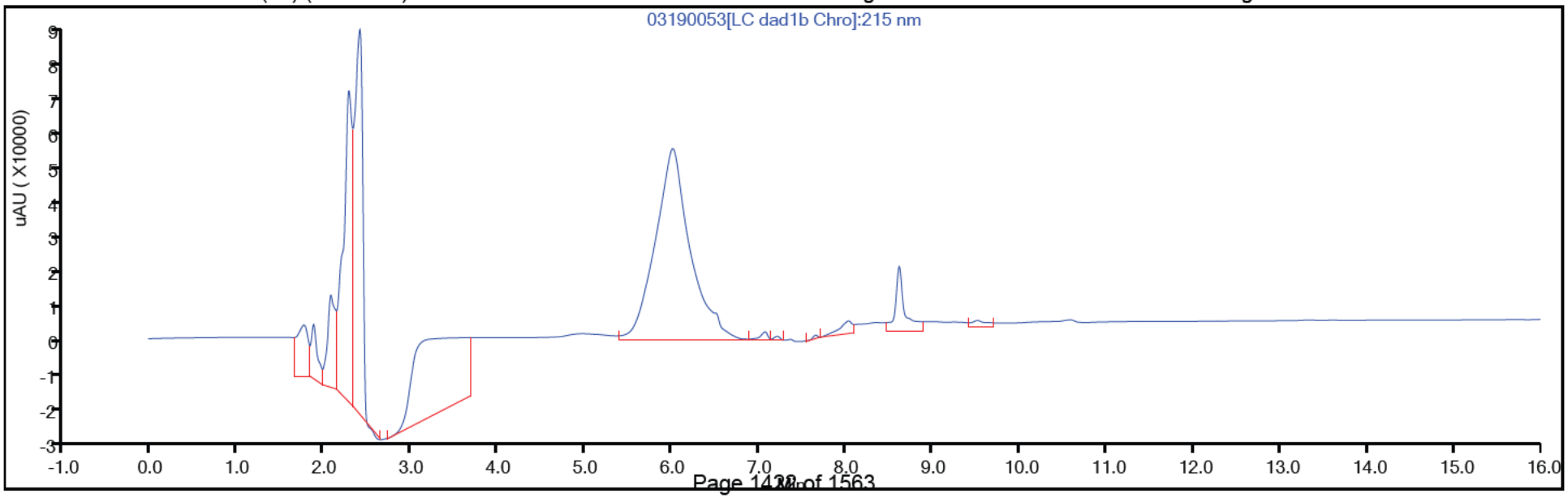
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190053.d				
Injection Date:	20-Mar-2024 09:24:43	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-J MSD			Worklist Smp#:	53
Client ID:	X7-TP-C03-2436				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	53
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



Report Date: 20-Mar-2024 12:29:04 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190053.D				
Lims ID:	280-188555-B-4-J MSD				
Client ID:	X7-TP-C03-2436				
Sample Type:	MSD				
Inject. Date:	20-Mar-2024 09:24:43	ALS Bottle#:	53	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-4-J MSD				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-Mar-2024 12:29:00	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1651				

First Level Reviewer: LV5D Date: 20-Mar-2024 12:28:17

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2602	104.07

Manual Integration/User Assign Peak Report

Eurofins Denver

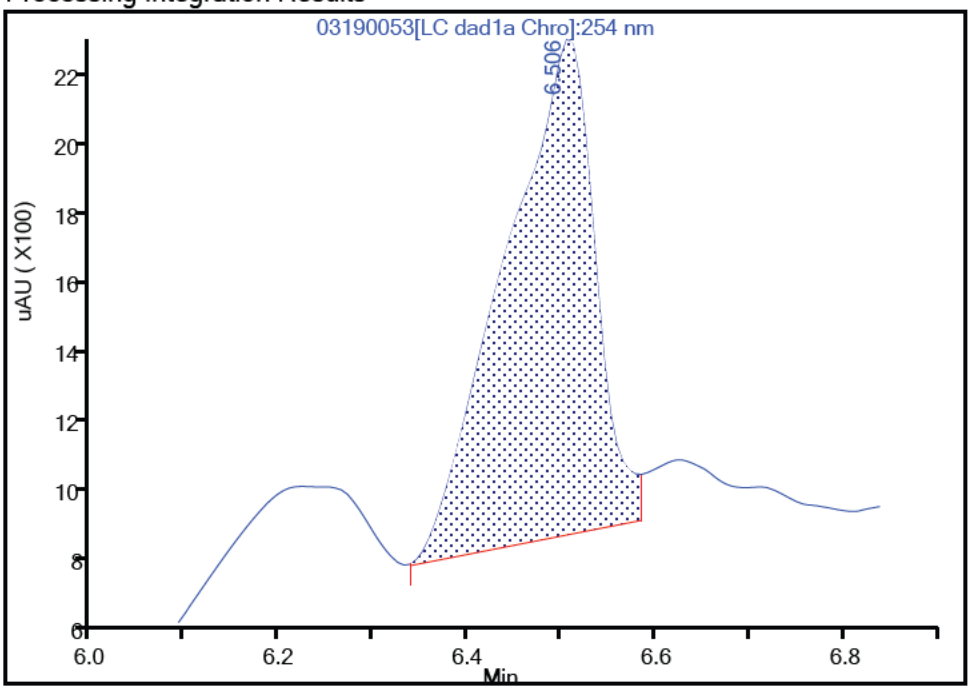
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190053.d				
Injection Date:	20-Mar-2024 09:24:43	Instrument ID:	CHHPLC_X3		
Lims ID:	280-188555-B-4-J MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	53	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

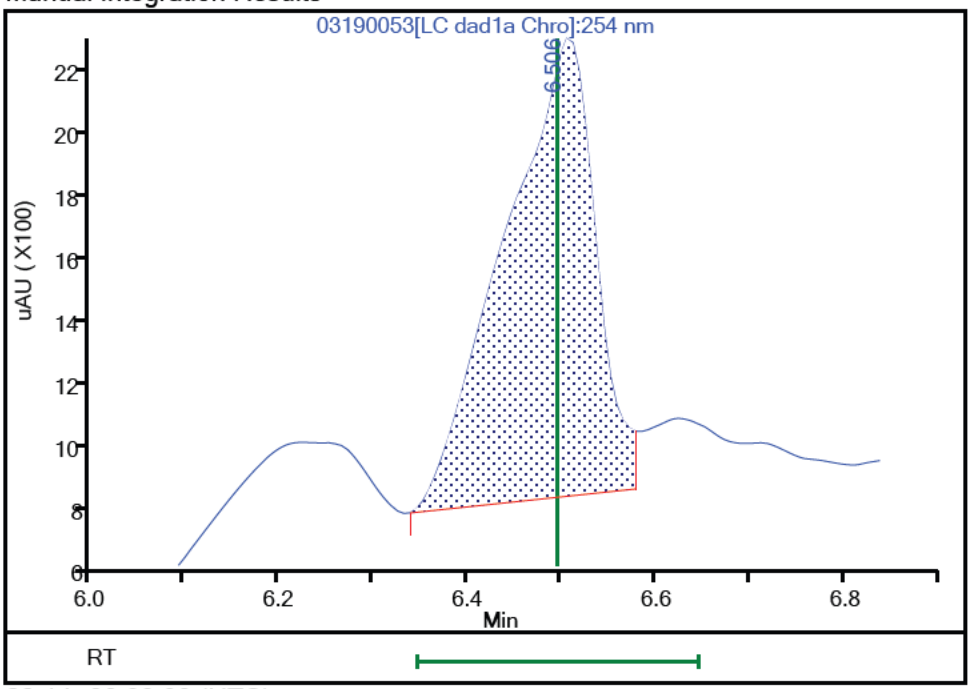
Processing Integration Results

RT: 6.51
Area: 8771
Amount: 0.039198
Amount Units: ug/mL



Manual Integration Results

RT: 6.51
Area: 9002
Amount: 0.040231
Amount Units: ug/mL



Reviewer: LV5D, 20-Mar-2024 12:28:14 -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.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MSD | Lab Sample ID: 280-188555-4 MSD

Matrix: Solid | Lab File ID: 03200021.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.54(g) | Date Analyzed: 03/21/2024 01:40

Con. Extract Vol.: 40(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.: 646572 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	1050		95	66	29
121-82-4	RDX	889		190	95	41

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	110		78-119

Report Date: 21-Mar-2024 16:20:19 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200021.D
Lims ID: 280-188555-B-4-H MSD
Client ID: X7-TP-C03-2436
Sample Type: MSD
Inject. Date: 21-Mar-2024 01:40:03 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-H MSD
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:17 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 16:18:16

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.593	6.649	-0.056	40407	0.2500	0.2329	
5 2,4,6-Trinitrophenol	1	8.313	8.449	-0.136	2101	0.2500	0.0146	
8 RDX	1	8.773	8.842	-0.069	48615	0.2500	0.2342	
9 Nitrobenzene	1	11.360	11.422	-0.062	103216	0.2500	0.2779	
$ 10 1,2-Dinitrobenzene	1	12.286	12.336	-0.050	70473	0.2500	0.2745	
11 3,5-Dinitroaniline	1	14.086	14.142	-0.056	92884	0.2500	0.2255	M
12 1,3-Dinitrobenzene	1	14.393	14.456	-0.063	164847	0.2500	0.2844	M
13 Nitroglycerin	2	14.866	14.896	-0.030	291340	2.50	2.35	M
14 o-Nitrotoluene	1	15.526	15.549	-0.023	56998	0.2500	0.2307	M
15 p-Nitrotoluene	1	15.673	15.769	-0.096	62114	0.2500	0.2831	M
16 4-Amino-2,6-dinitrotoluene	1	16.200	16.249	-0.049	52618	0.2500	0.1903	M
17 m-Nitrotoluene	1	16.566	16.609	-0.043	72330	0.2500	0.2640	M
18 2-Amino-4,6-dinitrotoluene	1	17.100	17.029	0.071	94965	0.2500	0.2486	M
19 1,3,5-Trinitrobenzene	1	17.213	17.249	-0.036	119032	0.2500	0.2892	M
20 2,6-Dinitrotoluene	1	18.333	18.376	-0.043	73451	0.2500	0.2784	M
21 2,4-Dinitrotoluene	1	18.773	18.822	-0.049	142336	0.2500	0.2611	M
22 Tetryl	1	21.980	22.016	-0.036	79176	0.2500	0.2568	
23 2,4,6-Trinitrotoluene	1	22.853	22.889	-0.036	106075	0.2500	0.2755	
24 PETN	2	24.020	24.036	-0.016	340302	2.50	2.77	
25 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

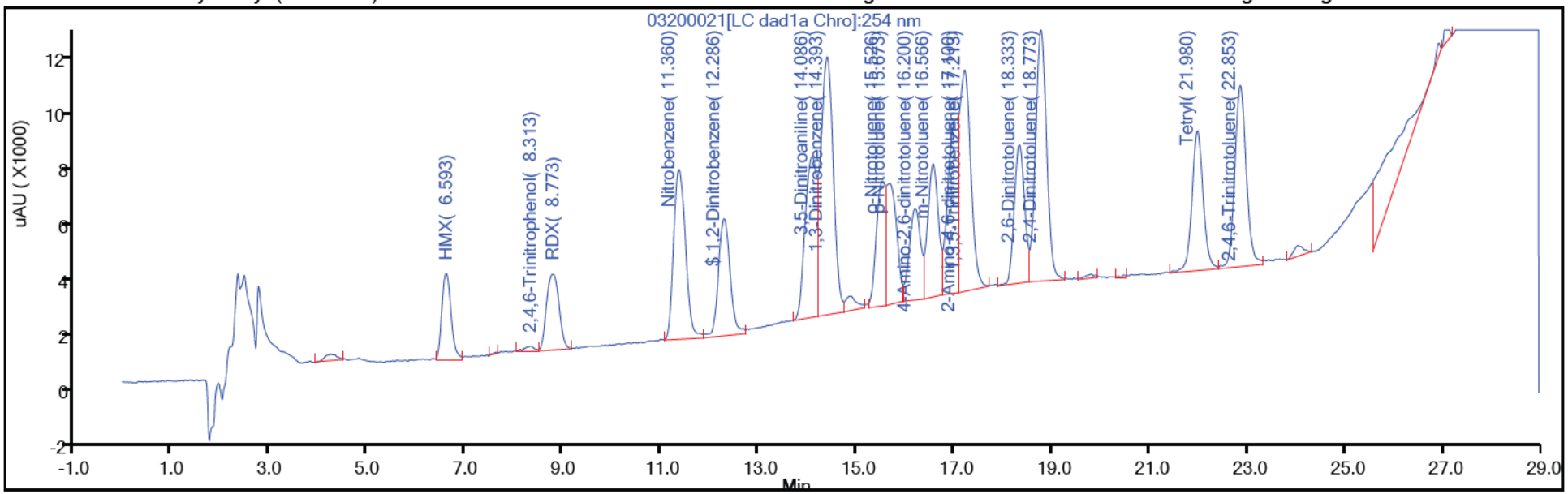
Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

Report Date: 21-Mar-2024 16:20:19 Chrom Revision: 2.3 23-Feb-2024 16:51:14

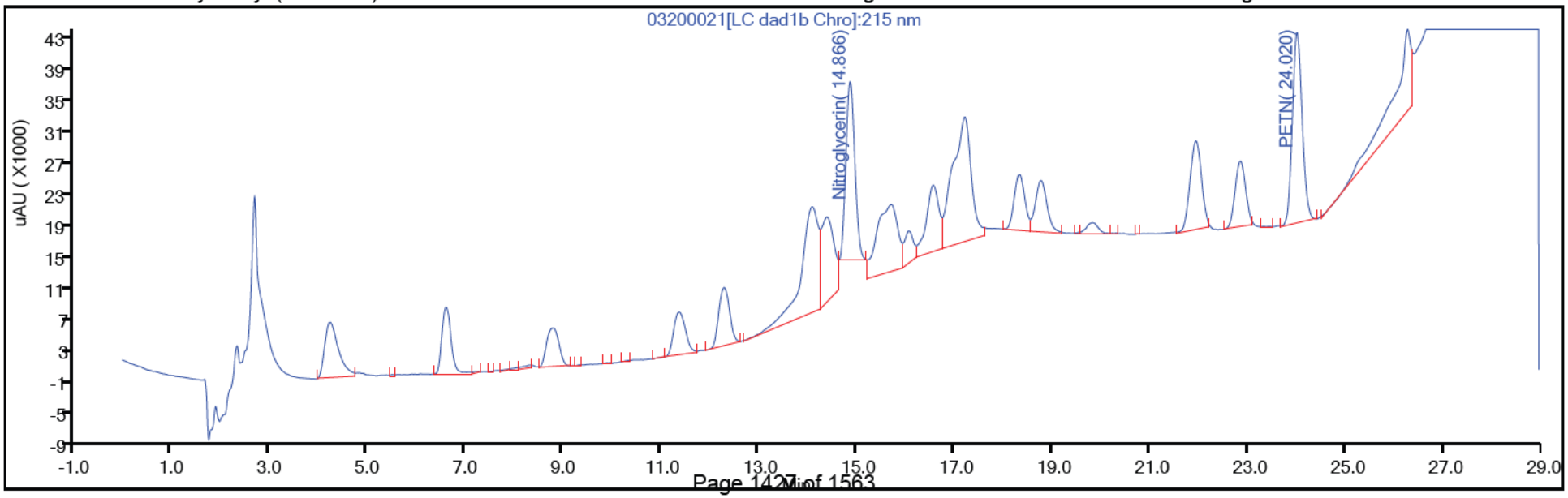
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200021.d				
Injection Date:	21-Mar-2024 01:40:03	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-H MSD			Worklist Smp#:	21
Client ID:	X7-TP-C03-2436				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 21-Mar-2024 16:20:19 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200021.D
Lims ID: 280-188555-B-4-H MSD
Client ID: X7-TP-C03-2436
Sample Type: MSD
Inject. Date: 21-Mar-2024 01:40:03 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-H MSD
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:17 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 16:18:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2745	109.78

Manual Integration/User Assign Peak Report

Eurofins Denver

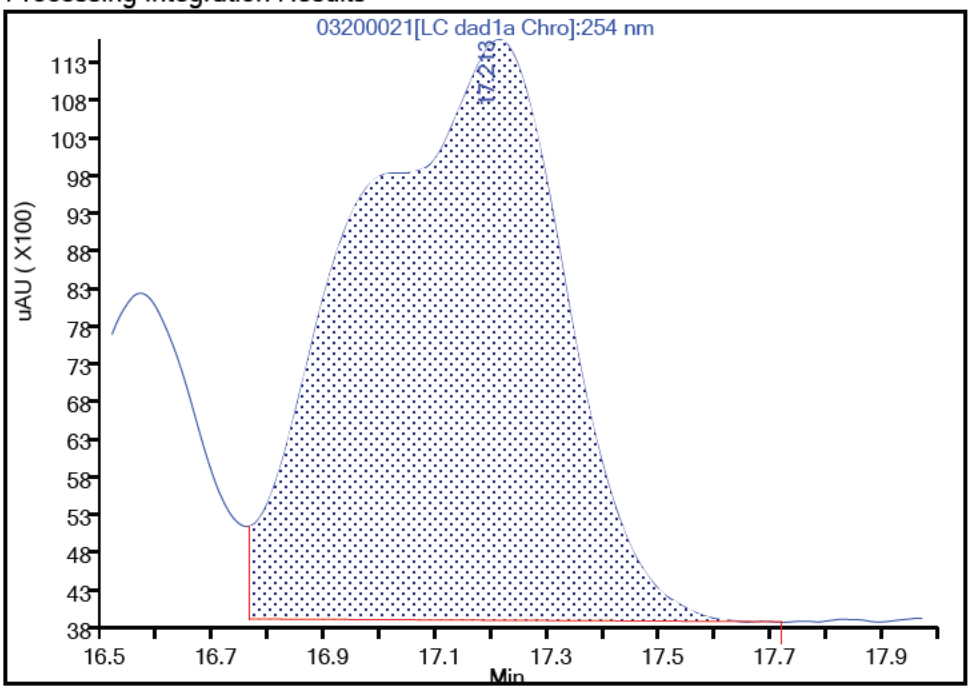
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200021.d				
Injection Date:	21-Mar-2024 01:40:03	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-H MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

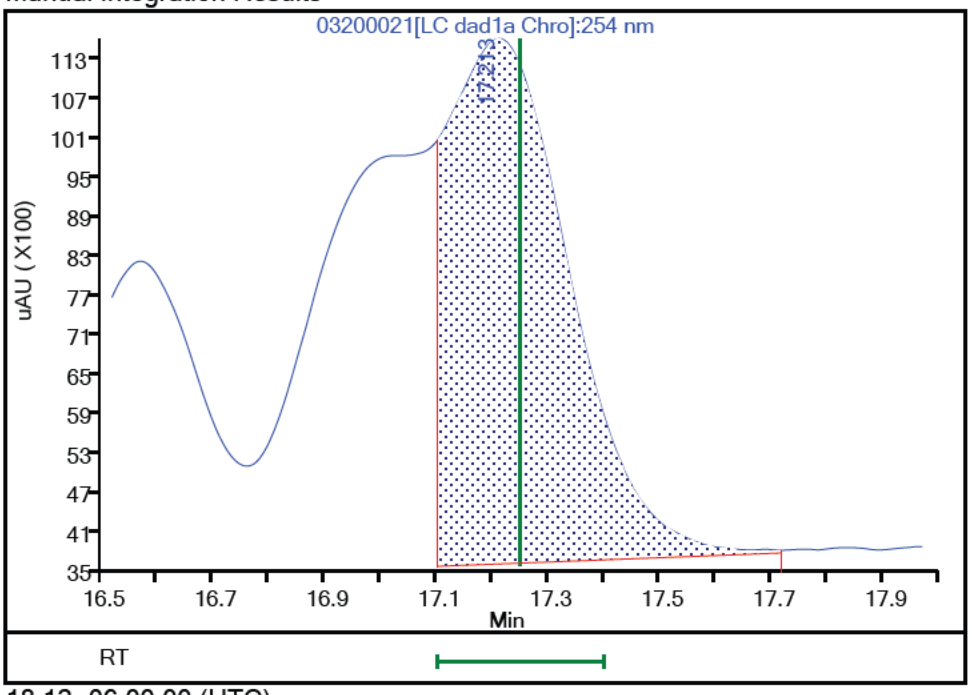
Processing Integration Results

RT: 17.21
Area: 202132
Amount: 0.491052
Amount Units: ug/ml



Manual Integration Results

RT: 17.21
Area: 119032
Amount: 0.289172
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:12 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

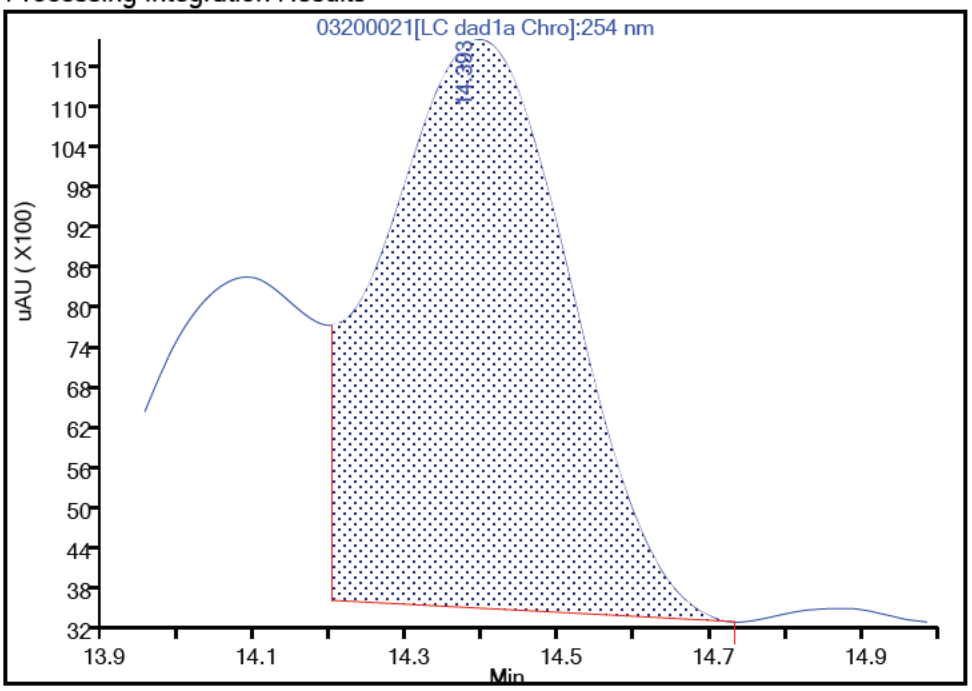
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200021.d				
Injection Date:	21-Mar-2024 01:40:03	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-H MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

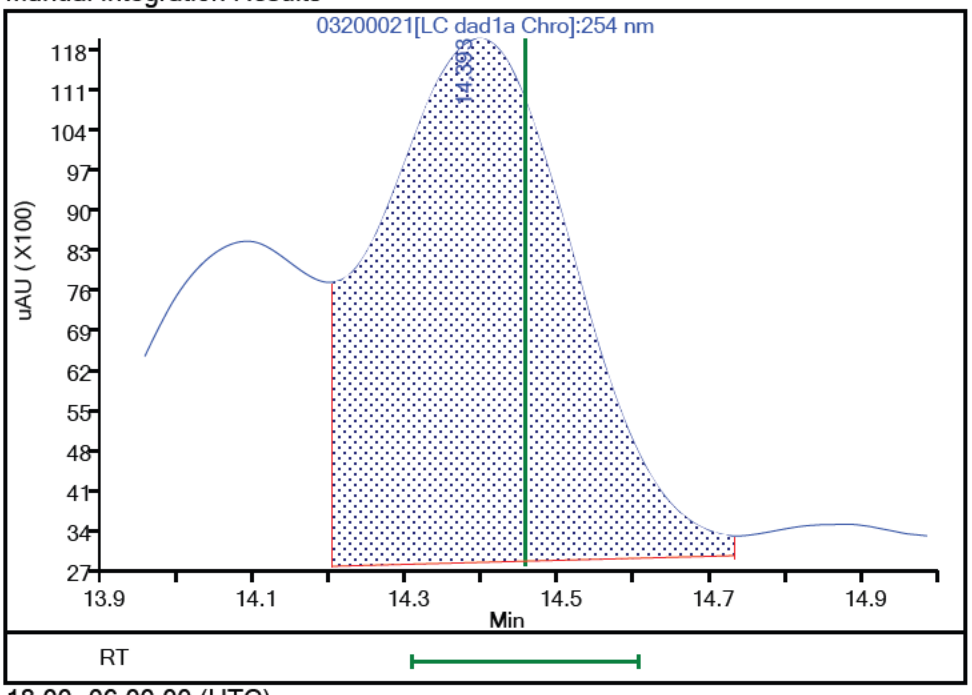
Processing Integration Results

RT: 14.39
Area: 146079
Amount: 0.252065
Amount Units: ug/ml



Manual Integration Results

RT: 14.39
Area: 164847
Amount: 0.284450
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:00 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

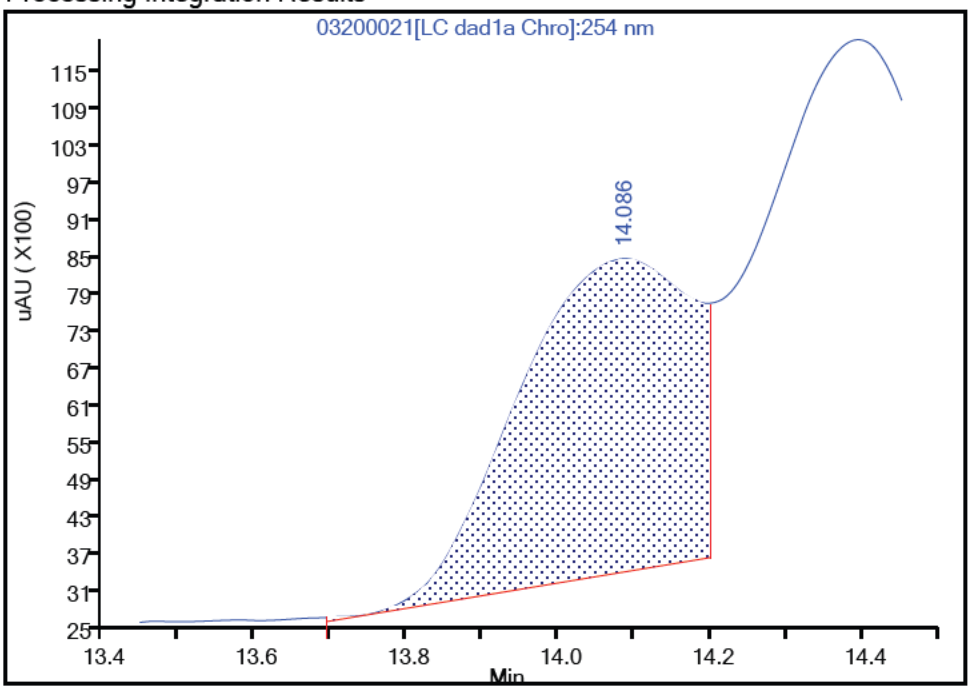
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200021.d				
Injection Date:	21-Mar-2024 01:40:03	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-H MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	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

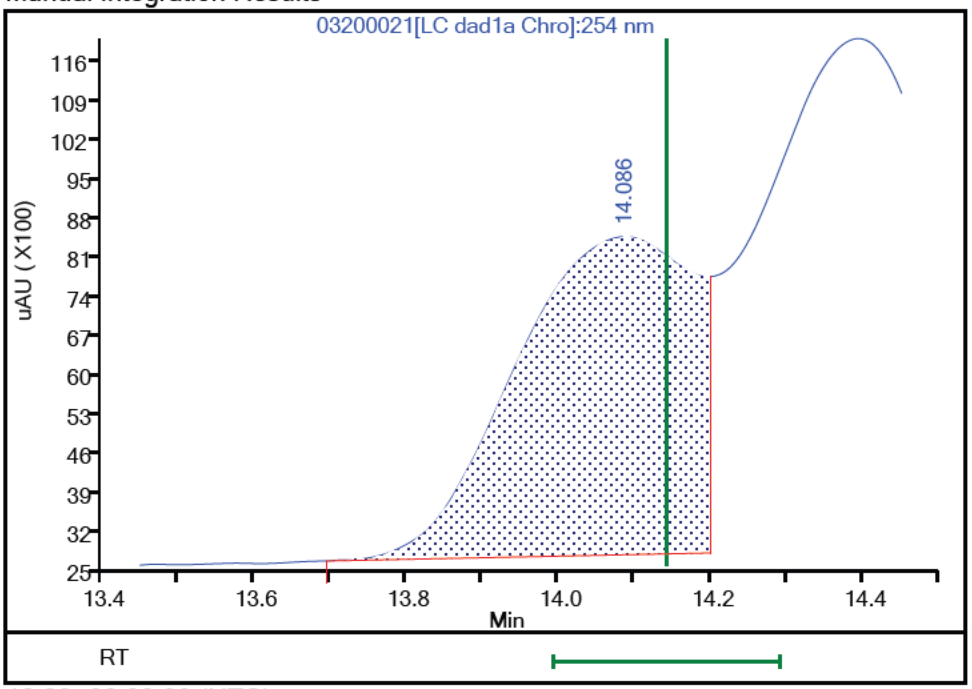
Processing Integration Results

RT: 14.09
Area: 81211
Amount: 0.197071
Amount Units: ug/ml



Manual Integration Results

RT: 14.09
Area: 92884
Amount: 0.225535
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:00 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

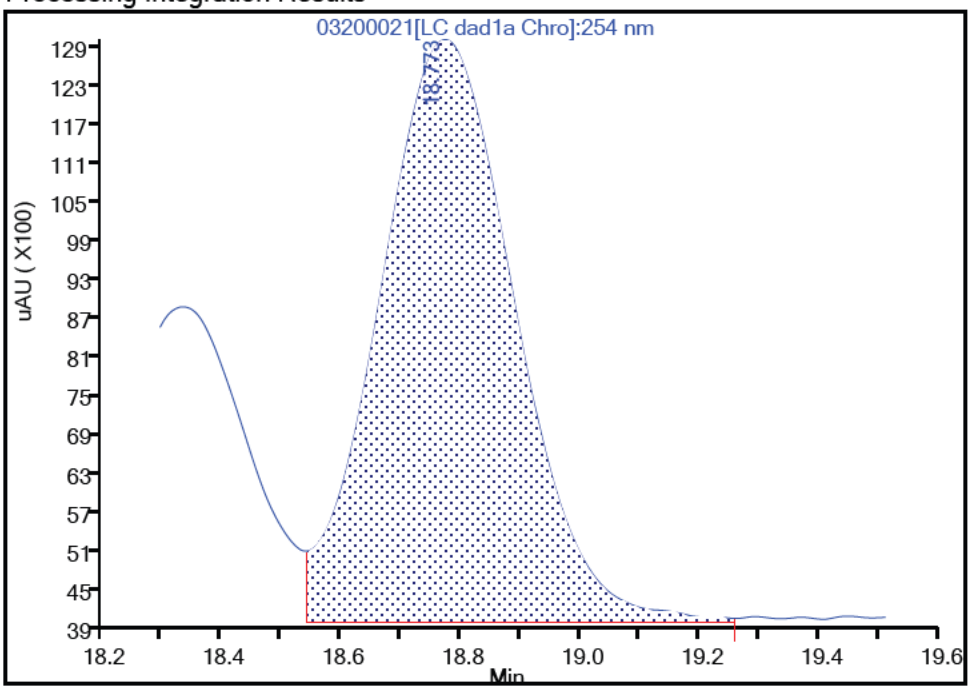
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200021.d				
Injection Date:	21-Mar-2024 01:40:03	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-H MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

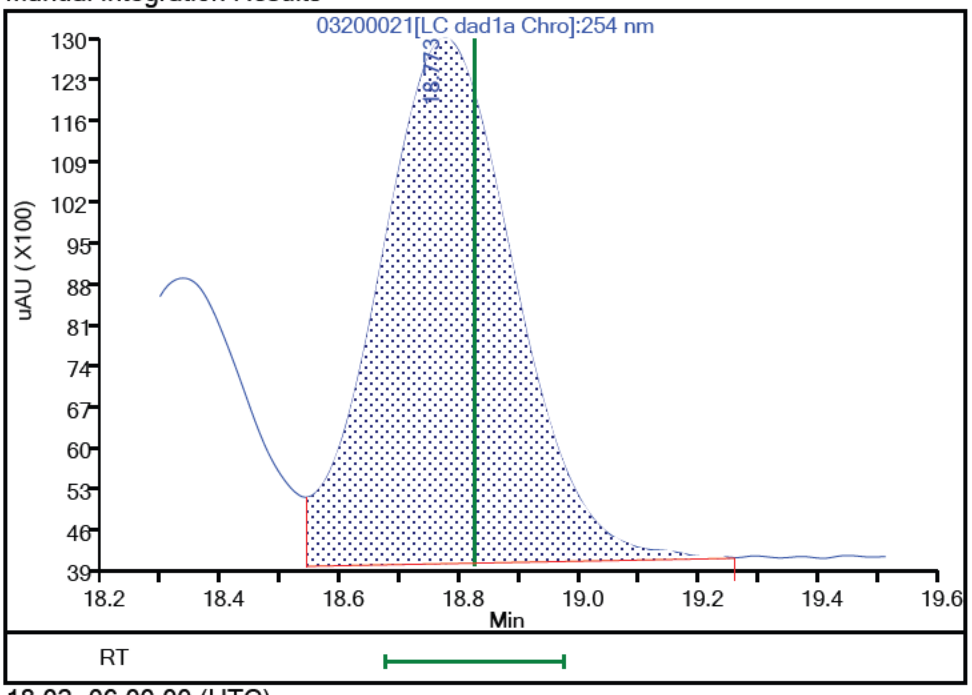
Processing Integration Results

RT: 18.77
Area: 141277
Amount: 0.259182
Amount Units: ug/ml



Manual Integration Results

RT: 18.77
Area: 142336
Amount: 0.261125
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:02 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

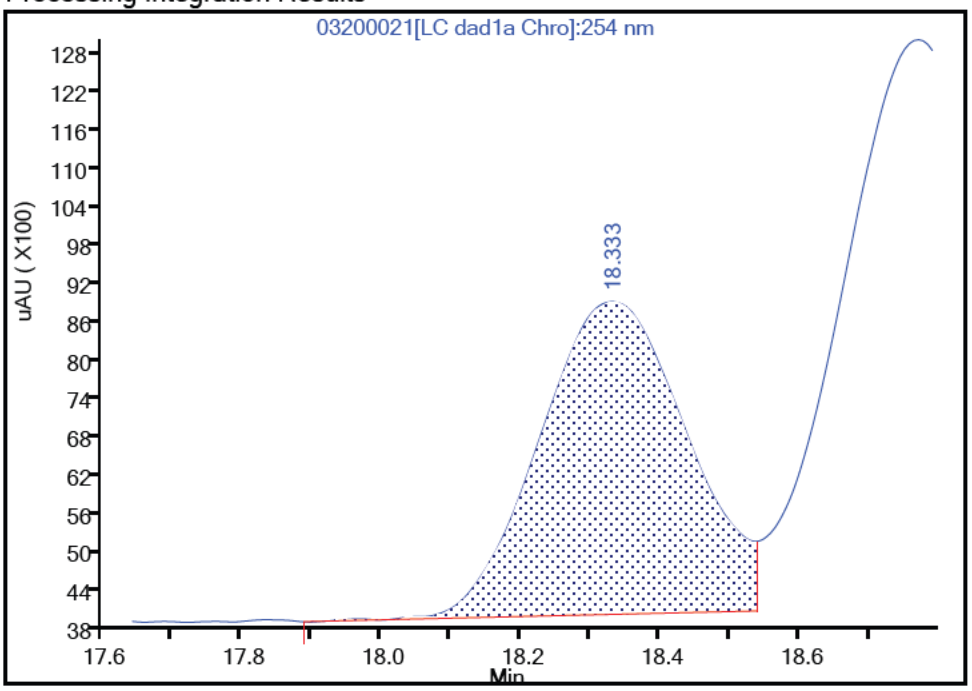
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200021.d				
Injection Date:	21-Mar-2024 01:40:03	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-H MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

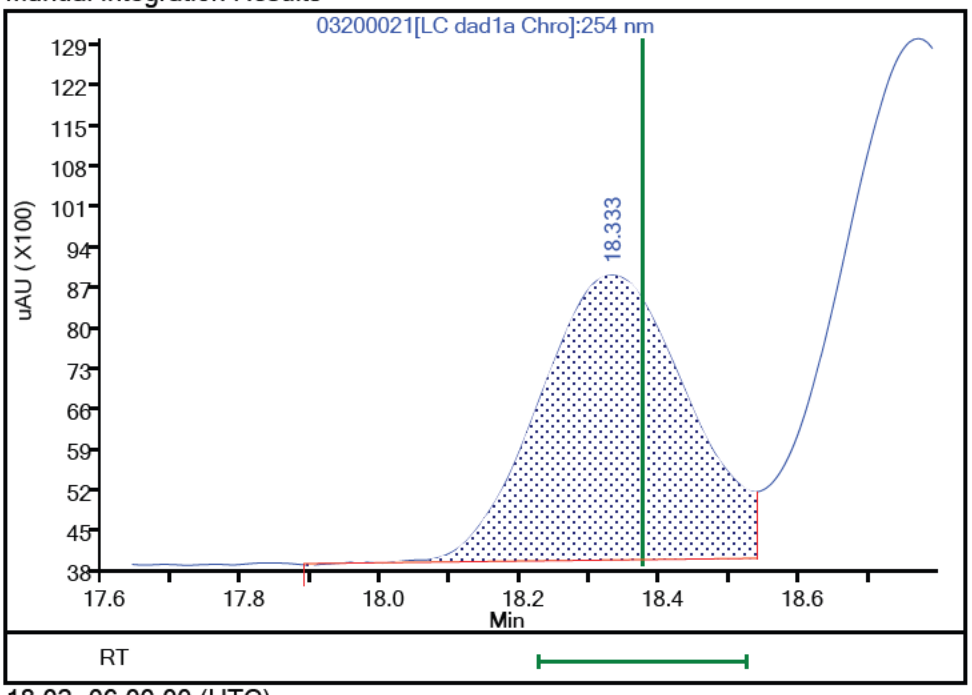
Processing Integration Results

RT: 18.33
Area: 72334
Amount: 0.274111
Amount Units: ug/ml



Manual Integration Results

RT: 18.33
Area: 73451
Amount: 0.278395
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:02 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

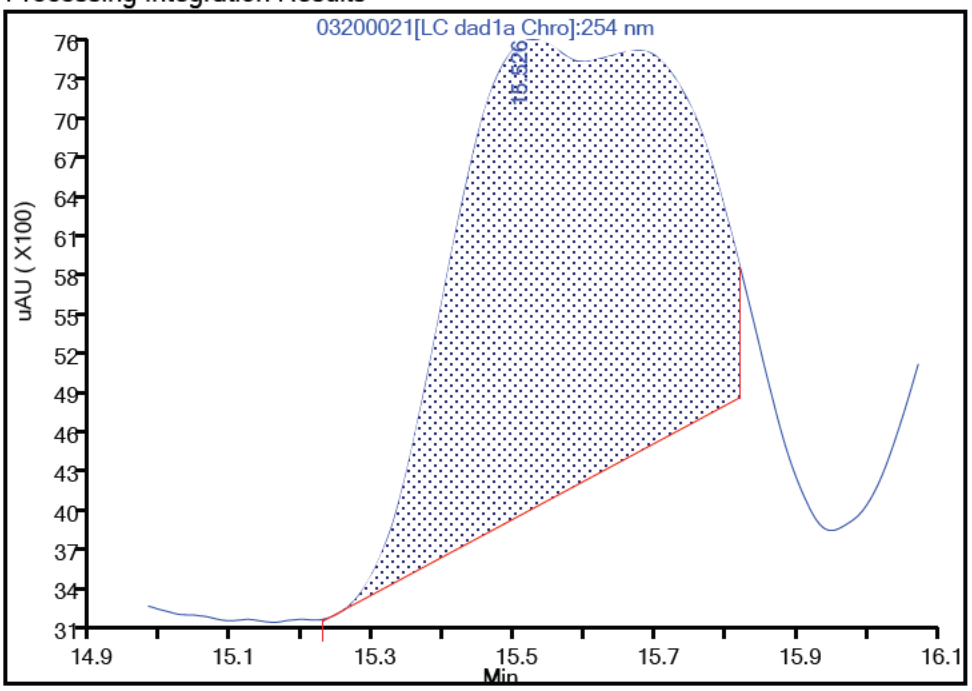
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200021.d				
Injection Date:	21-Mar-2024 01:40:03	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-H MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	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

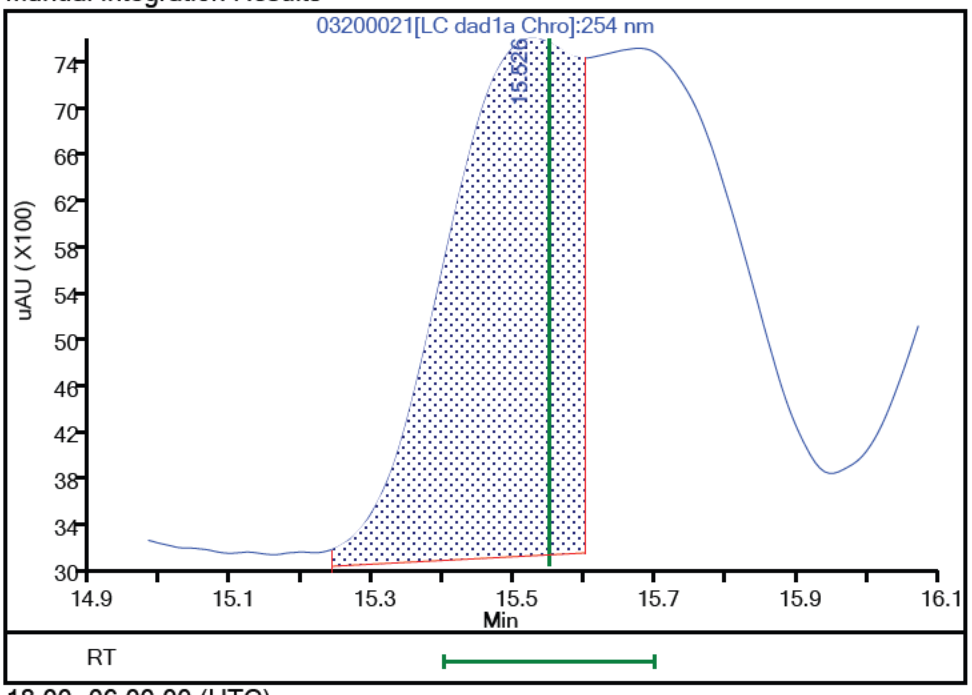
Processing Integration Results

RT: 15.53
Area: 78084
Amount: 0.316083
Amount Units: ug/ml



Manual Integration Results

RT: 15.53
Area: 56998
Amount: 0.230727
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:00 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

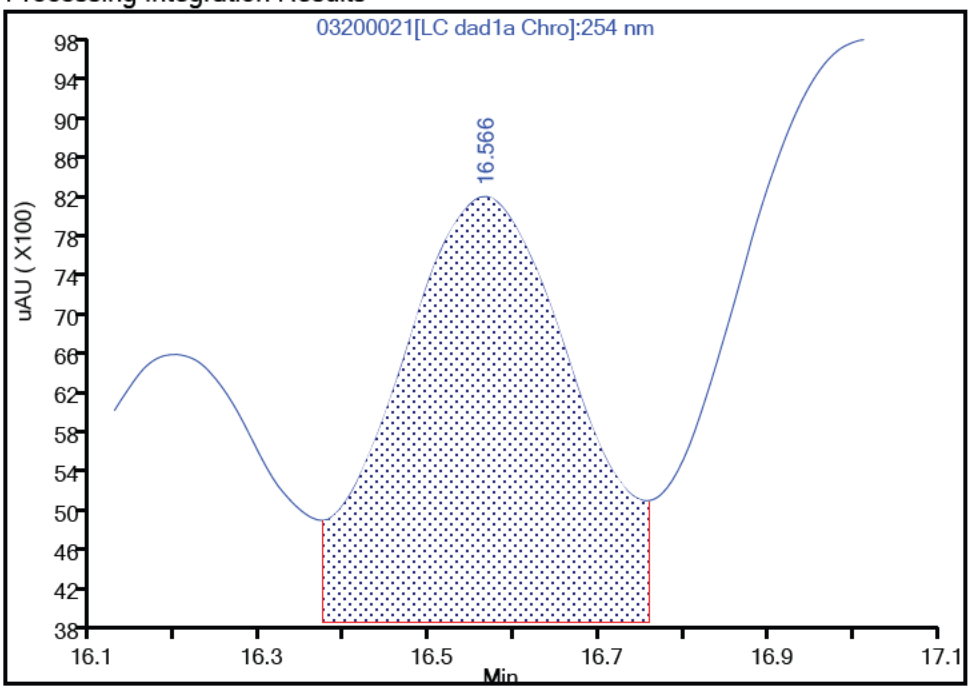
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200021.d				
Injection Date:	21-Mar-2024 01:40:03	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-H MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

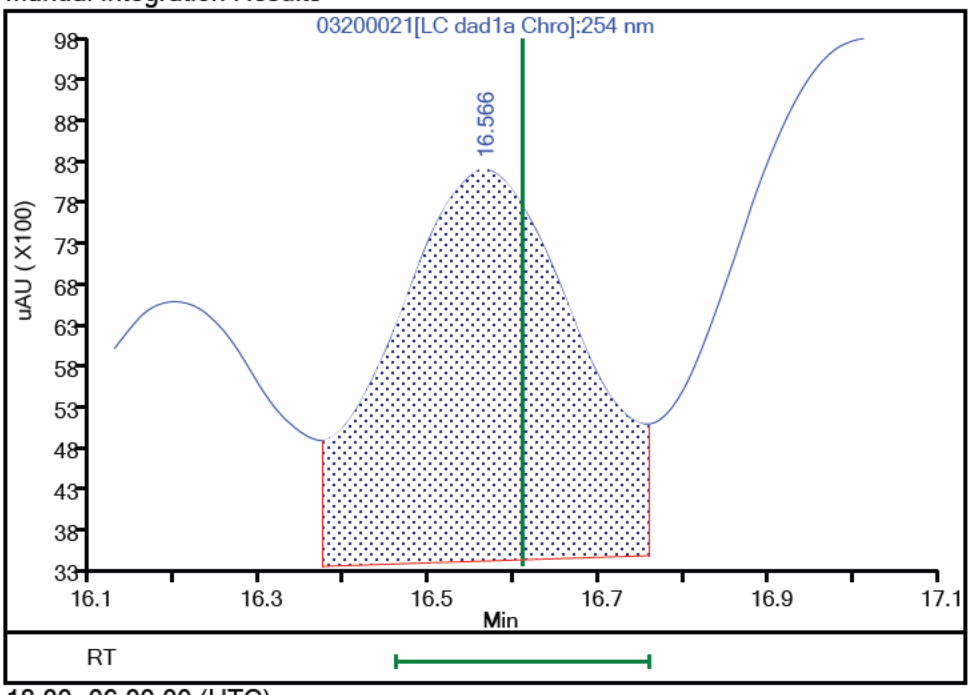
Processing Integration Results

RT: 16.57
Area: 62482
Amount: 0.227466
Amount Units: ug/ml



Manual Integration Results

RT: 16.57
Area: 72330
Amount: 0.264011
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:00 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

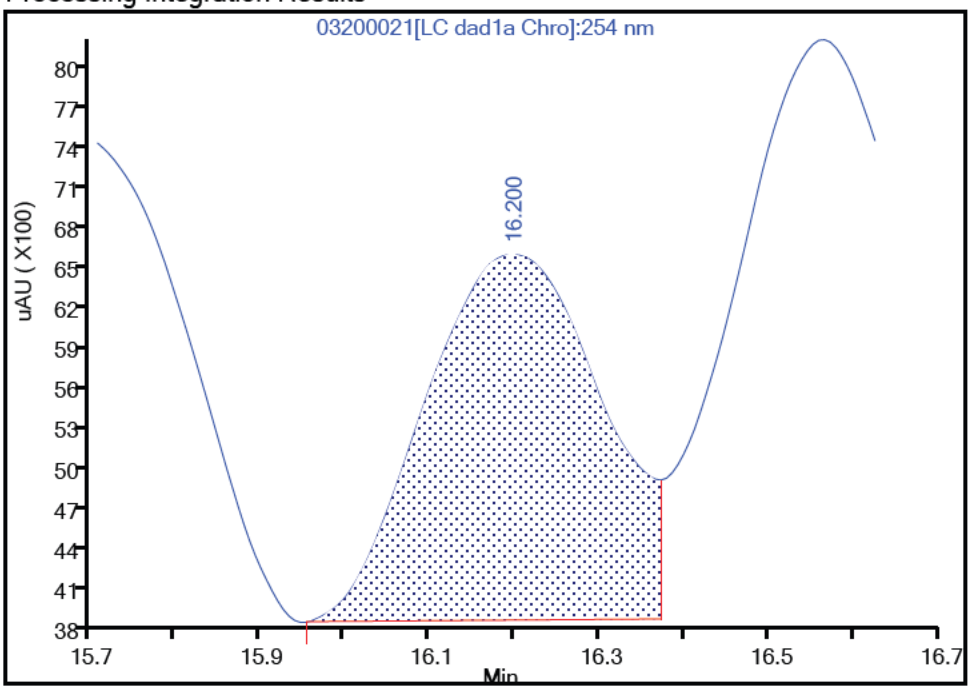
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200021.d				
Injection Date:	21-Mar-2024 01:40:03	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-H MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	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

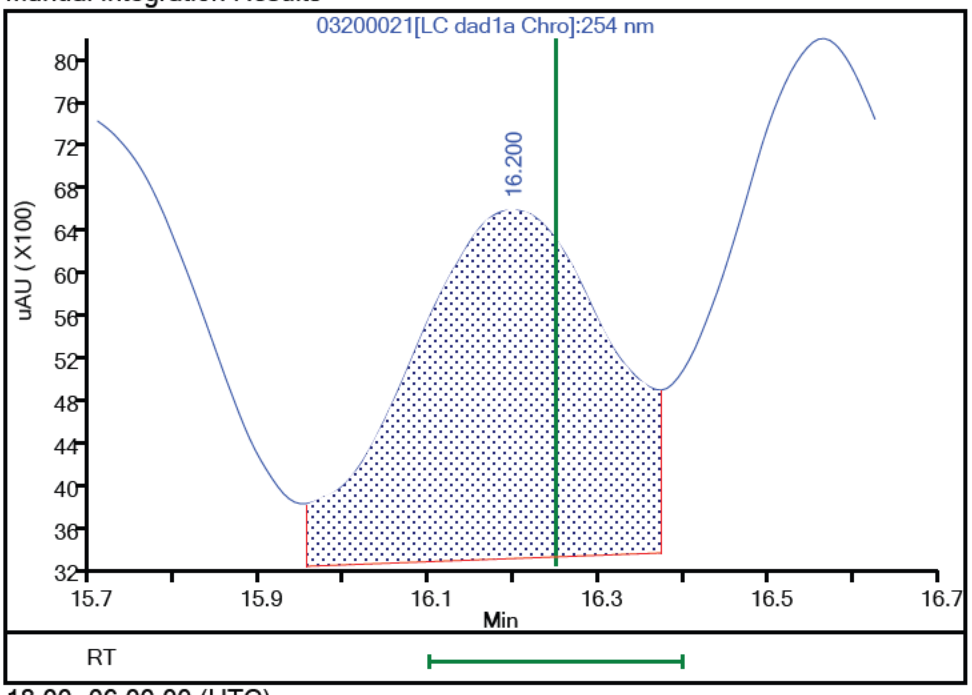
Processing Integration Results

RT: 16.20
Area: 39401
Amount: 0.141250
Amount Units: ug/ml



Manual Integration Results

RT: 16.20
Area: 52618
Amount: 0.190316
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:00 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

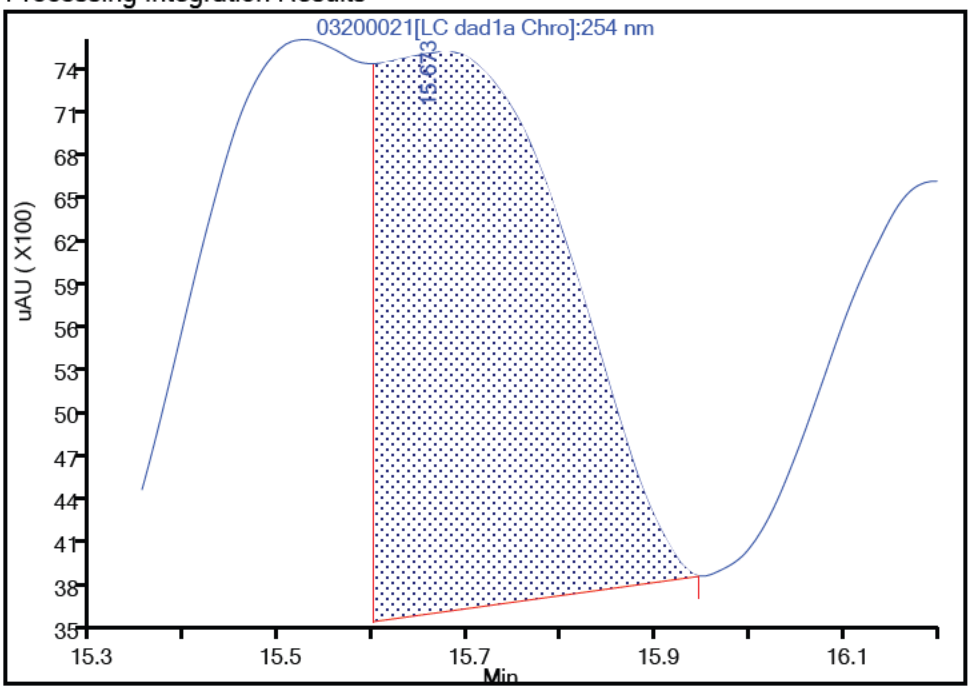
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200021.d				
Injection Date:	21-Mar-2024 01:40:03	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-H MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

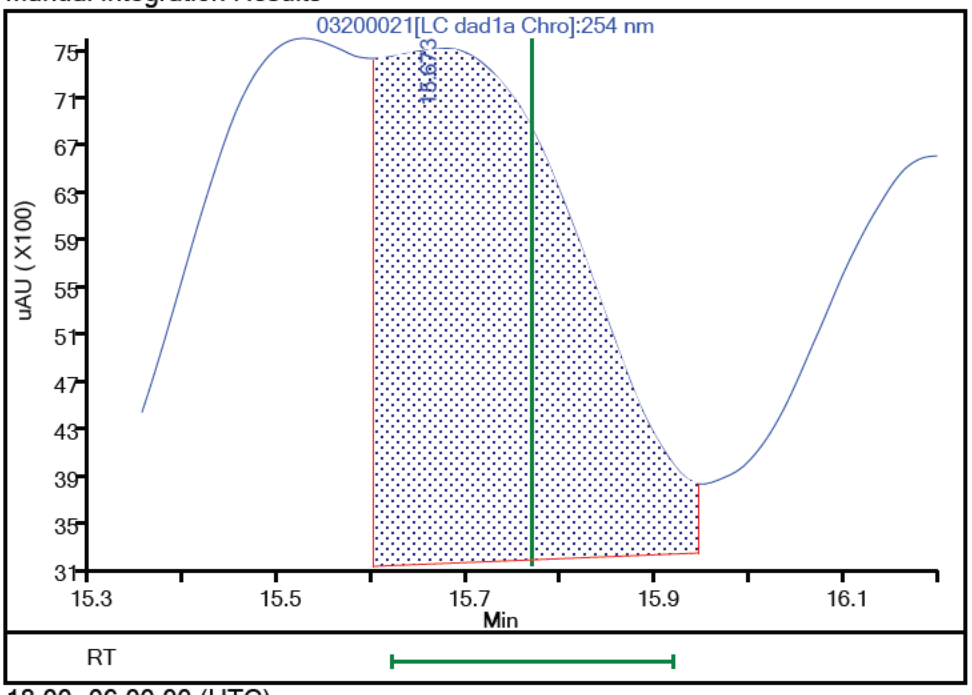
Processing Integration Results

RT: 15.67
Area: 52411
Amount: 0.238332
Amount Units: ug/ml



Manual Integration Results

RT: 15.67
Area: 62114
Amount: 0.283073
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:00 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

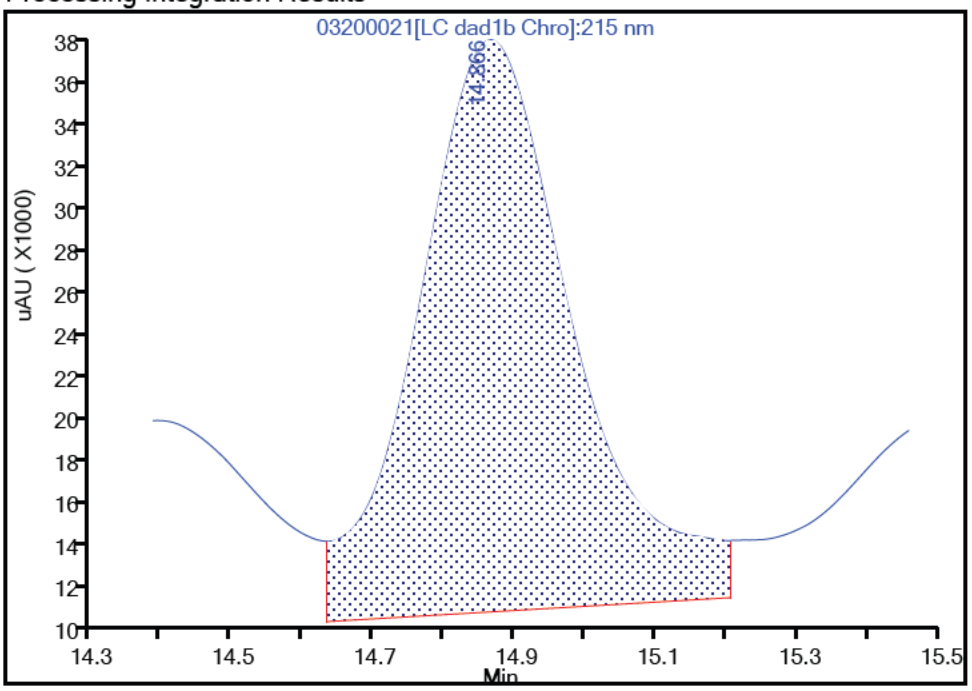
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200021.d				
Injection Date:	21-Mar-2024 01:40:03	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-H MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	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

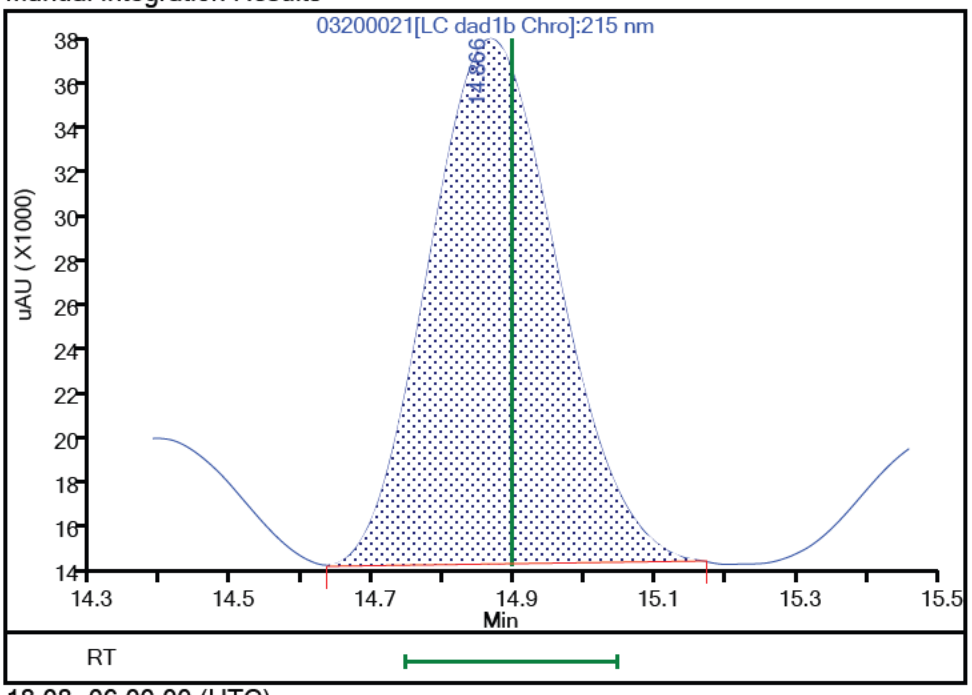
Processing Integration Results

RT: 14.87
Area: 401034
Amount: 3.228548
Amount Units: ug/ml



Manual Integration Results

RT: 14.87
Area: 291340
Amount: 2.345450
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:18:08 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 DU | Lab Sample ID: 280-188555-4 DU

Matrix: Solid | Lab File ID: 03190054.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.25(g) | Date Analyzed: 03/20/2024 09:47

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	39	U	98	39	13
99-65-0	1,3-Dinitrobenzene	39	U	98	39	16
618-87-1	3,5-Dinitroaniline	20	U	98	20	8.8
121-14-2	2,4-Dinitrotoluene	39	U	98	39	14
606-20-2	2,6-Dinitrotoluene	39	U	98	39	19
35572-78-2	2-Amino-4,6-dinitrotoluene	68	U	98	68	32
88-72-2	2-Nitrotoluene	98	U	200	98	46
99-08-1	3-Nitrotoluene	150	U	200	150	62
19406-51-0	4-Amino-2,6-dinitrotoluene	68	U	98	68	29
99-99-0	4-Nitrotoluene	98	U	200	98	36
98-95-3	Nitrobenzene	200	U	290	200	83
55-63-0	Nitroglycerin	680	U	2000	680	210
2691-41-0	HMX	68	U	98	68	22
78-11-5	PETN	980	U	2000	980	480
88-89-1	Picric acid	78	U	98	78	55
479-45-8	Tetryl	98	U	200	98	43
6629-29-4	2,4-diamino-6-nitrotoluene	980	U	2000	980	500
59229-75-3	2,6-diamino-4-nitrotoluene	980	U	2000	980	320

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	102		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190054.D
Lims ID: 280-188555-B-4-K DU
Client ID:
Sample Type: DU
Inject. Date: 20-Mar-2024 09:47:42 ALS Bottle#: 54 Worklist Smp#: 54
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-K DU
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:00 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:28:21

	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		6.496				ND	7
	3 TNX	1		6.506				ND	
	4 HMX	1		6.620				ND	
	5 2,4-diamino-6-nitrotoluene	1		6.683				ND	
	6 DNX	1		6.833				ND	
	7 MNX	1		7.266				ND	
	8 RDX	1	7.644	7.647	-0.003	1285		0.0118	
	9 2,4,6-Trinitrophenol	1		7.874				ND	
$	10 1,2-Dinitrobenzene	1	8.597	8.607	-0.010	32983	0.2500	0.2543	
	11 1,3,5-Trinitrobenzene	1		8.734				ND	
	12 1,3-Dinitrobenzene	1		9.360				ND	
	13 Nitrobenzene	1		9.727				ND	
	14 3,5-Dinitroaniline	1		9.967				ND	
	15 Tetryl	1		10.067				ND	
	16 Nitroglycerin	2		10.533				ND	
	17 2,4,6-Trinitrotoluene	1		10.967				ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.160				ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.420				ND	
	20 2,6-Dinitrotoluene	1		11.560				ND	
	21 2,4-Dinitrotoluene	1		11.740				ND	
	22 o-Nitrotoluene	1		12.540				ND	
	23 p-Nitrotoluene	1		12.960				ND	
	24 m-Nitrotoluene	1		13.520				ND	
	25 PETN	2		14.620				ND	
	26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

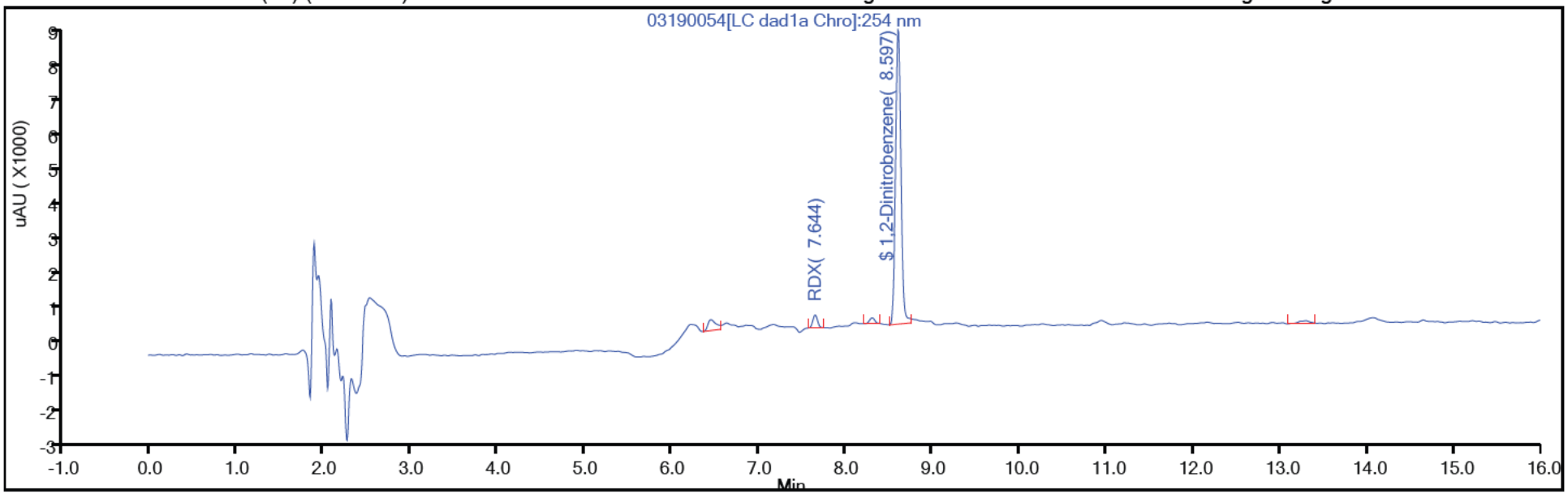
Report Date: 20-Mar-2024 12:29:05 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

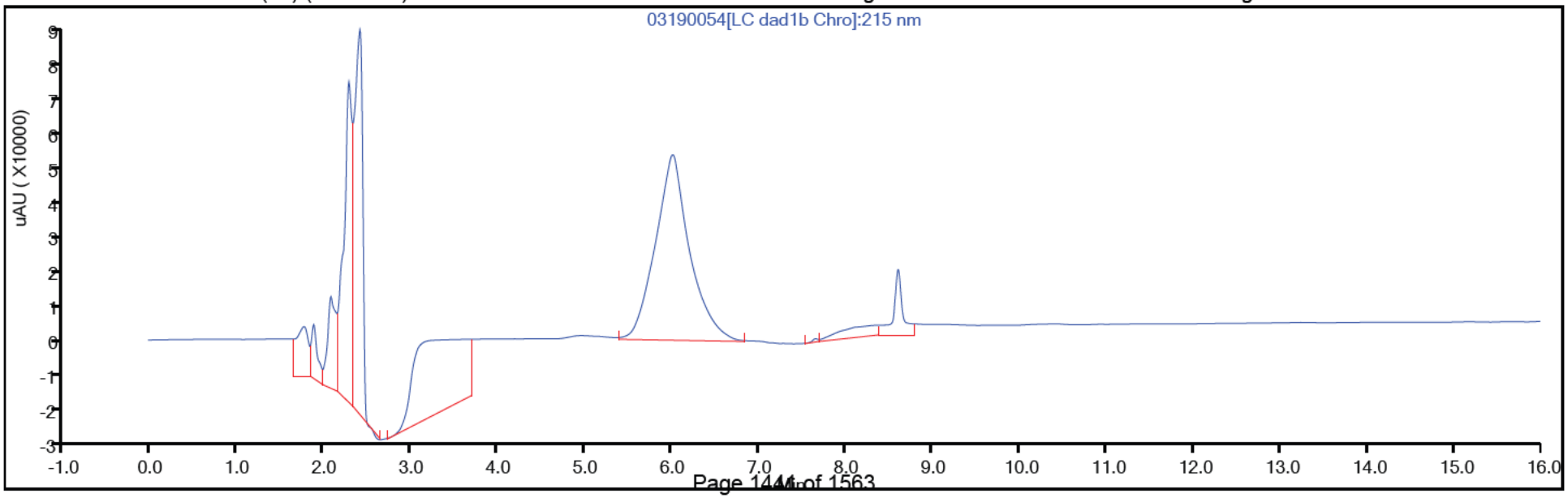
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190054.d

Injection Date:	20-Mar-2024 09:47:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-K DU			Worklist Smp#:	54
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	54
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 20-Mar-2024 12:29:05 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190054.D				
Lims ID:	280-188555-B-4-K DU				
Client ID:					
Sample Type:	DU				
Inject. Date:	20-Mar-2024 09:47:42	ALS Bottle#:	54	Worklist Smp#:	54
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-4-K DU				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-Mar-2024 12:29:00	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1651				

First Level Reviewer: LV5D Date: 20-Mar-2024 12:28:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2543	101.73

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 DU | Lab Sample ID: 280-188555-4 DU

Matrix: Solid | Lab File ID: 03200022.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.25(g) | Date Analyzed: 03/21/2024 02:15

Con. Extract Vol.: 40(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.: 646572 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	68	U	98	68	30
121-82-4	RDX	98	U	200	98	42

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200022.D
Lims ID: 280-188555-B-4-K DU
Client ID:
Sample Type: DU
Inject. Date: 21-Mar-2024 02:15:57 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-K DU
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:17 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 16:19:12

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1		4.203				ND	7
	2 2,4-diamino-6-nitrotoluene	1		4.783				ND	
	3 TNX	1		5.223				ND	
	4 DNX	1		6.057				ND	
	6 HMX	1		6.649				ND	
	7 MNX	1		7.530				ND	7
	5 2,4,6-Trinitrophenol	1		8.449				ND	
	8 RDX	1		8.842				ND	
	9 Nitrobenzene	1		11.422				ND	
$	10 1,2-Dinitrobenzene	1	12.262	12.336	-0.074	65017	0.2500	0.2532	
	11 3,5-Dinitroaniline	1		14.142				ND	
	12 1,3-Dinitrobenzene	1		14.456				ND	U
	13 Nitroglycerin	2		14.896				ND	
	14 o-Nitrotoluene	1		15.549				ND	U
	15 p-Nitrotoluene	1		15.769				ND	
	16 4-Amino-2,6-dinitrotoluene	1		16.249				ND	
	17 m-Nitrotoluene	1		16.609				ND	U
	18 2-Amino-4,6-dinitrotoluene	1		17.029				ND	7
	26 Triamine Trinitrobenzene	1		17.233				ND	
	19 1,3,5-Trinitrobenzene	1		17.249				ND	
	20 2,6-Dinitrotoluene	1	18.315	18.376	-0.061	6272		0.0207	
	21 2,4-Dinitrotoluene	1		18.822				ND	
	22 Tetryl	1		22.016				ND	
	23 2,4,6-Trinitrotoluene	1		22.889				ND	
	24 PETN	2		24.036				ND	7
	25 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
U - Marked Undetected

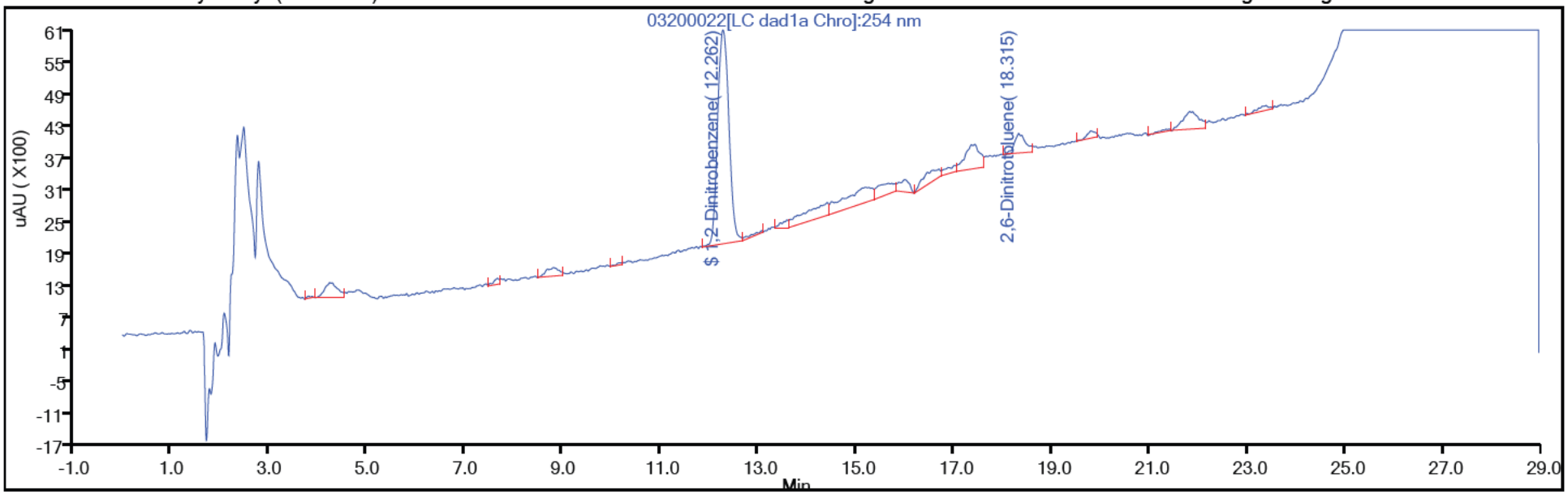
Report Date: 21-Mar-2024 16:20:20 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

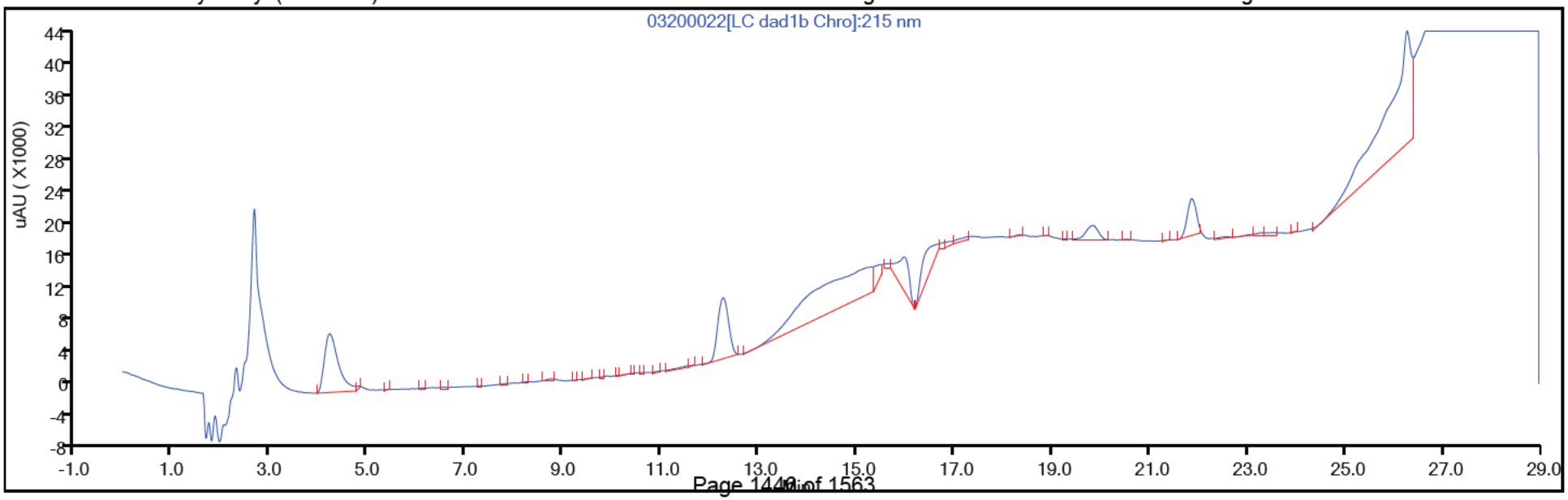
Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200022.d

Injection Date:	21-Mar-2024 02:15:57	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-K DU			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 21-Mar-2024 16:20:20 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200022.D
Lims ID: 280-188555-B-4-K DU
Client ID:
Sample Type: DU
Inject. Date: 21-Mar-2024 02:15:57 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-K DU
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:17 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 16:19:12

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2532	101.28

User Disabled Compound Report

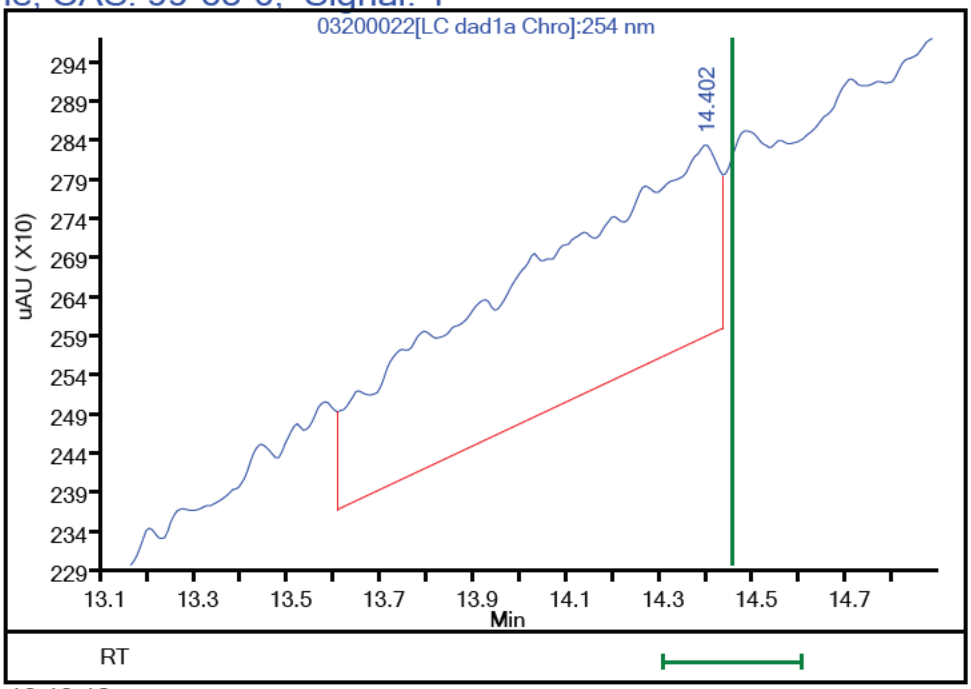
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200022.d
Injection Date: 21-Mar-2024 02:15:57 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-188555-B-4-K DU
Client ID:
Operator ID: JZ/JG ALS Bottle#: 22 Worklist Smp#: 22
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: 14.40
Response: 9274
Amount: 0.016003



Reviewer: LV5D, 21-Mar-2024 16:19:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

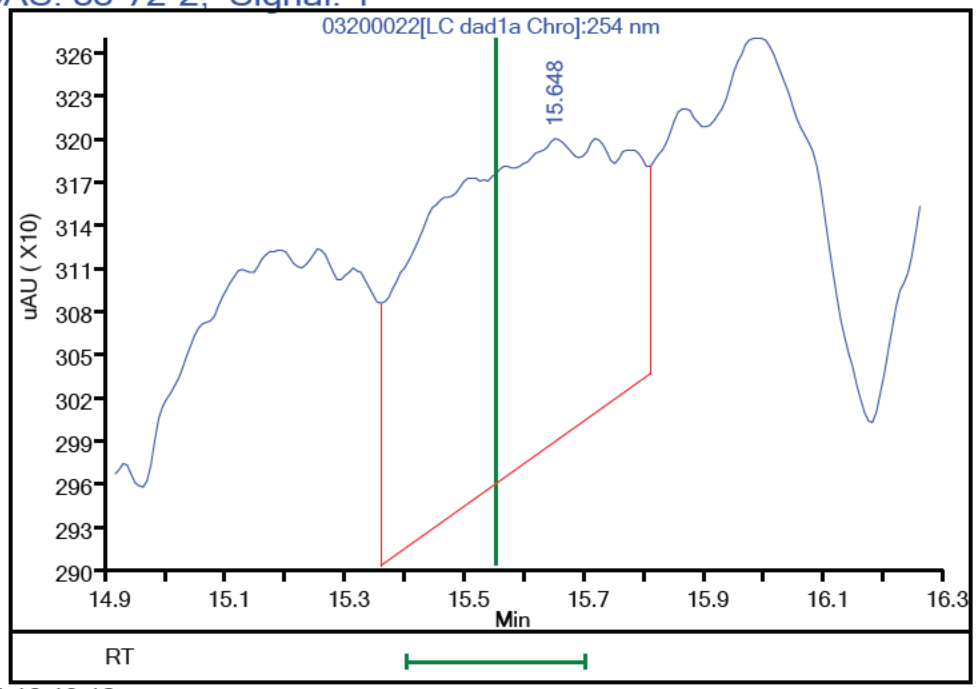
User Disabled Compound Report

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200022.d
Injection Date: 21-Mar-2024 02:15:57 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-188555-B-4-K DU
Client ID:
Operator ID: JZ/JG ALS Bottle#: 22 Worklist Smp#: 22
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: 15.65
Response: 5302
Amount: 0.021462



Reviewer: LV5D, 21-Mar-2024 16:19:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

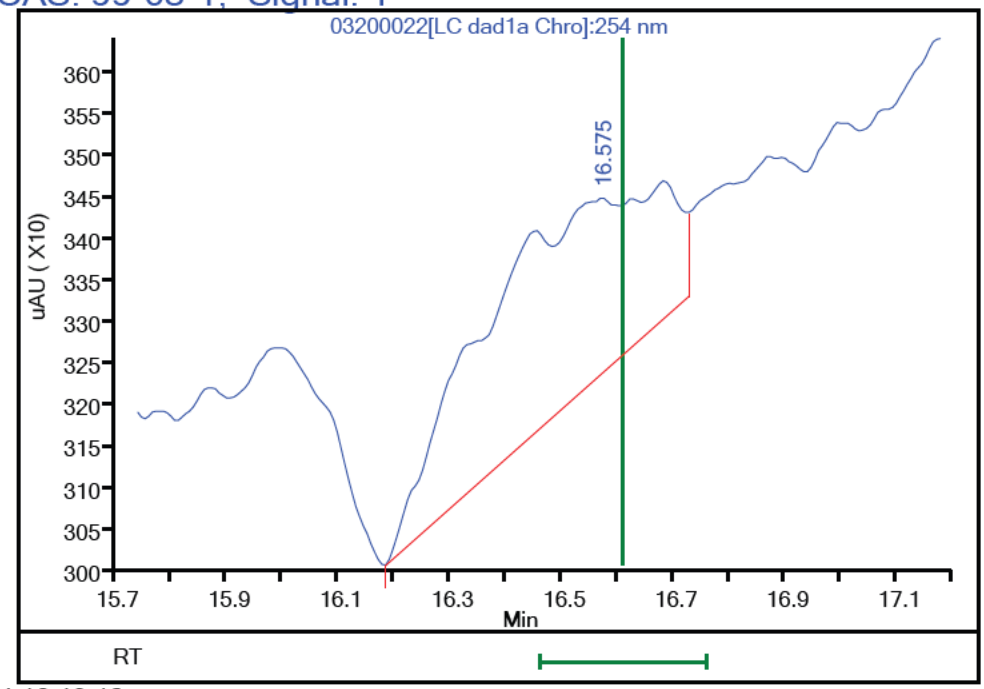
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200022.d
Injection Date: 21-Mar-2024 02:15:57 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-188555-B-4-K DU
Client ID:
Operator ID: JZ/JG ALS Bottle#: 22 Worklist Smp#: 22
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
Response: 5380
Amount: 0.015569



Reviewer: LV5D, 21-Mar-2024 16:19:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 TRL | Lab Sample ID: 280-188555-4 TRL

Matrix: Solid | Lab File ID: 03190055.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.22(g) | Date Analyzed: 03/20/2024 10:10

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	39	U	98	39	14
99-65-0	1,3-Dinitrobenzene	39	U	98	39	16
618-87-1	3,5-Dinitroaniline	20	U	98	20	8.8
121-14-2	2,4-Dinitrotoluene	39	U	98	39	14
606-20-2	2,6-Dinitrotoluene	39	U	98	39	19
35572-78-2	2-Amino-4,6-dinitrotoluene	68	U	98	68	32
88-72-2	2-Nitrotoluene	98	U	200	98	46
99-08-1	3-Nitrotoluene	150	U	200	150	63
19406-51-0	4-Amino-2,6-dinitrotoluene	68	U	98	68	29
99-99-0	4-Nitrotoluene	98	U	200	98	36
98-95-3	Nitrobenzene	200	U	290	200	83
55-63-0	Nitroglycerin	680	U	2000	680	210
2691-41-0	HMX	68	U	98	68	22
78-11-5	PETN	980	U	2000	980	480
88-89-1	Picric acid	78	U	98	78	55
479-45-8	Tetryl	98	U	200	98	43
6629-29-4	2,4-diamino-6-nitrotoluene	980	U	2000	980	510
59229-75-3	2,6-diamino-4-nitrotoluene	980	U	2000	980	320

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	102		78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190055.D
Lims ID: 280-188555-B-4-L TRL
Client ID:
Sample Type: TRL
Inject. Date: 20-Mar-2024 10:10:35 ALS Bottle#: 55 Worklist Smp#: 55
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-L TRL
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:00 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:28:26

	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		6.496				ND	7
3	TNX	1		6.506				ND	
4	HMX	1		6.620				ND	
5	2,4-diamino-6-nitrotoluene	1		6.683				ND	
6	DNX	1		6.833				ND	
7	MNX	1		7.266				ND	
8	RDX	1	7.648	7.647	0.001	2904		0.0272	
9	2,4,6-Trinitrophenol	1		7.874				ND	
$ 10	1,2-Dinitrobenzene	1	8.594	8.607	-0.013	33014	0.2500	0.2546	
11	1,3,5-Trinitrobenzene	1		8.734				ND	
12	1,3-Dinitrobenzene	1		9.360				ND	
13	Nitrobenzene	1		9.727				ND	
14	3,5-Dinitroaniline	1		9.967				ND	
15	Tetryl	1		10.067				ND	
16	Nitroglycerin	2		10.533				ND	
17	2,4,6-Trinitrotoluene	1		10.967				ND	
18	4-Amino-2,6-dinitrotoluene	1		11.160				ND	
19	2-Amino-4,6-dinitrotoluene	1		11.420				ND	
20	2,6-Dinitrotoluene	1		11.560				ND	
21	2,4-Dinitrotoluene	1		11.740				ND	
22	o-Nitrotoluene	1		12.540				ND	
23	p-Nitrotoluene	1		12.960				ND	
24	m-Nitrotoluene	1		13.520				ND	
25	PETN	2		14.620				ND	
26	Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

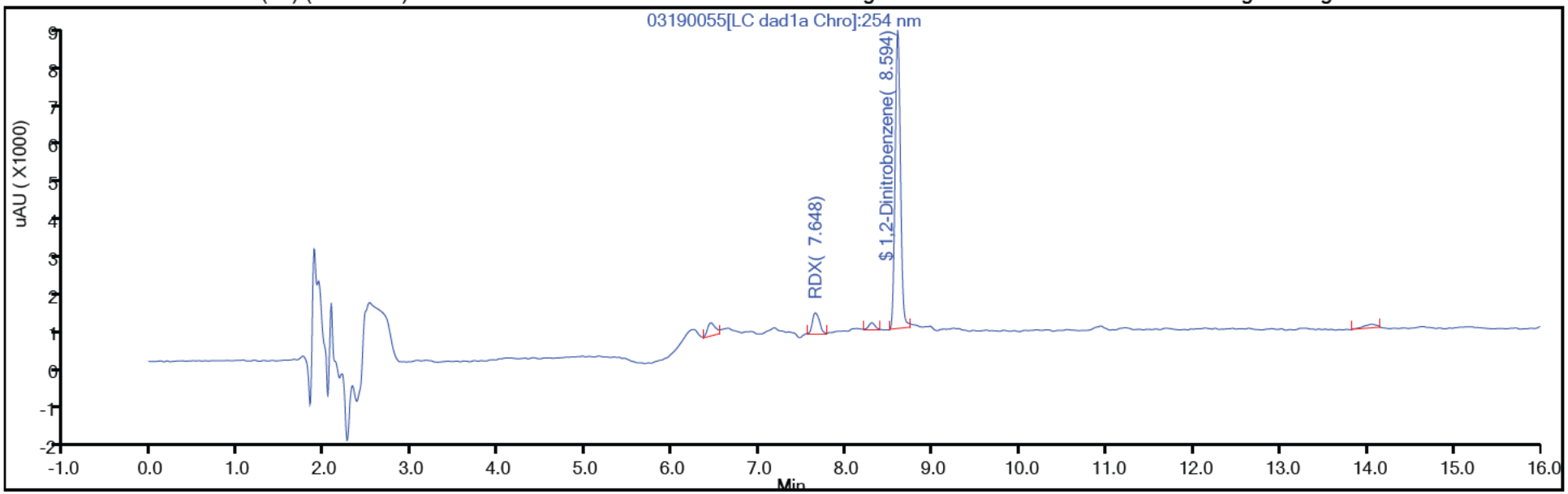
Report Date: 20-Mar-2024 12:29:06 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

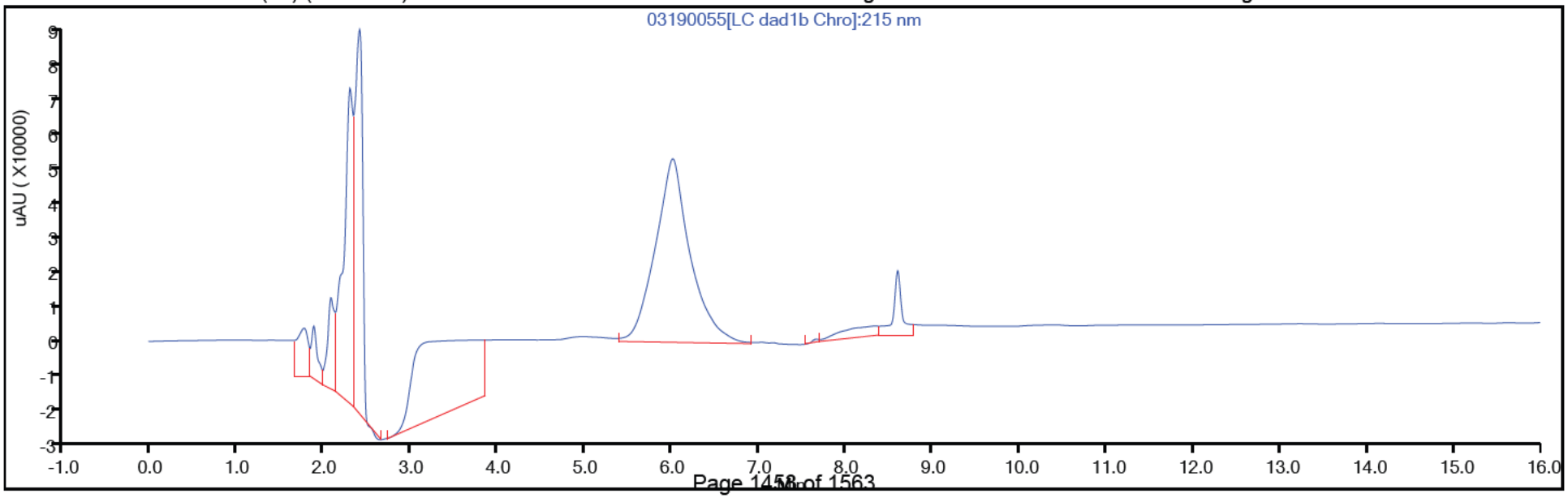
Data File: \\chromfs\denver\chromdata\chhplc_x\20240319-131313.b\03190055.d

Injection Date:	20-Mar-2024 10:10:35	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-L TRL			Worklist Smp#:	55
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	55
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 20-Mar-2024 12:29:06 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190055.D
Lims ID: 280-188555-B-4-L TRL
Client ID:
Sample Type: TRL
Inject. Date: 20-Mar-2024 10:10:35 ALS Bottle#: 55 Worklist Smp#: 55
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-L TRL
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:29:00 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:28:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2546	101.83

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 TRL | Lab Sample ID: 280-188555-4 TRL

Matrix: Solid | Lab File ID: 03200023.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.22(g) | Date Analyzed: 03/21/2024 02:51

Con. Extract Vol.: 40(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.: 646572 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	68	U	98	68	30
121-82-4	RDX	98	U M	200	98	42

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100	*M*	78-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\03200023.D
Lims ID: 280-188555-B-4-L TRL
Client ID:
Sample Type: TRL
Inject. Date: 21-Mar-2024 02:51:54 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-L TRL
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Mar-2024 16:20:17 Calib Date: 26-Sep-2023 04:54:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1668

First Level Reviewer: LV5D Date: 21-Mar-2024 16:19:39

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1		4.203				ND	7
	2 2,4-diamino-6-nitrotoluene	1		4.783				ND	
	3 TNX	1		5.223				ND	
	4 DNX	1		6.057				ND	
	6 HMX	1		6.649				ND	U
	7 MNX	1		7.530				ND	
	5 2,4,6-Trinitrophenol	1		8.449				ND	
	8 RDX	1		8.842				ND	U
	9 Nitrobenzene	1		11.422				ND	
$	10 1,2-Dinitrobenzene	1	12.255	12.336	-0.081	64065	0.2500	0.2495	M
	11 3,5-Dinitroaniline	1		14.142				ND	U
	12 1,3-Dinitrobenzene	1		14.456				ND	U
	13 Nitroglycerin	2		14.896				ND	
	14 o-Nitrotoluene	1		15.549				ND	
	15 p-Nitrotoluene	1		15.769				ND	
	16 4-Amino-2,6-dinitrotoluene	1		16.249				ND	
	17 m-Nitrotoluene	1		16.609				ND	U
	18 2-Amino-4,6-dinitrotoluene	1		17.029				ND	
	26 Triamine Trinitrobenzene	1		17.233				ND	
	19 1,3,5-Trinitrobenzene	1		17.249				ND	U
	20 2,6-Dinitrotoluene	1	18.322	18.376	-0.054	3024		0.008286	M
	21 2,4-Dinitrotoluene	1		18.822				ND	
	22 Tetryl	1		22.016				ND	U
	23 2,4,6-Trinitrotoluene	1		22.889				ND	
	24 PETN	2		24.036				ND	
	25 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated
U - Marked Undetected

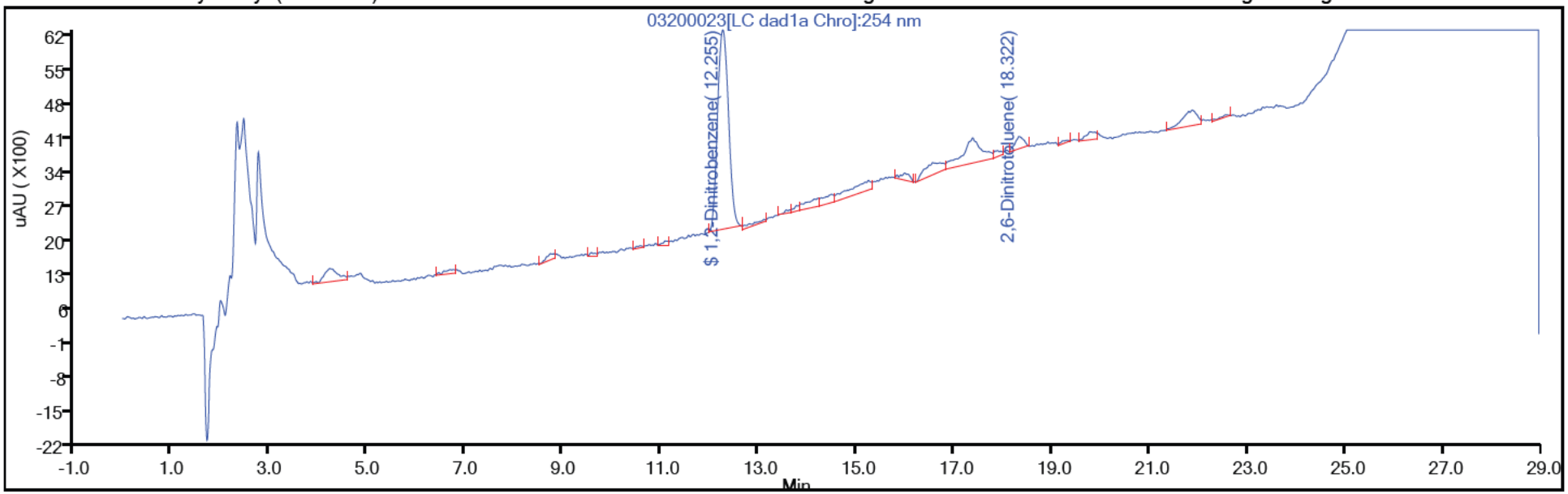
Report Date: 21-Mar-2024 16:20:21 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

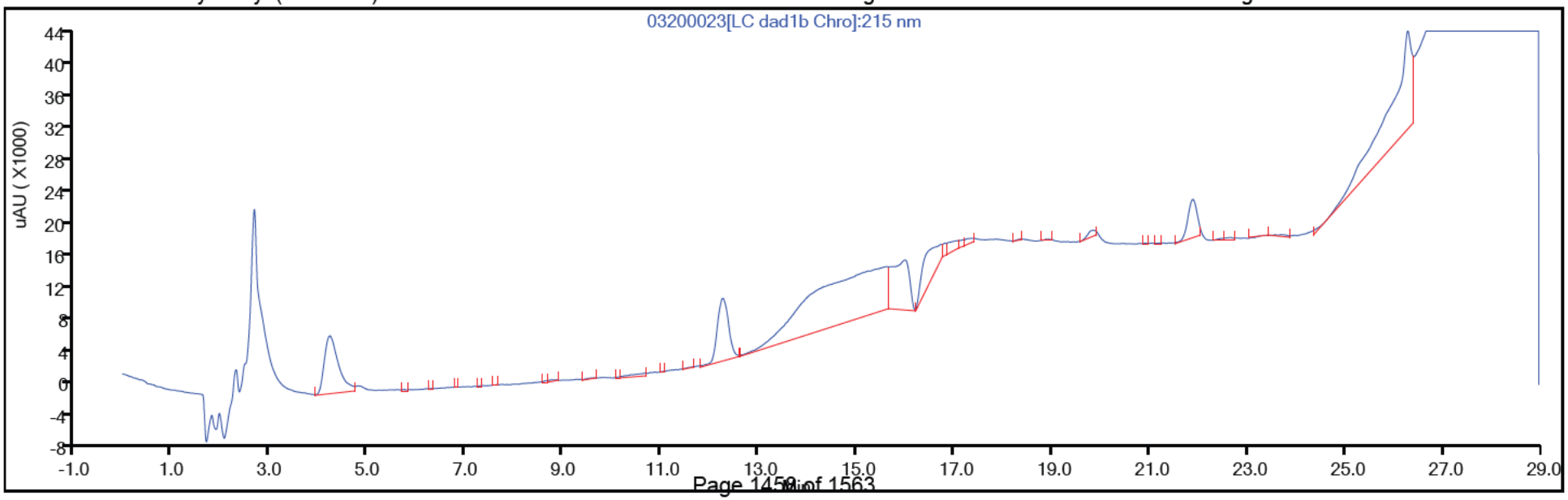
Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200023.d

Injection Date:	21-Mar-2024 02:51:54	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-188555-B-4-L TRL			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest 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\20240320-131366.b\03200023.D				
Lims ID:	280-188555-B-4-L TRL				
Client ID:					
Sample Type:	TRL				
Inject. Date:	21-Mar-2024 02:51:54	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-4-L TRL				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20240320-131366.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Mar-2024 16:20:17	Calib Date:	26-Sep-2023 04:54:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20230925-125782.b\09250027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1668				

First Level Reviewer: LV5D Date: 21-Mar-2024 16:19:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2495	99.80

User Disabled Compound Report

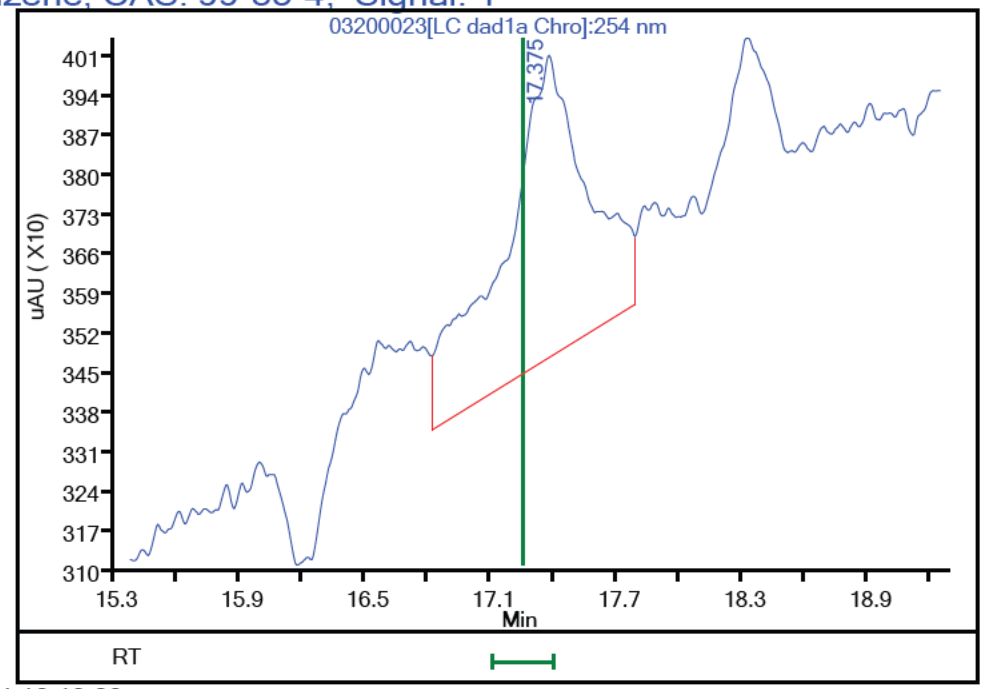
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200023.d
Injection Date: 21-Mar-2024 02:51:54 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-188555-B-4-L TRL
Client ID:
Operator ID: JZ/JG ALS Bottle#: 23 Worklist Smp#: 23
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: 17.37
Response: 15205
Amount: 0.036938



Reviewer: LV5D, 21-Mar-2024 16:19:39
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

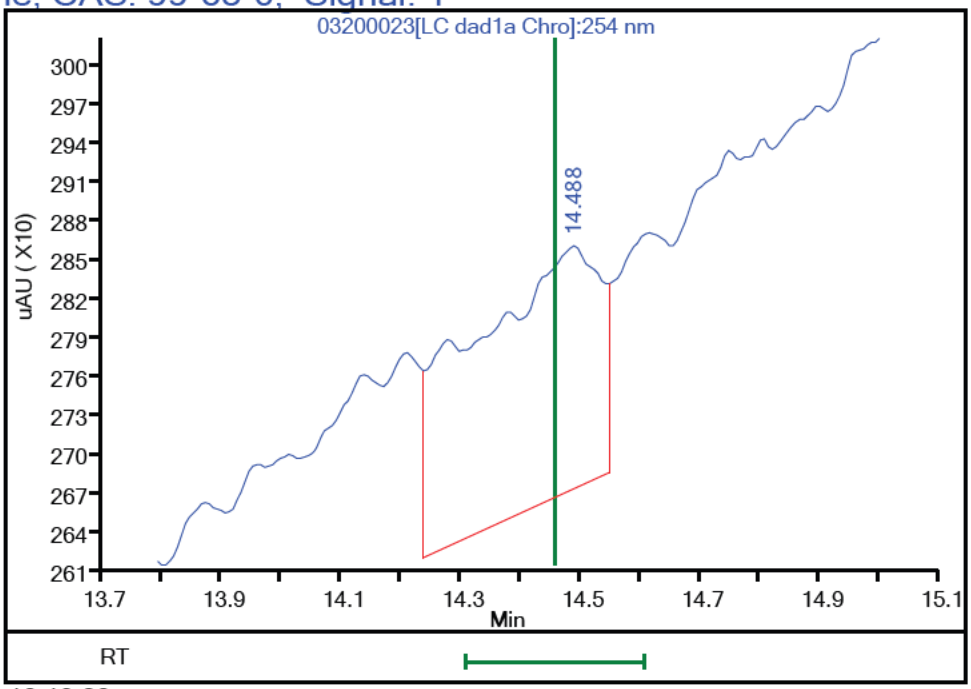
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200023.d
Injection Date: 21-Mar-2024 02:51:54 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-188555-B-4-L TRL
Client ID:
Operator ID: JZ/JG ALS Bottle#: 23 Worklist Smp#: 23
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
Response: 2981
Amount: 0.005144



Reviewer: LV5D, 21-Mar-2024 16:19:39
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

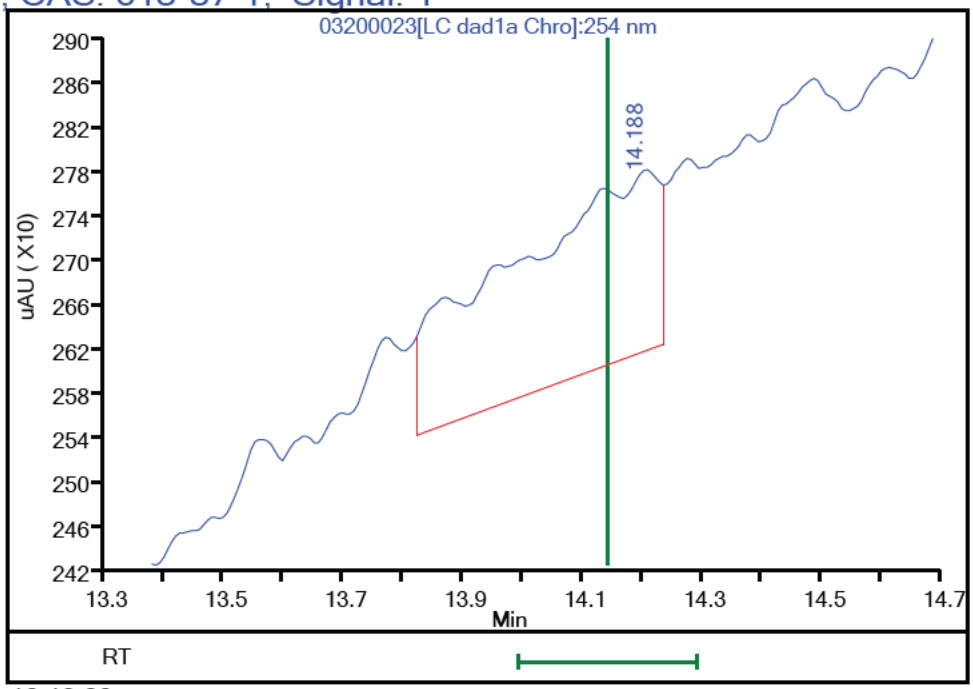
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200023.d
Injection Date: 21-Mar-2024 02:51:54 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-188555-B-4-L TRL
Client ID:
Operator ID: JZ/JG ALS Bottle#: 23 Worklist Smp#: 23
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: 14.19
Response: 3193
Amount: 0.006832



Reviewer: LV5D, 21-Mar-2024 16:19:39
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

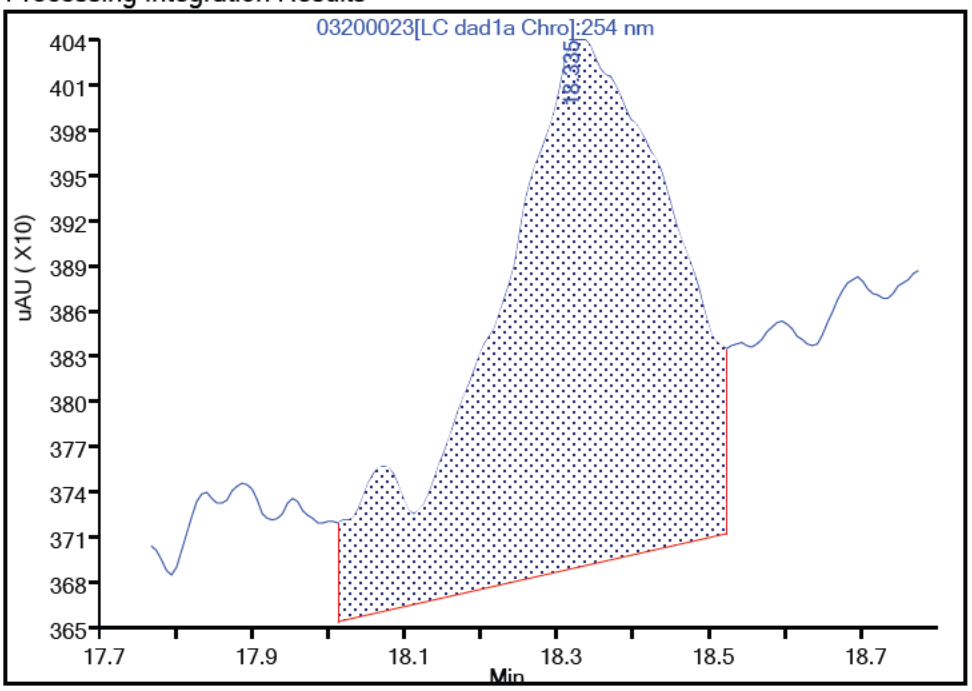
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200023.d				
Injection Date:	21-Mar-2024 02:51:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-L TRL				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

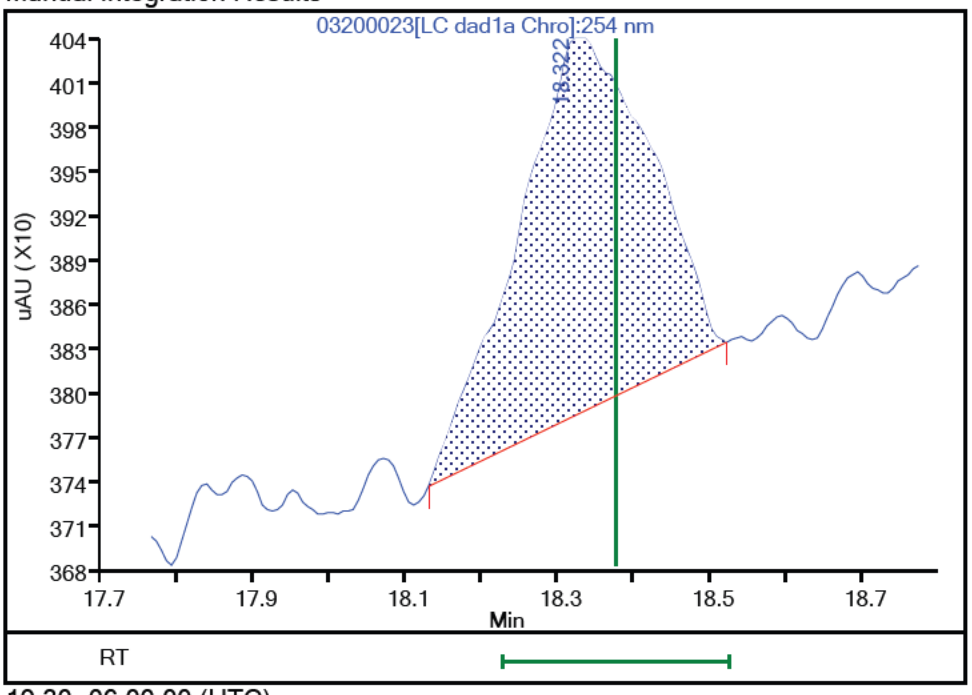
Processing Integration Results

RT: 18.33
Area: 5828
Amount: 0.019040
Amount Units: ug/ml



Manual Integration Results

RT: 18.32
Area: 3024
Amount: 0.008286
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:30 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

User Disabled Compound Report

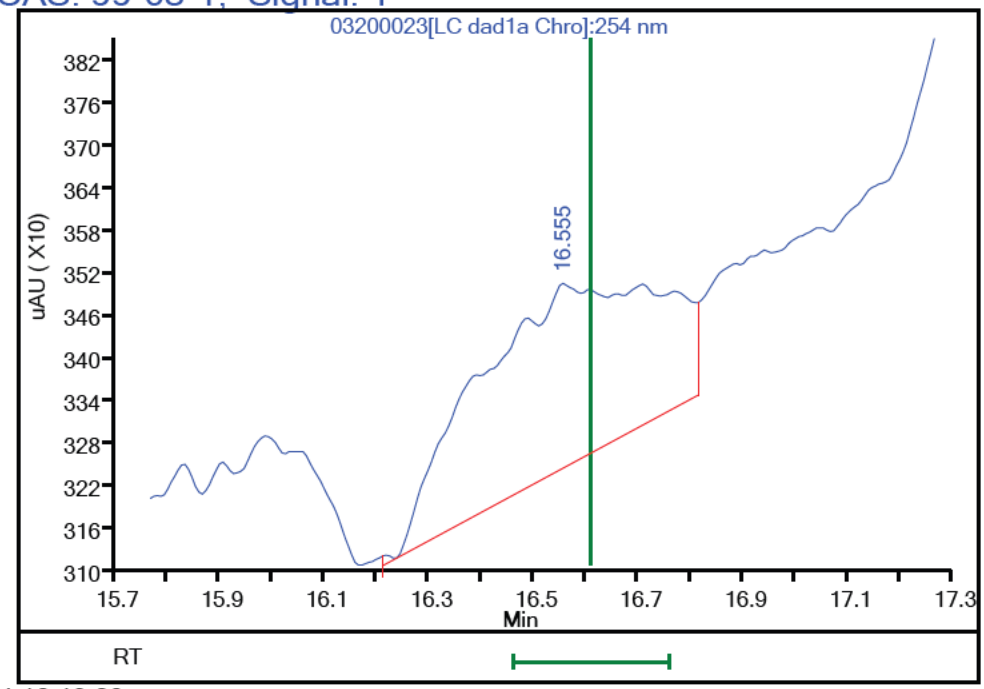
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200023.d
Injection Date: 21-Mar-2024 02:51:54 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-188555-B-4-L TRL
Client ID:
Operator ID: JZ/JG ALS Bottle#: 23 Worklist Smp#: 23
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: 16.55
Response: 6294
Amount: 0.018961



Reviewer: LV5D, 21-Mar-2024 16:19:39
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

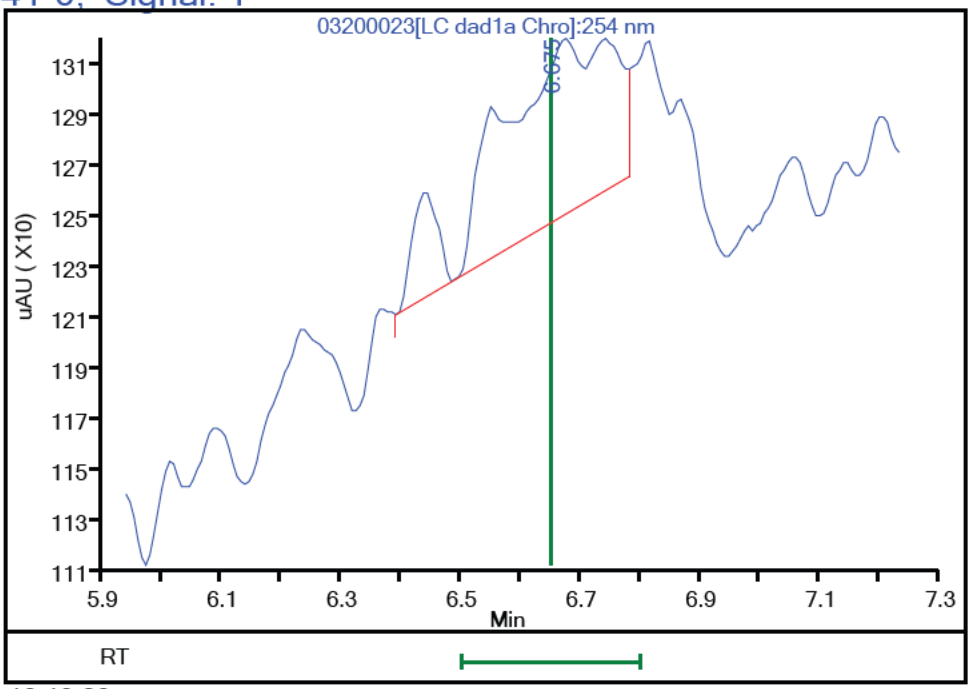
User Disabled Compound Report

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200023.d
Injection Date: 21-Mar-2024 02:51:54 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-188555-B-4-L TRL
Client ID:
Operator ID: JZ/JG ALS Bottle#: 23 Worklist Smp#: 23
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: 6.68
Response: 991
Amount: 0.005713



Reviewer: LV5D, 21-Mar-2024 16:19:39
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

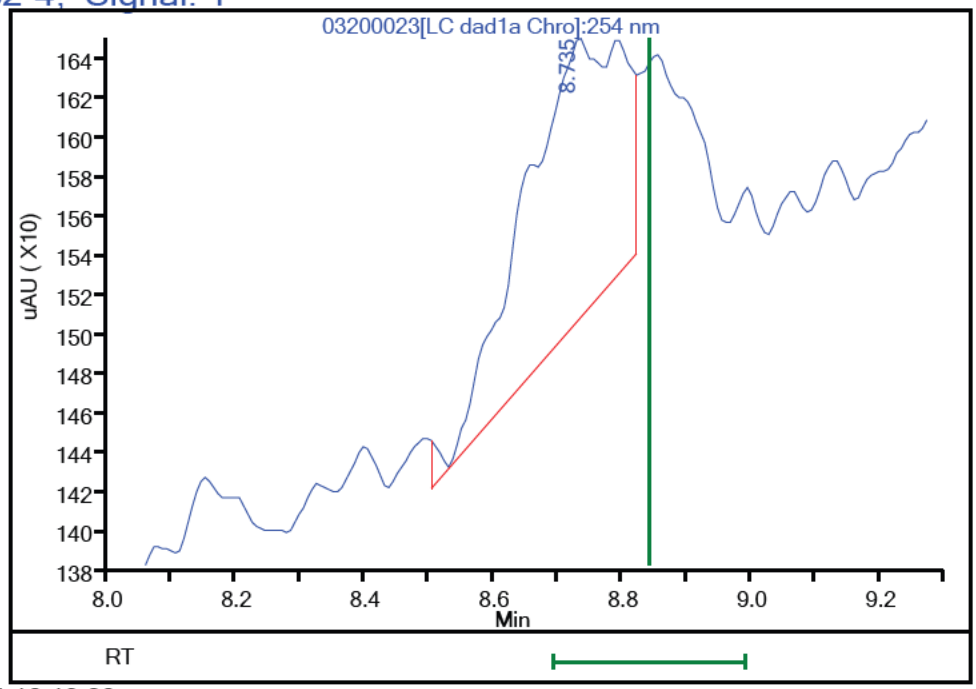
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200023.d
Injection Date: 21-Mar-2024 02:51:54 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-188555-B-4-L TRL
Client ID:
Operator ID: JZ/JG ALS Bottle#: 23 Worklist Smp#: 23
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: 8.74
Response: 1502
Amount: 0.007236



Reviewer: LV5D, 21-Mar-2024 16:19:39
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

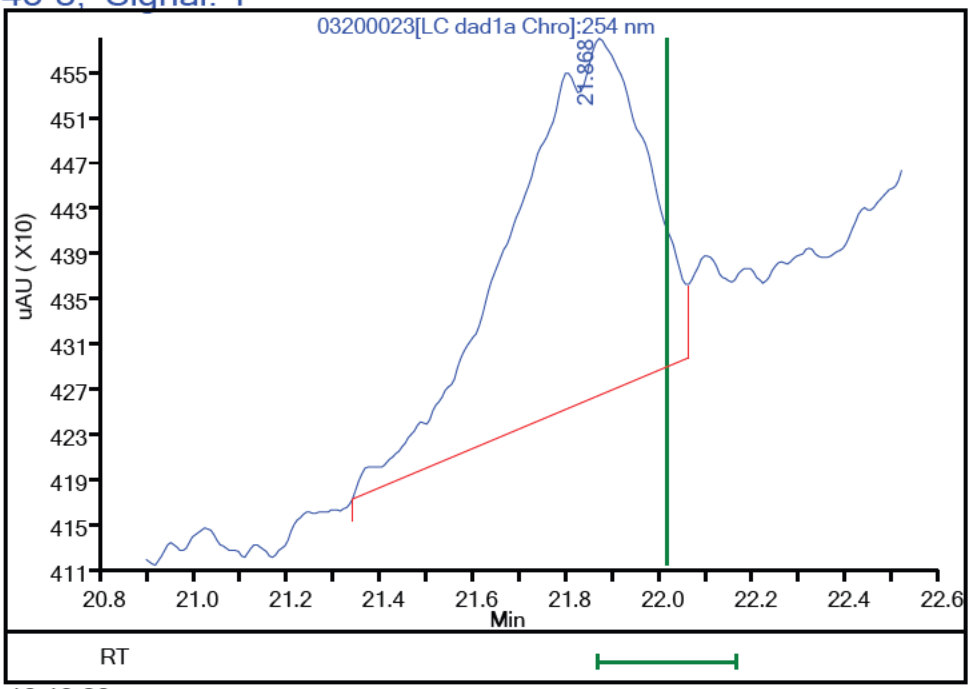
User Disabled Compound Report

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200023.d
Injection Date: 21-Mar-2024 02:51:54 Instrument ID: CHHPLC_G2_LUNA
Lims ID: 280-188555-B-4-L TRL
Client ID:
Operator ID: JZ/JG ALS Bottle#: 23 Worklist Smp#: 23
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: 21.87
Response: 6541
Amount: 0.021214



Reviewer: LV5D, 21-Mar-2024 16:19:39
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

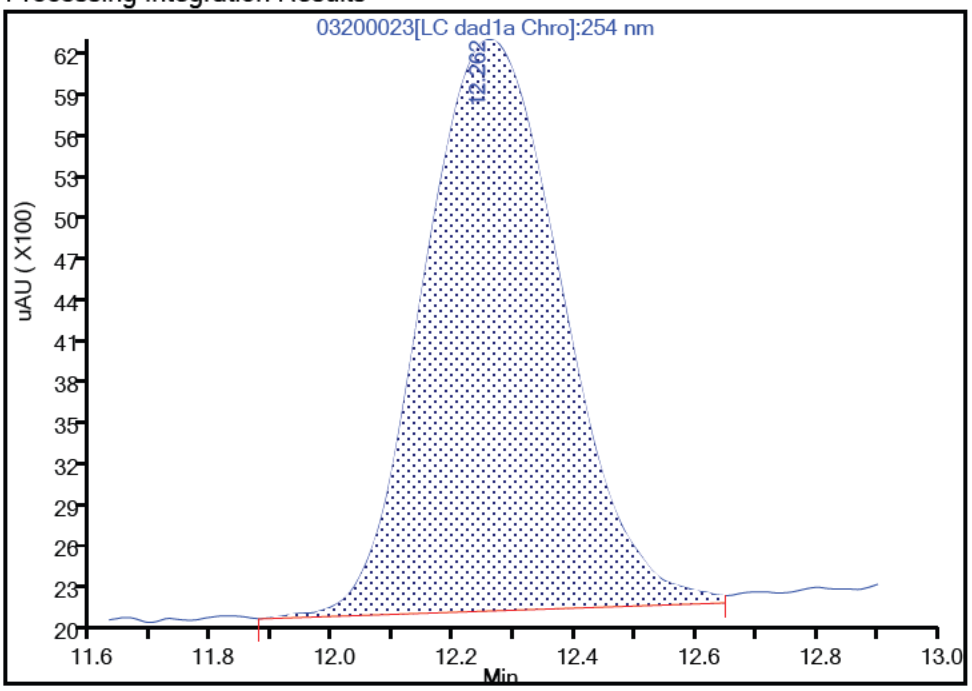
Data File:	\\chromfs\denver\chromdata\g2_luna\20240320-131366.b\03200023.d				
Injection Date:	21-Mar-2024 02:51:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-188555-B-4-L TRL				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	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

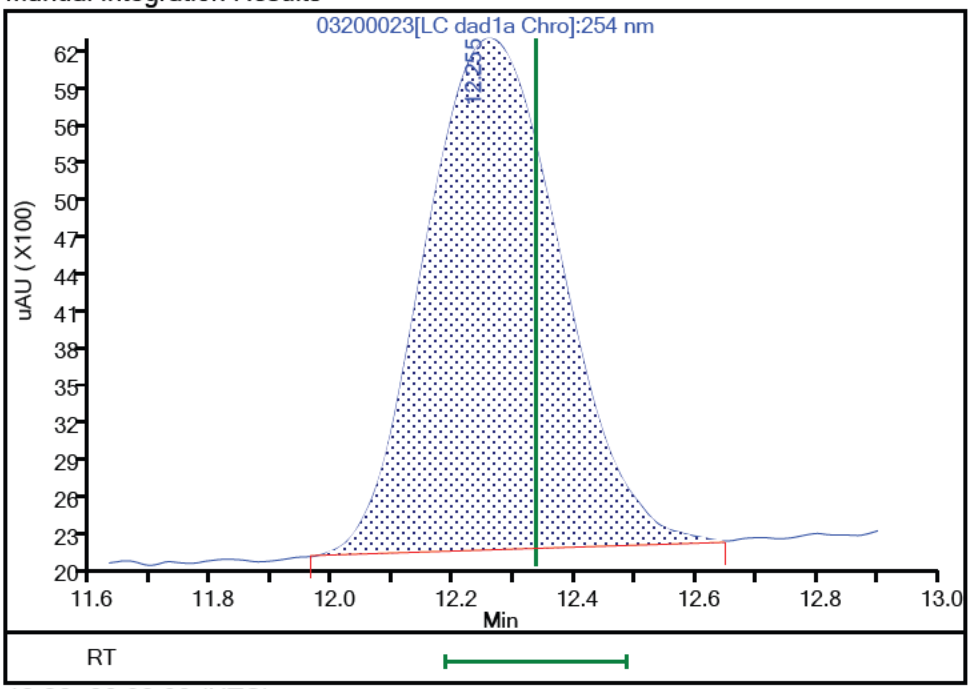
Processing Integration Results

RT: 12.26
Area: 65887
Amount: 0.256596
Amount Units: ug/ml



Manual Integration Results

RT: 12.25
Area: 64065
Amount: 0.249500
Amount Units: ug/ml



Reviewer: LV5D, 21-Mar-2024 16:19:36 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 09/25/2023 18:42

Analysis Batch Number: 627290 End Date: 09/26/2023 05:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-627290/10		09/25/2023 18:42	1	09250010.D	Luna-phenylhex 4.6(mm)
IC 280-627290/11		09/25/2023 19:17	1	09250011.D	Luna-phenylhex 4.6(mm)
IC 280-627290/12		09/25/2023 19:53	1	09250012.D	Luna-phenylhex 4.6(mm)
IC 280-627290/13		09/25/2023 20:29	1	09250013.D	Luna-phenylhex 4.6(mm)
IC 280-627290/14		09/25/2023 21:05	1	09250014.D	Luna-phenylhex 4.6(mm)
IC 280-627290/15		09/25/2023 21:42	1	09250015.D	Luna-phenylhex 4.6(mm)
IC 280-627290/16		09/25/2023 22:18	1	09250016.D	Luna-phenylhex 4.6(mm)
IC 280-627290/17		09/25/2023 22:54	1	09250017.D	Luna-phenylhex 4.6(mm)
IC 280-627290/18		09/25/2023 23:30	1	09250018.D	Luna-phenylhex 4.6(mm)
ICV 280-627290/19		09/26/2023 00:06	1	09250019.D	Luna-phenylhex 4.6(mm)
IC 280-627290/20		09/26/2023 00:42	1	09250020.D	Luna-phenylhex 4.6(mm)
IC 280-627290/21		09/26/2023 01:18	1	09250021.D	Luna-phenylhex 4.6(mm)
IC 280-627290/22		09/26/2023 01:54	1	09250022.D	Luna-phenylhex 4.6(mm)
IC 280-627290/23		09/26/2023 02:30	1	09250023.D	Luna-phenylhex 4.6(mm)
IC 280-627290/24		09/26/2023 03:06	1	09250024.D	Luna-phenylhex 4.6(mm)
IC 280-627290/25		09/26/2023 03:42	1	09250025.D	Luna-phenylhex 4.6(mm)
IC 280-627290/26		09/26/2023 04:18	1	09250026.D	Luna-phenylhex 4.6(mm)
IC 280-627290/27		09/26/2023 04:54	1	09250027.D	Luna-phenylhex 4.6(mm)
ICV 280-627290/28		09/26/2023 05:31	1	09250028.D	Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 01/24/2024 16:05

Analysis Batch Number: 640909 End Date: 01/24/2024 23:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-640909/11		01/24/2024 16:05	1	01240011.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/12		01/24/2024 16:28	1	01240012.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/13		01/24/2024 16:51	1	01240013.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/14		01/24/2024 17:14	1	01240014.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/15		01/24/2024 17:37	1	01240015.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/16		01/24/2024 18:00	1	01240016.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/17		01/24/2024 18:23	1	01240017.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/19		01/24/2024 19:09	1	01240019.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/18		01/24/2024 19:38	1	01240020.D	UltraCarb5uODS 4.6(mm)
ICV 280-640909/20		01/24/2024 20:01	1	0124X020.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/21		01/24/2024 20:24	1	01240021.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/22		01/24/2024 20:46	1	01240022.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/23		01/24/2024 21:09	1	01240023.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/24		01/24/2024 21:32	1	01240024.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/25		01/24/2024 21:55	1	01240025.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/26		01/24/2024 22:18	1	01240026.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/27		01/24/2024 22:41	1	01240027.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/28		01/24/2024 23:04	1	01240028.D	UltraCarb5uODS 4.6(mm)
ICV 280-640909/29		01/24/2024 23:27	1	01240029.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/20/2024 04:03

Analysis Batch Number: 646412 End Date: 03/20/2024 10:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-646412/39		03/20/2024 04:03	1	03190039.D	UltraCarb5uODS 4.6(mm)
CCV 280-646412/40		03/20/2024 04:26	1	03190040.D	UltraCarb5uODS 4.6(mm)
MB 280-645871/1-A		03/20/2024 04:49	1	03190041.D	UltraCarb5uODS 4.6(mm)
LCS 280-645871/2-A		03/20/2024 05:12	1	03190042.D	UltraCarb5uODS 4.6(mm)
LCS 280-645871/3-A		03/20/2024 05:35	1	03190043.D	UltraCarb5uODS 4.6(mm)
280-188555-1	X7-TP-C01-3642	03/20/2024 05:58	1	03190044.D	UltraCarb5uODS 4.6(mm)
280-188555-2	X7-TP-C02-2430	03/20/2024 06:21	1	03190045.D	UltraCarb5uODS 4.6(mm)
280-188555-3	FD-03062401	03/20/2024 06:43	1	03190046.D	UltraCarb5uODS 4.6(mm)
CCV 280-646412/47		03/20/2024 07:06	1	03190047.D	UltraCarb5uODS 4.6(mm)
CCV 280-646412/48		03/20/2024 07:29	1	03190048.D	UltraCarb5uODS 4.6(mm)
280-188555-4	X7-TP-C03-2436	03/20/2024 07:52	1	03190049.D	UltraCarb5uODS 4.6(mm)
280-188555-4 MS	X7-TP-C03-2436 MS	03/20/2024 08:15	1	03190050.D	UltraCarb5uODS 4.6(mm)
280-188555-4 MSD	X7-TP-C03-2436 MSD	03/20/2024 08:38	1	03190051.D	UltraCarb5uODS 4.6(mm)
280-188555-4 MS	X7-TP-C03-2436 MS	03/20/2024 09:01	1	03190052.D	UltraCarb5uODS 4.6(mm)
280-188555-4 MSD	X7-TP-C03-2436 MSD	03/20/2024 09:24	1	03190053.D	UltraCarb5uODS 4.6(mm)
280-188555-4 DU	X7-TP-C03-2436 DU	03/20/2024 09:47	1	03190054.D	UltraCarb5uODS 4.6(mm)
280-188555-4 TRL	X7-TP-C03-2436 TRL	03/20/2024 10:10	1	03190055.D	UltraCarb5uODS 4.6(mm)
CCV 280-646412/56		03/20/2024 10:33	1	03190056.D	UltraCarb5uODS 4.6(mm)
CCV 280-646412/57		03/20/2024 10:56	1	03190057.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/20/2024 17:06

Analysis Batch Number: 646567 End Date: 03/20/2024 19:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-646567/7		03/20/2024 17:06	1	03200007.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		03/20/2024 17:29	1000		UltraCarb5uODS 4.6(mm)
280-188555-2 DL	X7-TP-C02-2430 DL	03/20/2024 17:52	10	03200012.D	UltraCarb5uODS 4.6(mm)
280-188555-3 DL	FD-03062401 DL	03/20/2024 18:15	5	03200013.D	UltraCarb5uODS 4.6(mm)
280-188555-3 DL2	FD-03062401 DL2	03/20/2024 18:38	50	03200014.D	UltraCarb5uODS 4.6(mm)
CCV 280-646567/15		03/20/2024 19:01	1	03200015.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 03/20/2024 18:28

Analysis Batch Number: 646572 End Date: 03/21/2024 03:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-646572/7		03/20/2024 18:28	1	03200007.D	Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 19:04	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 19:40	1		Luna-phenylhex 4.6(mm)
280-188555-1	X7-TP-C01-3642	03/20/2024 20:16	1	03200012.D	Luna-phenylhex 4.6(mm)
280-188555-2	X7-TP-C02-2430	03/20/2024 20:52	1	03200013.D	Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 21:28	10		Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 22:04	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 22:40	5		Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 23:16	50		Luna-phenylhex 4.6(mm)
CCV 280-646572/18		03/20/2024 23:52	1	03200018.D	Luna-phenylhex 4.6(mm)
280-188555-4	X7-TP-C03-2436	03/21/2024 00:28	1	03200019.D	Luna-phenylhex 4.6(mm)
280-188555-4 MS	X7-TP-C03-2436 MS	03/21/2024 01:04	1	03200020.D	Luna-phenylhex 4.6(mm)
280-188555-4 MSD	X7-TP-C03-2436 MSD	03/21/2024 01:40	1	03200021.D	Luna-phenylhex 4.6(mm)
280-188555-4 DU	X7-TP-C03-2436 DU	03/21/2024 02:15	1	03200022.D	Luna-phenylhex 4.6(mm)
280-188555-4 TRL	X7-TP-C03-2436 TRL	03/21/2024 02:51	1	03200023.D	Luna-phenylhex 4.6(mm)
CCV 280-646572/24		03/21/2024 03:27	1	03200024.D	Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 627290 Batch Start Date: 09/25/23 18:42 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 DMT 00015	8330 LCS 00130	8330_ADDs 00037	8330_OP_DMT 00022	8330DiaminLCS 00060
IC 280-627290/10		8330B			1 mL	125 uL				
IC 280-627290/11		8330B			1 mL	50 uL				
IC 280-627290/12		8330B			1 mL	35 uL				
IC 280-627290/13		8330B			1 mL	20 uL				
IC 280-627290/14		8330B			1 mL	12.5 uL				
IC 280-627290/15		8330B			1 mL	5 uL				
IC 280-627290/16		8330B			1 mL	2.5 uL				
IC 280-627290/17		8330B			1 mL	1 uL				
IC 280-627290/18		8330B			1 mL	0.5 uL				
ICV 280-627290/19		8330B			1 mL		25 uL		25 uL	
IC 280-627290/20		8330B			1 mL			125 uL		
IC 280-627290/21		8330B			1 mL			50 uL		
IC 280-627290/22		8330B			1 mL			35 uL		
IC 280-627290/23		8330B			1 mL			20 uL		
IC 280-627290/24		8330B			1 mL			12.5 uL		
IC 280-627290/25		8330B			1 mL			5 uL		
IC 280-627290/26		8330B			1 mL			2 uL		
IC 280-627290/27		8330B			1 mL			1 uL		
ICV 280-627290/28		8330B			1 mL					12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8330IntermStk 00078	8330Surrogate 00150				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 627290 Batch Start Date: 09/25/23 18:42 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8330IntermStk 00078	8330Surrogate 00150				
IC 280-627290/10		8330B			250 uL					
IC 280-627290/11		8330B			100 uL					
IC 280-627290/12		8330B			70 uL					
IC 280-627290/13		8330B			40 uL					
IC 280-627290/14		8330B			25 uL					
IC 280-627290/15		8330B			10 uL					
IC 280-627290/16		8330B			5 uL					
IC 280-627290/17		8330B			2 uL					
IC 280-627290/18		8330B			1 uL					
ICV 280-627290/19		8330B				25 uL				
IC 280-627290/20		8330B								
IC 280-627290/21		8330B								
IC 280-627290/22		8330B								
IC 280-627290/23		8330B								
IC 280-627290/24		8330B								
IC 280-627290/25		8330B								
IC 280-627290/26		8330B								
IC 280-627290/27		8330B								
ICV 280-627290/28		8330B								

Batch Notes	
Methanol ID	230922

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 627290 Batch Start Date: 09/25/23 18:42 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 640909 Batch Start Date: 01/24/24 16:05 Batch Analyst: Gravage, Jordan P

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 DMT 00016	8330 LCS 00133	8330_ADDs 00038	8330_OP_DMT 00026	8330DiaminLCS 00064
IC 280-640909/11		8330B			1 mL	125 uL				
IC 280-640909/12		8330B			1 mL	50 uL				
IC 280-640909/13		8330B			1 mL	35 uL				
IC 280-640909/14		8330B			1 mL	20 uL				
IC 280-640909/15		8330B			1 mL	12.5 uL				
IC 280-640909/16		8330B			1 mL	5 uL				
IC 280-640909/17		8330B			1 mL	2.5 uL				
IC 280-640909/18		8330B			1 mL	1 uL				
IC 280-640909/19		8330B			1 mL	0.5 uL				
ICV 280-640909/20		8330B			1 mL		50 uL		50 uL	
IC 280-640909/21		8330B			1 mL			125 uL		
IC 280-640909/22		8330B			1 mL			50 uL		
IC 280-640909/23		8330B			1 mL			35 uL		
IC 280-640909/24		8330B			1 mL			20 uL		
IC 280-640909/25		8330B			1 mL			12.5 uL		
IC 280-640909/26		8330B			1 mL			5 uL		
IC 280-640909/27		8330B			1 mL			2 uL		
IC 280-640909/28		8330B			1 mL			1 uL		
ICV 280-640909/29		8330B			1 mL					25 uL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8330IntermStk 00079	8330Surrogate 00152				

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.: 280-188555-1

SDG No.:

Batch Number: 640909 Batch Start Date: 01/24/24 16:05 Batch Analyst: Gravage, Jordan P

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8330IntermStk 00079	8330Surrogate 00152				
IC 280-640909/11		8330B			250 uL					
IC 280-640909/12		8330B			100 uL					
IC 280-640909/13		8330B			70 uL					
IC 280-640909/14		8330B			40 uL					
IC 280-640909/15		8330B			25 uL					
IC 280-640909/16		8330B			10 uL					
IC 280-640909/17		8330B			5 uL					
IC 280-640909/18		8330B			2 uL					
IC 280-640909/19		8330B			1 uL					
ICV 280-640909/20		8330B				50 uL				
IC 280-640909/21		8330B								
IC 280-640909/22		8330B								
IC 280-640909/23		8330B								
IC 280-640909/24		8330B								
IC 280-640909/25		8330B								
IC 280-640909/26		8330B								
IC 280-640909/27		8330B								
IC 280-640909/28		8330B								
ICV 280-640909/29		8330B								

Batch Notes	
Methanol ID	232689

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.: 280-188555-1

SDG No.:

Batch Number: 640909 Batch Start Date: 01/24/24 16:05 Batch Analyst: Gravage, Jordan P

Batch Method: 8330B Batch End Date:

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645628 Batch Start Date: 03/11/24 16:58 Batch Analyst: Lee, David C

Batch Method: Prep/Air Dry Batch End Date: 03/12/24 17:05

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	AnalysisComment					
280-188555-B-1	X7-TP-C01-3642	Prep/Air Dry, 8330B, 8330B	Solid	T	10g					
280-188555-B-2	X7-TP-C02-2430	Prep/Air Dry, 8330B, 8330B	Solid	T	10g					
280-188555-B-3	FD-03062401	Prep/Air Dry, 8330B, 8330B	Solid	T	10g					
280-188555-B-4	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8330B	Solid	T	10g					
280-188555-B-4 MS	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8330B	Solid	T	10g; Extra vol for Diamino					
280-188555-B-4 MSD	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8330B	Solid	T	10g; Extra vol for Diamino					
280-188555-B-4 DU	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8330B		T	10g					
280-188555-B-4 TRL	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8330B		T	10g					

Batch Notes	
Date and Time laid out to Dry	3/11/24 17:25
Laid out on Parchment or Foil	Foil
Analyst ID - Drying	DL
Analyst ID - Label Check	Reviewer: DN
SOP Number	DV-OP-0013
Batch Comment	Tower: Nano

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.

ISM Batch Number: 645625, 645628

DV-F-0070_Rev 2_01-7-2020		Use this spreadsheet to document drying samples to a constant weight.							
balance ID:		38602403	3-12-2024 1051	3-12-2024 1445	Dry?		Date/time 3	Dry?	
			EB	EB			analyst initials		
Login	Sample	Tare weight (weight of weighing vessel)	Gross weight (g) (weight of aliquot and weighing vessel)	Gross weight (g) (weight of aliquot and weighing vessel)	Change in weights 1, 2	Proceed with ISM?	Gross weight (g) (weight of aliquot and weighing vessel)	Change in weights 2, 3	Proceed with ISM?
188531	1	1	14.68	14.67	0.07%	Yes		107.32%	No
188531	2	0.96	13.81	13.8	0.08%	Yes		107.48%	No
188531	3	0.99	19.55	19.53	0.11%	Yes		105.34%	No
188531	4	0.98	17.17	17.17	0.00%	Yes		106.05%	No
188531	5	0.96	18.58	18.56	0.11%	Yes		105.45%	No
188555	1	0.98	23.04	23.05	-0.05%	Yes		104.44%	No
188555	2	0.98	15.36	15.34	0.14%	Yes		106.82%	No
188555	3	0.98	16.41	16.39	0.13%	Yes		106.36%	No
188555	4	1	15.12	15.1	0.14%	Yes		107.09%	No

LogTag

Recorder has been Downloaded 3/12/2024 2:04:16 PM

Note: All Date-Time values are in UTC -07:00

Alarm Status

Lower	✓	OK
Upper	✓	OK

Recorder Info

Serial #: 2000144856 Model: TRIX-8 Battery: OK Trip #: 195
Description: Explosives Room (0.0)

Recorder Configuration

Start type :	Push button start	Temperature alarms	
Start delay :	1 Minute	Lower : 10.0 °C after 3 Consecutive	
Interval :	10 Minutes	or after 3 Accumulative	
Alert indicator :	Enabled lower & upper	Upper : 25.0 °C after 3 Consecutive	
OK indicator :	Enabled	or after 3 Accumulative	

Recorded Data

First reading :	3/6/2024 10:55:24 AM	Temperature statistics	
Last reading :	3/12/2024 1:55:24 PM	Lowest :	21.4 °C
Elapsed time :	6 Days 3 Hours 10 Minutes	@	3/12/2024 12:45:24 AM
Total readings :	883	Highest :	22.0 °C
First evaluated :	3/11/2024 5:05:24 PM	@	3/11/2024 10:25:24 PM
Last evaluated :	3/12/2024 1:55:24 PM	Average reading:	21.6 °C
Evaluated Time :	21 Hours	Standard Deviation:	0.2 °C(S)
Evaluated Readings :	126	MKT(ΔH 83.144):	21.6 °C

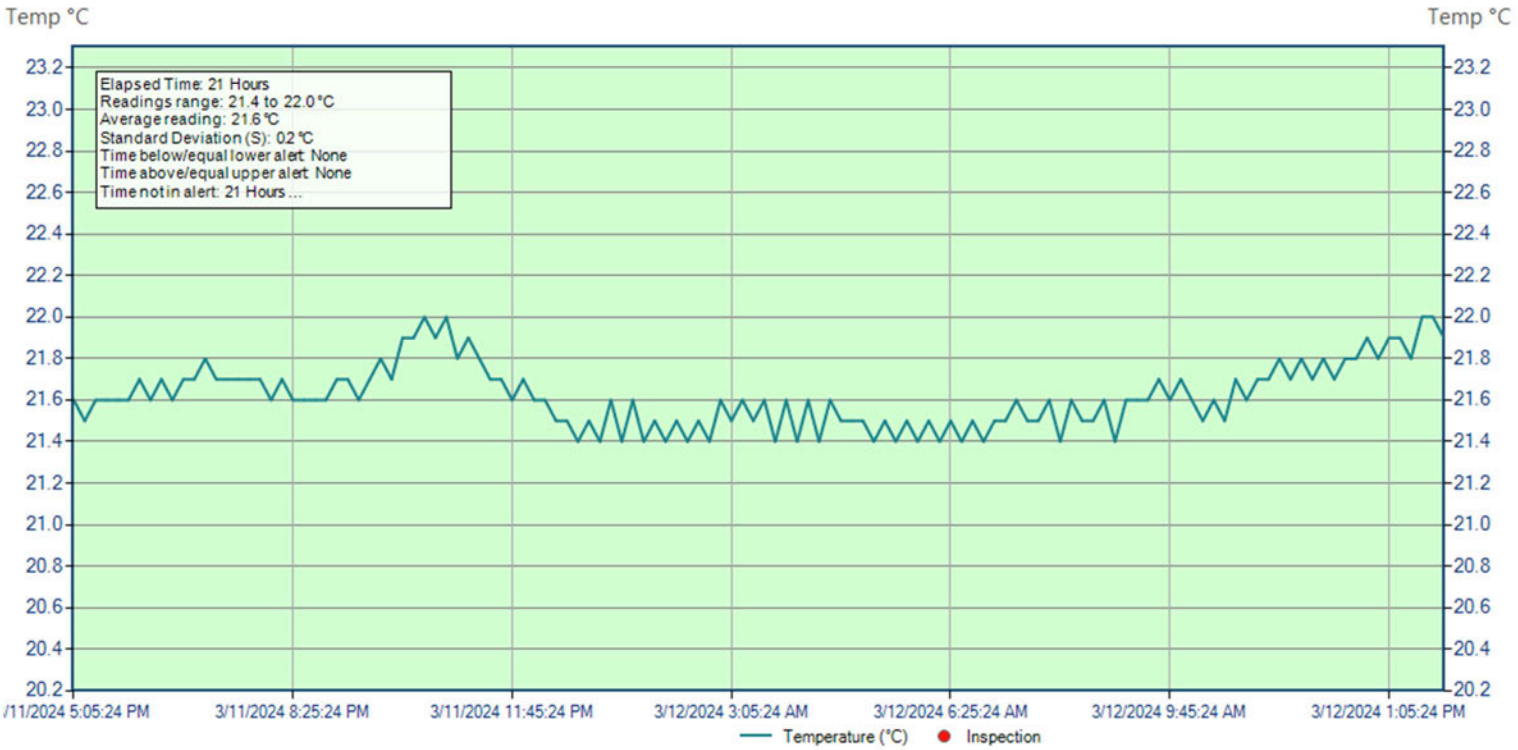
Lower Alarm

Triggered:	(none)
Time below/equal:	(none)
Occurrences :	0
°C - Minutes below :	0.00

Upper Alarm

Triggered:	(none)
Time above/equal:	(none)
Occurrences :	0
°C - Minutes above :	0.00

Source: Explosives Room (0.0)TRIX-8- 2000144856 Started 3_6_2024, Finished 3_12_20242000144856.ltd
File Location: G:\QA\Draft\Lab LogTag Data\2023
Created : 3/12/2024 3:04:51 PM



Source: Explosives Room (0.0)TRIX-8- 2000144856 Started 3_6_2024, Finished 3_12_20242000144856.ltd

File Location: G:\QA\Draft\Lab LogTag Data\2023

Created : 3/12/2024 3:04:51 PM

BATCH:	645628								
DV-F-0085 rev 2022-04-26. Use this spreadsheet to document sample weights during the ISM process.									
	Method --->	gross weight	container tare weight	initial sample weight	dried sample weight	nonsoil material	min aliquot size needed	8330 aliquot weight	8321_Ngu aliquot weight
	Balance ID --->	38602403	38602403	calculated	38602403	NA	NA	38602403	38602403
Login	**Sample**	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)
280-188555	1	495.91	183.02	312.89	267.72	NA	10	10.18	10.37
280-188555	2	497.79	183.49	314.3	271.75	NA	10	10.89	10.09
280-188555	3	512.98	183.53	329.45	285.78	NA	10	10.04	10.83
280-188555	4	495.57	187.77	307.8	258.66	NA	10	10.33	10.27
280-188555	4ms			0		NA	10	10.1	10.17
280-188555	4msd			0		NA	10	10.54	10.73
280-188555	4ms			0		NA	10	10.37	NA
280-188555	4msd			0		NA	10	10.3	NA
280-188555	4du			0		NA	10	10.25	NA
280-188555	4trl			0		NA	10	10.22	NA

BATCH:	645628	
DV-F-0085 rev 2022-04-26. U		
	Method --->	Comments
	Balance ID --->	
Login	Sample	
280-188555	1	
280-188555	2	
280-188555	3	
280-188555	4	
280-188555	4ms	
280-188555	4msd	
280-188555	4ms	Extra volume for Diamino
280-188555	4msd	Extra volume for Diamino
280-188555	4du	
280-188555	4trl	

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645871 Batch Start Date: 03/13/24 13:25 Batch Analyst: Lee, David C

Batch Method: 8330B Batch End Date: 03/14/24 09:14

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	8330 LCS 00134	8330DiaminLCS 00065	8330Surrogate 00154	AnalysisComment
MB 280-645871/1		8330B, 8330B			10 g	40 mL			1 mL	
LCS 280-645871/2		8330B, 8330B			10 g	40 mL	1 mL		1 mL	
LCS 280-645871/3		8330B, 8330B			10 g	40 mL		1 mL	1 mL	Diamino
280-188555-B-1-A	X7-TP-C01-3642	8330B, 8330B	Solid	T	10.18 g	40 mL			1 mL	
280-188555-B-2-A	X7-TP-C02-2430	8330B, 8330B	Solid	T	10.89 g	40 mL			1 mL	
280-188555-B-3-A	FD-03062401	8330B, 8330B	Solid	T	10.04 g	40 mL			1 mL	
280-188555-B-4-A	X7-TP-C03-2436	8330B, 8330B	Solid	T	10.33 g	40 mL			1 mL	
280-188555-B-4-B MS	X7-TP-C03-2436	8330B, 8330B	Solid	T	10.10 g	40 mL	1 mL		1 mL	
280-188555-B-4-C MSD	X7-TP-C03-2436	8330B, 8330B	Solid	T	10.54 g	40 mL	1 mL		1 mL	
280-188555-B-4-B MS	X7-TP-C03-2436	8330B, 8330B	Solid	T	10.37 g	40 mL		1 mL	1 mL	Diamino
280-188555-B-4-C MSD	X7-TP-C03-2436	8330B, 8330B	Solid	T	10.3 g	40 mL		1 mL	1 mL	Diamino
280-188555-B-4-D DU	X7-TP-C03-2436	8330B, 8330B		T	10.25 g	40 mL			1 mL	
280-188555-B-4-E TRL	X7-TP-C03-2436	8330B, 8330B		T	10.22 g	40 mL			1 mL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645871 Batch Start Date: 03/13/24 13:25 Batch Analyst: Lee, David C

Batch Method: 8330B Batch End Date: 03/14/24 09:14

Batch Notes	
Solvent Name	0.1%AAinACN
Solvent Lot #	0.1%AAinACN_00239
Prep Solvent Volume Used	20 mL
Analyst ID - Reagent Drop Witness	Reviewer: EB
Analyst ID - Concentration	Spiking: DL; Filtration: EB
Balance ID	38602403
Balance is Level? (Y/N)	yes
Blank Sand Lot #	ottawa_sand_00010
Pipette ID for Solvent	Firine
Pipette ID	Tia
Sonication Start Time	3-13-2024 1332
Sonication Stop Time	3-14-2024 732
Filter Type	0.2µm PTFE fisherbrand
Filter ID	000215172
Date Sample was Dried	B645628
SOP Number	DV-OP-0018
Batch Comment	Shaker: Innova

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.

8321B_NGu

Nitroguanidine (LC/MS)

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: NG724C14013.d

Lab ID: LCS 280-645870/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Nitroguanidine	203	186	92	50-150	

Column to be used to flag recovery and RPD values

FORM III 8321B

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: NG724C14018.d

Lab ID: 280-188555-4 MS Client ID: X7-TP-C03-2436 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Nitroguanidine	199	24 U	152	76	50-150	

Column to be used to flag recovery and RPD values

FORM III 8321B

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: NG724C14019.d

Lab ID: 280-188555-4 MSD Client ID: X7-TP-C03-2436 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitroguanidine	189	152	81	0	20	50-150	

Column to be used to flag recovery and RPD values

FORM III 8321B

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: NG724C14012.d Lab Sample ID: MB 280-645870/1-A

Matrix: Solid Date Extracted: 03/13/2024 13:09

Instrument ID: LC_LCMS7 Date Analyzed: 03/14/2024 14:23

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-645870/2-A	NG724C14013.d	03/14/2024 14:26
X7-TP-C01-3642	280-188555-1	NG724C14014.d	03/14/2024 14:30
X7-TP-C02-2430	280-188555-2	NG724C14015.d	03/14/2024 14:33
FD-03062401	280-188555-3	NG724C14016.d	03/14/2024 14:36
X7-TP-C03-2436	280-188555-4	NG724C14017.d	03/14/2024 14:39
X7-TP-C03-2436 MS	280-188555-4 MS	NG724C14018.d	03/14/2024 14:43
X7-TP-C03-2436 MSD	280-188555-4 MSD	NG724C14019.d	03/14/2024 14:46

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C01-3642 Lab Sample ID: 280-188555-1

Matrix: Solid Lab File ID: NG724C14014.d

Analysis Method: 8321B Date Collected: 03/06/2024 09:00

Extraction Method: 8330B Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10.37(g) Date Analyzed: 03/14/2024 14:30

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Synergi Hydro ID:

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	24	U	39	24	10

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14014.d				
Lims ID:	280-188555-B-1-C				
Client ID:	X7-TP-C01-3642				
Sample Type:	Client				
Inject. Date:	14-Mar-2024 14:30:09	ALS Bottle#:	12	Worklist Smp#:	14
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-1-C				
Misc. Info.:	NG724C14				
Operator ID:	ACM	Instrument ID:	LC_LCMS7		
Method:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m				
Limit Group:	LC - 8321 NGu				
Last Update:	14-Mar-2024 14:58:01	Calib Date:	14-Mar-2024 14:14:01		
Integrator:	Picker				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d				
Column 1 :	Phenomenex Synergi Hydro (0.00 mm)		Det: F1:MRM		
Process Host:	CTX1691				

Ratio Calibration: Initial Calibration Level: 4

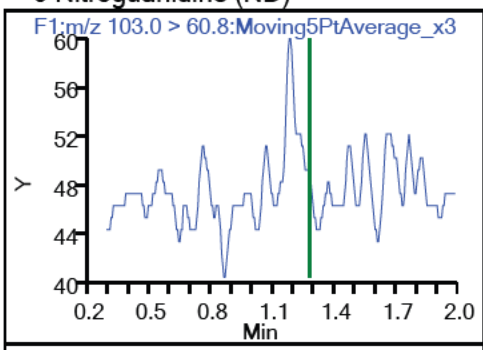
Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags

Report Date: 14-Mar-2024 14:58:04 Chrom Revision: 2.3 23-Feb-2024 16:51:14

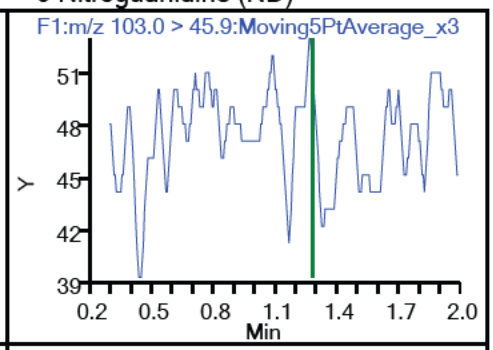
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14014.d				
Injection Date:	14-Mar-2024 14:30:09	Instrument ID:	LC_LCMS7		
Lims ID:	280-188555-B-1-C	Lab Sample ID:	280-188555-1		
Client ID:	X7-TP-C01-3642				
Operator ID:	ACM	ALS Bottle#:	12	Worklist Smp#:	14
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	8321_NGu	Limit Group:	LC - 8321 NGu		

9 Nitroguanidine (ND)



9 Nitroguanidine (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C02-2430 Lab Sample ID: 280-188555-2

Matrix: Solid Lab File ID: NG724C14015.d

Analysis Method: 8321B Date Collected: 03/06/2024 09:25

Extraction Method: 8330B Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10.09(g) Date Analyzed: 03/14/2024 14:33

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Synergi Hydro ID:

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	25	U	40	25	10

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14015.d				
Lims ID:	280-188555-B-2-C				
Client ID:	X7-TP-C02-2430				
Sample Type:	Client				
Inject. Date:	14-Mar-2024 14:33:22	ALS Bottle#:	13	Worklist Smp#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-2-C				
Misc. Info.:	NG724C14				
Operator ID:	ACM	Instrument ID:	LC_LCMS7		
Method:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m				
Limit Group:	LC - 8321 NGu				
Last Update:	14-Mar-2024 14:58:01	Calib Date:	14-Mar-2024 14:14:01		
Integrator:	Picker				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d				
Column 1 :	Phenomenex Synergi Hydro (0.00 mm)		Det: F1:MRM		
Process Host:	CTX1691				

Ratio Calibration: Initial Calibration Level: 4

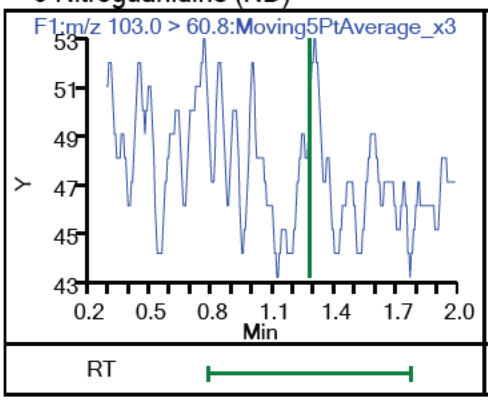
Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags

Report Date: 14-Mar-2024 14:58:04 Chrom Revision: 2.3 23-Feb-2024 16:51:14

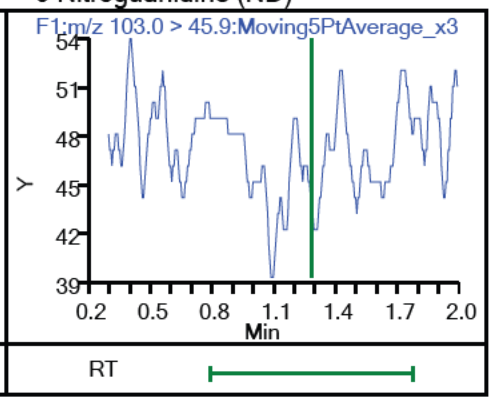
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14015.d				
Injection Date:	14-Mar-2024 14:33:22	Instrument ID:	LC_LCMS7		
Lims ID:	280-188555-B-2-C	Lab Sample ID:	280-188555-2		
Client ID:	X7-TP-C02-2430				
Operator ID:	ACM	ALS Bottle#:	13	Worklist Smp#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	8321_NGu	Limit Group:	LC - 8321 NGu		

9 Nitroguanidine (ND)



9 Nitroguanidine (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: FD-03062401 | Lab Sample ID: 280-188555-3

Matrix: Solid | Lab File ID: NG724C14016.d

Analysis Method: 8321B | Date Collected: 03/06/2024 09:35

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10.83(g) | Date Analyzed: 03/14/2024 14:36

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: Synergi Hydro ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	23	U	37	23	9.7

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14016.d				
Lims ID:	280-188555-B-3-C				
Client ID:	FD-03062401				
Sample Type:	Client				
Inject. Date:	14-Mar-2024 14:36:36	ALS Bottle#:	14	Worklist Smp#:	16
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-3-C				
Misc. Info.:	NG724C14				
Operator ID:	ACM	Instrument ID:	LC_LCMS7		
Method:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m				
Limit Group:	LC - 8321 NGu				
Last Update:	14-Mar-2024 14:58:01	Calib Date:	14-Mar-2024 14:14:01		
Integrator:	Picker				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d				
Column 1 :	Phenomenex Synergi Hydro (0.00 mm)		Det: F1:MRM		
Process Host:	CTX1691				

Ratio Calibration: Initial Calibration Level: 4

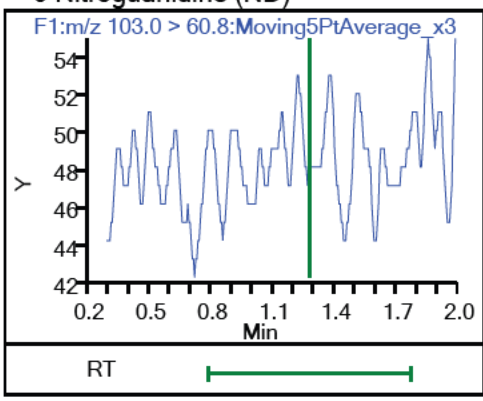
Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags

Report Date: 14-Mar-2024 14:58:05 Chrom Revision: 2.3 23-Feb-2024 16:51:14

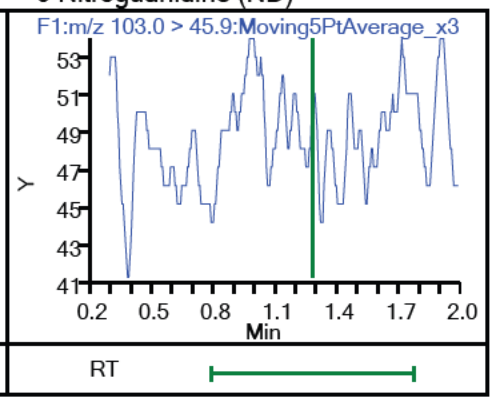
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14016.d				
Injection Date:	14-Mar-2024 14:36:36	Instrument ID:	LC_LCMS7		
Lims ID:	280-188555-B-3-C	Lab Sample ID:	280-188555-3		
Client ID:	FD-03062401				
Operator ID:	ACM	ALS Bottle#:	14	Worklist Smp#:	16
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	8321_NGu	Limit Group:	LC - 8321 NGu		

9 Nitroguanidine (ND)



9 Nitroguanidine (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 Lab Sample ID: 280-188555-4

Matrix: Solid Lab File ID: NG724C14017.d

Analysis Method: 8321B Date Collected: 03/06/2024 09:55

Extraction Method: 8330B Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10.27(g) Date Analyzed: 03/14/2024 14:39

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Synergi Hydro ID:

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	24	U	39	24	10

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14017.d				
Lims ID:	280-188555-B-4-M				
Client ID:	X7-TP-C03-2436				
Sample Type:	Client				
Inject. Date:	14-Mar-2024 14:39:50	ALS Bottle#:	15	Worklist Smp#:	17
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-4-M				
Misc. Info.:	NG724C14				
Operator ID:	ACM	Instrument ID:	LC_LCMS7		
Method:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m				
Limit Group:	LC - 8321 NGu				
Last Update:	14-Mar-2024 14:58:01	Calib Date:	14-Mar-2024 14:14:01		
Integrator:	Picker				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d				
Column 1 :	Phenomenex Synergi Hydro (0.00 mm)		Det: F1:MRM		
Process Host:	CTX1691				

Ratio Calibration: Initial Calibration Level: 4

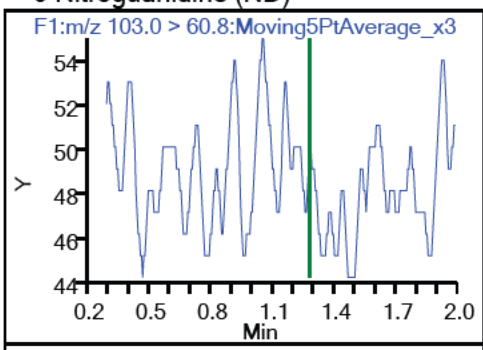
Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags

Report Date: 14-Mar-2024 14:58:05 Chrom Revision: 2.3 23-Feb-2024 16:51:14

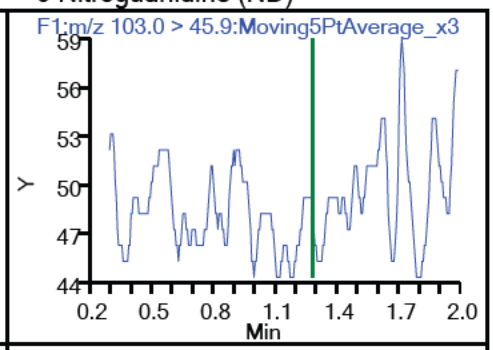
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14017.d				
Injection Date:	14-Mar-2024 14:39:50	Instrument ID:	LC_LCMS7		
Lims ID:	280-188555-B-4-M	Lab Sample ID:	280-188555-4		
Client ID:	X7-TP-C03-2436				
Operator ID:	ACM	ALS Bottle#:	15	Worklist Smp#:	17
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	8321_NGu	Limit Group:	LC - 8321 NGu		

9 Nitroguanidine (ND)



9 Nitroguanidine (ND)



FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 645982

SDG No.:

Instrument ID: LC_LCMS7 | GC Column: Synergi Hyd ID: | Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2024 13:54 | Calibration End Date: 03/14/2024 14:14 | Calibration ID: 91219

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD001 280-645982/3	NG724C14003.d
Level 2	STD002 280-645982/4	NG724C14004.d
Level 3	STD003 280-645982/5	NG724C14005.d
Level 4	STD004 280-645982/6	NG724C14006.d
Level 5	STD005 280-645982/7	NG724C14007.d
Level 6	STD006 280-645982/8	NG724C14008.d
Level 7	STD007 280-645982/9	NG724C14009.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Nitroguanidine	1.279	1.274	1.274	1.274	1.274	1.268	1.263				0.774 - 1.774	1.272

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 645982

SDG No.:

Instrument ID: LC_LCMS7 GC Column: Synergi Hyd ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2024 13:54 Calibration End Date: 03/14/2024 14:14 Calibration ID: 91219

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD001 280-645982/3	NG724C14003.d
Level 2	STD002 280-645982/4	NG724C14004.d
Level 3	STD003 280-645982/5	NG724C14005.d
Level 4	STD004 280-645982/6	NG724C14006.d
Level 5	STD005 280-645982/7	NG724C14007.d
Level 6	STD006 280-645982/8	NG724C14008.d
Level 7	STD007 280-645982/9	NG724C14009.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Nitroguanidine	293.39 338.35	301.48 330.90	346.10 290.98	366.79	Qua1	-450.89887	368.363815	-0.150385 7						1.0000		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 645982

SDG No.:

Instrument ID: LC_LCMS7 | GC Column: Synergi Hy ID: | Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2024 13:54 | Calibration End Date: 03/14/2024 14:14 | Calibration ID: 91219

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD001 280-645982/3	NG724C14003.d
Level 2	STD002 280-645982/4	NG724C14004.d
Level 3	STD003 280-645982/5	NG724C14005.d
Level 4	STD004 280-645982/6	NG724C14006.d
Level 5	STD005 280-645982/7	NG724C14007.d
Level 6	STD006 280-645982/8	NG724C14008.d
Level 7	STD007 280-645982/9	NG724C14009.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Nitroguanidine	Qua1	1486 83800	3054 147379	8765	18578	34275	5.07 253	10.1 507	25.3	50.7	101

Curve Type Legend:
Qua1 = Quadratic 1/Conc

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14003.d
Lims ID: STD001
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-Mar-2024 13:54:43 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: STD L1
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7
Sublist: chrom-8321_NGu*sub2

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:56:56 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.279	1.274	0.005	1486	5.27	Target=0.00	92.5	
103.0 > 45.9	1.274	1.274	0.0	252		5.90(0.00-0.00)	16.5	

Reagents:

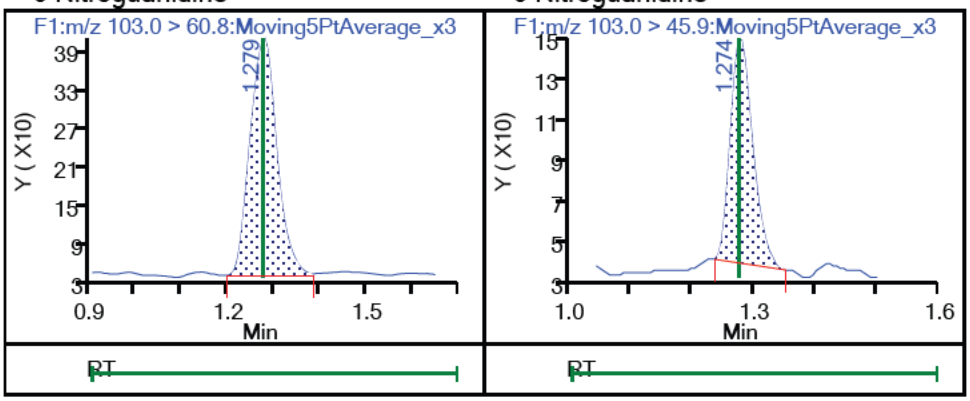
NGu Cal_00006 Amount Added: 0.50 Units: uL

Report Date: 14-Mar-2024 14:56:57 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14003.d
Injection Date: 14-Mar-2024 13:54:43 Instrument ID: LC_LCMS7
Lims ID: STD001
Client ID:
Operator ID: ACM ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: 8321_NGu Limit Group: LC - 8321 NGu

9 Nitroguanidine



9 Nitroguanidine

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14004.d
Lims ID: STD002
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-Mar-2024 13:57:56 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: STD L2
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7
Sublist: chrom-8321_NGu*sub2

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:56:57 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.274	1.274	0.0	3054	9.55	Target=0.00	127	
103.0 > 45.9	1.285	1.274	0.011	566		5.40(0.00-0.00)	26.4	

Reagents:

NGu Cal_00006 Amount Added: 1.00 Units: uL

Report Date: 14-Mar-2024 14:56:57 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14004.d

Injection Date: 14-Mar-2024 13:57:56 Instrument ID: LC_LCMS7

Lims ID: STD002

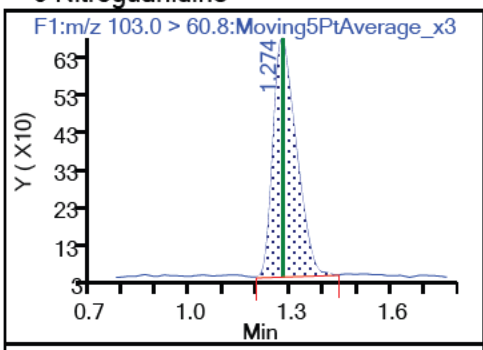
Client ID:

Operator ID: ACM ALS Bottle#: 3 Worklist Smp#: 4

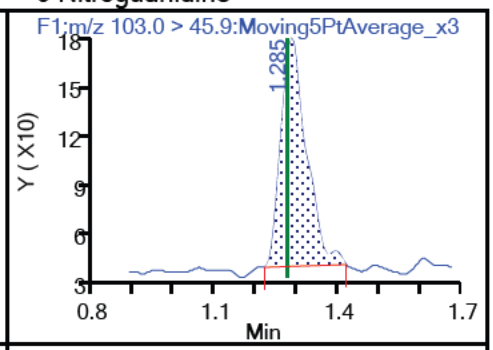
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: 8321_NGu Limit Group: LC - 8321 NGu

9 Nitroguanidine



9 Nitroguanidine



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14005.d
Lims ID: STD003
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-Mar-2024 14:01:09 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: STD L3
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7
Sublist: chrom-8321_NGu*sub2

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:56:58 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.274	1.274	0.0	8765	25.3	Target=0.00	474	
103.0 > 45.9	1.285	1.274	0.011	1746		5.02(0.00-0.00)	86.0	

Reagents:

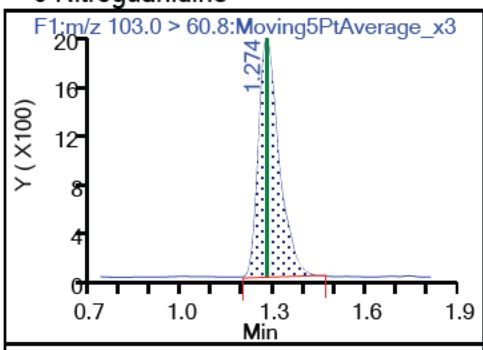
NGu Cal_00006 Amount Added: 2.50 Units: uL

Report Date: 14-Mar-2024 14:56:58 Chrom Revision: 2.3 23-Feb-2024 16:51:14

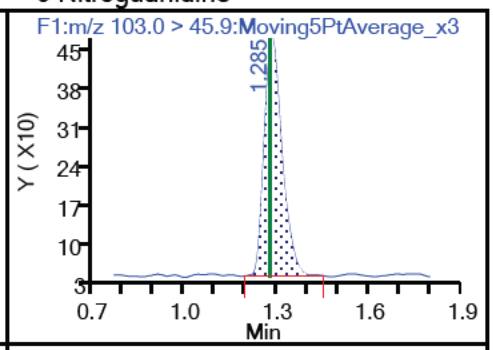
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14005.d
Injection Date: 14-Mar-2024 14:01:09 Instrument ID: LC_LCMS7
Lims ID: STD003
Client ID:
Operator ID: ACM ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: 8321_NGu Limit Group: LC - 8321 NGu

9 Nitroguanidine



9 Nitroguanidine



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14006.d
Lims ID: STD004
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-Mar-2024 14:04:22 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: STD L4
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7
Sublist: chrom-8321_NGu*sub2

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:56:59 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.274	1.274	0.0	18578	52.8	Target=0.00	1049	
103.0 > 45.9	1.285	1.274	0.011	3828		4.85(0.00-0.00)	153	

Reagents:

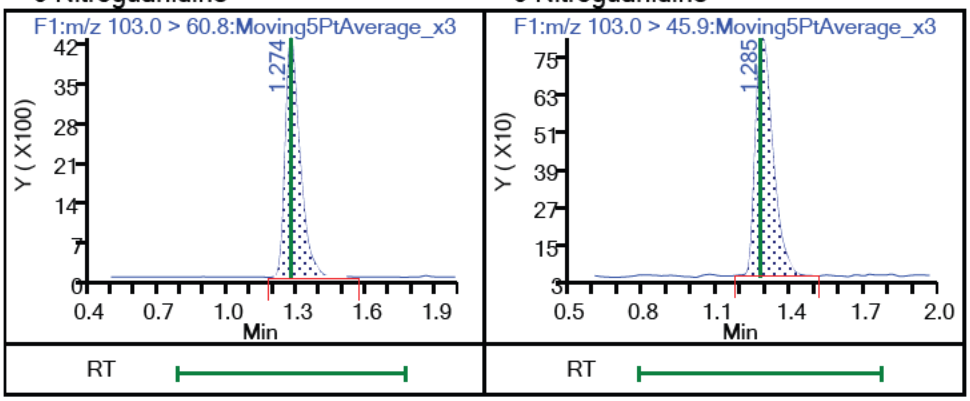
NGu Cal_00006 Amount Added: 5.00 Units: uL

Report Date: 14-Mar-2024 14:56:59 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14006.d
Injection Date: 14-Mar-2024 14:04:22 Instrument ID: LC_LCMS7
Lims ID: STD004
Client ID:
Operator ID: ACM ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: 8321_NGu Limit Group: LC - 8321 NGu

9 Nitroguanidine



9 Nitroguanidine

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14007.d
Lims ID: STD005
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 14-Mar-2024 14:07:35 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: STD L5
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7
Sublist: chrom-8321_NGu*sub2

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:57:00 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.274	1.274	0.0	34275	98.2	Target=0.00	1360	
103.0 > 45.9	1.279	1.274	0.005	7089		4.83(0.00-0.00)	284	

Reagents:

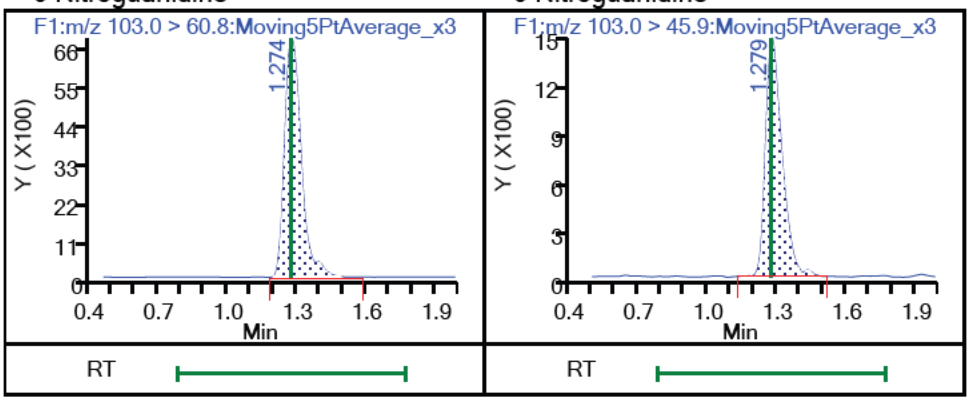
NGu Cal_00006 Amount Added: 10.00 Units: uL

Report Date: 14-Mar-2024 14:57:00 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14007.d
Injection Date: 14-Mar-2024 14:07:35 Instrument ID: LC_LCMS7
Lims ID: STD005
Client ID:
Operator ID: ACM ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: 8321_NGu Limit Group: LC - 8321 NGu

9 Nitroguanidine



9 Nitroguanidine

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14008.d
Lims ID: STD006
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 14-Mar-2024 14:10:48 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: STD L6
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7
Sublist: chrom-8321_NGu*sub2

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:57:00 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.268	1.274	-0.006	83800	255.3	Target=0.00	1374	
103.0 > 45.9	1.279	1.274	0.005	16778		4.99(0.00-0.00)	566	

Reagents:

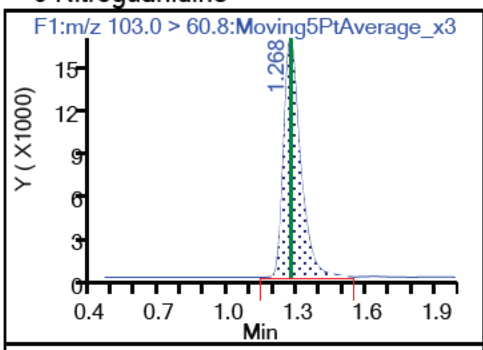
NGu Cal_00006 Amount Added: 25.00 Units: uL

Report Date: 14-Mar-2024 14:57:00 Chrom Revision: 2.3 23-Feb-2024 16:51:14

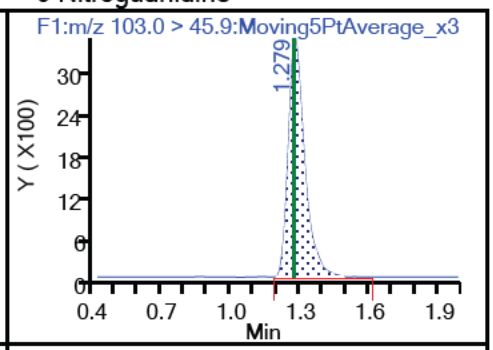
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14008.d
Injection Date: 14-Mar-2024 14:10:48 Instrument ID: LC_LCMS7
Lims ID: STD006
Client ID:
Operator ID: ACM ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: 8321_NGu Limit Group: LC - 8321 NGu

9 Nitroguanidine



9 Nitroguanidine



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d
Lims ID: STD007
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 14-Mar-2024 14:14:01 ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: STD L7
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7
Sublist: chrom-8321_NGu*sub2

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:57:01 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.263	1.274	-0.011	147379	505.7	Target=0.00	2440	
103.0 > 45.9	1.268	1.274	-0.006	36568		4.03(0.00-0.00)	1008	

Reagents:

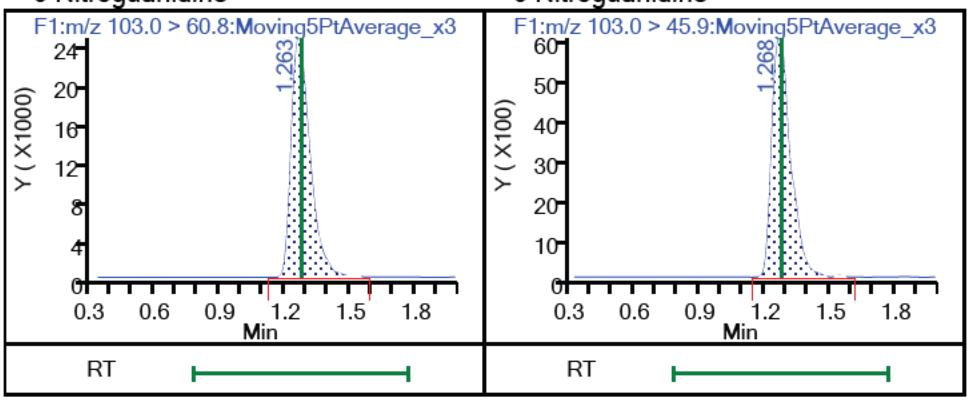
NGu Cal_00006 Amount Added: 50.00 Units: uL

Report Date: 14-Mar-2024 14:57:01 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d				
Injection Date:	14-Mar-2024 14:14:01	Instrument ID:	LC_LCMS7		
Lims ID:	STD007				
Client ID:					
Operator ID:	ACM	ALS Bottle#:	8	Worklist Smp#:	9
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	8321_NGu	Limit Group:	LC - 8321 NGu		

9 Nitroguanidine



9 Nitroguanidine

Calibration / Nitroguanidine

Curve Type:	Quadratic
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

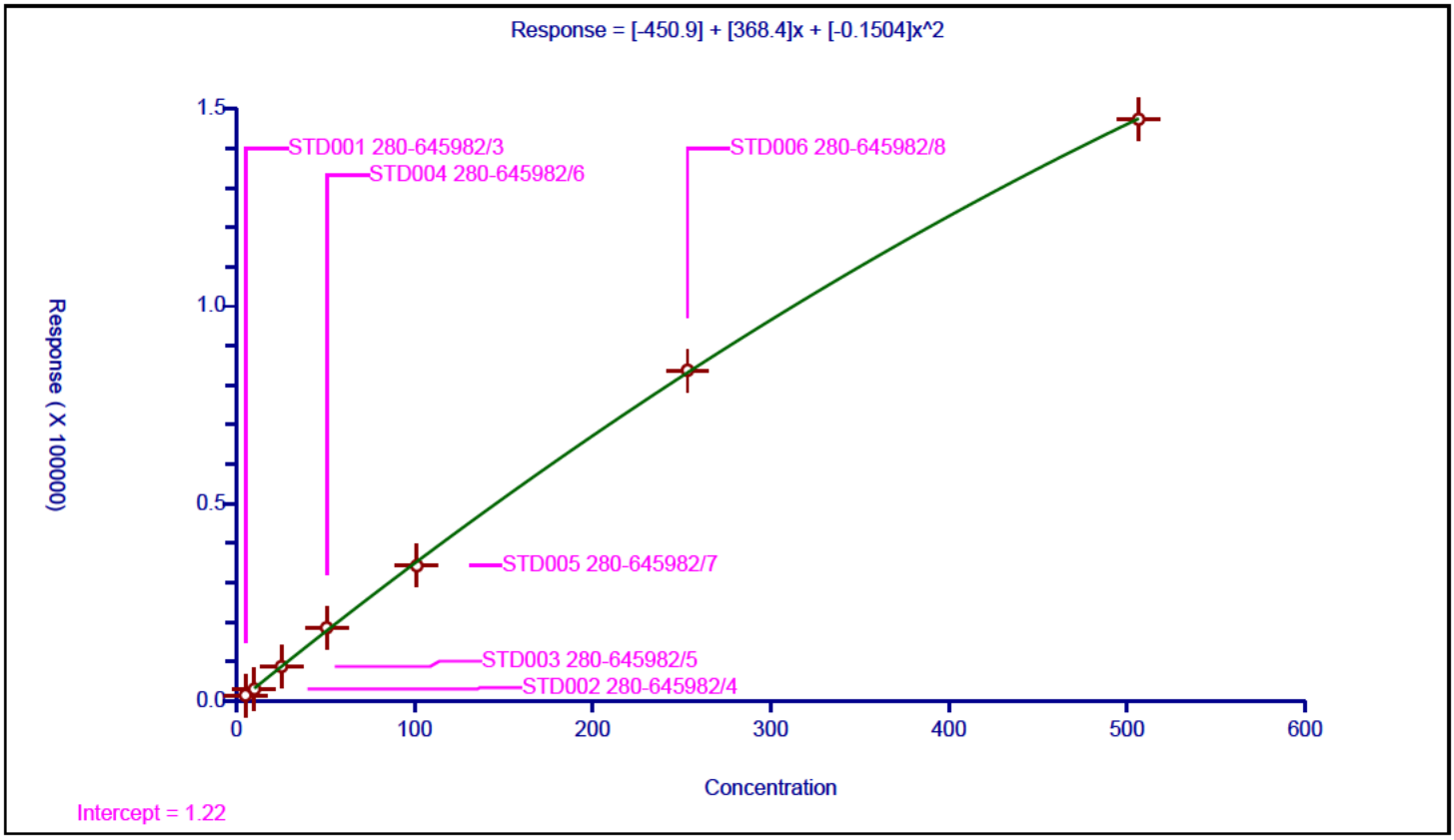
Curve Coefficients

Intercept:	-450.9
Slope:	368.4
Second Order:	-0.1504

Error Coefficients

Relative Standard Deviation:	4.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	STD001 280-645982/3	5.065	1486.0			293.385982	Y
2	STD002 280-645982/4	10.13	3054.0			301.48075	Y
3	STD003 280-645982/5	25.325	8765.0			346.100691	Y
4	STD004 280-645982/6	50.65	18578.0			366.791708	Y
5	STD005 280-645982/7	101.3	34275.0			338.351431	Y
6	STD006 280-645982/8	253.25	83800.0			330.898322	Y
7	STD007 280-645982/9	506.5	147379.0			290.975321	Y



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-645982/11 Calibration Date: 03/14/2024 14:20

Instrument ID: LC_LCMS7 Calib Start Date: 03/14/2024 13:54

GC Column: Synergi Hydro ID: Calib End Date: 03/14/2024 14:14

Lab File ID: NG724C14011.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitroguanidine	Qua1		357.5		103	100	2.6	20.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14011.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 14-Mar-2024 14:20:29 ALS Bottle#: 9 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7
Sublist:

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:58:01 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.274	1.274	0.0	35789	102.7	Target=0.00	1241	
103.0 > 45.9	1.274	1.274	0.0	8259		4.33(0.00-0.00)	444	

Reagents:

NGuWorkingICV_00004 Amount Added: 10.00 Units: uL

Report Date: 14-Mar-2024 14:58:01 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14011.d

Injection Date: 14-Mar-2024 14:20:29 Instrument ID: LC_LCMS7

Lims ID: ICV

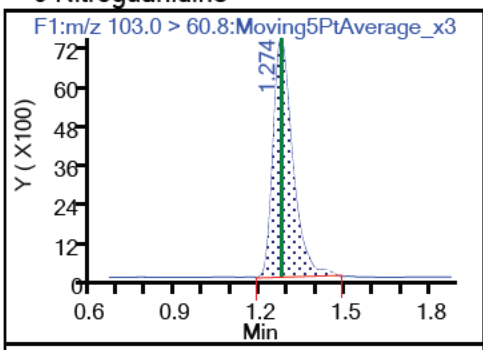
Client ID:

Operator ID: ACM ALS Bottle#: 9 Worklist Smp#: 11

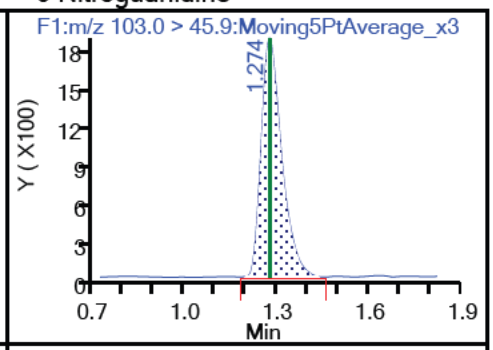
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: 8321_NGu Limit Group: LC - 8321 NGu

9 Nitroguanidine



9 Nitroguanidine



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-645982/20 Calibration Date: 03/14/2024 14:49

Instrument ID: LC_LCMS7 Calib Start Date: 03/14/2024 13:54

GC Column: Synergi Hydro ID: Calib End Date: 03/14/2024 14:14

Lab File ID: NG724C14020.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitroguanidine	Qua1		349.9		50.4	50.7	-0.6	30.0

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14020.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 14-Mar-2024 14:49:33 ALS Bottle#: 5 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7
Sublist: chrom-8321_NGu*sub2

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:58:07 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.274	1.274	0.0	17721	50.4	Target=0.00	616	
103.0 > 45.9	1.279	1.274	0.005	3377		5.25(0.00-0.00)	152	

Reagents:

NGu Cal_00006 Amount Added: 5.00 Units: uL

Report Date: 14-Mar-2024 14:58:08 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14020.d

Injection Date: 14-Mar-2024 14:49:33 Instrument ID: LC_LCMS7

Lims ID: CCV

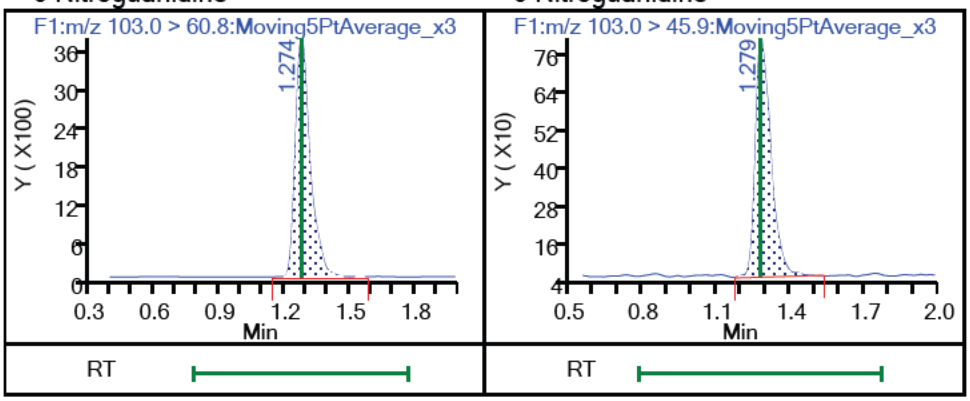
Client ID:

Operator ID: ACM ALS Bottle#: 5 Worklist Smp#: 20

Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: 8321_NGu Limit Group: LC - 8321 NGu

9 Nitroguanidine



9 Nitroguanidine

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-645870/1-A

Matrix: Solid | Lab File ID: NG724C14012.d

Analysis Method: 8321B | Date Collected:

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10(g) | Date Analyzed: 03/14/2024 14:23

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: Synergi Hydro ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	25	U	40	25	11

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14012.d				
Lims ID:	MB 280-645870/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	14-Mar-2024 14:23:42	ALS Bottle#:	10	Worklist Smp#:	12
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-645870/1-A				
Misc. Info.:	NG724C14				
Operator ID:	ACM	Instrument ID:	LC_LCMS7		
Method:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m				
Limit Group:	LC - 8321 NGu				
Last Update:	14-Mar-2024 14:58:01	Calib Date:	14-Mar-2024 14:14:01		
Integrator:	Picker				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d				
Column 1 :	Phenomenex Synergi Hydro (0.00 mm)		Det: F1:MRM		
Process Host:	CTX1691				

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags

Report Date: 14-Mar-2024 14:58:02 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14012.d

Injection Date: 14-Mar-2024 14:23:42 Instrument ID: LC_LCMS7

Lims ID: MB 280-645870/1-A

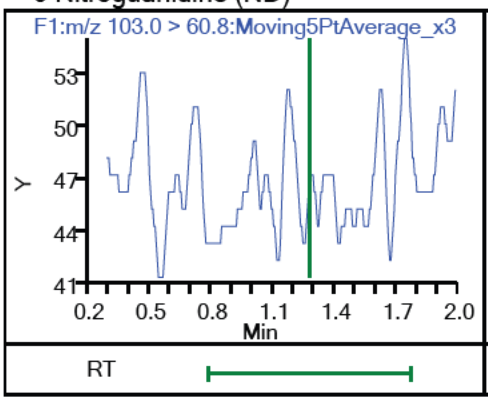
Client ID:

Operator ID: ACM ALS Bottle#: 10 Worklist Smp#: 12

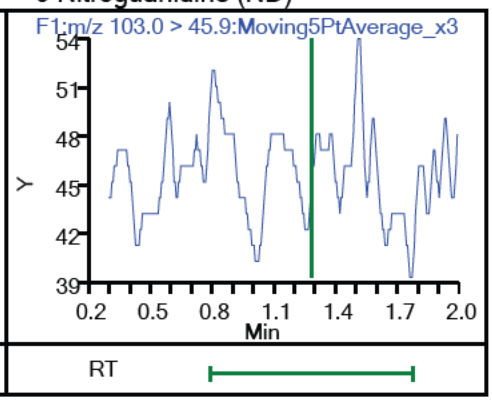
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: 8321_NGu Limit Group: LC - 8321 NGu

9 Nitroguanidine (ND)



9 Nitroguanidine (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 280-645982/10

Matrix: Solid Lab File ID: NG724C14010.d

Analysis Method: 8321B Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/14/2024 14:17

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Synergi Hydro ID:

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	10	U	20	10	3.7

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14010.d				
Lims ID:	ICB				
Client ID:					
Sample Type:	ICB				
Inject. Date:	14-Mar-2024 14:17:15	ALS Bottle#:	1	Worklist Smp#:	10
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICB				
Misc. Info.:	NG724C14				
Operator ID:	ACM	Instrument ID:	LC_LCMS7		
Method:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m				
Limit Group:	LC - 8321 NGu				
Last Update:	14-Mar-2024 14:57:01	Calib Date:	14-Mar-2024 14:14:01		
Integrator:	Picker				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d				
Column 1 :	Phenomenex Synergi Hydro (0.00 mm)		Det: F1:MRM		
Process Host:	CTX1691				

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags

Report Date: 14-Mar-2024 14:57:59 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14010.d

Injection Date: 14-Mar-2024 14:17:15 Instrument ID: LC_LCMS7

Lims ID: ICB

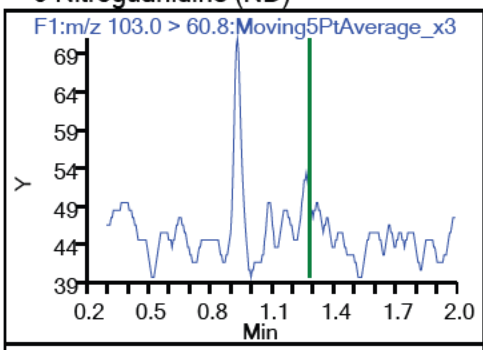
Client ID:

Operator ID: ACM ALS Bottle#: 1 Worklist Smp#: 10

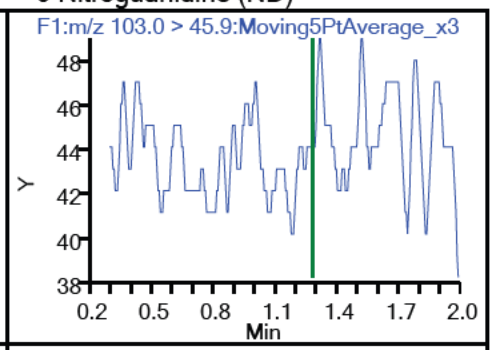
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: 8321_NGu Limit Group: LC - 8321 NGu

9 Nitroguanidine (ND)



9 Nitroguanidine (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-645870/2-A

Matrix: Solid | Lab File ID: NG724C14013.d

Analysis Method: 8321B | Date Collected:

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10(g) | Date Analyzed: 03/14/2024 14:26

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: Synergi Hydro ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	186		40	25	11

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14013.d
Lims ID: LCS 280-645870/2-A
Client ID:
Sample Type: LCS
Inject. Date: 14-Mar-2024 14:26:56 ALS Bottle#: 11 Worklist Smp#: 13
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-645870/2-A
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:58:01 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.274	1.274	0.0	32424	92.8	Target=0.00	1360	
103.0 > 45.9	1.268	1.274	-0.006	7188		4.51(0.00-0.00)	210	

Report Date: 14-Mar-2024 14:58:03 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14013.d

Injection Date: 14-Mar-2024 14:26:56 Instrument ID: LC_LCMS7

Lims ID: LCS 280-645870/2-A

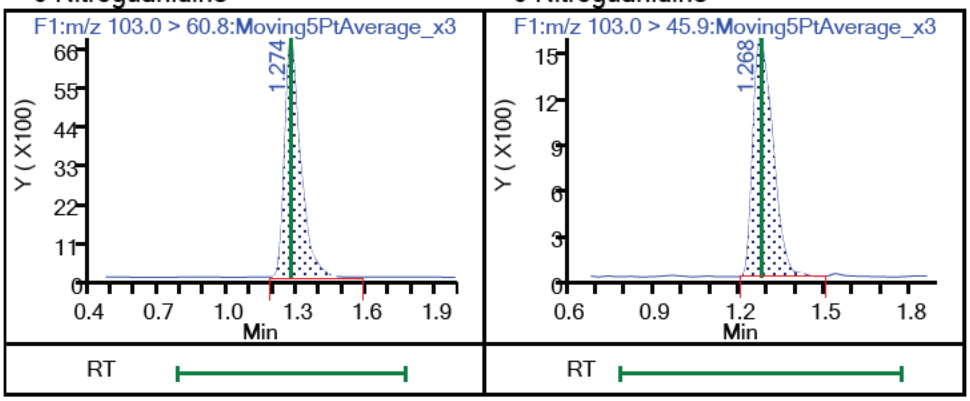
Client ID:

Operator ID: ACM ALS Bottle#: 11 Worklist Smp#: 13

Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: 8321_NGu Limit Group: LC - 8321 NGu

9 Nitroguanidine



9 Nitroguanidine

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MS Lab Sample ID: 280-188555-4 MS

Matrix: Solid Lab File ID: NG724C14018.d

Analysis Method: 8321B Date Collected: 03/06/2024 09:55

Extraction Method: 8330B Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10.17(g) Date Analyzed: 03/14/2024 14:43

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Synergi Hydro ID:

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	152		39	25	10

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14018.d
Lims ID: 280-188555-B-4-N MS
Client ID: X7-TP-C03-2436
Sample Type: MS
Inject. Date: 14-Mar-2024 14:43:05 ALS Bottle#: 16 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-N MS
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:58:01 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691
Ratio Calibration: Initial Calibration Level: 4

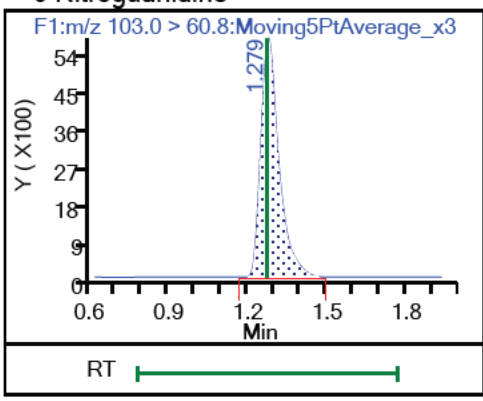
Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.279	1.274	0.005	27184	77.5	Target=0.00	1419	
103.0 > 45.9	1.274	1.274	0.0	5518		4.93(0.00-0.00)	121	

Report Date: 14-Mar-2024 14:58:06 Chrom Revision: 2.3 23-Feb-2024 16:51:14

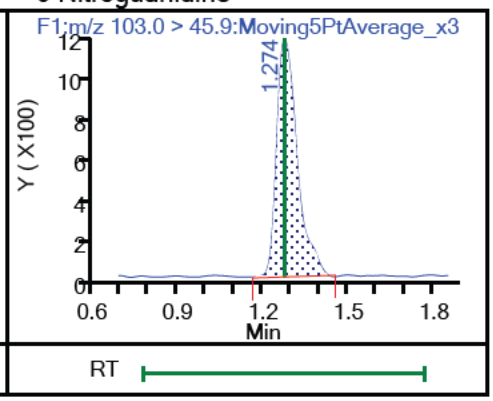
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14018.d				
Injection Date:	14-Mar-2024 14:43:05	Instrument ID:	LC_LCMS7		
Lims ID:	280-188555-B-4-N MS				
Client ID:	X7-TP-C03-2436				
Operator ID:	ACM	ALS Bottle#:	16	Worklist Smp#:	18
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	8321_NGu	Limit Group:	LC - 8321 NGu		

9 Nitroguanidine



9 Nitroguanidine



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 MSD | Lab Sample ID: 280-188555-4 MSD

Matrix: Solid | Lab File ID: NG724C14019.d

Analysis Method: 8321B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10.73(g) | Date Analyzed: 03/14/2024 14:46

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: Synergi Hydro ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	152		37	23	9.8

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14019.d
Lims ID: 280-188555-B-4-O MSD
Client ID: X7-TP-C03-2436
Sample Type: MSD
Inject. Date: 14-Mar-2024 14:46:19 ALS Bottle#: 17 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-4-O MSD
Misc. Info.: NG724C14
Operator ID: ACM Instrument ID: LC_LCMS7

Method: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\8321_NGu.m
Limit Group: LC - 8321 NGu
Last Update: 14-Mar-2024 14:58:01 Calib Date: 14-Mar-2024 14:14:01
Integrator: Picker
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14009.d

Column 1 : Phenomenex Synergi Hydro (0.00 mm) Det: F1:MRM
Process Host: CTX1691

First Level Reviewer: PE6P Date: 14-Mar-2024 14:56:56
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	Response	Amount ug/l	Ratio(Limits)	S/N	Flags
9 Nitroguanidine								
103.0 > 60.8	1.274	1.274	0.0	28652	81.7	Target=0.00	1035	
103.0 > 45.9	1.279	1.274	0.005	4888		5.86(0.00-0.00)	173	

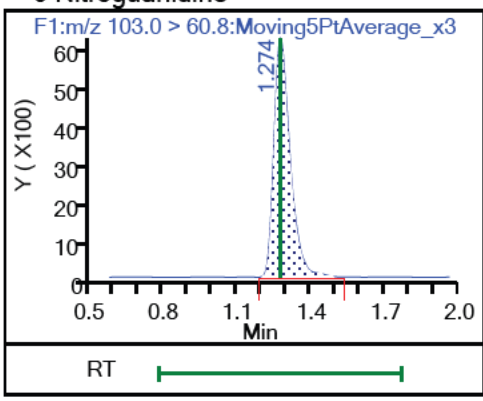
QC Flag Legend
Processing Flags

Report Date: 14-Mar-2024 14:58:07 Chrom Revision: 2.3 23-Feb-2024 16:51:14

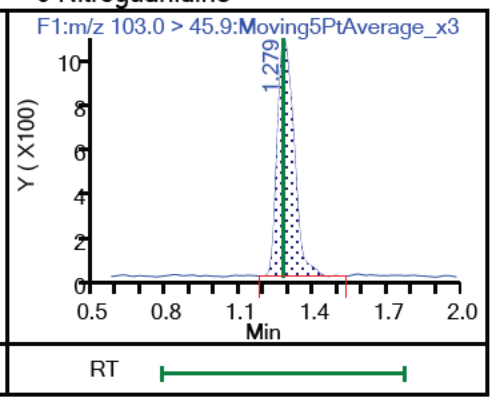
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\LC_LCMS7\20240314-131163.b\NG724C14019.d				
Injection Date:	14-Mar-2024 14:46:19	Instrument ID:	LC_LCMS7		
Lims ID:	280-188555-B-4-O MSD				
Client ID:	X7-TP-C03-2436				
Operator ID:	ACM	ALS Bottle#:	17	Worklist Smp#:	19
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	8321_NGu	Limit Group:	LC - 8321 NGu		

9 Nitroguanidine



9 Nitroguanidine



LCMS ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: LC_LCMS7 Start Date: 03/14/2024 13:54

Analysis Batch Number: 645982 End Date: 03/14/2024 14:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD001 280-645982/3 IC		03/14/2024 13:54	1	NG724C14003.d	Synergi Hydro
STD002 280-645982/4 IC		03/14/2024 13:57	1	NG724C14004.d	Synergi Hydro
STD003 280-645982/5 IC		03/14/2024 14:01	1	NG724C14005.d	Synergi Hydro
STD004 280-645982/6 IC		03/14/2024 14:04	1	NG724C14006.d	Synergi Hydro
STD005 280-645982/7 IC		03/14/2024 14:07	1	NG724C14007.d	Synergi Hydro
STD006 280-645982/8 IC		03/14/2024 14:10	1	NG724C14008.d	Synergi Hydro
STD007 280-645982/9 IC		03/14/2024 14:14	1	NG724C14009.d	Synergi Hydro
ICB 280-645982/10		03/14/2024 14:17	1	NG724C14010.d	Synergi Hydro
ICV 280-645982/11		03/14/2024 14:20	1	NG724C14011.d	Synergi Hydro
MB 280-645870/1-A		03/14/2024 14:23	1	NG724C14012.d	Synergi Hydro
LCS 280-645870/2-A		03/14/2024 14:26	1	NG724C14013.d	Synergi Hydro
280-188555-1	X7-TP-C01-3642	03/14/2024 14:30	1	NG724C14014.d	Synergi Hydro
280-188555-2	X7-TP-C02-2430	03/14/2024 14:33	1	NG724C14015.d	Synergi Hydro
280-188555-3	FD-03062401	03/14/2024 14:36	1	NG724C14016.d	Synergi Hydro
280-188555-4	X7-TP-C03-2436	03/14/2024 14:39	1	NG724C14017.d	Synergi Hydro
280-188555-4 MS	X7-TP-C03-2436 MS	03/14/2024 14:43	1	NG724C14018.d	Synergi Hydro
280-188555-4 MSD	X7-TP-C03-2436 MSD	03/14/2024 14:46	1	NG724C14019.d	Synergi Hydro
CCV 280-645982/20		03/14/2024 14:49	1	NG724C14020.d	Synergi Hydro

LCMS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645628 Batch Start Date: 03/11/24 16:58 Batch Analyst: Lee, David C

Batch Method: Prep/Air Dry Batch End Date: 03/12/24 17:05

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	AnalysisComment					
280-188555-B-1	X7-TP-C01-3642	Prep/Air Dry, 8330B, 8321B	Solid	T	10g					
280-188555-B-2	X7-TP-C02-2430	Prep/Air Dry, 8330B, 8321B	Solid	T	10g					
280-188555-B-3	FD-03062401	Prep/Air Dry, 8330B, 8321B	Solid	T	10g					
280-188555-B-4	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8321B	Solid	T	10g					
280-188555-B-4 MS	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8321B	Solid	T	10g; Extra vol for Diamino					
280-188555-B-4 MSD	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8321B	Solid	T	10g; Extra vol for Diamino					

Batch Notes	
Date and Time laid out to Dry	3/11/24 17:25
Laid out on Parchment or Foil	Foil
Analyst ID - Drying	DL
Analyst ID - Label Check	Reviewer: DN
SOP Number	DV-OP-0013
Batch Comment	Tower: Nano

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.

ISM Batch Number: 645625, 645628

DV-F-0070_Rev 2_01-7-2020 Use this spreadsheet to document drying samples to a constant weight.									
balance ID:		38602403	3-12-2024 1051	3-12-2024 1445	Dry?		Date/time 3	Dry?	
			EB	EB			analyst initials		
Login	Sample	Tare weight (weight of weighing vessel)	Gross weight (g) (weight of aliquot and weighing vessel)	Gross weight (g) (weight of aliquot and weighing vessel)	Change in weights 1, 2	Proceed with ISM?	Gross weight (g) (weight of aliquot and weighing vessel)	Change in weights 2, 3	Proceed with ISM?
188531	1	1	14.68	14.67	0.07%	Yes		107.32%	No
188531	2	0.96	13.81	13.8	0.08%	Yes		107.48%	No
188531	3	0.99	19.55	19.53	0.11%	Yes		105.34%	No
188531	4	0.98	17.17	17.17	0.00%	Yes		106.05%	No
188531	5	0.96	18.58	18.56	0.11%	Yes		105.45%	No
188555	1	0.98	23.04	23.05	-0.05%	Yes		104.44%	No
188555	2	0.98	15.36	15.34	0.14%	Yes		106.82%	No
188555	3	0.98	16.41	16.39	0.13%	Yes		106.36%	No
188555	4	1	15.12	15.1	0.14%	Yes		107.09%	No

LogTag

Recorder has been Downloaded 3/12/2024 2:04:16 PM

Note: All Date-Time values are in UTC -07:00

Alarm Status

Lower	✓	OK
Upper	✓	OK

Recorder Info

Serial #: 2000144856 Model: TRIX-8 Battery: OK Trip #: 195
Description: Explosives Room (0.0)

Recorder Configuration

Start type :	Push button start	Temperature alarms	
Start delay :	1 Minute	Lower : 10.0 °C after 3 Consecutive	
Interval :	10 Minutes	or after 3 Accumulative	
Alert indicator :	Enabled lower & upper	Upper : 25.0 °C after 3 Consecutive	
OK indicator :	Enabled	or after 3 Accumulative	

Recorded Data

First reading :	3/6/2024 10:55:24 AM	Temperature statistics	
Last reading :	3/12/2024 1:55:24 PM	Lowest :	21.4 °C
Elapsed time :	6 Days 3 Hours 10 Minutes	@	3/12/2024 12:45:24 AM
Total readings :	883	Highest :	22.0 °C
First evaluated :	3/11/2024 5:05:24 PM	@	3/11/2024 10:25:24 PM
Last evaluated :	3/12/2024 1:55:24 PM	Average reading:	21.6 °C
Evaluated Time :	21 Hours	Standard Deviation:	0.2 °C(S)
Evaluated Readings :	126	MKT(ΔH 83.144):	21.6 °C

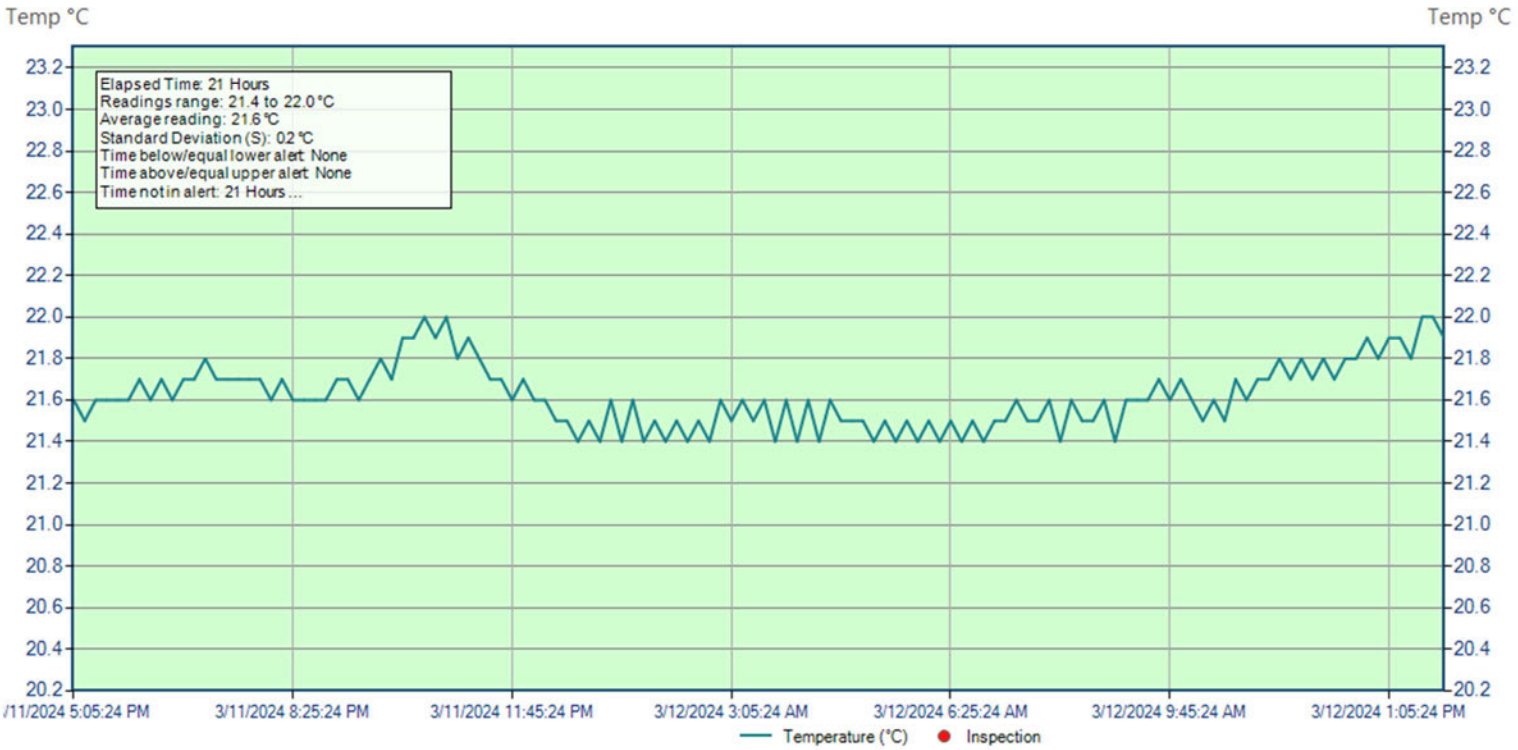
Lower Alarm

Triggered:	(none)
Time below/equal:	(none)
Occurrences :	0
°C - Minutes below :	0.00

Upper Alarm

Triggered:	(none)
Time above/equal:	(none)
Occurrences :	0
°C - Minutes above :	0.00

Source: Explosives Room (0.0)TRIX-8- 2000144856 Started 3_6_2024, Finished 3_12_20242000144856.ltd
File Location: G:\QA\Draft\Lab LogTag Data\2023
Created : 3/12/2024 3:04:51 PM



Source: Explosives Room (0.0)TRIX-8- 2000144856 Started 3_6_2024, Finished 3_12_20242000144856.ltd

File Location: G:\QA\Draft\Lab LogTag Data\2023

Created : 3/12/2024 3:04:51 PM

BATCH:	645628								
DV-F-0085 rev 2022-04-26. Use this spreadsheet to document sample weights during the ISM process.									
	Method --->	gross weight	container tare weight	initial sample weight	dried sample weight	nonsoil material	min aliquot size needed	8330 aliquot weight	8321_Ngu aliquot weight
	Balance ID --->	38602403	38602403	calculated	38602403	NA	NA	38602403	38602403
Login	**Sample**	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)
280-188555	1	495.91	183.02	312.89	267.72	NA	10	10.18	10.37
280-188555	2	497.79	183.49	314.3	271.75	NA	10	10.89	10.09
280-188555	3	512.98	183.53	329.45	285.78	NA	10	10.04	10.83
280-188555	4	495.57	187.77	307.8	258.66	NA	10	10.33	10.27
280-188555	4ms			0		NA	10	10.1	10.17
280-188555	4msd			0		NA	10	10.54	10.73
280-188555	4ms			0		NA	10	10.37	NA
280-188555	4msd			0		NA	10	10.3	NA
280-188555	4du			0		NA	10	10.25	NA
280-188555	4trl			0		NA	10	10.22	NA

BATCH:	645628	
DV-F-0085 rev 2022-04-26. U		

	Method --->	Comments
	Balance ID --->	
Login	Sample	
280-188555	1	
280-188555	2	
280-188555	3	
280-188555	4	
280-188555	4ms	
280-188555	4msd	
280-188555	4ms	Extra volume for Diamino
280-188555	4msd	Extra volume for Diamino
280-188555	4du	
280-188555	4trl	

LCMS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645870 Batch Start Date: 03/13/24 13:09 Batch Analyst: Bunzli, Eric K

Batch Method: 8330B Batch End Date: 03/14/24 09:31

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	NGu Cal 00006			
MB 280-645870/1		8330B, 8321B			10 g	20 mL				
LCS 280-645870/2		8330B, 8321B			10 g	20 mL	0.2 mL			
280-188555-B-1-A	X7-TP-C01-3642	8330B, 8321B	Solid	T	10.37 g	20 mL				
280-188555-B-2-A	X7-TP-C02-2430	8330B, 8321B	Solid	T	10.09 g	20 mL				
280-188555-B-3-A	FD-03062401	8330B, 8321B	Solid	T	10.83 g	20 mL				
280-188555-B-4-A	X7-TP-C03-2436	8330B, 8321B	Solid	T	10.27 g	20 mL				
280-188555-B-4-B MS	X7-TP-C03-2436	8330B, 8321B	Solid	T	10.17 g	20 mL	0.2 mL			
280-188555-B-4-C MSD	X7-TP-C03-2436	8330B, 8321B	Solid	T	10.73 g	20 mL	0.2 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645870 Batch Start Date: 03/13/24 13:09 Batch Analyst: Bunzli, Eric K

Batch Method: 8330B Batch End Date: 03/14/24 09:31

Batch Notes	
Solvent Name	N. Elga
Solvent Lot #	N. Elga
Prep Solvent Volume Used	20 mL
Analyst ID - Reagent Drop Witness	DL
Analyst ID - Concentration	spiking: EB; filtering: EB
Balance ID	38602403
Balance is Level? (Y/N)	yes
Blank Sand Lot #	ottawa_sand_00010
Pipette ID for Solvent	graduated cylinder
Pipette ID	Ika
Sonication Start Time	3-13-2024 1332
Sonication Stop Time	3-14-2024 732
Filter Type	0.45µm PVDF Basix
Filter ID	2306086965
Date Sample was Dried	B645628
SOP Number	DV-OP-0018
Batch Comment	shaker: Innova

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: 280-188555-1

SDG No.:

Project: NB Kitsap Bangor CTO NW194112, WA

Client Sample ID	Lab Sample ID
X7-TP-C01-3642	280-188555-1
X7-TP-C02-2430	280-188555-2
FD-03062401	280-188555-3
X7-TP-C03-2436	280-188555-4

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-188555-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: D 2216 LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (%)	
Percent Moisture		0.1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: D 2216

Start Date: 03/12/2024 15:02 End Date: 03/12/2024 15:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				Moist																								
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
280-188555-1	1	T	15:02	X																								
280-188555-2	1	T	15:02	X																								
280-188555-3	1	T	15:02	X																								
280-188555-4	1	T	15:02	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: D 2216

Start Date: 03/12/2024 15:02 End Date: 03/12/2024 15:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				Moist																								
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: D 2216

Start Date: 03/12/2024 15:02 End Date: 03/12/2024 15:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				Moist																								
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645751 Batch Start Date: 03/12/24 15:02 Batch Analyst: Patino, Christian L

Batch Method: D 2216 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry	%_Moisture	%_Solid
280-188555-C-1	X7-TP-C01-3642	D 2216	Solid	T	35	0.98 g	16.66 g	14.36 g	14.6683673469388 %	85.3316326530612 %
280-188555-C-2	X7-TP-C02-2430	D 2216	Solid	T	36	0.98 g	18.06 g	15.66 g	14.0515222482436 %	85.9484777517564 %
280-188555-C-3	FD-03062401	D 2216	Solid	T	37	0.98 g	16.38 g	14.19 g	14.2207792207792 %	85.7792207792208 %
280-188555-C-4	X7-TP-C03-2436	D 2216	Solid	T	38	0.98 g	17.84 g	14.91 g	17.3784104389087 %	82.6215895610913 %

Batch Notes	
Balance ID	24750836
Balance is Level? (Y/N)	yes
Oven ID	E
Thermometer ID	1354
Date samples were placed in the oven	03/12/2024
Time samples were place in the oven	18:20
Temperature - Start - Uncorrected	103 Degrees C
Oven Temp In	103 Degrees C
Date samples were removed from oven	03/13/2024
Time Samples were removed from oven	09:54
Analyst ID - Weighing	ejs, cp, rcb
Temperature - End - Uncorrected	103 Degrees C
Oven Temp Out	103 Degrees C
Date and Time Samples in Desiccator	03/13/2024 09:54
Date and Time Samples out of Desiccator	03/13/2024 12:38
Batch Comment	ejs, cp, dry:RCB

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 Raw Data Report

Job ID: 280-188555-1

Batch: 645751 **Analyst Initials: CLP**

Method: D 2216 **Instrument: No Equipment Used for this Test**

Lab Sample ID: 280-188555-C-1 **Analysis Date: Mar 12, 2024 15:02**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	14.6683673469388	%

Lab Sample ID: 280-188555-C-2 **Analysis Date: Mar 12, 2024 15:02**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	14.0515222482436	%

Lab Sample ID: 280-188555-C-3 **Analysis Date: Mar 12, 2024 15:02**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	14.2207792207792	%

Lab Sample ID: 280-188555-C-4 **Analysis Date: Mar 12, 2024 15:02**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	17.3784104389087	%

Shipping and Receiving Documents

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Phone (303) 431-7171

Chain of Custody Record

eurofins | Environment Testing America

280-188555 Chain of Custody

Client Information	Sampler: Mitch Baron	Lab PM: Turner, Shelby R	Carrier Tracking No:
Client Contact: Mitch Baron	Phone: 360-908-3246	E-Mail: Shelby.Turner@et.eurofinsus.com	State of Origin:
Company: Tetra Tech, Inc.	PWSID:		
Address: 19803 North Creek Parkway	Due Date Requested:		
City: Bothell	TAT Requested (days):		
State, Zip: WA, 98011	Compliance Project: Δ Yes Δ No		
Phone: ~~412-600-8502(Tel)~~ 360-908-3246	PO #: Purchase Order Requested		
Email: Mitch.Baron@tetratech.com	WO #:		
Project Name: NB Kitsap Bangor CTO NW194112, WA	Project #: 28023939		
Site:	SSOW#:		

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8330B_DOD5 - Explosives, Client list with 3,5-DNA, Picric & Diamino	8321B_NGu - Nitroguanidine (LC/MS)	8270E_DOD5 - 2,4-Dinitrophenol, Diphenylamine, N-Nitrosodiphenylamine, Moisture		6010D_DOD5 - TCLP RCRA Metals, 7470A_DOD5 - TCLP Mercury	9012B_NP_DOD5 - Total Cyanide	8321A_Herb_DOD5 - TCLP Herbicides	1010A - Ignitability	9034 - Sulfide	8081B_DOD5 - TCLP Pesticides	9040C - pH / Corrosivity	8260D_DOD5 - TCLP VOCs	8270E_DOD5 - TCLP SVOCs	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N	N		N	B	N	N	CB	N	N	N	N		
X7-TP-C01-3642	3-6-2024	0900	C	S			X	X	X											3	
X7-TP-C02-2430	3-6-2024	0925	C	S			X	X	X											3	
FD-03062401	3-6-2024	0935	C	S			X	X	X											3	
X7-TP-C03-2436	3-6-2024	0955	C	S		Y	X	X	X											3	Run MS/MSD

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, X - Trizma, Z - other (specify)
Other:

[redacted] 2024

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Mitch Baron [redacted]	3-6-2024 1400	Tetra Tech	[redacted]	3/7/24 9:30	EET DEN
Relinquished by:	Date/Time:	Company		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.4 IR 14 CF 0.1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 280-188555-1

Login Number: 188555
List Number: 1
Creator: Little, Matthew L

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix G-2: Data Validation Reports

This Page Intentionally Left Blank

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. BARON** **DATE:** **APRIL 2, 2024**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **DATA VALIDATION – NITROCELLULOSE, PERCENT SOLIDS NAVAL BASE KITSAP (NBK) BANGOR SILVERDALE, WASHINGTON SDG 24C0028**

SAMPLES: 4/Soils
Nitrocellulose, Percent Solids

FD-03062401	X7-TP-C01-3642
X7-TP-C02-2430	X7-TP-C03-2436

Overview

The sample set for NBK Bangor, SDG 24C0028, consisted of four (4) soil environmental samples. All samples were analyzed for nitrocellulose and percent solids as referenced above. One (1) field duplicate sample pair, X7-TP-C02-2430 / FD-03062401, was associated with this SDG.

The samples were collected by Tetra Tech, Inc. on March 6, 2024 and analyzed by APPL Labs. All analyses were conducted in accordance with EPA method 353.2 and ISM02.2 analytical and reporting protocols.

The data contained in this SDG was validated via 90% EPA Stage 2B and 10% EPA Stage 4 with regard to the following parameters:

* • Data Completeness
* • Holding Times/Sample Preservation
* • Initial and Continuing Calibrations
* • Laboratory Method Blank Results
* • Laboratory Control Sample / Laboratory Control Sample Duplicate Results
• Matrix Spike / Matrix Spike Duplicate Results
* • Laboratory Duplicate Results
* • Field Duplicate Results
* • Compound Identification
* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, and documentation supporting these findings is presented in Appendix C.

Nitrocellulose

The matrix spike / matrix spike duplicate (MS/MSD) percent recoveries for nitrocellulose for sample X7-TP-C03-2436 were < 30%. All samples were affected. The nondetected results reported for nitrocellulose in the affected samples were qualified as (UX).

Additional Comments

Nondetected results were reported to the limit of detection (LOD).

The nitrocellulose result for sample X7-TP-C02-2430 was checked and verified.

EXECUTIVE SUMMARY

Laboratory Performance Issues: No issues were noted.

Other Factors Affecting Data Quality: MS/MSD percent recoveries were very low (< 30%).

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Superfund Methods Data Review" (November 2020). The text of this report has been formulated to address only those areas affecting data quality.



Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator



Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A - Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: NW194112	NSAMPLE	FD-03062401			X7-TP-C01-3642			X7-TP-C02-2430			X7-TP-C03-2436		
SDG: 24C0028	LAB_ID	24C0028-03			24C0028-01			24C0028-02			24C0028-04		
FRACTION: EXP	SAMP_DATE	3/6/2024			3/6/2024			3/6/2024			3/6/2024		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	86.9			84.6			84.6			83.1		
	DUP_OF	X7-TP-C02-2430											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
NITROCELLULOSE		9.1	UX	D	9.4	UX	D	9.4	UX	D	9.6	UX	D

PROJ_NO: NW194112	NSAMPLE	FD-03062401			X7-TP-C01-3642			X7-TP-C02-2430			X7-TP-C03-2436		
SDG: 24C0028	LAB_ID	24C0028-03			24C0028-01			24C0028-02			24C0028-04		
FRACTION: MISC	SAMP_DATE	3/6/2024			3/6/2024			3/6/2024			3/6/2024		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	86.9			84.6			84.6			83.1		
	DUP_OF	X7-TP-C02-2430											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT SOLIDS		86.9			84.6			84.6			83.1		

Appendix B

Results as Reported by the Laboratory

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Sample Results

Sample: X7-TP-C01-3642
24C0028-01 (Solid)

WetLab

Analyte	Result	/Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	84.6		2.00	1.50	0.750	%	03/11/24	1	ISM02.2	BDC0111
NITROCELLULOSE	9.4	U	12	9.4	4.7	mg/kg dry	03/22/24	1	EPA 353.2	BDC0162

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Sample Results
(Continued)

Sample: X7-TP-C02-2430
24C0028-02 (Solid)

WetLab

Analyte	Result	/Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	84.6		2.00	1.50	0.750	%	03/11/24	1	ISM02.2	BDC0111
NITROCELLULOSE	9.4	U	12	9.4	4.7	mg/kg dry	03/22/24	1	EPA 353.2	BDC0162

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Sample Results
(Continued)

Sample: FD-03062401
24C0028-03 (Solid)

WetLab

Analyte	Result	/Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	86.9		2.00	1.50	0.750	%	03/11/24	1	ISM02.2	BDC0111
NITROCELLULOSE	9.1	U	11	9.1	4.6	mg/kg dry	03/22/24	1	EPA 353.2	BDC0162

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Sample Results
(Continued)

Sample: X7-TP-C03-2436
24C0028-04 (Solid)

WetLab

Analyte	Result	/Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	83.1		2.00	1.50	0.750	%	03/11/24	1	ISM02.2	BDC0111
NITROCELLULOSE	9.6	U	12	9.6	4.8	mg/kg dry	03/22/24	1	EPA 353.2	BDC0162

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

Appendix C

Support Documentation

ANALYTE	ORIGINAL X7-TP-C02-2430	DUPLICATE FD-03062401	RL	RPD	RPD > 50% Soil	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2XRL
PERCENT SOLIDS	84.6	86.9	2	2.68	FALSE	TRUE	TRUE	FALSE

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

Bottle Order 23K0023

C.O.C. 61943

Report to: PLEASE PRINT

Company Name: Tetra Tech Phone: 360-908-3246

Address: 661 Anderson Dr. Pittsburgh, PA 15220 Fax:

Attn: Mitch Baron

Email: mitch.baron@tetratech

Invoice to: PLEASE PRINT

Company Name: Tetra Tech Phone:

Address: 661 Anderson Dr., Foster Plaza 7 Pittsburgh, PA 15220 Fax:

Attn: Accounts Payable

Email: NUS.AP@Tetratech.com

Project Name/Number: NB Kitsap Bangor CTO NW19412

Purchase Order Number: 1132337

Sampler (Print): Mitch Baron

Sampler (Signature): [redacted]

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	Analysis Requested/Method Number: 353.2M Nitrate Nitrite
X7-TP-C01-3642	NBK Bangor	3-6-24	0900	PST	1			X	X
X7-TP-C02-2430	NBK Bangor	3-6-24	0925	PST	1			X	X
D-03062401	NBK Bangor	3-6-24	0935	PST	1			X	X
7-TP-C03-2436	NBK Bangor	3-6-24	0955	PST	1			X	X

Date Shipped:
Carrier:
Waybill No.:
Comments: ms/msd

[redacted]024

uttle Temperature: 5 5/4 °C

Turnaround Requested: Check one
☒ Standard 2-3 wk ☐ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
[redacted] sealed in cooler	3-6-24	1340					
	Date	Time	Received by:	Relinquished by:	Date	Time	
					03/07/24	9:55am	[redacted] Appl Inc

ite: Return to client with report Yellow: Laboratory Copy See reverse side for Container Preservative and Sampling Information

Table of Contents

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Data Validatable Report

Analysis Case Narrative

In the MS/MSD performed on sample X7-TP-CO3-2436, Nitrocellulose recovered below control limits. Corrective action: the client was notified.

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
24C0028-01	X7-TP-C01-3642	Solid	03/06/2024 09:00	03/07/2024
24C0028-02	X7-TP-C02-2430	Solid	03/06/2024 09:25	03/07/2024
24C0028-03	FD-03062401	Solid	03/06/2024 09:35	03/07/2024
24C0028-04	X7-TP-C03-2436	Solid	03/06/2024 09:55	03/07/2024

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

PREPARATION BATCH SUMMARY

EPA 353.2

Laboratory:	APPL, LLC	Work Order:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Batch:	BDC0162 Batch Matrix: Solid	Preparation:	EPA 353.2

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT g	FINAL VOL. mL
X7-TP-C01-3642	24C0028-01	03/12/24 12:19	2.01	20.00
X7-TP-C02-2430	24C0028-02	03/12/24 12:19	2.02	20.00
FD-03062401	24C0028-03	03/12/24 12:19	2.02	20.00
X7-TP-C03-2436	24C0028-04	03/12/24 12:19	2.00	20.00
Blank	BDC0162-BLK1	03/12/24 12:19	2.05	20.00
LCS	BDC0162-BS1	03/12/24 12:19	2.06	20.00
LCS Dup	BDC0162-BSD1	03/12/24 12:19	2.02	20.00
X7-TP-C03-2436	BDC0162-MS1	03/12/24 12:19	2.05	20.00
X7-TP-C03-2436	BDC0162-MSD1	03/12/24 12:19	2.02	20.00

METHOD BLANK SUMMARY

EPA 353.2

Laboratory:	APPL, LLC	Work Order:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Blank ID:	BDC0162-BLK1	Batch:	BDC0162
Prepared:	03/12/2024 12:19		

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
Matrix Spike Dup	BDC0162-MSD1	240321C Nitro rev-040	09:49
Matrix Spike	BDC0162-MS1	240321C Nitro rev-037	09:49
LCS Dup	BDC0162-BSD1	240321C Nitro rev-034	09:49
LCS	BDC0162-BS1	240321C Nitro rev-031	09:49
X7-TP-C03-2436	24C0028-04	240321C Nitro rev-060	09:49
FD-03062401	24C0028-03	240321C Nitro rev-057	09:49
X7-TP-C02-2430	24C0028-02	240321C Nitro rev-052	09:49
X7-TP-C01-3642	24C0028-01	240321C Nitro rev-049	09:49

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Quality Control

WetLab

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Method: ISM02.2										
Batch: BDC0111 - ISM02.2										
Duplicate (BDC0111-DUP1)	**Source: 24C0028-04**					Prepared & Analyzed: 03/11/24 08:49				
	%									
% Solids	84.5					83.1			1.69	20
MOISTURE	15.5					16.9			8.75	20
Method: EPA 353.2										
Batch: BDC0162 - EPA 353.2										
Blank (BDC0162-BLK1)						Prepared: 03/12/24 12:19		Analyzed: 03/22/24 09:49		
	mg/kg wet									
NITROCELLULOSE	7.8 U	9.8	7.8	3.9						
LCS (BDC0162-BS1)						Prepared: 03/12/24 12:19		Analyzed: 03/22/24 09:49		
	mg/kg wet									
NITROCELLULOSE	42.0				97.1		43.3	40-120		
LCS Dup (BDC0162-BSD1)						Prepared: 03/12/24 12:19		Analyzed: 03/22/24 09:49		
	mg/kg wet									
NITROCELLULOSE	45.9				99.0		46.4	40-120	8.80	20
Matrix Spike (BDC0162-MS1)	**Source: 24C0028-04**					Prepared: 03/12/24 12:19		Analyzed: 03/22/24 09:49		
	mg/kg dry									
NITROCELLULOSE	14.0 MS1				117	9.63 U	11.9	40-120		
Matrix Spike Dup (BDC0162-MSD1)	**Source: 24C0028-04**					Prepared: 03/12/24 12:19		Analyzed: 03/22/24 09:49		
	mg/kg dry									
NITROCELLULOSE	15.1 MS1				119	9.63 U	12.7	40-120	8.07	20

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

APPL, LLC - 908 N. Temperance Ave., Clovis, CA 93611

Tetra Tech, Inc. Bothell	Project: NB Kitsap Bangor CTO NW194112, WA	
19803 North Creek Parkway	Project Number: 28023939	
Bothell, WA 98011	Project Manager: Mitch Baron	Reported: 03/22/2024 15:26

Notes and Definitions

Item	Definition
MS1	Matrix spike recovered below the lower control limit
U	Not detected
Dry	Sample results reported on a dry weight basis.
DF	Dilution Factor
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
*	Value outside control limits
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.

LOQ, Limit of Quantitation = Method Reporting Limit (MRL).

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 353.2

Laboratory:	APPL, LLC	Work Order:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Instrument ID:	EVE	Calibration:	UNASSIGNED
		Sequence:	SD00978

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SD00978-CCV1	NITROCELLULOSE	3.00	2.63	87.8	ug/mL	+/- 15.00%
SD00978-CCV2	NITROCELLULOSE	3.00	2.85	95.1	ug/mL	+/- 15.00%
SD00978-CCV3	NITROCELLULOSE	3.00	2.96	98.8	ug/mL	+/- 15.00%
SD00978-ICV1	NITROCELLULOSE	3.00	3.10	103	ug/mL	+/- 15.00%

INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 353.2

Laboratory:	APPL, LLC	SDG:	24C0028
Client:	Tetra Tech Inc, Bothell	Project:	28023939
Sequence:	SD00978	Instrument:	EVE
Calibration:	UNASSIGNED		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	SD00978-CCV1	240321C Nitro rev-067	03/22/24 09:04
Calibration Blank	SD00978-CCB1	240321C Nitro rev-068	03/22/24 09:06
Calibration Check	SD00978-CCV2	240321C Nitro rev-016	03/22/24 09:20
Calibration Blank	SD00978-CCB2	240321C Nitro rev-018	03/22/24 09:22
Calibration Check	SD00978-CCV3	240321C Nitro rev-053	03/22/24 09:41
Calibration Blank	SD00978-CCB3	240321C Nitro rev-054	03/22/24 09:42
X7-TP-C01-3642	24C0028-01	240321C Nitro rev-049	03/22/24 09:49
X7-TP-C02-2430	24C0028-02	240321C Nitro rev-052	03/22/24 09:49
X7-TP-C03-2436	24C0028-04	240321C Nitro rev-060	03/22/24 09:49
Blank	BDC0162-BLK1	240321C Nitro rev-028	03/22/24 09:49
LCS	BDC0162-BS1	240321C Nitro rev-031	03/22/24 09:49
LCS Dup	BDC0162-BSD1	240321C Nitro rev-034	03/22/24 09:49
FD-03062401	24C0028-03	240321C Nitro rev-057	03/22/24 09:49
X7-TP-C03-2436	BDC0162-MSD1	240321C Nitro rev-040	03/22/24 09:49
Initial Cal Check	SD00978-ICV1	240321C Nitro rev-022	03/22/24 09:49
Initial Cal Blank	SD00978-ICB1	240321C Nitro rev-025	03/22/24 09:49
X7-TP-C03-2436	BDC0162-MS1	240321C Nitro rev-037	03/22/24 09:49

Table of Contents

SAMPLE X7-TP-C02-2430

Reported result Nitrocellulose 9.4 U mg/kg

Y=9.047411*0.031793+ -0.1950484
Y=0.092595938
0.092595938 * 7.07=0.6546 mg/L

CCB	Seq-CCB	-0.0036	mg/L	0.022126	KTF	2024-03-21 14:48:56

0.6546 mg/L * 20ml / 2.0 g / 0.846 = 7.738 mg/kg

TOXN

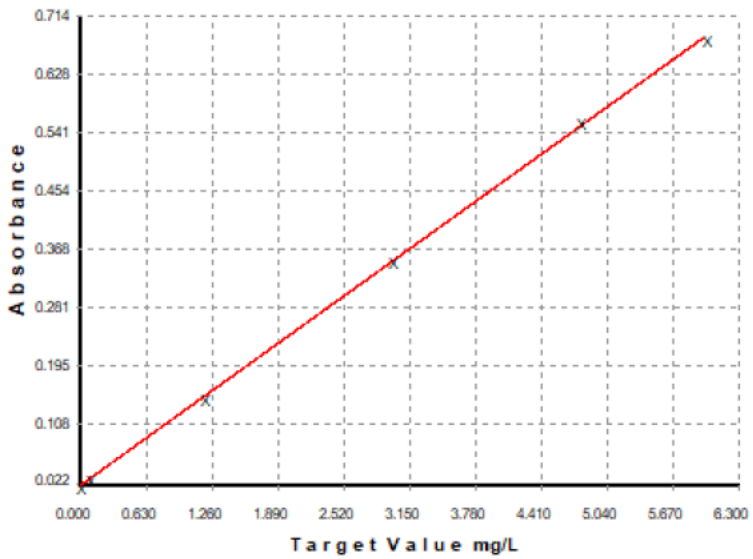
7.07 conversion TOXN to Nitrocellulose

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0217	0.0015	0.0000	
S90	0.0330	0.1039	0.1000	3.92
S91	0.1519	1.1789	1.2000	-1.76
S92	0.3532	3.0001	3.0000	0.00
S93	0.5585	4.8576	4.8000	1.20
S94	0.6801	5.9580	6.0000	-0.70
S0	0.0228	0.0116	0.0000	

Polynomial Order :	1
Correlation Coefficient :	0.9999
Carryover(%) :	0.2
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-1.950484E-01
b =:	9.047411E+00
Date & Time :	2024-03-22 09:19:01

Calibration Graph



Test Results

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time & Date
	S1	Standard 1	0.0217			0.021722			KTF	2024-03-22 09:08:23
	S90	Standard 90	0.0330			0.033045			KTF	2024-03-22 09:10:10
	S91	Standard 91	0.1519			0.151858			KTF	2024-03-22 09:11:56
	S92	Standard 92	0.3532			0.353157			KTF	2024-03-22 09:13:43
	S93	Standard 93	0.5585			0.558463			KTF	2024-03-22 09:15:29
	S94	Standard 94	0.6801			0.680093			KTF	2024-03-22 09:17:15
	S0	Standard 0	0.0228			0.022841			KTF	2024-03-22 09:19:01
	CCV	Seq-CCV	2.8522	mg/L		0.336811			KTF	2024-03-22 09:20:48
	CCV	Seq-CCV	2.5797	mg/L		0.333367			KTF	2024-03-22 08:31:25
	CCV	Seq-CCV	2.6268	mg/L		0.338880			KTF	2024-03-22 08:03:02
	CCV	Seq-CCV	2.5873	mg/L		0.334262			KTF	2024-03-22 07:30:43
	CCB	Seq-CCB	0.0011	mg/L		0.021682			KTF	2024-03-22 09:22:34
	CCB	Seq-CCB	-0.0841	mg/L		0.021849			KTF	2024-03-22 08:33:12
	CCB	Seq-CCB	-0.0822	mg/L		0.022071			KTF	2024-03-22 08:04:49
	CCB	Seq-CCB	-0.0694	mg/L		0.023574			KTF	2024-03-22 07:32:29
2	U2	Seq-ICV2	3.0964	mg/L		0.363802			KTF	2024-03-22 09:24:24
2	U2	Seq-ICV2	2.7573	mg/L		0.354145			KTF	2024-03-22 07:34:18
2	U2	Seq-ICV2	2.9935	mg/L		0.381762			KTF	2024-03-21 14:59:53
3	U3	Seq-ICB1 NO2 NO3	0.0074AVF	mg/L		0.022380			KTF	2024-03-22 09:26:12
3	U3	Seq-ICB1 NO2 NO3	-0.0676	mg/L		0.023789			KTF	2024-03-22 07:36:07
3	U3	Seq-ICB1 NO2 NO3	-0.0519	mg/L		0.025618			KTF	2024-03-21 15:01:42
4	U4	BDC0162-BLK1	0.1564	mg/L		0.024004		x7.0700	KTF	2024-03-22 09:27:58
4	U4	BDC0162-BLK1	-0.2754	mg/L		0.027133		x7.0700	KTF	2024-03-21 15:03:28
5	U5	Seq-CCB	7.2115	mg/L		0.134300		x7.0700	KTF	2024-03-22 09:29:44
5	U5	Seq-CCB	6.9920	mg/L		0.147343		x7.0700	KTF	2024-03-21 15:05:14
6	U6	BDC0162-BSD1	7.3044	mg/L		0.135751		x7.0700	KTF	2024-03-22 09:31:34
6	U6	BDC0162-BSD1	5.4796	mg/L		0.122326		x7.0700	KTF	2024-03-21 15:07:04
7	U7	BDC0162-MS1	1.8050	mg/L		0.049777		x7.0700	KTF	2024-03-22 09:33:22
7	U7	BDC0162-MS1	1.1242	mg/L		0.050285		x7.0700	KTF	2024-03-21 15:08:52
8	U8	BDC0162-MSD1	2.1843	mg/L		0.055706		x7.0700	KTF	2024-03-22 09:35:12
8	U8	BDC0162-MSD1	1.5455	mg/L		0.057253		x7.0700	KTF	2024-03-21 15:09:49
10	U10	1 PPM NO3	0.0022AVF	mg/L		0.021801			KTF	2024-03-22 09:37:01
10	U10	1 PPM NO3	0.9213	mg/L		0.139428			KTF	2024-03-21 15:10:42
11	U11	24C0028-01	0.2474	mg/L		0.025426		x7.0700	KTF	2024-03-22 09:38:50
11	U11	24C0028-01	-0.2448	mg/L		0.027640		x7.0700	KTF	2024-03-21 15:11:36
12	U12	24C0028-02	0.6546	mg/L		0.031793		x7.0700	KTF	2024-03-22 09:40:39
12	U12	24C0028-02	0.1342	mg/L		0.033908		x7.0700	KTF	2024-03-21 15:12:29
	CCV	Seq-CCV	2.9644	mg/L		0.349210			KTF	2024-03-22 09:41:36

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. BARON** **DATE:** **APRIL 2, 2024**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – SELECT SVOCS, EXPLOSIVES, NITROGUANIDINE, PERCENT MOISTURE**
NAVAL BASE KITSAP (NBK) BANGOR
SILVERDALE, WASHINGTON
SDG 280-188555-1

SAMPLES: 4/Soils
Select SVOCs, Explosives, Nitroguanidine, Percent Moisture

FD-03062401	X7-TP-C01-3642
X7-TP-C02-2430	X7-TP-C03-2436

Overview

The sample set for NBK Bangor, SDG 280-188555-1, consisted of four (4) soil environmental samples. All samples were analyzed for select semivolatile organic compounds (SVOCs) (2,4-dinitrophenol, diphenylamine and N-nitrosodiphenylamine), explosives, nitroguanidine and percent moisture as referenced above. One (1) field duplicate sample pair, X7-TP-C02-2430 / FD-03062401, was associated with this SDG.

The samples were collected by Tetra Tech, Inc. on March 6, 2024 and analyzed by Eurofins Test America. All analyses were conducted in accordance with SW-846 Methods 8270E and 8321B, EPA method 8330B and ASTM method D2216 analytical and reporting protocols.

The data contained in this SDG was validated via 90% EPA Stage 2B and 10% EPA Stage 4 with regard to the following parameters:

- Data Completeness
* • Holding Times/Sample Preservation
* • GC/MS Tuning
- Initial and Continuing Calibrations
* • Laboratory Method Blank Results
- Surrogate Spike Recoveries
* • Laboratory Control Sample Results
- Matrix Spike / Matrix Spike Duplicate Results
* • Internal Standard Areas
* • Laboratory Triplicate Results
- Field Duplicate Results
* • Compound Identification
* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, and documentation supporting these findings is presented in Appendix C.

Select SVOCs

The closing continuing calibration verification performed on instrument SMS_G6 on 03/06/2024 @ 00:01 had a percent difference (%D) greater than 50% but less than the 80% for 2,4-dinitrophenol. All samples were affected. The nondetected results reported for 2,4-dinitrophenol in the affected samples were qualified as estimated (UJ).

Explosives

The matrix spike / matrix spike duplicate (MS/MSD) percent recoveries for Picric acid for sample X7-TP-C03-2436 were below the quality control limits. The MS/MSD relative percent difference for Picric acid was outside the quality control limits. The nondetected result reported for Picric acid in the affected sample was qualified as estimated (UJ).

Field duplicate imprecision (relative percent difference greater than 50%) was noted for HMX and RDX for sample pair X7-TP-C02-2430 / FD-03062401. The detected results reported for HMX and RDX for samples X7-TP-C02-2430 and FD-03062401were qualified as estimated (J).

Nitroguanidine

No issues.

Percent Moisture

No issues.

Additional Comments

Detected results reported below the limit of quantitation (LOQ) but above the detection limit (DL) were qualified as estimated, (J).

Non-detected results were reported to the limit of detection (LOD).

Instances of manual integrations were present in this data package. All manual integrations were summarized by the laboratory in the data package.

The compounds 2,4-diamino-6-nitrotoluene and 2,6-diamino-4-nitrotoluene were reported by the laboratory but were not included in the list of analytes required in the quality assurance project plan. All results were nondetected. In order to be consistent with data submitted in January 2023, the aforementioned analytes were not included in the final data set of this SDG after validation.

The surrogate recovery for 1,2-dinitrobenzene was 0% for sample FD-03062401. The sample was analyzed at a 50X dilution. No validation actions were required.

The following compounds were analyzed at dilutions for the explosive fraction:

Sample	Compound	Dilution
FD-03062401	HMX	5X
	RDX	50X
X7-TP-C02-2430	RDX	10X

The SVOC results for N-nitrosodiphenylamine for sample X7-TP-C01-3642 and the laboratory control sample and the surrogate recovery for 2-fluorophenol were checked and verified. The explosive result for HMX for sample X7-TP-C02-2430 and the surrogate recovery for 1,2-dinitrobenzene were checked and verified.

EXECUTIVE SUMMARY

Laboratory Performance Issues: One closing calibration verification %D was outside the quality control limits for the SVOC analyses.

Other Factors Affecting Data Quality: Results below the LOQ were estimated. MS/MSD percent recoveries were outside the quality control limits for the explosive analyses. Field duplicate imprecision was noted for sample pair X7-TP-C02-2430 / FD-03062401.

The data for these analyses were reviewed with reference to the Department of Defense (DOD) documents entitled “Data Validation Guidelines Module 1: Data Validation Procedure for Organic Analysis by GC/MS” (May 11, 2020) and the "National Functional Guidelines for Organic Superfund Methods Data Review" (November 2020). The text of this report has been formulated to address only those areas affecting data quality.

[redacted]

Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator

[redacted]

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A - Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: NW194112	NSAMPLE	FD-03062401			X7-TP-C01-3642			X7-TP-C02-2430			X7-TP-C03-2436		
SDG: 280-188555-1	LAB_ID	280-188555-3			280-188555-1			280-188555-2			280-188555-4		
FRACTION: OS	SAMP_DATE	3/6/2024			3/6/2024			3/6/2024			3/6/2024		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.8			85.3			85.9			82.6		
	DUP_OF	X7-TP-C02-2430											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2,4-DINITROPHENOL		1100	UJ	C	1100	UJ	C	1200	UJ	C	1200	UJ	C
DIPHENYLAMINE		190	U		190	U		190	U		200	U	
N-NITROSODIPHENYLAMINE		74	U		77	U		77	U		80	U	

PROJ_NO: NW194112	NSAMPLE	FD-03062401			X7-TP-C01-3642			X7-TP-C02-2430			X7-TP-C03-2436		
SDG: 280-188555-1	LAB_ID	280-188555-3			280-188555-1			280-188555-2			280-188555-4		
FRACTION: EXP	SAMP_DATE	3/6/2024			3/6/2024			3/6/2024			3/6/2024		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	100.0			100.0			100.0			100.0		
	DUP_OF	X7-TP-C02-2430											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,3,5-TRINITROBENZENE		40	U		39	U		37	U		39	U	
1,3-DINITROBENZENE		40	U		39	U		37	U		39	U	
2,4,6-TRINITROTOLUENE		40	J	P	69	U		64	U				
2,4-DINITROTOLUENE		40	U		39	U		37	U		39	U	
2,6-DINITROTOLUENE		40	U		39	U		37	U		39	U	
2-AMINO-4,6-DINITROTOLUENE		70	U		69	U		64	U		68	U	
2-NITROTOLUENE		100	U		98	U		92	U		97	U	
3,5-DINITROANILINE		20	U		20	U		18	U		19	U	
3-NITROTOLUENE		150	U		150	U		140	U		150	U	
4-AMINO-2,6-DINITROTOLUENE		70	U		69	U		64	U		68	U	
4-NITROTOLUENE		100	U		98	U		92	U		97	U	
HMX		12000	J	G	69	U		1600	J	G	68	U	
NITROBENZENE		200	U		200	U		180	U		190	U	
NITROGLYCERIN		700	U		690	U		640	U		680	U	
NITROGUANIDINE		23	U		24	U		25	U		24	U	
PETN		1000	U		980	U		920	U		970	U	
PICRIC ACID		80	U		79	U		73	U		77	UJ	D
RDX		250000	J	G	71	J	P	36000	J	G			
TETRYL		100	U		98	U		92	U		97	U	

PROJ_NO: NW194112	NSAMPLE	X7-TP-C03-2436-RE2		
SDG: 280-188555-1	LAB_ID	280-188555-4		
FRACTION: EXP	SAMP_DATE	3/6/2024		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	100.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,3,5-TRINITROBENZENE				
1,3-DINITROBENZENE				
2,4,6-TRINITROTOLUENE		68	U	
2,4-DINITROTOLUENE				
2,6-DINITROTOLUENE				
2-AMINO-4,6-DINITROTOLUENE				
2-NITROTOLUENE				
3,5-DINITROANILINE				
3-NITROTOLUENE				
4-AMINO-2,6-DINITROTOLUENE				
4-NITROTOLUENE				
HMX				
NITROBENZENE				
NITROGLYCERIN				
NITROGUANIDINE				
PETN				
PICRIC ACID				
RDX		97	U	
TETRYL				

PROJ_NO: NW194112	NSAMPLE	FD-03062401			X7-TP-C01-3642			X7-TP-C02-2430			X7-TP-C03-2436		
SDG: 280-188555-1	LAB_ID	280-188555-3			280-188555-1			280-188555-2			280-188555-4		
FRACTION: MISC	SAMP_DATE	3/6/2024			3/6/2024			3/6/2024			3/6/2024		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	85.8			85.3			85.9			82.6		
	DUP_OF	X7-TP-C02-2430											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCENT MOISTURE		14.2			14.7			14.1			17.4		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C01-3642 | Lab Sample ID: 280-188555-1

Matrix: Solid | Lab File ID: G6_031524015.D

Analysis Method: 8270E | Date Collected: 03/06/2024 09:00

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 30.6(g) | Date Analyzed: 03/15/2024 18:40

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: 14.7 % Solids: 85.3 | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1100	U Q	1800	1100	380
122-39-4	Diphenylamine	190	U	380	190	51
86-30-6	N-Nitrosodiphenylamine	77	U	380	77	24

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	73		44-115
367-12-4	2-Fluorophenol (Surr)	67		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	92		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	64		37-122
4165-62-2	Phenol-d5 (Surr)	68		33-122
1718-51-0	Terphenyl-d14 (Surr)	87		54-127

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C02-2430 | Lab Sample ID: 280-188555-2

Matrix: Solid | Lab File ID: G6_031524016.D

Analysis Method: 8270E | Date Collected: 03/06/2024 09:25

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 30.2(g) | Date Analyzed: 03/15/2024 19:01

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: 14.1 % Solids: 85.9 | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1200	U Q	1800	1200	380
122-39-4	Diphenylamine	190	U	380	190	51
86-30-6	N-Nitrosodiphenylamine	77	U	380	77	24

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	64		44-115
367-12-4	2-Fluorophenol (Surr)	58		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	87		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	56		37-122
4165-62-2	Phenol-d5 (Surr)	58		33-122
1718-51-0	Terphenyl-d14 (Surr)	80		54-127

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: FD-03062401 | Lab Sample ID: 280-188555-3

Matrix: Solid | Lab File ID: G6_031524017.D

Analysis Method: 8270E | Date Collected: 03/06/2024 09:35

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 31.5(g) | Date Analyzed: 03/15/2024 19:23

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: 14.2 % Solids: 85.8 | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1100	U Q	1800	1100	370
122-39-4	Diphenylamine	190	U M	370	190	49
86-30-6	N-Nitrosodiphenylamine	74	U	370	74	23

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	67		44-115
367-12-4	2-Fluorophenol (Surr)	62		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	90		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	58		37-122
4165-62-2	Phenol-d5 (Surr)	62		33-122
1718-51-0	Terphenyl-d14 (Surr)	81		54-127

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 | Lab Sample ID: 280-188555-4

Matrix: Solid | Lab File ID: G6_031524018.D

Analysis Method: 8270E | Date Collected: 03/06/2024 09:55

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 30.3(g) | Date Analyzed: 03/15/2024 19:44

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: 17.4 % Solids: 82.6 | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1200	U Q	1900	1200	400
122-39-4	Diphenylamine	200	U	400	200	53
86-30-6	N-Nitrosodiphenylamine	80	U	400	80	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	69		44-115
367-12-4	2-Fluorophenol (Surr)	64		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	93		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	61		37-122
4165-62-2	Phenol-d5 (Surr)	65		33-122
1718-51-0	Terphenyl-d14 (Surr)	74		54-127

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C01-3642 | Lab Sample ID: 280-188555-1

Matrix: Solid | Lab File ID: 03190044.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:00

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.18(g) | Date Analyzed: 03/20/2024 05:58

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	39	U	98	39	14
99-65-0	1,3-Dinitrobenzene	39	U	98	39	16
118-96-7	2,4,6-Trinitrotoluene	69	U	98	69	30
618-87-1	3,5-Dinitroaniline	20	U	98	20	8.8
121-14-2	2,4-Dinitrotoluene	39	U	98	39	14
606-20-2	2,6-Dinitrotoluene	39	U	98	39	19
35572-78-2	2-Amino-4,6-dinitrotoluene	69	U	98	69	32
88-72-2	2-Nitrotoluene	98	U	200	98	46
99-08-1	3-Nitrotoluene	150	U	200	150	63
19406-51-0	4-Amino-2,6-dinitrotoluene	69	U	98	69	29
99-99-0	4-Nitrotoluene	98	U	200	98	36
98-95-3	Nitrobenzene	200	U	290	200	83
55-63-0	Nitroglycerin	690	U	2000	690	210
2691-41-0	HMX	69	U	98	69	22
78-11-5	PETN	980	U	2000	980	480
88-89-1	Picric acid	79	U	98	79	55
121-82-4	RDX	71	J	200	98	42
479-45-8	Tetryl	98	U	200	98	43
6629-29-4	2,4-diamino-6-nitrotoluene	980	U	2000	980	510
59229-75-3	2,6-diamino-4-nitrotoluene	980	U	2000	980	320

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	102		78-119

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C01-3642 Lab Sample ID: 280-188555-1

Matrix: Solid Lab File ID: 03200012.D

Analysis Method: 8330B Date Collected: 03/06/2024 09:00

Extraction Method: 8330B Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.18(g) Date Analyzed: 03/20/2024 20:16

Con. Extract Vol.: 40(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.: 646572 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95	*M*	78-119

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C02-2430 | Lab Sample ID: 280-188555-2

Matrix: Solid | Lab File ID: 03190045.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:25

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.89(g) | Date Analyzed: 03/20/2024 06:21

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	37	U	92	37	13
99-65-0	1,3-Dinitrobenzene	37	U	92	37	15
618-87-1	3,5-Dinitroaniline	18	U	92	18	8.3
121-14-2	2,4-Dinitrotoluene	37	U	92	37	13
606-20-2	2,6-Dinitrotoluene	37	U	92	37	18
35572-78-2	2-Amino-4,6-dinitrotoluene	64	U	92	64	30
88-72-2	2-Nitrotoluene	92	U	180	92	43
99-08-1	3-Nitrotoluene	140	U	180	140	59
19406-51-0	4-Amino-2,6-dinitrotoluene	64	U	92	64	27
99-99-0	4-Nitrotoluene	92	U	180	92	34
98-95-3	Nitrobenzene	180	U	280	180	78
55-63-0	Nitroglycerin	640	U	1800	640	200
2691-41-0	HMX	1600	M	92	64	21
78-11-5	PETN	920	U	1800	920	450
88-89-1	Picric acid	73	U	92	73	52
479-45-8	Tetryl	92	U	180	92	40
6629-29-4	2,4-diamino-6-nitrotoluene	920	U	1800	920	470
59229-75-3	2,6-diamino-4-nitrotoluene	920	U	1800	920	300

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		78-119

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C02-2430 | Lab Sample ID: 280-188555-2

Matrix: Solid | Lab File ID: 03200013.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:25

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.89(g) | Date Analyzed: 03/20/2024 20:52

Con. Extract Vol.: 40(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.: 646572 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	64	U M	92	64	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		78-119

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C02-2430 DL | Lab Sample ID: 280-188555-2 DL

Matrix: Solid | Lab File ID: 03200012.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:25

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.89(g) | Date Analyzed: 03/20/2024 17:52

Con. Extract Vol.: 40(mL) | Dilution Factor: 10

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 646567 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	36000	D	1800	920	390

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	D	78-119

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: FD-03062401 | Lab Sample ID: 280-188555-3

Matrix: Solid | Lab File ID: 03190046.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:35

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.04(g) | Date Analyzed: 03/20/2024 06:43

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	40	U	100	40	14
99-65-0	1,3-Dinitrobenzene	40	U	100	40	17
118-96-7	2,4,6-Trinitrotoluene	40	J	100	70	31
618-87-1	3,5-Dinitroaniline	20	U	100	20	9.0
121-14-2	2,4-Dinitrotoluene	40	U	100	40	15
606-20-2	2,6-Dinitrotoluene	40	U	100	40	19
35572-78-2	2-Amino-4,6-dinitrotoluene	70	U	100	70	33
88-72-2	2-Nitrotoluene	100	U	200	100	47
99-08-1	3-Nitrotoluene	150	U	200	150	64
19406-51-0	4-Amino-2,6-dinitrotoluene	70	U	100	70	30
99-99-0	4-Nitrotoluene	100	U	200	100	36
98-95-3	Nitrobenzene	200	U	300	200	85
55-63-0	Nitroglycerin	700	U	2000	700	210
78-11-5	PETN	1000	U	2000	1000	490
88-89-1	Picric acid	80	U	100	80	56
479-45-8	Tetryl	100	U	200	100	44
6629-29-4	2,4-diamino-6-nitrotoluene	1000	U	2000	1000	510
59229-75-3	2,6-diamino-4-nitrotoluene	1000	U	2000	1000	330

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		78-119

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: FD-03062401 DL | Lab Sample ID: 280-188555-3 DL

Matrix: Solid | Lab File ID: 03200013.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:35

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.04(g) | Date Analyzed: 03/20/2024 18:15

Con. Extract Vol.: 40(mL) | Dilution Factor: 5

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 646567 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12000	D	500	350	110

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	D	78-119

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: FD-03062401 DL2 | Lab Sample ID: 280-188555-3 DL2

Matrix: Solid | Lab File ID: 03200014.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:35

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.04(g) | Date Analyzed: 03/20/2024 18:38

Con. Extract Vol.: 40(mL) | Dilution Factor: 50

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 646567 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	250000	D Q	10000	5000	2100

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	0	D Q	78-119

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 | Lab Sample ID: 280-188555-4

Matrix: Solid | Lab File ID: 03190049.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.33(g) | Date Analyzed: 03/20/2024 07:52

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	39	U	97	39	13
99-65-0	1,3-Dinitrobenzene	39	U	97	39	16
618-87-1	3,5-Dinitroaniline	19	U	97	19	8.7
121-14-2	2,4-Dinitrotoluene	39	U	97	39	14
606-20-2	2,6-Dinitrotoluene	39	U	97	39	18
35572-78-2	2-Amino-4,6-dinitrotoluene	68	U	97	68	32
88-72-2	2-Nitrotoluene	97	U	190	97	46
99-08-1	3-Nitrotoluene	150	U	190	150	62
19406-51-0	4-Amino-2,6-dinitrotoluene	68	U	97	68	29
99-99-0	4-Nitrotoluene	97	U	190	97	35
98-95-3	Nitrobenzene	190	U	290	190	82
55-63-0	Nitroglycerin	680	U	1900	680	210
2691-41-0	HMX	68	U	97	68	22
78-11-5	PETN	970	U	1900	970	480
88-89-1	Picric acid	77	U J1	97	77	55
479-45-8	Tetryl	97	U	190	97	42
6629-29-4	2,4-diamino-6-nitrotoluene	970	U J1	1900	970	500
59229-75-3	2,6-diamino-4-nitrotoluene	970	U J1	1900	970	320

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		78-119

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 | Lab Sample ID: 280-188555-4

Matrix: Solid | Lab File ID: 03200019.D

Analysis Method: 8330B | Date Collected: 03/06/2024 09:55

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10.33(g) | Date Analyzed: 03/21/2024 00:28

Con. Extract Vol.: 40(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.: 646572 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	68	U	97	68	30
121-82-4	RDX	97	U M	190	97	42

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	*M*	78-119

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C01-3642 Lab Sample ID: 280-188555-1

Matrix: Solid Lab File ID: NG724C14014.d

Analysis Method: 8321B Date Collected: 03/06/2024 09:00

Extraction Method: 8330B Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10.37(g) Date Analyzed: 03/14/2024 14:30

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Synergi Hydro ID:

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	24	U	39	24	10

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C02-2430 Lab Sample ID: 280-188555-2

Matrix: Solid Lab File ID: NG724C14015.d

Analysis Method: 8321B Date Collected: 03/06/2024 09:25

Extraction Method: 8330B Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10.09(g) Date Analyzed: 03/14/2024 14:33

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Synergi Hydro ID:

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	25	U	40	25	10

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: FD-03062401 | Lab Sample ID: 280-188555-3

Matrix: Solid | Lab File ID: NG724C14016.d

Analysis Method: 8321B | Date Collected: 03/06/2024 09:35

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10.83(g) | Date Analyzed: 03/14/2024 14:36

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: Synergi Hydro ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	23	U	37	23	9.7

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7-TP-C03-2436 Lab Sample ID: 280-188555-4

Matrix: Solid Lab File ID: NG724C14017.d

Analysis Method: 8321B Date Collected: 03/06/2024 09:55

Extraction Method: 8330B Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10.27(g) Date Analyzed: 03/14/2024 14:39

Con. Extract Vol.: 20(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Synergi Hydro ID:

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	24	U	39	24	10

General Chemistry Raw Data Report

Job ID: 280-188555-1

Batch: 645751 **Analyst Initials: CLP**

Method: D 2216 **Instrument: No Equipment Used for this Test**

Lab Sample ID: 280-188555-C-1 **Analysis Date: Mar 12, 2024 15:02**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	14.6683673469388	%

Lab Sample ID: 280-188555-C-2 **Analysis Date: Mar 12, 2024 15:02**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	14.0515222482436	%

Lab Sample ID: 280-188555-C-3 **Analysis Date: Mar 12, 2024 15:02**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	14.2207792207792	%

Lab Sample ID: 280-188555-C-4 **Analysis Date: Mar 12, 2024 15:02**

Analyte	Detector	Dilution	Raw Result	Unit
Percent Moisture	None	1	17.3784104389087	%

Appendix C

Support Documentation

ANALYTE	ORIGINAL X7-TP-C02-2430	DUPLICATE FD-03062401	RL	RPD	RPD > 50% Soil	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2XRL
HMX	1600	12000	92	152.94	TRUE	TRUE	TRUE	TRUE
RDX	36000	250000	1800	149.65	TRUE	TRUE	TRUE	TRUE
PERCENT MOISTURE	14.1	14.2	0.1	0.71	FALSE	TRUE	TRUE	FALSE
2,4,6-TRINITROTOLUENE	64	40	92	46.15	FALSE	FALSE	FALSE	FALSE

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Phone (303) 431-7171

Chain of Custody Record

eurofins | Environment Testing America

280-188555 Chain of Custody

Client Information	Sampler: Mitch Baron	Lab PM: Turner, Shelby R	Carrier Tracking N
Client Contact: Mitch Baron	Phone: 360-908-3246	E-Mail: Shelby.Turner@et.eurofinsus.com	State of Origin:
Company: Tetra Tech, Inc.	PWSID:		
Address: 19803 North Creek Parkway	Due Date Requested:		
City: Bothell	TAT Requested (days):		
State, Zip: WA, 98011	Compliance Project: Δ Yes Δ No		
Phone: ~~412-600-8502(Tel)~~ 360-908-3246	PO #: Purchase Order Requested		
Email: Mitch.Baron@tetratech.com	WO #:		
Project Name: NB Kitsap Bangor CTO NW194112, WA	Project #: 28023939		
Site:	SSOW#:		

Analysis Requested

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, X - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8330B_DOD5 - Explosives, Client list with 3,5-DNA, Picric & Diaminos	8321B_NGu - Nitroguanidine (LC/MS)	8270E_DOD5 - 2,4-Dinitrophenol, Diphenylamine, N-Nitrosodiphenylamine, Moisture	6010D_DOD5 - TCLP RCRA Metals, 7470A_DOD5 - TCLP Mercury	9012B_NP_DOD5 - Total Cyanide	8321A_Herb_DOD5 - TCLP Herbicides	1010A - Ignitability	9034 - Sulfide	8081B_DOD5 - TCLP Pesticides	9040C - pH / Corrosivity	8260D_DOD5 - TCLP VOCs	8270E_DOD5 - TCLP SVOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	B	N	N	CB	N	N	N	N		
X7-TP-C01-3642	3-6-2024	0900	C	S			X	X	X										3	
X7-TP-C02-2430	3-6-2024	0925	C	S			X	X	X										3	
FD-03062401	3-6-2024	0935	C	S			X	X	X										3	
X7-TP-C03-2436	3-6-2024	0955	C	S		Y	X	X	X										3	Run MS/MSD
																				[redacted] 2074

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Mitch Baron [redacted] Left in locker	Date/Time: 3-6-2024 1400	Company: Tetra Tech	Received by: [redacted] Date/Time: 3/7/24 9:30 Company: EET DEN
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.4 IR 14 CF 0.1

Ver: 01/16/2019

Sample Summary

Client: Tetra Tech, Inc. Job ID: 280-188555-1
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-188555-1	X7-TP-C01-3642	Solid	03/06/24 09:00	03/07/24 09:30
280-188555-2	X7-TP-C02-2430	Solid	03/06/24 09:25	03/07/24 09:30
280-188555-3	FD-03062401	Solid	03/06/24 09:35	03/07/24 09:30
280-188555-4	X7-TP-C03-2436	Solid	03/06/24 09:55	03/07/24 09:30

Job Narrative
280-188555-1

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 3/7/2024 9:30 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 0.5°C.

Method 8270E - Semivolatile Organic Compounds (GC/MS)
Samples X7-TP-C01-3642 (280-188555-1), X7-TP-C02-2430 (280-188555-2), FD-03062401 (280-188555-3), X7-TP-C03-2436 (280-188555-4), X7-TP-C03-2436 (280-188555-4MS) and X7-TP-C03-2436 (280-188555-4MSD) were analyzed for Semivolatile Organic Compounds (GC/MS). The samples were prepared on 3/12/2024 and analyzed on 3/15/2024.

The CCVC for batch 280-646066 failed the lower control limits for 2,4-Dinitrophenol (-55.9%, limit -50%). The opening CCV, LCS, MS, and MSD were in control for 2,4-Dinitrophenol. The failing analyte is due to sample matrix; therefore, the data have been reported.

Method 8330B - Nitroaromatics and Nitramines (HPLC)
Samples X7-TP-C01-3642 (280-188555-1), X7-TP-C02-2430 (280-188555-2), FD-03062401 (280-188555-3), X7-TP-C03-2436 (280-188555-4), X7-TP-C03-2436 (280-188555-4MS) and X7-TP-C03-2436 (280-188555-4MSD) were analyzed for Nitroaromatics and Nitramines (HPLC). The samples were leached on 3/11/2024, prepared on 3/13/2024 and analyzed on 3/20/2024 and 3/21/2024.

Samples X7-TP-C02-2430 (280-188555-2)[10x], FD-03062401 (280-188555-3)[5x] and FD-03062401 (280-188555-3)[50x] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Per client request the samples were treated as discrete samples where they were air dried and aliquotted, but did not have ISM performed and were not sieved. The prep for these samples deviated from SOP as they were not sieved or ISM aliquotted as required by DV-OP-0013 sections 10.5 and 10.6, DV-OP-0018 section 2.0, and DOD QSM 5.4 appendix B table B-3.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 280-645628 and 280-645871 and analytical batch 280-646412 were outside control limits. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected.

Surrogate recovery for the following sample in preparation batch 280-645628 and 280-645871 and analytical batch 280-646567 was outside the lower control limits: FD-03062401 (280-188555-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8321B - Nitroguanidine (LC/MS)
Samples X7-TP-C01-3642 (280-188555-1), X7-TP-C02-2430 (280-188555-2), FD-03062401 (280-188555-3), X7-TP-C03-2436 (280-188555-4), X7-TP-C03-2436 (280-188555-4MS) and X7-TP-C03-2436 (280-188555-4MSD) were analyzed for Nitroguanidine (LC/MS). The samples were leached on 3/11/2024, prepared on 3/12/2024 and 3/13/2024 and analyzed on 3/14/2024 and 3/15/2024.

A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Per client request the samples were treated as discrete samples where they were air dried and aliquotted, but did not have ISM performed and were not sieved. The prep for these samples deviated from SOP as they were not sieved or ISM aliquotted as required by DV-OP-0013 sections 10.5 and 10.6, DV-OP-0018 section 2.0, and DOD QSM 5.4 appendix B table B-3.

Method D 2216 - Percent Moisture
Samples X7-TP-C01-3642 (280-188555-1), X7-TP-C02-2430 (280-188555-2), FD-03062401 (280-188555-3) and X7-TP-C03-2436 (280-188555-4) were analyzed for Percent Moisture. The samples were analyzed on 3/12/2024.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

LCMS

Qualifier	Qualifier Description
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

Method Summary

Client: Tetra Tech, Inc. Job ID: 280-188555-1
Project/Site: NB Kitsap Bangor CTO NW194112, WA

Method	Method Description	Protocol	Laboratory
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET DEN
8330B	Nitroaromatics and Nitramines (HPLC)	EPA	EET DEN
8321B	Nitroguanidine (LC/MS)	SW846	EET DEN
D 2216	Percent Moisture	ASTM	EET DEN
3550C	Ultrasonic Extraction	SW846	EET DEN
8330B	Sonication Extraction (Explosives)	SW846	EET DEN
Prep/Air Dry	Preparation, Air drying	None	EET DEN

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

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

8270E_DOD5

Semivolatile Organic Compounds (GC/MS)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): Rxi-5Sil MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
X7-TP-C01-3642	280-188555-1	67	68	64	73	92	87
X7-TP-C02-2430	280-188555-2	58	58	56	64	87	80
FD-03062401	280-188555-3	62	62	58	67	90	81
X7-TP-C03-2436	280-188555-4	64	65	61	69	93	74
	MB 280-645670/1-A	63	64	62	70	81	80
	LCS 280-645670/2-A	52	53	52	62	82	73
X7-TP-C03-2436 MS	280-188555-4 MS	46	48	45	57	91	78
X7-TP-C03-2436 MSD	280-188555-4 MSD	57	60	56	69	97	83

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	35-115
PHL = Phenol-d5 (Surr)	33-122
NBZ = Nitrobenzene-d5 (Surr)	37-122
FBP = 2-Fluorobiphenyl	44-115
TBP = 2,4,6-Tribromophenol (Surr)	39-132
TPHL = Terphenyl-d14 (Surr)	54-127

Column to be used to flag recovery values

FORM II 8270E

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: G6_031524013.D

Lab ID: LCS 280-645670/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
2,4-Dinitrophenol	5330	4220	79	46-120	
Diphenylamine	2270	1770	78	48-111	
N-Nitrosodiphenylamine	2670	2040	77	38-127	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: G6_031524019.D

Lab ID: 280-188555-4 MS Client ID: X7-TP-C03-2436 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
2,4-Dinitrophenol	6270	1200 U	5640	90	46-120	
Diphenylamine	2660	200 U	2210	83	48-111	
N-Nitrosodiphenylamine	3130	80 U	2510	80	38-127	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: G6_031524020.D

Lab ID: 280-188555-4 MSD Client ID: X7-TP-C03-2436 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4-Dinitrophenol	5940	5740	97	2	20	46-120	
Diphenylamine	2520	2240	89	1	20	48-111	
N-Nitrosodiphenylamine	2970	2510	85	0	20	38-127	

Column to be used to flag recovery and RPD values

FORM III 8270E

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: G6_031524012.D Lab Sample ID: MB 280-645670/1-A

Matrix: Solid Date Extracted: 03/12/2024 10:29

Instrument ID: SMS_G6 Date Analyzed: 03/15/2024 17:36

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-645670/2-A	G6_031524013.D	03/15/2024 17:57
X7-TP-C01-3642	280-188555-1	G6_031524015.D	03/15/2024 18:40
X7-TP-C02-2430	280-188555-2	G6_031524016.D	03/15/2024 19:01
FD-03062401	280-188555-3	G6_031524017.D	03/15/2024 19:23
X7-TP-C03-2436	280-188555-4	G6_031524018.D	03/15/2024 19:44
X7-TP-C03-2436 MS	280-188555-4 MS	G6_031524019.D	03/15/2024 20:06
X7-TP-C03-2436 MSD	280-188555-4 MSD	G6_031524020.D	03/15/2024 20:27

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-645670/1-A

Matrix: Solid | Lab File ID: G6_031524012.D

Analysis Method: 8270E | Date Collected:

Extract. Method: 3550C | Date Extracted: 03/12/2024 10:29

Sample wt/vol: 30(g) | Date Analyzed: 03/15/2024 17:36

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | GC Column: Rxi-5Sil MS ID: 0.25(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor: | Level: (low/med) Low

Analysis Batch No.: 646066 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
51-28-5	2,4-Dinitrophenol	1000	U	1600	1000	330
122-39-4	Diphenylamine	170	U	330	170	44
86-30-6	N-Nitrosodiphenylamine	67	U	330	67	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	70		44-115
367-12-4	2-Fluorophenol (Surr)	63		35-115
118-79-6	2,4,6-Tribromophenol (Surr)	81		39-132
4165-60-0	Nitrobenzene-d5 (Surr)	62		37-122
4165-62-2	Phenol-d5 (Surr)	64		33-122
1718-51-0	Terphenyl-d14 (Surr)	80		54-127

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: G6_b030424002C.D DFTPP Injection Date: 03/04/2024

Instrument ID: SMS_G6 DFTPP Injection Time: 09:59

Analysis Batch No.: 644801

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	55.8	
68	Less than 2.0 % of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	55.6	
70	Less than 2.0 % of mass 69	0.2	(0.4) 1
127	40.0 - 60.0 % of mass 198	54.1	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.8	
275	10.0 - 30.0 % of mass 198	22.5	
365	Greater than 1.0 % of mass 198	2.4	
441	Present but less than mass 443	11.6	(79.0) 3
442	Greater than 40.0 % of mass 198	75.8	
443	17.0 - 23.0 % of mass 442	14.7	(19.4) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 280-644801/3	G6_b030424003	03/04/2024	10:17
	STD004 280-644801/4	G6_b030424004	03/04/2024	10:38
	STD010 280-644801/5	G6_b030424005	03/04/2024	11:00
	STD020 280-644801/6	G6_b030424006	03/04/2024	11:21
	STD050 280-644801/7	G6_b030424007	03/04/2024	11:43
	STD120 280-644801/8	G6_b030424008	03/04/2024	12:04
	STD160 280-644801/9	G6_b030424009	03/04/2024	12:26
	STD200 280-644801/10	G6_b030424010	03/04/2024	12:47
	ICV 280-644801/11	G6_b030424011	03/04/2024	13:09
	ICV 280-644801/12	G6_b030424012	03/04/2024	13:30

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-644801/4	G6_b030424004.D
Level 2	STD010 280-644801/5	G6_b030424005.D
Level 3	STD020 280-644801/6	G6_b030424006.D
Level 4	STD050 280-644801/7	G6_b030424007.D
Level 5	ICIS 280-644801/3	G6_b030424003.D
Level 6	STD120 280-644801/8	G6_b030424008.D
Level 7	STD160 280-644801/9	G6_b030424009.D
Level 8	STD200 280-644801/10	G6_b030424010.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
N-Nitrosodimethylamine	1.0268 0.8698	0.8708 0.9789	0.7879 0.9949	0.9029	0.8849	Ave		0.9146				8.7		15.0			
Pyridine	1.2080 1.1593	1.0828 1.3219	1.0132 1.3616	1.1722	1.1483	Ave		1.1834				9.7		15.0			
Phenol	2.4458 1.9327	2.0831 1.9714	1.8751 1.9071	2.0935	2.0398	Ave		2.0436				8.9		15.0			
Aniline	2.3757 1.9468	2.0880 2.0011	1.8625 1.9753	2.0709	2.0218	Ave		2.0428				7.4		15.0			
Bis(2-chloroethyl)ether	1.7829 1.3205	1.5045 1.3162	1.3210 1.2757	1.4494	1.3984	Ave		1.4211				11.6		15.0			
2-Chlorophenol	1.7789 1.4573	1.4908 1.5072	1.3551 1.5078	1.5271	1.5120	Ave		1.5170				7.9		15.0			
1,3-Dichlorobenzene	1.9189 1.5264	1.5822 1.5977	1.4371 1.5816	1.5987	1.6092	Ave		1.6065				8.6		15.0			
1,4-Dichlorobenzene	1.9644 1.5672	1.6319 1.6230	1.4613 1.6021	1.6589	1.6404	Ave		1.6437				8.7		15.0			
Benzyl alcohol	1.0947 0.9617	0.9696 0.9826	0.8752 0.9799	1.0007	0.9865	Ave		0.9814				6.1		15.0			
1,2-Dichlorobenzene	1.8847 1.4832	1.5537 1.5166	1.3973 1.5062	1.5554	1.5577	Ave		1.5568				9.2		15.0			
2-Methylphenol	1.6337 1.1487	1.3390 1.0853	1.2010 +++++	1.3024	1.2359	Ave		1.2780				14.0		15.0			
2,2'-oxybis[1-chloropropane]	3.1677 2.4130	2.7142 2.3304	2.4140 2.2402	2.6635	2.5190	Ave		2.5577				11.5		15.0			
Acetophenone	2.3553 1.8233	2.0128 1.7950	1.8041 1.7492	1.9974	1.8925	Ave		1.9287				10.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
N-Nitrosodi-n-propylamine	1.1730 0.9217	1.0132 0.8889	0.9269 0.8642	1.0243	0.9641	Ave		0.9720			0.0500	10.1		15.0			
3 & 4 Methylphenol	1.7319 1.3163	1.4420 1.2822	1.3091 1.2430	1.4429	1.3837	Ave		1.3939				11.1		15.0			
Hexachloroethane	0.8015 0.6517	0.6681 0.6398	0.6244 0.6284	0.6933	0.6681	Ave		0.6719				8.5		15.0			
Nitrobenzene	0.4385 0.3768	0.3935 0.3839	0.3546 0.3764	0.4050	0.3898	Ave		0.3898				6.3		15.0			
Isophorone	0.8646 0.7295	0.7553 0.7503	0.6766 0.7479	0.7772	0.7461	Ave		0.7559				7.0		15.0			
2-Nitrophenol	0.1675 0.2002	0.1694 0.2040	0.1624 0.2052	0.2025	0.1991	Ave		0.1888				9.9		15.0			
2,4-Dimethylphenol	0.3552 0.2969	0.3080 0.3020	0.2735 0.2996	0.3217	0.3083	Ave		0.3082				7.6		15.0			
Bis(2-chloroethoxy)methane	0.5408 0.4323	0.4711 0.4409	0.4138 0.4326	0.4679	0.4561	Ave		0.4569				8.5		15.0			
Benzoic acid	+++++ 0.2554	0.1289 0.2728	0.1503 0.2754	0.2259	0.2546	Lin2	-3.214	0.2697							0.9910		0.9900
2,4-Dichlorophenol	0.3435 0.2949	0.2978 0.3011	0.2598 0.2974	0.3122	0.3081	Ave		0.3019				7.7		15.0			
1,2,4-Trichlorobenzene	0.3850 0.3161	0.3320 0.3233	0.2922 0.3153	0.3383	0.3318	Ave		0.3292				8.1		15.0			
Naphthalene	1.2558 0.9969	1.0835 1.0006	0.9399 0.9663	1.0793	1.0605	Ave		1.0478				9.5		15.0			
4-Chloroaniline	0.5341 0.4368	0.4610 0.4385	0.4152 0.4281	0.4750	0.4620	Ave		0.4563				8.1		15.0			
2,6-Dichlorophenol	0.3320 0.2874	0.2953 0.2901	0.2648 0.2845	0.3071	0.3010	Ave		0.2953				6.6		15.0			
Hexachlorobutadiene	0.1963 0.1710	0.1793 0.1753	0.1579 0.1720	0.1807	0.1804	Ave		0.1766				6.2		15.0			
4-Chloro-3-methylphenol	0.3463 0.3055	0.3062 0.3069	0.2727 0.3035	0.3202	0.3137	Ave		0.3094				6.6		15.0			
2-Methylnaphthalene	0.8299 0.6975	0.7223 0.7044	0.6389 0.6814	0.7469	0.7379	Ave		0.7199				7.8		15.0			
1-Methylnaphthalene	0.7537 0.6379	0.6662 0.6430	0.5767 0.6248	0.6796	0.6673	Ave		0.6561				7.7		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,2,4,5-Tetrachlorobenzene	0.3726 0.3032	0.3143 0.3010	0.2813 0.2915	0.3227	0.3201	Ave		0.3133				8.9		15.0			
Hexachlorocyclopentadiene	0.2480 0.2983	0.2475 0.2881	0.2410 0.2741	0.3047	0.3006	Ave		0.2753			0.0500	9.6		15.0			
2,4,6-Trichlorophenol	0.3655 0.3632	0.3367 0.3672	0.3200 0.3613	0.3797	0.3760	Ave		0.3587				5.6		15.0			
2,4,5-Trichlorophenol	0.4046 0.3888	0.3641 0.4117	0.3376 0.3989	0.3942	0.4073	Ave		0.3884				6.5		15.0			
1,1'-Biphenyl	1.7344 1.3956	1.4810 1.4032	1.3181 1.3197	1.5024	1.4801	Ave		1.4543				9.2		15.0			
2-Chloronaphthalene	1.3572 1.0688	1.1490 1.0733	1.0354 1.0218	1.1574	1.1420	Ave		1.1256				9.5		15.0			
2-Nitroaniline	0.2823 0.3877	0.3131 0.3949	0.3131 0.3898	0.3955	0.3827	Ave		0.3574				13.0		15.0			
Dimethyl phthalate	1.4108 1.1757	1.2279 1.1930	1.1062 1.1438	1.2582	1.2309	Ave		1.2183				7.6		15.0			
1,3-Dinitrobenzene	+++++ 0.2259	0.1564 0.2330	0.1733 0.2259	0.2264	0.2225	Ave		0.2091				14.7		15.0			
2,6-Dinitrotoluene	0.2276 0.2996	0.2493 0.3191	0.2562 0.3137	0.3074	0.3104	Ave		0.2854				12.4		15.0			
Acenaphthylene	1.8305 1.6594	1.6557 1.6964	1.5083 1.6465	1.7482	1.7467	Ave		1.6865				5.6		15.0			
3-Nitroaniline	0.3159 0.3698	0.3297 0.3804	0.3154 0.3811	0.3760	0.3747	Ave		0.3554				8.3		15.0			
Acenaphthene	1.3322 1.0860	1.1332 1.0845	1.0167 1.0337	1.1627	1.1464	Ave		1.1244				8.8		15.0			
2,4-Dinitrophenol	0.0533 0.1683	0.0747 0.1765	0.0966 0.1840	0.1525	0.1656	Lin1	-1.603	0.1792			0.0500				0.9940		0.9900
4-Nitrophenol	0.1495 0.1926	0.1592 0.1933	0.1553 0.1914	0.1934	0.1929	Ave		0.1785			0.0500	11.1		15.0			
2,4-Dinitrotoluene	0.3060 0.3957	0.3369 0.3934	0.3421 0.3758	0.4151	0.4069	Ave		0.3715				10.5		15.0			
Dibenzofuran	1.9243 1.5037	1.6523 1.4906	1.4830 1.4158	1.6411	1.6056	Ave		1.5896				10.0		15.0			
2,3,4,6-Tetrachlorophenol	0.2635 0.3152	0.2593 0.3355	0.2534 0.3340	0.3104	0.3312	Ave		0.3003				11.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Diethyl phthalate	1.4037 1.2512	1.2477 1.2713	1.1379 1.2393	1.3176	1.2943	Ave		1.2704				5.9		15.0			
Fluorene	1.4703 1.2189	1.2961 1.1868	1.1588 1.1053	1.3236	1.2931	Ave		1.2566				9.1		15.0			
4-Chlorophenyl phenyl ether	0.7165 0.5448	0.5943 0.5414	0.5298 0.5080	0.5945	0.5796	Ave		0.5761				11.2		15.0			
4-Nitroaniline	0.3227 0.3570	0.3359 0.3744	0.3183 0.3817	0.3604	0.3549	Ave		0.3507				6.6		15.0			
4,6-Dinitro-2-methylphenol	0.0481 0.1369	0.0763 0.1466	0.0881 0.1454	0.1288	0.1369	Lin1	-1.130	0.1453							0.9970		0.9900
Diphenylamine	1.2306 1.0810	1.0797 1.0997	0.9795 1.0663	1.1277	1.1323	Ave		1.0996				6.5		15.0			
N-Nitrosodiphenylamine	0.6095 0.5438	0.5467 0.5662	0.4906 0.5459	0.5734	0.5674	Ave		0.5554				6.1		15.0			
1,2-Diphenylhydrazine	1.5813 1.3475	1.4278 1.3160	1.2938 1.2639	1.4723	1.4019	Ave		1.3881				7.6		15.0			
Azobenzene	1.5987 1.3623	1.4435 1.3305	1.3080 1.2778	1.4884	1.4173	Ave		1.4033				7.6		15.0			
4-Bromophenyl phenyl ether	0.2327 0.2140	0.2086 0.2299	0.1871 0.2284	0.2222	0.2255	Ave		0.2186				6.9		15.0			
Hexachlorobenzene	0.3145 0.2771	0.2679 0.3008	0.2425 0.2937	0.2860	0.2938	Ave		0.2845				7.8		15.0			
Pentachlorophenol	+++++ 0.1453	0.1078 0.1636	0.1144 0.1640	0.1481	0.1734	Lin2	-1.269	0.1636							0.9920		0.9900
Phenanthrene	1.2879 1.0477	1.1044 1.0725	0.9887 1.0112	1.1417	1.1022	Ave		1.0946				8.5		15.0			
Anthracene	1.1903 1.0667	1.0790 1.1015	0.9837 1.0599	1.1520	1.1292	Ave		1.0953				5.8		15.0			
Carbazole	1.1679 1.0348	1.0703 1.0747	0.9572 1.0466	1.0991	1.0885	Ave		1.0674				5.6		15.0			
Alachlor	0.0919 0.1297	0.1051 0.1364	0.1041 0.1332	0.1339	0.1322	Ave		0.1208				14.5		15.0			
Di-n-butyl phthalate	1.1173 1.2737	1.1343 1.2893	1.1000 1.2392	1.3401	1.3184	Ave		1.2265				7.8		15.0			
Fluoranthene	1.1264 1.1088	1.0646 1.1477	0.9683 1.0975	1.1648	1.1697	Ave		1.1060				6.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Pyrene	1.5873 1.4100	1.3972 1.4624	1.2687 1.4043	1.5183	1.4688	Ave		1.4396				6.6		15.0			
Butyl benzyl phthalate	0.4171 0.6689	0.4555 +++++	0.4819 +++++	0.6698	0.6966	Lin1	-1.675	0.6880							0.9950		0.9900
Benzo[a]anthracene	1.2920 1.3060	1.1509 1.4048	1.0547 1.3933	1.3198	1.3848	Ave		1.2883				9.7		15.0			
Chrysene	1.4788 1.3524	1.3469 1.4123	1.2072 1.3647	1.4494	1.3805	Ave		1.3740				6.0		15.0			
Bis(2-ethylhexyl) phthalate	+++++ 0.9086	0.5696 0.9852	0.6144 0.9789	0.8748	0.9466	Lin2	-4.631	0.9734							0.9940		0.9900
Di-n-octyl phthalate	+++++ 1.4940	0.6709 1.6858	0.7600 +++++	1.2934	1.6324	Qua	-11.29	1.5109	0.0013985						0.9940		0.9900
Benzo[b]fluoranthene	1.0061 1.1982	0.9345 1.2698	0.8645 1.2980	1.1662	1.1972	Ave		1.1168				14.4		15.0			
Benzo[k]fluoranthene	1.3582 1.3975	1.2282 1.4620	1.1894 1.4113	1.4378	1.3738	Ave		1.3573				7.2		15.0			
Benzo[a]pyrene	0.9811 1.1687	0.8892 1.2768	0.8463 +++++	1.1175	1.1815	Lin1	-2.407	1.2196							0.9940		0.9900
Indeno[1,2,3-cd]pyrene	+++++ 1.3106	0.9184 +++++	0.8320 +++++	1.1409	1.4037	Lin1	-6.775	1.3797							0.9900		0.9900
Dibenz(a,h)anthracene	0.9864 1.1920	0.8995 +++++	0.8532 +++++	1.1168	1.2109	Ave		1.0431				14.6		15.0			
Benzo[g,h,i]perylene	1.1826 1.2545	1.0644 1.3172	0.9663 1.2959	1.2433	1.2501	Ave		1.1968				10.2		15.0			
2-Fluorophenol (Surr)	1.6600 1.3984	1.4105 1.4974	1.2756 1.5072	1.4592	1.4486	Ave		1.4571				7.5		15.0			
Phenol-d5 (Surr)	2.0985 1.7104	1.7714 1.7771	1.6029 1.7696	1.8194	1.7941	Ave		1.7929				7.8		15.0			
Nitrobenzene-d5 (Surr)	0.4207 0.3871	0.3835 0.3943	0.3519 0.3927	0.4106	0.3924	Ave		0.3917				5.2		15.0			
2-Fluorobiphenyl	1.4678 1.1860	1.2528 1.2220	1.1169 1.1724	1.2795	1.2582	Ave		1.2444				8.4		15.0			
2,4,6-Tribromophenol (Surr)	0.1878 0.2475	0.1831 0.2736	0.1830 0.2796	0.2298	0.2570	Lin1	-0.685	0.2689							0.9940		0.9900
Terphenyl-d14 (Surr)	1.1872 1.0978	1.0490 1.1548	0.9537 1.1193	1.1568	1.1439	Ave		1.1078				6.8		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 | GC Column: Rxi-5Sil M ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 | Calibration End Date: 03/04/2024 12:47 | Calibration ID: 90934

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-644801/4	G6_b030424004.D
Level 2	STD010 280-644801/5	G6_b030424005.D
Level 3	STD020 280-644801/6	G6_b030424006.D
Level 4	STD050 280-644801/7	G6_b030424007.D
Level 5	ICIS 280-644801/3	G6_b030424003.D
Level 6	STD120 280-644801/8	G6_b030424008.D
Level 7	STD160 280-644801/9	G6_b030424009.D
Level 8	STD200 280-644801/10	G6_b030424010.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
N-Nitrosodimethylamine	DCBd4	Ave	15241 411405	36322 675011	70970 866885	176753	306766	4.00 120	10.0 160	20.0 200	50.0	80.0
Pyridine	DCBd4	Ave	35862 1096681	90326 1822975	182546 2372688	458952	796132	8.00 240	20.0 320	40.0 400	100	160
Phenol	DCBd4	Ave	36304 914162	86888 1359338	168910 1661657	409845	707118	4.00 120	10.0 160	20.0 200	50.0	80.0
Aniline	DCBd4	Ave	35263 920833	87093 1379843	167771 1721073	405415	700873	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-chloroethyl)ether	DCBd4	Ave	26465 624582	62755 907568	118999 1111525	283756	484768	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Chlorophenol	DCBd4	Ave	26405 689308	62183 1039263	122064 1313734	298968	524129	4.00 120	10.0 160	20.0 200	50.0	80.0
1,3-Dichlorobenzene	DCBd4	Ave	28483 721989	65994 1101662	129451 1378024	312981	557844	4.00 120	10.0 160	20.0 200	50.0	80.0
1,4-Dichlorobenzene	DCBd4	Ave	29158 741257	68069 1119125	131636 1395925	324753	568659	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzyl alcohol	DCBd4	Ave	16249 454888	40441 677529	78840 853756	195908	341959	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2-Dichlorobenzene	DCBd4	Ave	27975 701520	64805 1045777	125865 1312327	304505	539986	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Methylphenol	DCBd4	Ave	24250 543309	55850 748364	108185 +++++	254963	428428	4.00 120	10.0 160	20.0 +++++	50.0	80.0
2,2'-oxybis[1-chloropropane]	DCBd4	Ave	47020 1141321	113210 1606871	217455 1951821	521439	873211	4.00 120	10.0 160	20.0 200	50.0	80.0
Acetophenone	DCBd4	Ave	34961 862409	83954 1237706	162513 1524032	391023	656026	4.00 120	10.0 160	20.0 200	50.0	80.0
N-Nitrosodi-n-propylamine	DCBd4	Ave	17411 435968	42260 612944	83494 752993	200531	334223	4.00 120	10.0 160	20.0 200	50.0	80.0
3 & 4 Methylphenol	DCBd4	Ave	25708 622622	60147 884130	117920 1083007	282479	479658	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 | GC Column: Rxi-5Sil M ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 | Calibration End Date: 03/04/2024 12:47 | Calibration ID: 90934

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Hexachloroethane	DCBd4	Ave	11897 308236	27868 441150	56248 547550	135727	231616	4.00 120	10.0 160	20.0 200	50.0	80.0
Nitrobenzene	NPT	Ave	25774 688023	64340 991594	126448 1232818	304920	518094	4.00 120	10.0 160	20.0 200	50.0	80.0
Isophorone	NPT	Ave	50822 1332054	123509 1937973	241272 2449943	585189	991560	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Nitrophenol	NPT	Ave	9843 365585	27699 526970	57912 672270	152499	264559	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4-Dimethylphenol	NPT	Ave	20876 542198	50365 780110	97523 981293	242236	409787	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-chloroethoxy)methane	NPT	Ave	31786 789405	77025 1138762	147537 1417147	352342	606155	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzoic acid	NPT	Lin2	+++++ 932904	42143 1409299	107162 1804158	340175	676822	+++++ 240	20.0 320	40.0 400	100	160
2,4-Dichlorophenol	NPT	Ave	20191 538440	48702 777573	92652 974167	235076	409532	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2,4-Trichlorobenzene	NPT	Ave	22631 577168	54279 835112	104182 1032775	254702	440916	4.00 120	10.0 160	20.0 200	50.0	80.0
Naphthalene	NPT	Ave	73811 1820328	177173 2584352	335144 3165314	812673	1409405	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chloroaniline	NPT	Ave	31392 797624	75376 1132528	148047 1402162	357631	614002	4.00 120	10.0 160	20.0 200	50.0	80.0
2,6-Dichlorophenol	NPT	Ave	19515 524820	48278 749165	94431 932003	231233	399983	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorobutadiene	NPT	Ave	11538 312178	29318 452707	56322 563329	136096	239734	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chloro-3-methylphenol	NPT	Ave	20357 557900	50072 792730	97236 994186	241101	416939	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Methylnaphthalene	NPT	Ave	48782 1273754	118112 1819318	227820 2231959	562385	980661	4.00 120	10.0 160	20.0 200	50.0	80.0
1-Methylnaphthalene	NPT	Ave	44301 1164760	108929 1660859	205648 2046786	511672	886859	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2,4,5-Tetrachlorobenzene	NPT	Ave	21903 553597	51389 777479	100314 954902	242977	425421	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorocyclopentadiene	ANT	Ave	8254 308565	23126 414083	48295 502843	130946	226191	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,6-Trichlorophenol	ANT	Ave	12164 375655	31460 527826	64111 662685	163190	282881	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,5-Trichlorophenol	ANT	Ave	13465 402175	34020 591707	67653 731721	169417	306434	4.00 120	10.0 160	20.0 200	50.0	80.0
1,1'-Biphenyl	ANT	Ave	57715	138370	264113	645743	1113584	4.00	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 | GC Column: Rxi-5Sil M ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 | Calibration End Date: 03/04/2024 12:47 | Calibration ID: 90934

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			1443536	2016791	2420851			120	160	200		
2-Chloronaphthalene	ANT	Ave	45164 1105573	107346 1542519	207459 1874325	497462	859239	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Nitroaniline	ANT	Ave	9394 400979	29253 567529	62732 715098	169998	287968	4.00 120	10.0 160	20.0 200	50.0	80.0
Dimethyl phthalate	ANT	Ave	46946 1216154	114722 1714627	221655 2098137	540796	926136	4.00 120	10.0 160	20.0 200	50.0	80.0
1,3-Dinitrobenzene	ANT	Ave	+++++ 233687	14614 334942	34726 414430	97304	167373	+++++ 120	10.0 160	20.0 200	50.0	80.0
2,6-Dinitrotoluene	ANT	Ave	7575 309912	23290 458647	51326 575375	132125	233545	4.00 120	10.0 160	20.0 200	50.0	80.0
Acenaphthylene	ANT	Ave	60914 1716431	154688 2438155	302221 3020241	751424	1314220	4.00 120	10.0 160	20.0 200	50.0	80.0
3-Nitroaniline	ANT	Ave	10513 382527	30803 546681	63201 699134	161627	281914	4.00 120	10.0 160	20.0 200	50.0	80.0
Acenaphthene	ANT	Ave	44331 1123322	105872 1558736	203709 1896270	499753	862545	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4-Dinitrophenol	ANT	Lin1	3544 348215	13953 507384	38721 675160	131116	249151	8.00 240	20.0 320	40.0 400	100	160
4-Nitrophenol	ANT	Ave	9948 398513	29749 555772	62217 702358	166231	290246	8.00 240	20.0 320	40.0 400	100	160
2,4-Dinitrotoluene	ANT	Ave	10183 409351	31480 565352	68542 689351	178416	306156	4.00 120	10.0 160	20.0 200	50.0	80.0
Dibenzofuran	ANT	Ave	64034 1555346	154373 2142378	297137 2597130	705390	1208060	4.00 120	10.0 160	20.0 200	50.0	80.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	8767 326008	24230 482209	50781 612672	133402	249206	4.00 120	10.0 160	20.0 200	50.0	80.0
Diethyl phthalate	ANT	Ave	46711 1294212	116567 1827119	227993 2273418	566333	973794	4.00 120	10.0 160	20.0 200	50.0	80.0
Fluorene	ANT	Ave	48928 1260854	121095 1705651	232194 2027531	568892	972893	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chlorophenyl phenyl ether	ANT	Ave	23844 563489	55529 778191	106164 931808	255513	436073	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Nitroaniline	ANT	Ave	10737 369322	31381 538163	63775 700161	154888	267042	4.00 120	10.0 160	20.0 200	50.0	80.0
4,6-Dinitro-2-methylphenol	PHN	Lin1	5491 478480	23935 695642	59908 885479	185062	349525	8.00 240	20.0 320	40.0 400	100	160
Diphenylamine	ANT	Ave	34809 950402	85745 1343494	166824 1662524	411990	724168	3.40 102	8.50 136	17.0 170	42.5	68.0
N-Nitrosodiphenylamine	PHN	Ave	34809 950402	85745 1343494	166824 1662524	411990	724168	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 | GC Column: Rxi-5Sil M ID: 0.25(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 | Calibration End Date: 03/04/2024 12:47 | Calibration ID: 90934

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2-Diphenylhydrazine	ANT	Ave	53199 1409159	134866 1912221	262082 2343927	639755	1066374	4.04 121	10.1 162	20.2 202	50.5	80.9
Azobenzene	ANT	Ave	53199 1409159	134866 1912221	262082 2343927	639755	1066376	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Bromophenyl phenyl ether	PHN	Ave	13292 373972	32715 545575	63634 695776	159673	287826	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorobenzene	PHN	Ave	17962 484303	42022 713719	82473 894519	205523	374962	4.00 120	10.0 160	20.0 200	50.0	80.0
Pentachlorophenol	PHN	Lin2	+++++ 507933	33801 776470	77792 998895	212824	442734	+++++ 240	20.0 320	40.0 400	100	160
Phenanthrene	PHN	Ave	73555 1831228	173212 2544917	336219 3079908	820348	1406801	4.00 120	10.0 160	20.0 200	50.0	80.0
Anthracene	PHN	Ave	67979 1864412	169218 2613796	334509 3228206	827742	1441330	4.00 120	10.0 160	20.0 200	50.0	80.0
Carbazole	PHN	Ave	66702 1808673	167855 2550294	325494 3187595	789682	1389287	4.00 120	10.0 160	20.0 200	50.0	80.0
Alachlor	PHN	Ave	5248 226761	16488 323761	35383 405726	96188	168768	4.00 120	10.0 160	20.0 200	50.0	80.0
Di-n-butyl phthalate	PHN	Ave	63810 2226198	177898 3059511	374056 3774322	962856	1682754	4.00 120	10.0 160	20.0 200	50.0	80.0
Fluoranthene	PHN	Ave	64333 1937948	166960 2723493	329286 3342758	836929	1492947	4.00 120	10.0 160	20.0 200	50.0	80.0
Pyrene	CRY	Ave	70610 2026638	174046 2849613	346178 3494078	878709	1569755	4.00 120	10.0 160	20.0 200	50.0	80.0
Butyl benzyl phthalate	CRY	Lin1	18552 961352	56741 +++++	131503 +++++	387665	744467	4.00 120	10.0 +++++	20.0 +++++	50.0	80.0
Benzo[a]anthracene	CRY	Ave	57471 1877105	143361 2737431	287798 3466848	763852	1479893	4.00 120	10.0 160	20.0 200	50.0	80.0
Chrysene	CRY	Ave	65780 1943716	167780 2751992	329385 3395563	838809	1475304	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-ethylhexyl) phthalate	CRY	Lin2	+++++ 1305848	70952 1919761	167638 2435785	506302	1011686	+++++ 120	10.0 160	20.0 200	50.0	80.0
Di-n-octyl phthalate	CRY	Qua	+++++ 2147236	83564 3284896	207369 +++++	748573	1744504	+++++ 120	10.0 160	20.0 +++++	50.0	80.0
Benzo[b]fluoranthene	PRY	Ave	51303 1892420	129773 2783951	259305 3658257	743787	1481664	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[k]fluoranthene	PRY	Ave	69254 2207221	170559 3205122	356785 3977479	917062	1700166	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[a]pyrene	PRY	Lin1	50029 1845796	123479 2799098	253843 +++++	712744	1462223	4.00 120	10.0 160	20.0 +++++	50.0	80.0
Indeno[1,2,3-cd]pyrene	CRY	Lin1	+++++	114395	227031	660297	1500178	+++++	10.0	20.0	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 644801

SDG No.:

Instrument ID: SMS_G6 GC Column: Rxi-5Sil M ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2024 10:17 Calibration End Date: 03/04/2024 12:47 Calibration ID: 90934

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			1883732	+++++	+++++			120	+++++	+++++		
Dibenz(a,h)anthracene	PRY	Ave	50297 1882603	124916 +++++	255932 +++++	712270	1498563	4.00 120	10.0 +++++	20.0 +++++	50.0	80.0
Benzo[g,h,i]perylene	PRY	Ave	60301 1981359	147817 2887806	289864 3652302	793008	1547074	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Fluorophenol (Surr)	DCBd4	Ave	24640 661452	58831 1032526	114905 1313232	285671	502166	4.00 120	10.0 160	20.0 200	50.0	80.0
Phenol-d5 (Surr)	DCBd4	Ave	31149 809014	73887 1225346	144391 1541860	356188	621937	4.00 120	10.0 160	20.0 200	50.0	80.0
Nitrobenzene-d5 (Surr)	NPT	Ave	24731 706862	62712 1018332	125497 1286388	309132	521573	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Fluorobiphenyl	ANT	Ave	48844 1226749	117048 1756267	223784 2150598	549955	946640	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,6-Tribromophenol (Surr)	ANT	Lin1	6250 256033	17108 393231	36658 512875	98758	193361	4.00 120	10.0 160	20.0 200	50.0	80.0
Terphenyl-d14 (Surr)	CRY	Ave	52809 1577817	130662 2250101	260229 2784922	669511	1222487	4.00 120	10.0 160	20.0 200	50.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-644801/11 Calibration Date: 03/04/2024 13:09

Instrument ID: SMS_G6 Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) Calib End Date: 03/04/2024 12:47

Lab File ID: G6_b030424011.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7013	0.7051		101000	100000	0.6	20.0
N-Nitrosodimethylamine	Ave	0.9146	0.9324		102000	100000	1.9	20.0
Pyridine	Ave	1.183	1.301		220000	200000	10.0	20.0
Phenol	Ave	2.044	1.965	0.8000	96200	100000	-3.8	20.0
Aniline	Ave	2.043	1.931		94500	100000	-5.5	20.0
Bis(2-chloroethyl)ether	Ave	1.421	1.373	0.7000	96600	100000	-3.4	20.0
2-Chlorophenol	Ave	1.517	1.443	0.8000	95100	100000	-4.9	20.0
1,3-Dichlorobenzene	Ave	1.606	1.537		95700	100000	-4.3	20.0
1,4-Dichlorobenzene	Ave	1.644	1.559		94800	100000	-5.2	20.0
Benzyl alcohol	Ave	0.9814	0.9435		96100	100000	-3.9	20.0
1,2-Dichlorobenzene	Ave	1.557	1.481		95100	100000	-4.9	20.0
2-Methylphenol	Ave	1.278	1.155	0.7000	90400	100000	-9.6	20.0
2,2'-oxybis[1-chloropropane]	Ave	2.558	2.293	0.0100	89600	100000	-10.4	20.0
Acetophenone	Ave	1.929	1.755	0.0100	91000	100000	-9.0	20.0
N-Nitrosodi-n-propylamine	Ave	0.9720	0.8857	0.5000	91100	100000	-8.9	20.0
3 & 4 Methylphenol	Ave	1.394	1.296		93000	100000	-7.0	20.0
Hexachloroethane	Ave	0.6719	0.6097	0.3000	90700	100000	-9.3	20.0
Nitrobenzene	Ave	0.3898	0.3748	0.2000	96200	100000	-3.8	20.0
Isophorone	Ave	0.7559	0.7144	0.4000	94500	100000	-5.5	20.0
2-Nitrophenol	Ave	0.1888	0.1986	0.1000	105000	100000	5.2	20.0
2,4-Dimethylphenol	Ave	0.3082	0.3267	0.2000	106000	100000	6.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4569	0.4347	0.3000	95100	100000	-4.9	20.0
Benzoic acid	Lin2		0.2667		210000	200000	4.8	20.0
2,4-Dichlorophenol	Ave	0.3019	0.2998	0.2000	99300	100000	-0.7	20.0
1,2,4-Trichlorobenzene	Ave	0.3292	0.3213		97600	100000	-2.4	20.0
Naphthalene	Ave	1.048	1.010	0.7000	96400	100000	-3.6	20.0
4-Chloroaniline	Ave	0.4563	0.4449	0.0100	97500	100000	-2.5	20.0
2,6-Dichlorophenol	Ave	0.2953	0.2926		99100	100000	-0.9	20.0
Hexachlorobutadiene	Ave	0.1766	0.1704	0.0100	96500	100000	-3.5	20.0
4-Chloro-3-methylphenol	Ave	0.3094	0.2960	0.2000	95700	100000	-4.3	20.0
2-Methylnaphthalene	Ave	0.7199	0.6875	0.4000	95500	100000	-4.5	20.0
1-Methylnaphthalene	Ave	0.6561	0.6377		97200	100000	-2.8	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3133	0.3014	0.0100	96200	100000	-3.8	20.0
Hexachlorocyclopentadiene	Ave	0.2753	0.2608	0.0500	94700	100000	-5.3	20.0
2,4,6-Trichlorophenol	Ave	0.3587	0.3697	0.2000	103000	100000	3.1	20.0
2,4,5-Trichlorophenol	Ave	0.3884	0.4067	0.2000	105000	100000	4.7	20.0
1,1'-Biphenyl	Ave	1.454	1.440	0.0100	99000	100000	-1.0	20.0
2-Chloronaphthalene	Ave	1.126	1.098	0.8000	97500	100000	-2.5	20.0
2-Nitroaniline	Ave	0.3574	0.3873	0.0100	108000	100000	8.4	20.0
Dimethyl phthalate	Ave	1.218	1.201	0.0100	98600	100000	-1.4	20.0
1,3-Dinitrobenzene	Ave	0.2091	0.2250		108000	100000	7.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-644801/11 Calibration Date: 03/04/2024 13:09

Instrument ID: SMS_G6 Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) Calib End Date: 03/04/2024 12:47

Lab File ID: G6_b030424011.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2854	0.3177	0.2000	111000	100000	11.3	20.0
Acenaphthylene	Ave	1.686	1.694	0.9000	100000	100000	0.5	20.0
3-Nitroaniline	Ave	0.3554	0.3808	0.0100	107000	100000	7.1	20.0
Acenaphthene	Ave	1.124	1.114	0.9000	99100	100000	-0.9	20.0
2,4-Dinitrophenol	Lin1		0.1745	0.0100	204000	200000	1.8	20.0
4-Nitrophenol	Ave	0.1785	0.1899	0.0100	213000	200000	6.4	20.0
2,4-Dinitrotoluene	Ave	0.3715	0.4030	0.2000	108000	100000	8.5	20.0
Dibenzofuran	Ave	1.590	1.532	0.8000	96400	100000	-3.6	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3003	0.3356	0.0100	112000	100000	11.8	20.0
Diethyl phthalate	Ave	1.270	1.261	0.0100	99200	100000	-0.8	20.0
Fluorene	Ave	1.257	1.229	0.9000	97800	100000	-2.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.5761	0.5557	0.4000	96500	100000	-3.5	20.0
4-Nitroaniline	Ave	0.3507	0.3667	0.0100	105000	100000	4.6	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1375	0.0100	197000	200000	-1.5	20.0
Diphenylamine	Ave	1.100	1.106		85500	85000	0.6	20.0
N-Nitrosodiphenylamine	Ave	0.5554	0.5617	0.0100	101000	100000	1.1	20.0
1,2-Diphenylhydrazine	Ave	1.388	1.364		98300	100000	-1.7	20.0
Azobenzene	Ave	1.403	1.364		97200	100000	-2.8	20.0
4-Bromophenyl phenyl ether	Ave	0.2186	0.2240	0.1000	102000	100000	2.5	20.0
Hexachlorobenzene	Ave	0.2845	0.2881	0.1000	101000	100000	1.3	20.0
Pentachlorophenol	Lin2		0.1612	0.0500	205000	200000	2.4	20.0
Phenanthrene	Ave	1.095	1.074	0.7000	98200	100000	-1.8	20.0
Anthracene	Ave	1.095	1.102	0.7000	101000	100000	0.6	20.0
Carbazole	Ave	1.067	1.046	0.0100	98000	100000	-2.0	20.0
Di-n-butyl phthalate	Ave	1.227	1.287	0.0100	105000	100000	4.9	20.0
Fluoranthene	Ave	1.106	1.131	0.6000	102000	100000	2.2	20.0
Pyrene	Ave	1.440	1.470	0.6000	102000	100000	2.1	20.0
Butyl benzyl phthalate	Lin1		0.7199	0.0100	107000	100000	7.1	20.0
Benzo[a]anthracene	Ave	1.288	1.365	0.8000	106000	100000	6.0	20.0
Chrysene	Ave	1.374	1.377	0.7000	100000	100000	0.3	20.0
Bis(2-ethylhexyl) phthalate	Lin2		0.9431	0.0100	102000	100000	1.6	20.0
Di-n-octyl phthalate	Qua		1.589	0.0100	103000	100000	2.8	20.0
Benzo[b]fluoranthene	Ave	1.117	1.235	0.7000	111000	100000	10.6	20.0
Benzo[k]fluoranthene	Ave	1.357	1.355	0.7000	99800	100000	-0.2	20.0
Benzo[a]pyrene	Lin1		1.195	0.7000	99900	100000	-0.0	20.0
Indeno[1,2,3-cd]pyrene	Lin1		1.175	0.5000	90000	100000	-10.0	20.0
Dibenz(a,h)anthracene	Ave	1.043	1.190	0.4000	114000	100000	14.1	20.0
Benzo[g,h,i]perylene	Ave	1.197	1.275	0.5000	107000	100000	6.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: G6_031524002.D DFTPP Injection Date: 03/15/2024

Instrument ID: SMS_G6 DFTPP Injection Time: 13:56

Analysis Batch No.: 646066

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	45.0	
68	Less than 2.0 % of mass 69	0.6	(1.7) 1
69	Mass 69 relative abundance	33.7	
70	Less than 2.0 % of mass 69	0.2	(0.5) 1
127	40.0 - 60.0 % of mass 198	47.0	
197	Less than 1.0 % of mass 198	0.3	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.6	
275	10.0 - 30.0 % of mass 198	27.1	
365	Greater than 1.0 % of mass 198	3.6	
441	Present but less than mass 443	17.0	(73.7) 3
442	Greater than 40.0 % of mass 198	117.5	
443	17.0 - 23.0 % of mass 442	23.0	(19.6) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 280-646066/3	G6_031524003.	03/15/2024	14:12
	MB 280-645670/1-A	G6_031524012.	03/15/2024	17:36
	LCS 280-645670/2-A	G6_031524013.	03/15/2024	17:57
X7-TP-C01-3642	280-188555-1	G6_031524015.	03/15/2024	18:40
X7-TP-C02-2430	280-188555-2	G6_031524016.	03/15/2024	19:01
FD-03062401	280-188555-3	G6_031524017.	03/15/2024	19:23
X7-TP-C03-2436	280-188555-4	G6_031524018.	03/15/2024	19:44
X7-TP-C03-2436 MS	280-188555-4 MS	G6_031524019.	03/15/2024	20:06
X7-TP-C03-2436 MSD	280-188555-4 MSD	G6_031524020.	03/15/2024	20:27
	CCVC 280-646066/29	G6_031524030.	03/16/2024	0:01

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVIS 280-646066/3 | Calibration Date: 03/15/2024 14:12

Instrument ID: SMS_G6 | Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524003.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7013	0.5702		65000	80000	-18.7	20.0
N-Nitrosodimethylamine	Ave	0.9146	0.8820		77100	80000	-3.6	20.0
Pyridine	Ave	1.183	1.167		158000	160000	-1.3	20.0
Aniline	Ave	2.043	1.802		70600	80000	-11.8	20.0
Phenol	Ave	2.044	1.716	0.8000	67200	80000	-16.0	20.0
Bis(2-chloroethyl)ether	Ave	1.421	1.310	0.7000	73800	80000	-7.8	20.0
2-Chlorophenol	Ave	1.517	1.398	0.8000	73700	80000	-7.8	20.0
1,3-Dichlorobenzene	Ave	1.606	1.425		71000	80000	-11.3	20.0
1,4-Dichlorobenzene	Ave	1.644	1.461		71100	80000	-11.1	20.0
Benzyl alcohol	Ave	0.9814	0.9025		73600	80000	-8.0	20.0
1,2-Dichlorobenzene	Ave	1.557	1.387		71300	80000	-10.9	20.0
2-Methylphenol	Ave	1.278	1.106	0.7000	69200	80000	-13.4	20.0
2,2'-oxybis[1-chloropropane]	Ave	2.558	2.542	0.0100	79500	80000	-0.6	20.0
Acetophenone	Ave	1.929	1.692	0.0100	70200	80000	-12.3	20.0
N-Nitrosodi-n-propylamine	Ave	0.9720	0.9014	0.5000	74200	80000	-7.3	20.0
3 & 4 Methylphenol	Ave	1.394	1.289		74000	80000	-7.5	20.0
Hexachloroethane	Ave	0.6719	0.5918	0.3000	70500	80000	-11.9	20.0
Nitrobenzene	Ave	0.3898	0.3508	0.2000	72000	80000	-10.0	20.0
Isophorone	Ave	0.7559	0.6755	0.4000	71500	80000	-10.6	20.0
2-Nitrophenol	Ave	0.1888	0.1979	0.1000	83900	80000	4.8	20.0
2,4-Dimethylphenol	Ave	0.3082	0.2675	0.2000	69400	80000	-13.2	20.0
Bis(2-chloroethoxy)methane	Ave	0.4569	0.4491	0.3000	78600	80000	-1.7	20.0
Benzoic acid	Lin2		0.2429		156000	160000	-2.5	20.0
2,4-Dichlorophenol	Ave	0.3019	0.2966	0.2000	78600	80000	-1.7	20.0
1,2,4-Trichlorobenzene	Ave	0.3292	0.3044		74000	80000	-7.5	20.0
Naphthalene	Ave	1.048	0.9741	0.7000	74400	80000	-7.0	20.0
4-Chloroaniline	Ave	0.4563	0.4390	0.0100	77000	80000	-3.8	20.0
2,6-Dichlorophenol	Ave	0.2953	0.2866		77600	80000	-2.9	20.0
Hexachlorobutadiene	Ave	0.1766	0.1725	0.0100	78100	80000	-2.3	20.0
4-Chloro-3-methylphenol	Ave	0.3094	0.2794	0.2000	72200	80000	-9.7	20.0
2-Methylnaphthalene	Ave	0.7199	0.6672	0.4000	74100	80000	-7.3	20.0
1-Methylnaphthalene	Ave	0.6561	0.6124		74700	80000	-6.7	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3133	0.2909	0.0100	74300	80000	-7.2	20.0
Hexachlorocyclopentadiene	Ave	0.2753	0.2636	0.0500	76600	80000	-4.2	20.0
2,4,6-Trichlorophenol	Ave	0.3587	0.3804	0.2000	84800	80000	6.0	20.0
2,4,5-Trichlorophenol	Ave	0.3884	0.4231	0.2000	87100	80000	8.9	20.0
1,1'-Biphenyl	Ave	1.454	1.350	0.0100	74300	80000	-7.2	20.0
2-Chloronaphthalene	Ave	1.126	1.092	0.8000	77600	80000	-3.0	20.0
2-Nitroaniline	Ave	0.3574	0.3804	0.0100	85100	80000	6.4	20.0
Dimethyl phthalate	Ave	1.218	1.214	0.0100	79700	80000	-0.4	20.0
1,3-Dinitrobenzene	Ave	0.2091	0.2365		90500	80000	13.1	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVIS 280-646066/3 | Calibration Date: 03/15/2024 14:12

Instrument ID: SMS_G6 | Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524003.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2854	0.3074	0.2000	86200	80000	7.7	20.0
Acenaphthylene	Ave	1.686	1.728	0.9000	82000	80000	2.5	20.0
3-Nitroaniline	Ave	0.3554	0.3879	0.0100	87300	80000	9.2	20.0
Acenaphthene	Ave	1.124	1.045	0.9000	74400	80000	-7.1	20.0
2,4-Dinitrophenol	Lin1		0.1835	0.0100	173000	160000	8.0	20.0
4-Nitrophenol	Ave	0.1785	0.1633	0.0100	146000	160000	-8.5	20.0
2,4-Dinitrotoluene	Ave	0.3715	0.3852	0.2000	83000	80000	3.7	20.0
Dibenzofuran	Ave	1.590	1.507	0.8000	75800	80000	-5.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3003	0.3364	0.0100	89600	80000	12.0	20.0
Diethyl phthalate	Ave	1.270	1.302	0.0100	82000	80000	2.5	20.0
Fluorene	Ave	1.257	1.191	0.9000	75800	80000	-5.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.5761	0.5363	0.4000	74500	80000	-6.9	20.0
4-Nitroaniline	Ave	0.3507	0.3778	0.0100	86200	80000	7.7	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1360	0.0100	157000	160000	-1.6	20.0
Diphenylamine	Ave	1.100	1.111		68700	68000	1.0	20.0
N-Nitrosodiphenylamine	Ave	0.5554	0.5453	0.0100	78500	80000	-1.8	20.0
1,2-Diphenylhydrazine	Ave	1.388	1.275		74300	80900	-8.2	20.0
Azobenzene	Ave	1.403	1.289		73500	80000	-8.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2186	0.2236	0.1000	81800	80000	2.3	20.0
Hexachlorobenzene	Ave	0.2845	0.3045	0.1000	85600	80000	7.0	20.0
Pentachlorophenol	Lin2		0.1771	0.0500	181000	160000	13.2	20.0
Phenanthrene	Ave	1.095	1.026	0.7000	75000	80000	-6.3	20.0
Anthracene	Ave	1.095	1.061	0.7000	77500	80000	-3.1	20.0
Carbazole	Ave	1.067	1.055	0.0100	79000	80000	-1.2	20.0
Alachlor	Ave	0.1208	0.1361		90100	80000	12.7	20.0
Di-n-butyl phthalate	Ave	1.227	1.317	0.0100	85900	80000	7.3	20.0
Fluoranthene	Ave	1.106	1.131	0.6000	81800	80000	2.2	20.0
Pyrene	Ave	1.440	1.314	0.6000	73000	80000	-8.7	20.0
Butyl benzyl phthalate	Lin1		0.6828	0.0100	81800	80000	2.3	20.0
Benzo[a]anthracene	Ave	1.288	1.209	0.8000	75100	80000	-6.2	20.0
Chrysene	Ave	1.374	1.201	0.7000	69900	80000	-12.6	20.0
Bis(2-ethylhexyl) phthalate	Lin2		0.9249	0.0100	80800	80000	1.0	20.0
Di-n-octyl phthalate	Qua		1.654	0.0100	87900	80000	9.8	20.0
Benzo[b]fluoranthene	Ave	1.117	1.093	0.7000	78300	80000	-2.1	20.0
Benzo[k]fluoranthene	Ave	1.357	1.250	0.7000	73700	80000	-7.9	20.0
Benzo[a]pyrene	Lin1		1.058	0.7000	71400	80000	-10.8	20.0
Indeno[1,2,3-cd]pyrene	Lin1		1.070	0.5000	67000	80000	-16.3	20.0
Dibenz(a,h)anthracene	Ave	1.043	0.9172	0.4000	70300	80000	-12.1	20.0
Benzo[g,h,i]perylene	Ave	1.197	0.9370	0.5000	62600	80000	-21.7*	20.0
2-Fluorophenol (Surr)	Ave	1.457	1.319		72400	80000	-9.5	20.0
Phenol-d5 (Surr)	Ave	1.793	1.570		70000	80000	-12.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVIS 280-646066/3 Calibration Date: 03/15/2024 14:12

Instrument ID: SMS_G6 Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524003.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitrobenzene-d5 (Surr)	Ave	0.3917	0.3475		71000	80000	-11.3	20.0
2-Fluorobiphenyl	Ave	1.244	1.198		77000	80000	-3.7	20.0
2,4,6-Tribromophenol (Surr)	Lin1		0.3052		93300	80000	16.7	20.0
Terphenyl-d14 (Surr)	Ave	1.108	1.052		76000	80000	-5.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVC 280-646066/29 | Calibration Date: 03/16/2024 00:01

Instrument ID: SMS_G6 | Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524030.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7013	0.5497		62700	80000	-21.6	50.0
N-Nitrosodimethylamine	Ave	0.9146	0.8756		76600	80000	-4.3	50.0
Pyridine	Ave	1.183	0.9934		134000	160000	-16.1	50.0
Aniline	Ave	2.043	1.780		69700	80000	-12.9	50.0
Phenol	Ave	2.044	1.708	0.8000	66900	80000	-16.4	50.0
Bis(2-chloroethyl)ether	Ave	1.421	1.314	0.7000	74000	80000	-7.5	50.0
2-Chlorophenol	Ave	1.517	1.432	0.8000	75500	80000	-5.6	50.0
1,3-Dichlorobenzene	Ave	1.606	1.418		70600	80000	-11.7	50.0
1,4-Dichlorobenzene	Ave	1.644	1.466		71300	80000	-10.8	50.0
Benzyl alcohol	Ave	0.9814	0.9539		77800	80000	-2.8	50.0
1,2-Dichlorobenzene	Ave	1.557	1.385		71200	80000	-11.1	50.0
2-Methylphenol	Ave	1.278	1.170	0.7000	73300	80000	-8.4	50.0
2,2'-oxybis[1-chloropropane]	Ave	2.558	2.523	0.0100	78900	80000	-1.3	50.0
Acetophenone	Ave	1.929	1.730	0.0100	71700	80000	-10.3	50.0
N-Nitrosodi-n-propylamine	Ave	0.9720	0.9356	0.5000	77000	80000	-3.8	50.0
3 & 4 Methylphenol	Ave	1.394	1.345		77200	80000	-3.5	50.0
Hexachloroethane	Ave	0.6719	0.4835	0.3000	57600	80000	-28.0	50.0
Nitrobenzene	Ave	0.3898	0.3542	0.2000	72700	80000	-9.1	50.0
Isophorone	Ave	0.7559	0.6702	0.4000	70900	80000	-11.3	50.0
2-Nitrophenol	Ave	0.1888	0.1955	0.1000	82800	80000	3.5	50.0
2,4-Dimethylphenol	Ave	0.3082	0.2678	0.2000	69500	80000	-13.1	50.0
Bis(2-chloroethoxy)methane	Ave	0.4569	0.4494	0.3000	78700	80000	-1.6	50.0
Benzoic acid	Lin2		0.2570		164000	160000	2.7	50.0
2,4-Dichlorophenol	Ave	0.3019	0.2968	0.2000	78700	80000	-1.7	50.0
1,2,4-Trichlorobenzene	Ave	0.3292	0.3020		73400	80000	-8.3	50.0
Naphthalene	Ave	1.048	0.9647	0.7000	73600	80000	-7.9	50.0
4-Chloroaniline	Ave	0.4563	0.4397	0.0100	77100	80000	-3.6	50.0
2,6-Dichlorophenol	Ave	0.2953	0.2860		77500	80000	-3.1	50.0
Hexachlorobutadiene	Ave	0.1766	0.1675	0.0100	75900	80000	-5.1	50.0
4-Chloro-3-methylphenol	Ave	0.3094	0.2781	0.2000	71900	80000	-10.1	50.0
2-Methylnaphthalene	Ave	0.7199	0.6713	0.4000	74600	80000	-6.7	50.0
1-Methylnaphthalene	Ave	0.6561	0.6106		74400	80000	-6.9	50.0
Hexachlorocyclopentadiene	Ave	0.2753	0.0366*	0.0500	10600	80000	-86.7*	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3133	0.2926	0.0100	74700	80000	-6.6	50.0
2,4,6-Trichlorophenol	Ave	0.3587	0.3844	0.2000	85700	80000	7.2	50.0
2,4,5-Trichlorophenol	Ave	0.3884	0.4221	0.2000	86900	80000	8.7	50.0
1,1'-Biphenyl	Ave	1.454	1.353	0.0100	74400	80000	-6.9	50.0
2-Chloronaphthalene	Ave	1.126	1.086	0.8000	77200	80000	-3.5	50.0
2-Nitroaniline	Ave	0.3574	0.3773	0.0100	84500	80000	5.6	50.0
Dimethyl phthalate	Ave	1.218	1.211	0.0100	79500	80000	-0.6	50.0
1,3-Dinitrobenzene	Ave	0.2091	0.2372		90800	80000	13.5	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVC 280-646066/29 | Calibration Date: 03/16/2024 00:01

Instrument ID: SMS_G6 | Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) | Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524030.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-Dinitrotoluene	Ave	0.2854	0.3015	0.2000	84500	80000	5.6	50.0
Acenaphthylene	Ave	1.686	1.705	0.9000	80900	80000	1.1	50.0
3-Nitroaniline	Ave	0.3554	0.3980	0.0100	89600	80000	12.0	50.0
Acenaphthene	Ave	1.124	1.046	0.9000	74500	80000	-6.9	50.0
2,4-Dinitrophenol	Lin1		0.0689	0.0100	70500	160000	-55.9*	50.0
4-Nitrophenol	Ave	0.1785	0.1601	0.0100	144000	160000	-10.3	50.0
2,4-Dinitrotoluene	Ave	0.3715	0.3694	0.2000	79600	80000	-0.6	50.0
Dibenzofuran	Ave	1.590	1.498	0.8000	75400	80000	-5.7	50.0
2,3,4,6-Tetrachlorophenol	Ave	0.3003	0.3368	0.0100	89700	80000	12.2	50.0
Diethyl phthalate	Ave	1.270	1.296	0.0100	81600	80000	2.0	50.0
Fluorene	Ave	1.257	1.179	0.9000	75100	80000	-6.1	50.0
4-Chlorophenyl phenyl ether	Ave	0.5761	0.5311	0.4000	73700	80000	-7.8	50.0
4-Nitroaniline	Ave	0.3507	0.3778	0.0100	86200	80000	7.7	50.0
4,6-Dinitro-2-methylphenol	Lin1		0.0616	0.0100	75600	160000	-52.8*	50.0
Diphenylamine	Ave	1.100	1.100		68000	68000	0.0	50.0
N-Nitrosodiphenylamine	Ave	0.5554	0.5479	0.0100	78900	80000	-1.3	50.0
1,2-Diphenylhydrazine	Ave	1.388	1.303		75900	80900	-6.1	50.0
Azobenzene	Ave	1.403	1.317		75100	80000	-6.1	50.0
4-Bromophenyl phenyl ether	Ave	0.2186	0.2236	0.1000	81800	80000	2.3	50.0
Hexachlorobenzene	Ave	0.2845	0.3021	0.1000	84900	80000	6.2	50.0
Pentachlorophenol	Lin2		0.1742	0.0500	178000	160000	11.4	50.0
Phenanthrene	Ave	1.095	1.011	0.7000	73900	80000	-7.6	50.0
Anthracene	Ave	1.095	1.033	0.7000	75500	80000	-5.7	50.0
Carbazole	Ave	1.067	1.038	0.0100	77800	80000	-2.7	50.0
Alachlor	Ave	0.1208	0.1323		87600	80000	9.5	50.0
Di-n-butyl phthalate	Ave	1.227	1.322	0.0100	86200	80000	7.8	50.0
Fluoranthene	Ave	1.106	1.074	0.6000	77700	80000	-2.9	50.0
Pyrene	Ave	1.440	1.444	0.6000	80200	80000	0.3	50.0
Butyl benzyl phthalate	Lin1		0.7627	0.0100	91100	80000	13.9	50.0
Benzo[a]anthracene	Ave	1.288	1.232	0.8000	76500	80000	-4.4	50.0
Chrysene	Ave	1.374	1.202	0.7000	70000	80000	-12.5	50.0
Bis(2-ethylhexyl) phthalate	Lin2		1.057	0.0100	91600	80000	14.5	50.0
Di-n-octyl phthalate	Qua		1.844	0.0100	96500	80000	20.6	50.0
Benzo[b]fluoranthene	Ave	1.117	1.108	0.7000	79300	80000	-0.8	50.0
Benzo[k]fluoranthene	Ave	1.357	1.196	0.7000	70500	80000	-11.9	50.0
Benzo[a]pyrene	Lin1		1.058	0.7000	71400	80000	-10.8	50.0
Indeno[1,2,3-cd]pyrene	Lin1		1.097	0.5000	68500	80000	-14.4	50.0
Dibenz(a,h)anthracene	Ave	1.043	0.9553	0.4000	73300	80000	-8.4	50.0
Benzo[g,h,i]perylene	Ave	1.197	0.9421	0.5000	63000	80000	-21.3	50.0
2-Fluorophenol (Surr)	Ave	1.457	1.327		72900	80000	-8.9	50.0
Phenol-d5 (Surr)	Ave	1.793	1.577		70400	80000	-12.0	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCVC 280-646066/29 Calibration Date: 03/16/2024 00:01

Instrument ID: SMS_G6 Calib Start Date: 03/04/2024 10:17

GC Column: Rxi-5Sil MS ID: 0.25(mm) Calib End Date: 03/04/2024 12:47

Lab File ID: G6_031524030.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitrobenzene-d5 (Surr)	Ave	0.3917	0.3524		72000	80000	-10.0	50.0
2-Fluorobiphenyl	Ave	1.244	1.195		76800	80000	-4.0	50.0
2,4,6-Tribromophenol (Surr)	Lin1		0.2895		88700	80000	10.8	50.0
Terphenyl-d14 (Surr)	Ave	1.108	1.164		84100	80000	5.1	50.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Sample No.: ICIS 280-644801/3 Date Analyzed: 03/04/2024 10:17

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): G6_b030424003.D Heated Purge: (Y/N) N

Calibration ID: 90934

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		173327	4.32	664524	5.48	376194	7.17
UPPER LIMIT		346654	4.49	1329048	5.65	752388	7.33
LOWER LIMIT		86664	4.16	332262	5.32	188097	7.00
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-644801/11		183989	4.32	679058	5.48	374454	7.17
ICV 280-644801/12		189822	4.32	713950	5.48	389646	7.17
CCVIS 280-646066/3		216399	4.32	794954	5.49	434100	7.18

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Sample No.: ICIS 280-644801/3 Date Analyzed: 03/04/2024 10:17

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): G6_b030424003.D Heated Purge: (Y/N) N

Calibration ID: 90934

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		638181	8.62	534352	11.46	618785	13.81
UPPER LIMIT		1276362	8.78	1068704	11.63	1237570	13.97
LOWER LIMIT		319091	8.45	267176	11.30	309393	13.64
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-644801/11		626868	8.61	512453	11.46	575434	13.80
ICV 280-644801/12		655723	8.61	494280	11.45	569535	13.80
CCVIS 280-646066/3		751464	8.62	688050	11.47	801374	13.81

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Sample No.: CCVIS 280-646066/3 Date Analyzed: 03/15/2024 14:12

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): G6_031524003.D Heated Purge: (Y/N) N

Calibration ID: 91238

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		216399	4.32	794954	5.49	434100	7.18
UPPER LIMIT		432798	4.48	1589908	5.65	868200	7.34
LOWER LIMIT		108200	4.15	397477	5.32	217050	7.01
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-645670/1-A		189037	4.32	696410	5.49	383054	7.17
LCS 280-645670/2-A		199718	4.32	727022	5.49	399482	7.17
280-188555-1	X7-TP-C01-3642	163530	4.32	617270	5.48	339939	7.17
280-188555-2	X7-TP-C02-2430	227416	4.32	847256	5.48	469134	7.17
280-188555-3	FD-03062401	237151	4.32	888009	5.49	493519	7.17
280-188555-4	X7-TP-C03-2436	212565	4.32	783498	5.49	433242	7.17
280-188555-4 MS	X7-TP-C03-2436 MS	231448	4.32	852767	5.49	469029	7.17
280-188555-4 MSD	X7-TP-C03-2436 MSD	183036	4.32	677725	5.49	378319	7.17
CCVC 280-646066/29		221858	4.32	836418	5.49	459366	7.18

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Sample No.: CCVIS 280-646066/3 Date Analyzed: 03/15/2024 14:12

Instrument ID: SMS_G6 GC Column: Rxi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): G6_031524003.D Heated Purge: (Y/N) N

Calibration ID: 91238

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		751464	8.62	688050	11.47	801374	13.81
UPPER LIMIT		1502928	8.79	1376100	11.63	1602748	13.98
LOWER LIMIT		375732	8.45	344025	11.30	400687	13.65
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 280-645670/1-A		692456	8.62	615574	11.46	675707	13.81
LCS 280-645670/2-A		685788	8.62	578823	11.46	666670	13.81
280-188555-1	X7-TP-C01-3642	593362	8.62	498353	11.46	533724	13.81
280-188555-2	X7-TP-C02-2430	810066	8.62	681570	11.46	708528	13.81
280-188555-3	FD-03062401	846698	8.62	718948	11.46	750176	13.81
280-188555-4	X7-TP-C03-2436	768156	8.62	724848	11.46	822376	13.81
280-188555-4 MS	X7-TP-C03-2436 MS	818871	8.62	687928	11.46	800837	13.81
280-188555-4 MSD	X7-TP-C03-2436 MSD	669415	8.62	566123	11.46	661949	13.81
CCVC 280-646066/29		783602	8.62	604009	11.47	668926	13.82

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.1666 minutes of internal standard RT

Column used to flag values outside QC limits

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 09/15/2021 10:39

Analysis Batch Number: 550041 End Date: 09/15/2021 19:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-550041/2		09/15/2021 10:39	1		Rxi-5Sil MS 0.25(mm)
STD080 280-550041/3 IC		09/15/2021 16:55	1		Rxi-5Sil MS 0.25(mm)
STD010 280-550041/4 IC		09/15/2021 17:20	1		Rxi-5Sil MS 0.25(mm)
STD020 280-550041/5 IC		09/15/2021 17:46	1		Rxi-5Sil MS 0.25(mm)
STD050 280-550041/6 IC		09/15/2021 18:12	1		Rxi-5Sil MS 0.25(mm)
STD120 280-550041/7 IC		09/15/2021 18:38	1		Rxi-5Sil MS 0.25(mm)
STD160 280-550041/8 IC		09/15/2021 19:03	1		Rxi-5Sil MS 0.25(mm)
STD200 280-550041/9 IC		09/15/2021 19:29	1		Rxi-5Sil MS 0.25(mm)
ICV 280-550041/10		09/15/2021 19:55	1	G6_760388.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/04/2024 09:59

Analysis Batch Number: 644801 End Date: 03/04/2024 13:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-644801/2		03/04/2024 09:59	1	G6_b030424002C.D	Rxi-5Sil MS 0.25(mm)
ICIS 280-644801/3		03/04/2024 10:17	1	G6_b030424003.D	Rxi-5Sil MS 0.25(mm)
STD004 280-644801/4 IC		03/04/2024 10:38	1	G6_b030424004.D	Rxi-5Sil MS 0.25(mm)
STD010 280-644801/5 IC		03/04/2024 11:00	1	G6_b030424005.D	Rxi-5Sil MS 0.25(mm)
STD020 280-644801/6 IC		03/04/2024 11:21	1	G6_b030424006.D	Rxi-5Sil MS 0.25(mm)
STD050 280-644801/7 IC		03/04/2024 11:43	1	G6_b030424007.D	Rxi-5Sil MS 0.25(mm)
STD120 280-644801/8 IC		03/04/2024 12:04	1	G6_b030424008.D	Rxi-5Sil MS 0.25(mm)
STD160 280-644801/9 IC		03/04/2024 12:26	1	G6_b030424009.D	Rxi-5Sil MS 0.25(mm)
STD200 280-644801/10 IC		03/04/2024 12:47	1	G6_b030424010.D	Rxi-5Sil MS 0.25(mm)
ICV 280-644801/11		03/04/2024 13:09	1	G6_b030424011.D	Rxi-5Sil MS 0.25(mm)
ICV 280-644801/12		03/04/2024 13:30	1	G6_b030424012.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/04/2024 09:59

Analysis Batch Number: 644899 End Date: 03/04/2024 16:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-644899/2		03/04/2024 09:59	1	G6_b030424002D.D	Rxi-5Sil MS 0.25(mm)
STD010 280-644899/13 IC		03/04/2024 13:51	1		Rxi-5Sil MS 0.25(mm)
STD020 280-644899/14 IC		03/04/2024 14:13	1		Rxi-5Sil MS 0.25(mm)
STD050 280-644899/15 IC		03/04/2024 14:34	1		Rxi-5Sil MS 0.25(mm)
STD080 280-644899/16 IC		03/04/2024 14:55	1		Rxi-5Sil MS 0.25(mm)
STD120 280-644899/17 IC		03/04/2024 15:17	1		Rxi-5Sil MS 0.25(mm)
STD160 280-644899/18 IC		03/04/2024 15:38	1		Rxi-5Sil MS 0.25(mm)
STD200 280-644899/19 IC		03/04/2024 15:59	1		Rxi-5Sil MS 0.25(mm)
ICV 280-644899/20		03/04/2024 16:21	1	G6_b030424020.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/04/2024 09:59

Analysis Batch Number: 644942 End Date: 03/04/2024 19:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-644942/2		03/04/2024 09:59	1	G6_b030424002E.D	Rxi-5Sil MS 0.25(mm)
STD010 280-644942/3 IC		03/04/2024 17:15	1		Rxi-5Sil MS 0.25(mm)
STD020 280-644942/4 IC		03/04/2024 17:36	1		Rxi-5Sil MS 0.25(mm)
STD050 280-644942/5 IC		03/04/2024 17:57	1		Rxi-5Sil MS 0.25(mm)
STD080 280-644942/6 IC		03/04/2024 18:18	1		Rxi-5Sil MS 0.25(mm)
STD120 280-644942/7 IC		03/04/2024 18:39	1		Rxi-5Sil MS 0.25(mm)
STD160 280-644942/8 IC		03/04/2024 19:01	1		Rxi-5Sil MS 0.25(mm)
STD200 280-644942/9 IC		03/04/2024 19:22	1		Rxi-5Sil MS 0.25(mm)
ICV 280-644942/10		03/04/2024 19:43	1	G6_b030424028.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/05/2024 08:20

Analysis Batch Number: 644947 End Date: 03/05/2024 11:07

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-644947/2		03/05/2024 08:20	1	G6_b030524002C.D	Rxi-5Sil MS 0.25(mm)
STD080 280-644947/3 IC		03/05/2024 08:39	1		Rxi-5Sil MS 0.25(mm)
STD010 280-644947/4 IC		03/05/2024 09:00	1		Rxi-5Sil MS 0.25(mm)
STD020 280-644947/5 IC		03/05/2024 09:21	1		Rxi-5Sil MS 0.25(mm)
STD050 280-644947/6 IC		03/05/2024 09:42	1		Rxi-5Sil MS 0.25(mm)
STD120 280-644947/7 IC		03/05/2024 10:03	1		Rxi-5Sil MS 0.25(mm)
STD160 280-644947/8 IC		03/05/2024 10:25	1		Rxi-5Sil MS 0.25(mm)
STD200 280-644947/9 IC		03/05/2024 10:46	1		Rxi-5Sil MS 0.25(mm)
ICV 280-644947/10		03/05/2024 11:07	1	G6_b0305240010C.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/15/2024 08:58

Analysis Batch Number: 646020 End Date: 03/15/2024 12:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-646020/2		03/15/2024 08:58	1	031524002.D	Rxi-5Sil MS 0.25(mm)
STD080 280-646020/3 IC		03/15/2024 09:14	1	031524003.D	Rxi-5Sil MS 0.25(mm)
STD010 280-646020/4 IC		03/15/2024 09:38	1	031524004.D	Rxi-5Sil MS 0.25(mm)
STD020 280-646020/5 IC		03/15/2024 10:03	1	031524005.D	Rxi-5Sil MS 0.25(mm)
STD050 280-646020/6 IC		03/15/2024 10:27	1	031524006.D	Rxi-5Sil MS 0.25(mm)
STD120 280-646020/7 IC		03/15/2024 10:51	1	031524007.D	Rxi-5Sil MS 0.25(mm)
STD 280-646020/9 IC		03/15/2024 11:39	1	031524009.D	Rxi-5Sil MS 0.25(mm)
STD160 280-646020/12 IC		03/15/2024 12:35	1	031524011.D	Rxi-5Sil MS 0.25(mm)
ICV 280-646020/10		03/15/2024 12:59	1	031524012.D	Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: SMS_G6 Start Date: 03/15/2024 13:56

Analysis Batch Number: 646066 End Date: 03/16/2024 01:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-646066/2		03/15/2024 13:56	1	G6_031524002.D	Rxi-5Sil MS 0.25(mm)
CCVIS 280-646066/3		03/15/2024 14:12	1	G6_031524003.D	Rxi-5Sil MS 0.25(mm)
CCV 280-646066/5		03/15/2024 14:54	1		Rxi-5Sil MS 0.25(mm)
CCV 280-646066/6		03/15/2024 15:16	1		Rxi-5Sil MS 0.25(mm)
CCVL 280-646066/7		03/15/2024 16:02	1		Rxi-5Sil MS 0.25(mm)
MB 280-645670/1-A		03/15/2024 17:36	1	G6_031524012.D	Rxi-5Sil MS 0.25(mm)
LCS 280-645670/2-A		03/15/2024 17:57	1	G6_031524013.D	Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 18:19	5		Rxi-5Sil MS 0.25(mm)
280-188555-1	X7-TP-C01-3642	03/15/2024 18:40	1	G6_031524015.D	Rxi-5Sil MS 0.25(mm)
280-188555-2	X7-TP-C02-2430	03/15/2024 19:01	1	G6_031524016.D	Rxi-5Sil MS 0.25(mm)
280-188555-3	FD-03062401	03/15/2024 19:23	1	G6_031524017.D	Rxi-5Sil MS 0.25(mm)
280-188555-4	X7-TP-C03-2436	03/15/2024 19:44	1	G6_031524018.D	Rxi-5Sil MS 0.25(mm)
280-188555-4 MS	X7-TP-C03-2436 MS	03/15/2024 20:06	1	G6_031524019.D	Rxi-5Sil MS 0.25(mm)
280-188555-4 MSD	X7-TP-C03-2436 MSD	03/15/2024 20:27	1	G6_031524020.D	Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 20:48	5		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 21:10	5		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 21:31	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 21:53	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 22:14	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 22:35	5		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 22:57	1		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 23:18	5		Rxi-5Sil MS 0.25(mm)
ZZZZZ		03/15/2024 23:39	5		Rxi-5Sil MS 0.25(mm)
CCVC 280-646066/29		03/16/2024 00:01	1	G6_031524030.D	Rxi-5Sil MS 0.25(mm)
CCVC 280-646066/31		03/16/2024 00:43	1		Rxi-5Sil MS 0.25(mm)
CCVC 280-646066/32		03/16/2024 01:05	1		Rxi-5Sil MS 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 550041 Batch Start Date: 09/15/21 10:39 Batch Analyst: Polite, Sean

Batch Method: 8270E Batch End Date: 09/15/21 19:55

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	MS-REFSSV10000045				
ICV 280-550041/10		8270E			1.0 mL	200 uL				

Batch Notes	

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 644801 Batch Start Date: 03/04/24 09:59 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	CalcMsg	MS-DFTPP 00072	MS-HSL-ICV1 00010	MS-HSL-ICV2 00004	MS-HSL-WS 00010
DFTPP 280-644801/2		8270E			500 uL	Perform Calculation left blank	500 uL			
ICIS 280-644801/3		8270E			500 uL	Perform Calculation left blank				200 uL
STD004 280-644801/4 IC		8270E			500 uL	Perform Calculation left blank				10 uL
STD010 280-644801/5 IC		8270E			500 uL	Perform Calculation left blank				25 uL
STD020 280-644801/6 IC		8270E			500 uL	Perform Calculation left blank				50 uL
STD050 280-644801/7 IC		8270E			500 uL	Perform Calculation left blank				125 uL
STD120 280-644801/8 IC		8270E			500 uL	Perform Calculation left blank				300 uL
STD160 280-644801/9 IC		8270E			500 uL	Perform Calculation left blank				400 uL
STD200 280-644801/10 IC		8270E			500 uL	Perform Calculation left blank				500 uL
ICV 280-644801/11		8270E			500 uL	Perform Calculation left blank		250 uL		
ICV 280-644801/12		8270E			500 uL	Perform Calculation left blank			250 uL	

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	MS-IS 00037					
DFTPP 280-644801/2		8270E								
ICIS 280-644801/3		8270E			100 uL					
STD004 280-644801/4 IC		8270E			100 uL					

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 644801 Batch Start Date: 03/04/24 09:59 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	MS-IS 00037					
STD010 280-644801/5 IC		8270E			100 uL					
STD020 280-644801/6 IC		8270E			100 uL					
STD050 280-644801/7 IC		8270E			100 uL					
STD120 280-644801/8 IC		8270E			100 uL					
STD160 280-644801/9 IC		8270E			100 uL					
STD200 280-644801/10 IC		8270E			100 uL					
ICV 280-644801/11		8270E			100 uL					
ICV 280-644801/12		8270E			100 uL					

Batch Notes	

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 644899 Batch Start Date: 03/04/24 09:59 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	CalcMsg	MS-AP9-ICV1 00003	MS-AP9-ICV2 00005	MS-DFTPP 00072	MS-IS 00037
DFTPP 280-644899/2		8270E			500 uL	Perform Calculation left blank			500 uL	
ICV 280-644899/20		8270E			500 uL	Perform Calculation left blank	250 uL	250 uL		100 uL

Batch Notes	

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 644942 Batch Start Date: 03/04/24 09:59 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	CalcMsg	MS-DFTPP 00072	MS-DIAZ_SSSTK 00007	MS-IS 00037	
DFTPP 280-644942/2		8270E			500 uL	Perform Calculation left blank	500 uL			
ICV 280-644942/10		8270E			500 uL	Perform Calculation left blank		250 uL	100 uL	

Batch Notes	

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 644947 Batch Start Date: 03/05/24 08:20 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	CalcMsg	MS-DFTPP 00072	MS-FAB-ICV 00003	MS-IS 00037	
DFTPP 280-644947/2		8270E			500 uL	Perform Calculation left blank	500 uL			
ICV 280-644947/10		8270E			500 uL	Perform Calculation left blank		250 uL	100 uL	

Batch Notes	

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645670 Batch Start Date: 03/12/24 10:29 Batch Analyst: Garcia, Jan P

Batch Method: 3550C Batch End Date: 03/13/24 08:32

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	CalcMsg	8270_AP9_LCS 00113	8270_LCS_Main 00090	8270_LCS_Supp 00598
MB 280-645670/1		3550C, 8270E			30 g	1 mL	CALC NOT SET TO RUN			
LCS 280-645670/2		3550C, 8270E			30 g	1 mL	CALC NOT SET TO RUN	1 mL	1 mL	1 mL
280-188555-A-1	X7-TP-C01-3642	3550C, 8270E	Solid	T	30.6 g	1 mL	CALC NOT SET TO RUN			
280-188555-A-2	X7-TP-C02-2430	3550C, 8270E	Solid	T	30.2 g	1 mL	CALC NOT SET TO RUN			
280-188555-A-3	FD-03062401	3550C, 8270E	Solid	T	31.5 g	1 mL	CALC NOT SET TO RUN			
280-188555-A-4	X7-TP-C03-2436	3550C, 8270E	Solid	T	30.3 g	1 mL	CALC NOT SET TO RUN			
280-188555-A-4 MS	X7-TP-C03-2436	3550C, 8270E	Solid	T	30.9 g	1 mL	CALC NOT SET TO RUN	1 mL	1 mL	1 mL
280-188555-A-4 MSD	X7-TP-C03-2436	3550C, 8270E	Solid	T	32.6 g	1 mL	CALC NOT SET TO RUN	1 mL	1 mL	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8270Surrogate 00174					
MB 280-645670/1		3550C, 8270E			1 mL					
LCS 280-645670/2		3550C, 8270E			1 mL					
280-188555-A-1	X7-TP-C01-3642	3550C, 8270E	Solid	T	1 mL					
280-188555-A-2	X7-TP-C02-2430	3550C, 8270E	Solid	T	1 mL					
280-188555-A-3	FD-03062401	3550C, 8270E	Solid	T	1 mL					
280-188555-A-4	X7-TP-C03-2436	3550C, 8270E	Solid	T	1 mL					
280-188555-A-4 MS	X7-TP-C03-2436	3550C, 8270E	Solid	T	1 mL					
280-188555-A-4 MSD	X7-TP-C03-2436	3550C, 8270E	Solid	T	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645670 Batch Start Date: 03/12/24 10:29 Batch Analyst: Garcia, Jan P

Batch Method: 3550C Batch End Date: 03/13/24 08:32

Batch Notes	
Method/Fraction	3550C/8270D_DOD5/8270E_DOD5
Nominal Amount Used	30g g
Balance ID	24750402
Balance is Level? (Y/N)	yes
Pipette/Syringe/Dispenser ID	Rose/JR
Analyst ID - Extraction	GL (trainer) JPG (trainee)
Blank Matrix ID	Ottawa_Sand_00010
Analyst ID - Spike Analyst	JPG (trainee)
Analyst ID - Spike Witness Analyst	REVIEWER: GL(trainer)
Sufficient Volume for Batch QC	YES
Prep Solvent ID	1:1AceMeCl2_00518 MeCl2_Cycl_00629
Na2SO4 ID	Na2SO4_00147
Filter ID	22-124
Analyst ID - Concentration	JC
Equipment ID - Concentration 1	TV1, TV2, TV3
Concentration 1 Uncorrected Temperature	40, 40, 40 Degrees C
Concentration 1 Corrected Temperature	39.8, 39.3, 39.9 Degrees C
Pipette Tip Lot ID	B10705329S/0000008794
Batch Comment	DV-OP-0016/0007

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.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 646020 Batch Start Date: 03/15/24 08:58 Batch Analyst: Connolly, Robert J

Batch Method: 8270E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	CalcMsg	MS-CUST-ICV 00003	MS-CUST-WS 00004	MS-DFTPP 00073	MS-IS 00037
DFTPP 280-646020/2		8270E			500 uL	Perform Calculation left blank			500 uL	
STD080 280-646020/3 IC		8270E			500 uL	Perform Calculation left blank		200 uL		100 uL
STD010 280-646020/4 IC		8270E			500 uL	Perform Calculation left blank		25 uL		100 uL
STD020 280-646020/5 IC		8270E			500 uL	Perform Calculation left blank		50 uL		100 uL
STD050 280-646020/6 IC		8270E			500 uL	Perform Calculation left blank		125 uL		100 uL
STD120 280-646020/7 IC		8270E			500 uL	Perform Calculation left blank		300 uL		100 uL
STD 280-646020/9 IC		8270E			500 uL	Perform Calculation left blank		500 uL		100 uL
ICV 280-646020/10		8270E			500 uL	Perform Calculation left blank	500 uL			100 uL
STD160 280-646020/12 IC		8270E			500 uL	Perform Calculation left blank		400 uL		100 uL

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8330B_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid 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 #
X7-TP-C01-3642	280-188555-1		95 M
X7-TP-C01-3642	280-188555-1	102	
X7-TP-C02-2430	280-188555-2		103
X7-TP-C02-2430	280-188555-2	103	
X7-TP-C02-2430 DL	280-188555-2 DL	98 D	
FD-03062401	280-188555-3	103	
FD-03062401 DL	280-188555-3 DL	98 D	
FD-03062401 DL2	280-188555-3 DL2	0 D O	
X7-TP-C03-2436	280-188555-4		98 M
X7-TP-C03-2436	280-188555-4	101	
	MB 280-645871/1-A	101	
	LCS 280-645871/2-A	101	
	LCS 280-645871/3-A	101	
X7-TP-C03-2436 MS	280-188555-4 MS		108
X7-TP-C03-2436 MS	280-188555-4 MS	100	
X7-TP-C03-2436 MS	280-188555-4 MS	101	
X7-TP-C03-2436 MSD	280-188555-4 MSD		110
X7-TP-C03-2436 MSD	280-188555-4 MSD	100	
X7-TP-C03-2436 MSD	280-188555-4 MSD	104	
X7-TP-C03-2436 DU	280-188555-4 DU		101
X7-TP-C03-2436 DU	280-188555-4 DU	102	
X7-TP-C03-2436 TRL	280-188555-4 TRL		100 M
X7-TP-C03-2436 TRL	280-188555-4 TRL	102	

12DNB = 1,2-Dinitrobenzene

QC LIMITS
78-119

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.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190042.D

Lab ID: LCS 280-645871/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	1000	1140	114	80-116	
1,3-Dinitrobenzene	1000	1110	111	73-119	
2,4,6-Trinitrotoluene	1000	1040	104	71-120	
3,5-Dinitroaniline	1000	1090	109	86-118	
2,4-Dinitrotoluene	1000	1060	106	75-121	
2,6-Dinitrotoluene	1000	1080	108	79-117	
2-Amino-4,6-dinitrotoluene	1000	1070	107	71-123	
2-Nitrotoluene	1000	1100	110	70-124	
3-Nitrotoluene	1000	1100	110	67-129	
4-Amino-2,6-dinitrotoluene	1000	1060	106	64-127	
4-Nitrotoluene	1000	1100	110	71-124	
Nitrobenzene	1000	1140	114	67-129	
Nitroglycerin	10000	11800	118	73-124	
HMX	1000	918	92	74-124	M
PETN	10000	11100	111	72-128	
Picric acid	1000	1190	119	38-154	
RDX	1000	1020	102	67-129	
Tetryl	1000	1060	106	68-135	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190043.D

Lab ID: LCS 280-645871/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
2,4-diamino-6-nitrotoluene	2000	1590 J	80	10-150	
2,6-diamino-4-nitrotoluene	2000	1860 J	93	10-150	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190050.D

Lab ID: 280-188555-4 MS Client ID: X7-TP-C03-2436 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	990	39 U	1110	112	80-116	
1,3-Dinitrobenzene	990	39 U	1090	110	73-119	
3,5-Dinitroaniline	990	19 U	958	97	86-118	
2,4-Dinitrotoluene	990	39 U	1060	107	75-121	M
2,6-Dinitrotoluene	990	39 U	1070	108	79-117	M
2-Amino-4,6-dinitrotoluene	990	68 U	1000	101	71-123	M
2-Nitrotoluene	990	97 U	1090	110	70-124	M
3-Nitrotoluene	990	150 U	1070	108	67-129	M
4-Amino-2,6-dinitrotoluene	990	68 U	855	86	64-127	M
4-Nitrotoluene	990	97 U	1080	110	71-124	M
Nitrobenzene	990	190 U	1110	112	67-129	
Nitroglycerin	9900	680 U	11400	115	73-124	
HMX	990	68 U	879	89	74-124	M
PETN	9900	970 U	11000	112	72-128	
Picric acid	990	77 U	291	29	38-154	J1
Tetryl	990	97 U	974	98	68-135	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190052.D

Lab ID: 280-188555-4 MS Client ID: X7-TP-C03-2436 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
2,4-diamino-6-nitrotoluene	1930	970 U	960 U	0	10-150	M J1
2,6-diamino-4-nitrotoluene	1930	970 U	960 U	0	10-150	M J1

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03200020.D

Lab ID: 280-188555-4 MS Client ID: X7-TP-C03-2436 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
2,4,6-Trinitrotoluene	990	68 U	1100	111	71-120	
RDX	990	97 U	958	97	67-129	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190051.D

Lab ID: 280-188555-4 MSD Client ID: X7-TP-C03-2436 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	949	1060	112	5	20	80-116	
1,3-Dinitrobenzene	949	1040	109	5	20	73-119	
3,5-Dinitroaniline	949	940	99	2	20	86-118	
2,4-Dinitrotoluene	949	1010	107	5	20	75-121	
2,6-Dinitrotoluene	949	1020	107	5	20	79-117	
2-Amino-4,6-dinitrotoluene	949	976	103	3	20	71-123	
2-Nitrotoluene	949	1030	109	6	20	70-124	
3-Nitrotoluene	949	1020	107	5	20	67-129	
4-Amino-2,6-dinitrotoluene	949	884	93	3	20	64-127	
4-Nitrotoluene	949	1020	108	6	20	71-124	
Nitrobenzene	949	1060	112	5	20	67-129	
Nitroglycerin	9490	11000	116	3	20	73-124	
HMX	949	878	93	0	20	74-124	
PETN	9490	10400	110	6	20	72-128	
Picric acid	949	107	11	93	20	38-154	J1
Tetryl	949	901	95	8	20	68-135	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190053.D

Lab ID: 280-188555-4 MSD Client ID: X7-TP-C03-2436 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4-diamino-6-nitrotoluene	1940	970 U	0	NC	20	10-150	M J1
2,6-diamino-4-nitrotoluene	1940	970 U	0	NC	20	10-150	M J1

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03200021.D

Lab ID: 280-188555-4 MSD Client ID: X7-TP-C03-2436 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4,6-Trinitrotoluene	949	1050	110	5	20	71-120	
RDX	949	889	94	7	20	67-129	

Column to be used to flag recovery and RPD values

FORM III 8330B

HPLC/IC DUPLICATE SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190054.D

Lab ID: 280-188555-4 DU Client ID: X7-TP-C03-2436 DU

COMPOUND	SAMPLE CONCENTRATION (ug/Kg)	DUPLICATE CONCENTRATION (ug/Kg)	%RPD	%RPD LIMIT	#
1,3,5-Trinitrobenzene	39 U	39 U	NC	20	
1,3-Dinitrobenzene	39 U	39 U	NC	20	
3,5-Dinitroaniline	19 U	20 U	NC	20	
2,4-Dinitrotoluene	39 U	39 U	NC	20	
2,6-Dinitrotoluene	39 U	39 U	NC	20	
2-Amino-4,6-dinitrotoluene	68 U	68 U	NC	20	
2-Nitrotoluene	97 U	98 U	NC	20	
3-Nitrotoluene	150 U	150 U	NC	20	
4-Amino-2,6-dinitrotoluene	68 U	68 U	NC	20	
4-Nitrotoluene	97 U	98 U	NC	20	
Nitrobenzene	190 U	200 U	NC	20	
Nitroglycerin	680 U	680 U	NC	20	
HMX	68 U	68 U	NC	20	
PETN	970 U	980 U	NC	20	
Picric acid	77 U	78 U	NC	20	
Tetryl	97 U	98 U	NC	20	
2,4-diamino-6-nitrotoluene	970 U	980 U	NC	20	
2,6-diamino-4-nitrotoluene	970 U	980 U	NC	20	

Column to be used to flag %RPD values

8330B

HPLC/IC DUPLICATE SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03200022.D

Lab ID: 280-188555-4 DU Client ID: X7-TP-C03-2436 DU

COMPOUND	SAMPLE CONCENTRATION (ug/Kg)	DUPLICATE CONCENTRATION (ug/Kg)	%RPD	%RPD LIMIT	#
2,4,6-Trinitrotoluene	68 U	68 U	NC	20	
RDX	97 U	98 U	NC	20	

Column to be used to flag %RPD values

8330B

HPLC/IC TRIPLICATE SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03190055.D

Lab ID: 280-188555-4 TRL Client ID: X7-TP-C03-2436 TRL

COMPOUND	SAMPLE CONC. (ug/Kg)	DUPLICATE CONC. (ug/Kg)	TRIPLICATE CONC. (ug/Kg)	%RSD	%RSD LIMIT	#
1,3,5-Trinitrobenzene	39 U	39 U	39 U	NC	20	
1,3-Dinitrobenzene	39 U	39 U	39 U	NC	20	
3,5-Dinitroaniline	19 U	20 U	20 U	NC	20	
2,4-Dinitrotoluene	39 U	39 U	39 U	NC	20	
2,6-Dinitrotoluene	39 U	39 U	39 U	NC	20	
2-Amino-4,6-dinitrotoluene	68 U	68 U	68 U	NC	20	
2-Nitrotoluene	97 U	98 U	98 U	NC	20	
3-Nitrotoluene	150 U	150 U	150 U	NC	20	
4-Amino-2,6-dinitrotoluene	68 U	68 U	68 U	NC	20	
4-Nitrotoluene	97 U	98 U	98 U	NC	20	
Nitrobenzene	190 U	200 U	200 U	NC	20	
Nitroglycerin	680 U	680 U	680 U	NC	20	
HMX	68 U	68 U	68 U	NC	20	
PETN	970 U	980 U	980 U	NC	20	
Picric acid	77 U	78 U	78 U	NC	20	
Tetryl	97 U	98 U	98 U	NC	20	
2,4-diamino-6-nitrotoluene	970 U	980 U	980 U	NC	20	
2,6-diamino-4-nitrotoluene	970 U	980 U	980 U	NC	20	

Column to be used to flag %RSD

8330B

HPLC/IC TRIPLICATE SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 03200023.D

Lab ID: 280-188555-4 TRL Client ID: X7-TP-C03-2436 TRL

COMPOUND	SAMPLE CONC. (ug/Kg)	DUPLICATE CONC. (ug/Kg)	TRIPLICATE CONC. (ug/Kg)	%RSD	%RSD LIMIT	#
2,4,6-Trinitrotoluene	68 U	68 U	68 U	NC	20	
RDX	97 U	98 U	98 U	NC	20	

Column to be used to flag %RSD

8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: MB 280-645871/1-A

Matrix: Solid Date Extracted: 03/13/2024 13:25

Lab File ID:(1) 03190041.D Lab File ID:(2)

Date Analyzed:(1) 03/20/2024 04:49 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 280-645871/2-A	03/20/2024 05:12	
	LCS 280-645871/3-A	03/20/2024 05:35	
X7-TP-C01-3642	280-188555-1	03/20/2024 05:58	03/20/2024 20:16
X7-TP-C02-2430	280-188555-2	03/20/2024 06:21	03/20/2024 20:52
FD-03062401	280-188555-3	03/20/2024 06:43	
X7-TP-C03-2436	280-188555-4	03/20/2024 07:52	03/21/2024 00:28
X7-TP-C03-2436 MS	280-188555-4 MS	03/20/2024 08:15	03/21/2024 01:04
X7-TP-C03-2436 MSD	280-188555-4 MSD	03/20/2024 08:38	03/21/2024 01:40
X7-TP-C03-2436 MS	280-188555-4 MS	03/20/2024 09:01	
X7-TP-C03-2436 MSD	280-188555-4 MSD	03/20/2024 09:24	
X7-TP-C03-2436 DU	280-188555-4 DU	03/20/2024 09:47	03/21/2024 02:15
X7-TP-C03-2436 TRL	280-188555-4 TRL	03/20/2024 10:10	03/21/2024 02:51
X7-TP-C02-2430 DL	280-188555-2 DL	03/20/2024 17:52	
FD-03062401 DL	280-188555-3 DL	03/20/2024 18:15	
FD-03062401 DL2	280-188555-3 DL2	03/20/2024 18:38	

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-645871/1-A

Matrix: Solid | Lab File ID: 03190041.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:25

Sample wt/vol: 10(g) | Date Analyzed: 03/20/2024 04:49

Con. Extract Vol.: 40(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.: 646412 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	40	U	100	40	14
99-65-0	1,3-Dinitrobenzene	40	U	100	40	17
118-96-7	2,4,6-Trinitrotoluene	70	U	100	70	31
618-87-1	3,5-Dinitroaniline	20	U	100	20	9.0
121-14-2	2,4-Dinitrotoluene	40	U	100	40	15
606-20-2	2,6-Dinitrotoluene	40	U	100	40	19
35572-78-2	2-Amino-4,6-dinitrotoluene	70	U	100	70	33
88-72-2	2-Nitrotoluene	100	U	200	100	47
99-08-1	3-Nitrotoluene	150	U	200	150	64
19406-51-0	4-Amino-2,6-dinitrotoluene	70	U	100	70	30
99-99-0	4-Nitrotoluene	100	U	200	100	37
98-95-3	Nitrobenzene	200	U	300	200	85
55-63-0	Nitroglycerin	700	U	2000	700	220
2691-41-0	HMX	70	U	100	70	23
78-11-5	PETN	1000	U	2000	1000	490
88-89-1	Picric acid	80	U	100	80	56
121-82-4	RDX	100	U	200	100	43
479-45-8	Tetryl	100	U	200	100	44
6629-29-4	2,4-diamino-6-nitrotoluene	1000	U	2000	1000	520
59229-75-3	2,6-diamino-4-nitrotoluene	1000	U	2000	1000	330

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		78-119

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7 TP C01 3642 Lab Sample ID: 280 188555 1

Instrument ID (1): CHHPLC X3 Instrument ID (2): CHHPLC G2 LUNA

Date Analyzed (1): 03/20/2024 05:58 Date Analyzed (2): 03/20/2024 20:16

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.64	7.50	7.80	71		9.3
	2		8.85	8.69	8.99	64		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: X7 TP C02 2430 Lab Sample ID: 280 188555 2

Instrument ID (1): CHHPLC X3 Instrument ID (2): CHHPLC G2 LUNA

Date Analyzed (1): 03/20/2024 06:21 Date Analyzed (2): 03/20/2024 20:52

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.61	6.47	6.77	1600		5.0
	2		6.59	6.50	6.80	1600		
RDX	1		7.63	7.50	7.80	37000		5.0
	2		8.76	8.69	8.99	35000		

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 | Calibration End Date: 09/25/2023 23:30 | Calibration ID: 84932

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/18	09250018.D
Level 2	IC 280-627290/17	09250017.D
Level 3	IC 280-627290/16	09250016.D
Level 4	IC 280-627290/15	09250015.D
Level 5	IC 280-627290/14	09250014.D
Level 6	IC 280-627290/13	09250013.D
Level 7	IC 280-627290/12	09250012.D
Level 8	IC 280-627290/11	09250011.D
Level 9	IC 280-627290/10	09250010.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
TNX	5.278	5.285	5.289	5.281	5.291	5.285	5.261	5.260	5.185		5.141 - 5.441	5.268
DNX	6.124	6.131	6.135	6.127	6.144	6.131	6.108	6.107	6.025		5.994 - 6.294	6.115
HMX	6.771	6.771	6.782	6.767	6.791	6.778	6.761	6.760	6.698		6.641 - 6.941	6.764
MNX	7.624	7.618	7.629	7.621	7.644	7.625	7.608	7.600	7.525		7.494 - 7.794	7.610
Picric acid	+++++	8.678	8.689	8.654	8.664	8.618	8.568	8.540	8.458		8.514 - 8.814	8.609
RDX	9.011	9.005	9.022	9.001	9.038	9.011	8.988	8.987	8.911		8.888 - 9.188	8.997
Nitrobenzene	11.551	11.551	11.575	11.567	11.598	11.564	11.541	11.540	11.458		11.448 - 11.748	11.549
3,5-Dinitroaniline	14.364	14.338	14.375	14.367	14.378	14.351	14.321	14.327	14.278		14.228 - 14.528	14.344
1,3-Dinitrobenzene	14.664	14.638	14.669	14.661	14.671	14.651	14.614	14.627	14.558		14.521 - 14.821	14.639
Nitroglycerin	15.091	15.064	15.115	15.107	15.111	15.098	15.054	15.074	15.031		14.961 - 15.261	15.083
2-Nitrotoluene	15.697	15.684	15.742	15.721	15.738	15.718	15.667	15.687	15.645		15.588 - 15.888	15.700
4-Nitrotoluene	15.931	15.911	15.969	15.941	15.958	15.938	15.887	15.907	15.731		15.808 - 16.108	15.908
4-Amino-2,6-dinitrotoluene	16.437	16.424	16.475	16.461	16.478	16.451	16.394	16.420	16.365		16.328 - 16.628	16.434
3-Nitrotoluene	16.751	16.744	16.802	16.781	16.804	16.778	16.721	16.747	16.691		16.654 - 16.954	16.758
2-Amino-4,6-dinitrotoluene	17.237	17.224	17.282	17.254	17.284	17.251	17.201	17.220	17.191		17.134 - 17.434	17.238
1,3,5-Trinitrobenzene	17.451	17.444	17.489	17.467	17.498	17.471	17.427	17.447	17.385		17.348 - 17.648	17.453
2,6-Dinitrotoluene	18.557	18.524	18.589	18.567	18.598	18.564	18.514	18.534	18.485		18.448 - 18.748	18.548
2,4-Dinitrotoluene	19.017	18.984	19.042	19.021	19.051	19.018	18.974	18.987	18.938		18.901 - 19.201	19.004
Tetryl	22.224	22.191	22.235	22.247	22.244	22.211	22.181	22.207	22.171		22.094 - 22.394	22.212
2,4,6-Trinitrotoluene	23.091	23.045	23.089	23.107	23.104	23.071	23.041	23.074	23.031		22.954 - 23.254	23.073
PETN	24.184	24.171	24.215	24.227	24.211	24.205	24.174	24.200	24.165		24.061 - 24.361	24.195
1,2-Dinitrobenzene	12.491	12.484	12.522	12.514	12.538	12.504	12.481	12.487	12.418		12.388 - 12.688	12.493

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 Calibration End Date: 09/25/2023 23:30 Calibration ID: 84932

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/18	09250018.D
Level 2	IC 280-627290/17	09250017.D
Level 3	IC 280-627290/16	09250016.D
Level 4	IC 280-627290/15	09250015.D
Level 5	IC 280-627290/14	09250014.D
Level 6	IC 280-627290/13	09250013.D
Level 7	IC 280-627290/12	09250012.D
Level 8	IC 280-627290/11	09250011.D
Level 9	IC 280-627290/10	09250010.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	461815 386971 363369	439232 373382	395174 367864	375773 388097	Lin2	957.197858	374554.929							0.9990		0.9900
DNX	321079 286981 266689	310490 276766	295504 272356	279421 284871	Ave		288239.568				6.2		20.0			
HMX	187300 179432 168868	156250 172885	177940 173956	169980 174631	Ave		173471.302				4.9		20.0			
MNX	264010 265964 244927	269623 255820	281988 250402	258920 264764	Ave		261824.305				4.2		20.0			
Picric acid	+++++ 142912 136394	148000 140230	145400 143551	144480 146441	Ave		143426.054				2.6		20.0			
RDX	236600 208856 200608	202700 202463	207060 204396	201330 204269	Ave		207586.757				5.4		20.0			
Nitrobenzene	381000 376684 370304	344350 367558	371820 376931	379810 374071	Ave		371391.992				3.0		20.0			
3,5-Dinitroaniline	462200 427448 367838	403550 420503	409760 426466	420280 426959	Lin2	391.186606	410104.490							0.9970		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 Calibration End Date: 09/25/2023 23:30 Calibration ID: 84932

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
1,3-Dinitrobenzene	667900 570764 609314	558000 556443	550320 568996	563490 570540	Ave		579529.535				6.4		20.0			
Nitroglycerin	133480 123608 118790	129650 119635	122900 122194	125699 121979	Ave		124214.981				3.8		20.0			
2-Nitrotoluene	275300 244024 223277	270800 237488	255000 241927	237780 237729	Ave		247036.094				6.8		20.0			
4-Nitrotoluene	286200 214680 224139	258900 213293	233340 216681	224490 217115	Lin2	723.584713	216871.385							0.9990		0.9900
4-Amino-2,6-dinitrotoluene	398000 273612 265643	349200 268898	302300 273259	276790 272622	Lin2	1351.95034	269373.383							0.9990		0.9900
3-Nitrotoluene	385300 273744 266326	333950 269443	291580 272884	285160 271165	Lin2	1184.33387	269480.350							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	534900 393220 341806	409450 389805	413320 393520	391220 388664	Lin2	1423.09870	376274.684							0.9960		0.9900
1,3,5-Trinitrobenzene	415900 402060 432159	439000 393045	417600 396387	407530 400996	Ave		411630.771				3.9		20.0			
2,6-Dinitrotoluene	336000 266056 260065	335800 260443	254960 265649	265940 265199	Lin2	863.540612	260735.329							0.9960		0.9900
2,4-Dinitrotoluene	575300 543600 530117	562050 531333	546420 539851	537340 539776	Ave		545087.414				2.7		20.0			
Tetryl	361500 307496 296672	300850 298368	308000 304430	292480 305263	Ave		308339.878				6.7		20.0			
2,4,6-Trinitrotoluene	371200 396660 387636	326400 389068	405940 393427	397150 397391	Ave		384985.783				6.2		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 Calibration End Date: 09/25/2023 23:30 Calibration ID: 84932

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	115960 128038 128625	105375 128664	115184 130621	123328 131308	Ave		123011.399				7.3		20.0			
1,2-Dinitrobenzene	305200 258584 251560	220950 251193	256740 255347	255720 255664	Ave		256773.116				8.4		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 | Calibration End Date: 09/25/2023 23:30 | Calibration ID: 84932

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/18	09250018.D
Level 2	IC 280-627290/17	09250017.D
Level 3	IC 280-627290/16	09250016.D
Level 4	IC 280-627290/15	09250015.D
Level 5	IC 280-627290/14	09250014.D
Level 6	IC 280-627290/13	09250013.D
Level 7	IC 280-627290/12	09250012.D
Level 8	IC 280-627290/11	09250011.D
Level 9	IC 280-627290/10	09250010.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
TNX	Lin2	4632 149801	8811 258277	19818 389261	37690 911149	97033	0.0100 0.401	0.0201 0.702	0.0502 1.00	0.100 2.51	0.251
DNX	Ave	3214 110817	6216 190840	14790 285156	27970 667388	71817	0.0100 0.400	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250
HMX	Ave	1873 69154	3125 121769	8897 174631	16998 422170	44858	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
MNX	Ave	3081 119417	6293 204553	16454 308980	30216 714574	77595	0.0117 0.467	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292
Picric acid	Ave	+++++ 56092	2960 100486	7270 146441	14448 340985	35728	+++++ 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	2366 80985	4054 143077	10353 204269	20133 501519	52214	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	3810 147023	6887 263852	18591 374071	37981 925760	94171	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	4622 168201	8071 298526	20488 426959	42028 919595	106862	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	6679 222577	11160 398297	27516 570540	56349 1523284	142691	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	13348 478538	25930 855360	61450 1219790	125699 2969741	309021	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	2753 94995	5416 169349	12750 237729	23778 558193	61006	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Lin2	2862 85317	5178 151677	11667 217115	22449 560347	53670	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Lin2	3980 107559	6984 191281	15115 272622	27679 664108	68403	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Lin2	3853 107777	6679 191019	14579 271165	28516 665814	68436	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Lin2	5349	8189	20666	39122	98305	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.: 280-188555-1 | Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/25/2023 18:42 | Calibration End Date: 09/25/2023 23:30 | Calibration ID: 84932

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
		155922	275464	388664	854516		0.400	0.700	1.00	2.50	
1,3,5-Trinitrobenzene	Ave	4159 157218	8780 277471	20880 400996	40753 1080397	100515	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,6-Dinitrotoluene	Lin2	3360 104177	6716 185954	12748 265199	26594 650162	66514	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	5753 212533	11241 377896	27321 539776	53734 1325292	135900	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	3615 119347	6017 213101	15400 305263	29248 741681	76874	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4,6-Trinitrotoluene	Ave	3712 155627	6528 275399	20297 397391	39715 969091	99165	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Ave	11596 514656	21075 914344	57592 1313083	123328 3215628	320094	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	3052 100477	4419 178743	12837 255664	25572 628901	64646	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

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2023 00:42 | Calibration End Date: 09/26/2023 04:54 | Calibration ID: 84933

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/27	09250027.D
Level 2	IC 280-627290/26	09250026.D
Level 3	IC 280-627290/25	09250025.D
Level 4	IC 280-627290/24	09250024.D
Level 5	IC 280-627290/23	09250023.D
Level 6	IC 280-627290/22	09250022.D
Level 7	IC 280-627290/21	09250021.D
Level 8	IC 280-627290/20	09250020.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	+++++	+++++	4.227	4.223	4.230	4.219	4.214	4.200			4.080 - 4.380	4.219
2,4-diamino-6-nitrotoluene	+++++	+++++	4.807	4.803	4.810	4.813	4.814	4.847			4.660 - 4.960	4.816

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2023 00:42 Calibration End Date: 09/26/2023 04:54 Calibration ID: 84933

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/27	09250027.D
Level 2	IC 280-627290/26	09250026.D
Level 3	IC 280-627290/25	09250025.D
Level 4	IC 280-627290/24	09250024.D
Level 5	IC 280-627290/23	09250023.D
Level 6	IC 280-627290/22	09250022.D
Level 7	IC 280-627290/21	09250021.D
Level 8	IC 280-627290/20	09250020.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
2,6-diamino-4-nitrotoluene	+++++ 387758	+++++ 369949	381960 389304	391204 405683	Ave		387642.812				3.0		20.0			
2,4-diamino-6-nitrotoluene	+++++ 237655	+++++ 227633	239310 240760	238144 220192	Ave		233948.976				3.5		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.: 280-188555-1 | Analy Batch No.: 627290

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2023 00:42 | Calibration End Date: 09/26/2023 04:54 | Calibration ID: 84933

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-627290/27	09250027.D
Level 2	IC 280-627290/26	09250026.D
Level 3	IC 280-627290/25	09250025.D
Level 4	IC 280-627290/24	09250024.D
Level 5	IC 280-627290/23	09250023.D
Level 6	IC 280-627290/22	09250022.D
Level 7	IC 280-627290/21	09250021.D
Level 8	IC 280-627290/20	09250020.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Ave	+++++ 258964	+++++ 389304	38196 1014207	97801	155103	+++++ 0.700	+++++ 1.00	0.100 2.50	0.250	0.400
2,4-diamino-6-nitrotoluene	Ave	+++++ 159343	+++++ 240760	23931 550480	59536	95062	+++++ 0.700	+++++ 1.00	0.100 2.50	0.250	0.400

Curve Type Legend:
Ave = Average

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 | Calibration End Date: 01/24/2024 19:38 | Calibration ID: 89713

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/19	01240019.D
Level 2	IC 280-640909/18	01240020.D
Level 3	IC 280-640909/17	01240017.D
Level 4	IC 280-640909/16	01240016.D
Level 5	IC 280-640909/15	01240015.D
Level 6	IC 280-640909/14	01240014.D
Level 7	IC 280-640909/13	01240013.D
Level 8	IC 280-640909/12	01240012.D
Level 9	IC 280-640909/11	01240011.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	6.516	6.517	6.519	6.515	6.514	6.517	6.517	6.511	6.503		6.415 - 6.615	6.514
HMX	6.629	6.630	6.626	6.628	6.628	6.624	6.624	6.625	6.623		6.478 - 6.778	6.626
DNX	6.836	6.843	6.839	6.842	6.841	6.837	6.837	6.838	6.829		6.742 - 6.942	6.838
MNX	7.269	7.270	7.272	7.268	7.268	7.264	7.271	7.265	7.256		7.118 - 7.418	7.267
RDX	7.656	7.657	7.659	7.655	7.654	7.650	7.657	7.651	7.643		7.505 - 7.805	7.654
Picric acid	+++++	7.803	7.799	7.795	7.788	7.777	7.771	7.758	7.716		7.645 - 7.945	7.776
1,3,5-Trinitrobenzene	8.743	8.750	8.746	8.742	8.741	8.737	8.744	8.738	8.729		8.592 - 8.892	8.741
1,3-Dinitrobenzene	9.362	9.377	9.379	9.375	9.367	9.364	9.371	9.365	9.349		9.225 - 9.525	9.368
Nitrobenzene	9.736	9.743	9.746	9.742	9.734	9.730	9.737	9.731	9.716		9.592 - 9.892	9.735
3,5-Dinitroaniline	9.969	9.983	9.979	9.975	9.967	9.964	9.971	9.965	9.949		9.825 - 10.125	9.969
Tetryl	10.069	10.083	10.086	10.075	10.067	10.070	10.077	10.065	10.056		9.925 - 10.225	10.072
Nitroglycerin	10.536	10.550	10.552	10.542	10.534	10.537	10.544	10.531	10.516		10.392 - 10.692	10.538
2,4,6-Trinitrotoluene	10.976	10.990	10.992	10.982	10.974	10.977	10.984	10.978	10.963		10.882 - 11.082	10.980
4-Amino-2,6-dinitrotoluene	11.169	11.177	11.179	11.175	11.167	11.164	11.171	11.158	11.143		11.075 - 11.275	11.167
2-Amino-4,6-dinitrotoluene	11.422	11.437	11.439	11.428	11.421	11.424	11.424	11.418	11.396		11.328 - 11.528	11.423
2,6-Dinitrotoluene	11.576	11.583	11.592	11.582	11.574	11.570	11.584	11.571	11.556		11.482 - 11.682	11.576
2,4-Dinitrotoluene	11.742	11.757	11.759	11.755	11.747	11.744	11.757	11.745	11.729		11.655 - 11.855	11.748
2-Nitrotoluene	12.556	12.563	12.572	12.562	12.554	12.557	12.564	12.551	12.536		12.412 - 12.712	12.557
4-Nitrotoluene	12.969	12.990	12.999	12.988	12.974	12.977	12.991	12.971	12.956		12.838 - 13.138	12.979
3-Nitrotoluene	13.542	13.550	13.559	13.548	13.541	13.537	13.551	13.531	13.523		13.398 - 13.698	13.542
PETN	14.636	14.650	14.659	14.642	14.627	14.630	14.651	14.625	14.616		14.492 - 14.792	14.637
1,2-Dinitrobenzene	8.609	8.617	8.619	8.615	8.608	8.610	8.611	8.611	8.596		8.465 - 8.765	8.611

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 | Calibration End Date: 01/24/2024 19:38 | Calibration ID: 89713

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/19	01240019.D
Level 2	IC 280-640909/18	01240020.D
Level 3	IC 280-640909/17	01240017.D
Level 4	IC 280-640909/16	01240016.D
Level 5	IC 280-640909/15	01240015.D
Level 6	IC 280-640909/14	01240014.D
Level 7	IC 280-640909/13	01240013.D
Level 8	IC 280-640909/12	01240012.D
Level 9	IC 280-640909/11	01240011.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	205578 180964 190126	183367 185164	183924 184573	221135 193953	Ave		192087.188				6.9		20.0			
HMX	84600 92172 99620	96350 101553	90460 100089	92800 100194	Ave		95315.2746				6.0		20.0			
DNX	166367 141641 148741	167066 146727	141158 146296	169212 152909	Lin1	218.159267	148766.000							0.9990		0.9900
MNX	156031 131093 133068	131223 130511	133259 131514	160924 137820	Lin2	189.836091	134966.496							0.9930		0.9900
RDX	107800 101344 106083	111650 105370	107480 104103	105850 104798	Lin2	50.4792276	104991.211							0.9990		0.9900
Picric acid	+++++ 72828 79024	67900 77088	73720 77803	77370 78287	Ave		75502.4696				5.0		20.0			
1,3,5-Trinitrobenzene	212300 205872 222799	223050 216670	212040 219016	211600 220927	Ave		216030.390				2.7		20.0			
1,3-Dinitrobenzene	284900 282356 303968	285600 300545	289540 299171	287010 300390	Ave		292608.892				2.8		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.: 280-188555-1 Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 Calibration End Date: 01/24/2024 19:38 Calibration ID: 89713

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	171600 172772 199222	191550 188600	181240 191523	179160 189183	Ave		184983.273				5.0		20.0			
3,5-Dinitroaniline	209200 202704 228667	218500 223080	210540 225349	209160 221713	Lin2	-93.699233	218516.924							0.9980		0.9900
Tetryl	186000 171440 185970	177850 178813	182840 182314	174340 188213	Ave		180864.421				3.1		20.0			
Nitroglycerin	58500 60286 62972	62460 63279	62040 62424	61858 62595	Ave		61823.868 7				2.4		20.0			
2,4,6-Trinitrotoluene	212200 201424 216027	231600 215445	213820 212989	210990 213915	Lin2	62.8352318	212945.919							0.9980		0.9900
4-Amino-2,6-dinitrotoluene	151200 136152 150977	176950 148465	144320 148127	144700 149334	Ave		150024.994				7.4		20.0			
2-Amino-4,6-dinitrotoluene	214800 185608 204826	216900 202260	198300 200963	194830 202317	Lin2	194.120814	198227.916							0.9980		0.9900
2,6-Dinitrotoluene	151000 137520 144490	151650 144383	143600 142969	144100 143864	Lin2	98.3971325	142771.743							1.0000		0.9900
2,4-Dinitrotoluene	286400 275204 300641	303550 298133	291600 295497	286650 297217	Ave		292765.760				3.0		20.0			
2-Nitrotoluene	144500 113280 128204	139500 122230	124820 122944	118990 121861	Lin2	255.939007	120874.791							0.9980		0.9900
4-Nitrotoluene	141900 96992 110996	126100 106380	107780 106850	103250 106657	Lin2	382.515691	103831.539							0.9970		0.9900
3-Nitrotoluene	196700 125332 141109	170050 134898	141620 135480	132930 134004	Lin2	658.468293	131939.493							0.9980		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 Calibration End Date: 01/24/2024 19:38 Calibration ID: 89713

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	71850 70690 75056	71665 74507	69948 73931	71189 74588	Ave		72602.6095				2.6		20.0			
1,2-Dinitrobenzene	131500 124788 132866	131850 130825	129100 130387	128030 130923	Lin2	20.2337929	129604.301							1.0000		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 | Calibration End Date: 01/24/2024 19:38 | Calibration ID: 89713

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/19	01240019.D
Level 2	IC 280-640909/18	01240020.D
Level 3	IC 280-640909/17	01240017.D
Level 4	IC 280-640909/16	01240016.D
Level 5	IC 280-640909/15	01240015.D
Level 6	IC 280-640909/14	01240014.D
Level 7	IC 280-640909/13	01240013.D
Level 8	IC 280-640909/12	01240012.D
Level 9	IC 280-640909/11	01240011.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
TNX	Ave	2064 74362	3682 129718	9233 194729	22202 477216	45422	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
HMX	Ave	846 40621	1927 70062	4523 100194	9280 249051	23043	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
DNX	Lin1	1667 58808	3348 102612	7072 153215	16955 372595	35481	0.0100 0.401	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251
MNX	Lin2	1824 61027	3068 107618	7789 161112	18812 388891	38312	0.0117 0.468	0.0234 0.818	0.0585 1.17	0.117 2.92	0.292
RDX	Lin2	1078 42148	2233 72872	5374 104798	10585 265208	25336	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	+++++ 30835	1358 54462	3686 78287	7737 197561	18207	+++++ 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2123 86668	4461 153311	10602 220927	21160 556997	51468	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	2849 120218	5712 209420	14477 300390	28701 759919	70589	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	1716 75440	3831 134066	9062 189183	17916 498054	43193	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	2092 89232	4370 157744	10527 221713	20916 571667	50676	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	1860 71525	3557 127620	9142 188213	17434 464925	42860	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	5850 253117	12492 436971	31020 625949	61858 1574296	150716	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Lin2	2122 86178	4632 149092	10691 213915	21099 540068	50356	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	1512 59386	3539 103689	7216 149334	14470 377442	34038	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Lin2	2148	4338	9915	19483	46402	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.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 16:05 | Calibration End Date: 01/24/2024 19:38 | Calibration ID: 89713

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
		80904	140674	202317	512065		0.400	0.700	1.00	2.50	
2,6-Dinitrotoluene	Lin2	1510 57753	3033 100078	7180 143864	14410 361225	34380	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	2864 119253	6071 206848	14580 297217	28665 751603	68801	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Nitrotoluene	Lin2	1445 48892	2790 86061	6241 121861	11899 320511	28320	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Lin2	1419 42552	2522 74795	5389 106657	10325 277490	24248	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Lin2	1967 53959	3401 94836	7081 134004	13293 352772	31333	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Ave	7185 298028	14333 517519	34974 745876	71189 1876400	176724	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Lin2	1315 52330	2637 91271	6455 130923	12803 332166	31197	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:

Ave = Average
Lin1 = Linear 1/conc
Lin2 = Linear 1/conc^2

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 20:24 | Calibration End Date: 01/24/2024 23:04 | Calibration ID: 89714

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/28	01240028.D
Level 2	IC 280-640909/27	01240027.D
Level 3	IC 280-640909/26	01240026.D
Level 4	IC 280-640909/25	01240025.D
Level 5	IC 280-640909/24	01240024.D
Level 6	IC 280-640909/23	01240023.D
Level 7	IC 280-640909/22	01240022.D
Level 8	IC 280-640909/21	01240021.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	+++++	6.500	6.498	6.505	6.505	6.503	6.498	6.499			6.355 - 6.655	6.501
2,4-diamino-6-nitrotoluene	+++++	6.687	6.684	6.685	6.685	6.683	6.685	6.685			6.535 - 6.835	6.685

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 20:24 Calibration End Date: 01/24/2024 23:04 Calibration ID: 89714

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/28	01240028.D
Level 2	IC 280-640909/27	01240027.D
Level 3	IC 280-640909/26	01240026.D
Level 4	IC 280-640909/25	01240025.D
Level 5	IC 280-640909/24	01240024.D
Level 6	IC 280-640909/23	01240023.D
Level 7	IC 280-640909/22	01240022.D
Level 8	IC 280-640909/21	01240021.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
2,6-diamino-4-nitrotoluene	+++++ 206208	253125 217521	249110 217959	214460 207927	Ave		223758.590				8.6		20.0			
2,4-diamino-6-nitrotoluene	+++++ 125850	156225 138759	154900 137310	128636 132074	Ave		139107.596				8.7		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.: 280-188555-1 | Analy Batch No.: 640909

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 01/24/2024 20:24 | Calibration End Date: 01/24/2024 23:04 | Calibration ID: 89714

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-640909/28	01240028.D
Level 2	IC 280-640909/27	01240027.D
Level 3	IC 280-640909/26	01240026.D
Level 4	IC 280-640909/25	01240025.D
Level 5	IC 280-640909/24	01240024.D
Level 6	IC 280-640909/23	01240023.D
Level 7	IC 280-640909/22	01240022.D
Level 8	IC 280-640909/21	01240021.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Ave	+++++ 152265	10125 217959	24911 519818	53615	82483	+++++ 0.700	0.0400 1.00	0.100 2.50	0.250	0.400
2,4-diamino-6-nitrotoluene	Ave	+++++ 97131	6249 137310	15490 330184	32159	50340	+++++ 0.700	0.0400 1.00	0.100 2.50	0.250	0.400

Curve Type Legend:
Ave = Average

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-627290/19 Calibration Date: 09/26/2023 00:06

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 09250019.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Lin2		354446		234	250	-6.4	20.0
DNX	Ave	288240	264076		230	251	-8.4	20.0
HMX	Ave	173471	179932		259	250	3.7	20.0
MNX	Ave	261824	242753		271	293	-7.3	20.0
Picric acid	Ave	143426	142924		249	250	-0.4	20.0
RDX	Ave	207587	205284		247	250	-1.1	20.0
Nitrobenzene	Ave	371392	372800		251	250	0.4	20.0
3,5-Dinitroaniline	Lin2		422768		257	250	2.7	20.0
1,3-Dinitrobenzene	Ave	579530	571728		247	250	-1.3	20.0
Nitroglycerin	Ave	124215	124510		2510	2500	0.2	20.0
2-Nitrotoluene	Ave	247036	244804		248	250	-0.9	20.0
4-Nitrotoluene	Lin2		216100		246	250	-1.7	20.0
4-Amino-2,6-dinitrotoluene	Lin2		276988		252	250	0.8	20.0
3-Nitrotoluene	Lin2		273212		249	250	-0.4	20.0
2-Amino-4,6-dinitrotoluene	Lin2		392380		257	250	2.8	20.0
1,3,5-Trinitrobenzene	Ave	411631	399928		243	250	-2.8	20.0
2,6-Dinitrotoluene	Lin2		266240		252	250	0.8	20.0
2,4-Dinitrotoluene	Ave	545087	541828		249	250	-0.6	20.0
Tetryl	Ave	308340	304404		247	250	-1.3	20.0
2,4,6-Trinitrotoluene	Ave	384986	396652		258	250	3.0	20.0
PETN	Ave	123011	129159		2620	2500	5.0	20.0
1,2-Dinitrobenzene	Ave	256773	258484		252	250	0.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-627290/19 Calibration Date: 09/26/2023 00:06

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 09250019.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.29	5.14	5.44
DNX	6.13	5.99	6.29
HMX	6.78	6.64	6.94
MNX	7.63	7.49	7.79
Picric acid	8.65	8.51	8.81
RDX	9.02	8.89	9.19
Nitrobenzene	11.57	11.45	11.75
3,5-Dinitroaniline	14.37	14.23	14.53
1,3-Dinitrobenzene	14.67	14.52	14.82
Nitroglycerin	15.11	14.96	15.26
2-Nitrotoluene	15.72	15.59	15.89
4-Nitrotoluene	15.95	15.81	16.11
4-Amino-2,6-dinitrotoluene	16.46	16.33	16.63
3-Nitrotoluene	16.78	16.65	16.95
2-Amino-4,6-dinitrotoluene	17.26	17.13	17.43
1,3,5-Trinitrobenzene	17.47	17.35	17.65
2,6-Dinitrotoluene	18.57	18.45	18.75
2,4-Dinitrotoluene	19.02	18.90	19.20
Tetryl	22.23	22.09	22.39
2,4,6-Trinitrotoluene	23.09	22.95	23.25
PETN	24.21	24.06	24.36
1,2-Dinitrobenzene	12.51	12.39	12.69

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-627290/28 Calibration Date: 09/26/2023 05:31

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/26/2023 00:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/26/2023 04:54

Lab File ID: 09250028.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	387643	365704		0.236	0.250	-5.7	20.0
2,4-diamino-6-nitrotoluene	Ave	233949	220120		0.235	0.250	-5.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-627290/28 Calibration Date: 09/26/2023 05:31

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/26/2023 00:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/26/2023 04:54

Lab File ID: 09250028.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	4.22	4.08	4.38
2,4-diamino-6-nitrotoluene	4.79	4.66	4.96

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/7 Calibration Date: 03/20/2024 18:28

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	173471	177580		256	250	2.4	20.0
Picric acid	Ave	143426	154660		270	250	7.8	20.0
RDX	Ave	207587	208416		251	250	0.4	20.0
Nitrobenzene	Ave	371392	381988		257	250	2.9	20.0
3,5-Dinitroaniline	Lin2		441228		268	250	7.2	20.0
1,3-Dinitrobenzene	Ave	579530	603228		260	250	4.1	20.0
Nitroglycerin	Ave	124215	117510		2370	2500	-5.4	20.0
2-Nitrotoluene	Ave	247036	252656		256	250	2.3	20.0
4-Nitrotoluene	Lin2		233004		265	250	6.1	20.0
4-Amino-2,6-dinitrotoluene	Lin2		286536		261	250	4.4	20.0
3-Nitrotoluene	Lin2		285820		261	250	4.3	20.0
2-Amino-4,6-dinitrotoluene	Lin2		382156		250	250	0.0	20.0
1,3,5-Trinitrobenzene	Ave	411631	469700		285	250	14.1	20.0
2,6-Dinitrotoluene	Lin2		270864		256	250	2.6	20.0
2,4-Dinitrotoluene	Ave	545087	557388		256	250	2.3	20.0
Tetryl	Ave	308340	330888		268	250	7.3	20.0
2,4,6-Trinitrotoluene	Ave	384986	410012		266	250	6.5	20.0
PETN	Ave	123011	128218		2610	2500	4.2	20.0
1,2-Dinitrobenzene	Ave	256773	263252		256	250	2.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/7 Calibration Date: 03/20/2024 18:28

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.65	6.50	6.80
Picric acid	8.45	8.30	8.60
RDX	8.84	8.69	8.99
Nitrobenzene	11.42	11.27	11.57
3,5-Dinitroaniline	14.14	13.99	14.29
1,3-Dinitrobenzene	14.46	14.31	14.61
Nitroglycerin	14.90	14.75	15.05
2-Nitrotoluene	15.55	15.40	15.70
4-Nitrotoluene	15.77	15.62	15.92
4-Amino-2,6-dinitrotoluene	16.25	16.10	16.40
3-Nitrotoluene	16.61	16.46	16.76
2-Amino-4,6-dinitrotoluene	17.03	16.88	17.18
1,3,5-Trinitrobenzene	17.25	17.10	17.40
2,6-Dinitrotoluene	18.38	18.23	18.53
2,4-Dinitrotoluene	18.82	18.67	18.97
Tetryl	22.02	21.87	22.17
2,4,6-Trinitrotoluene	22.89	22.74	23.04
PETN	24.04	23.89	24.19
1,2-Dinitrobenzene	12.34	12.19	12.49

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/18 Calibration Date: 03/20/2024 23:52

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200018.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	173471	180348		260	250	4.0	20.0
Picric acid	Ave	143426	150728		263	250	5.1	20.0
RDX	Ave	207587	211176		254	250	1.7	20.0
Nitrobenzene	Ave	371392	371180		250	250	-0.0	20.0
3,5-Dinitroaniline	Lin2		425412		258	250	3.4	20.0
1,3-Dinitrobenzene	Ave	579530	590548		255	250	1.9	20.0
Nitroglycerin	Ave	124215	118387		2380	2500	-4.7	20.0
2-Nitrotoluene	Ave	247036	229640		232	250	-7.0	20.0
4-Nitrotoluene	Lin2		221696		252	250	0.9	20.0
4-Amino-2,6-dinitrotoluene	Lin2		276204		251	250	0.5	20.0
3-Nitrotoluene	Lin2		277844		253	250	1.3	20.0
2-Amino-4,6-dinitrotoluene	Lin2		382580		250	250	0.2	20.0
1,3,5-Trinitrobenzene	Ave	411631	468084		284	250	13.7	20.0
2,6-Dinitrotoluene	Lin2		278504		264	250	5.5	20.0
2,4-Dinitrotoluene	Ave	545087	555696		255	250	1.9	20.0
Tetryl	Ave	308340	339416		275	250	10.1	20.0
2,4,6-Trinitrotoluene	Ave	384986	434092		282	250	12.8	20.0
PETN	Ave	123011	128794		2620	2500	4.7	20.0
1,2-Dinitrobenzene	Ave	256773	258308		251	250	0.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/18 Calibration Date: 03/20/2024 23:52

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200018.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.66	6.50	6.80
Picric acid	8.42	8.30	8.60
RDX	8.86	8.69	8.99
Nitrobenzene	11.44	11.27	11.57
3,5-Dinitroaniline	14.14	13.99	14.29
1,3-Dinitrobenzene	14.46	14.31	14.61
Nitroglycerin	14.89	14.75	15.05
2-Nitrotoluene	15.54	15.40	15.70
4-Nitrotoluene	15.76	15.62	15.92
4-Amino-2,6-dinitrotoluene	16.24	16.10	16.40
3-Nitrotoluene	16.60	16.46	16.76
2-Amino-4,6-dinitrotoluene	17.02	16.88	17.18
1,3,5-Trinitrobenzene	17.24	17.10	17.40
2,6-Dinitrotoluene	18.36	18.23	18.53
2,4-Dinitrotoluene	18.80	18.67	18.97
Tetryl	22.00	21.87	22.17
2,4,6-Trinitrotoluene	22.88	22.74	23.04
PETN	24.02	23.89	24.19
1,2-Dinitrobenzene	12.34	12.19	12.49

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/24 Calibration Date: 03/21/2024 03:27

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200024.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	173471	182888		264	250	5.4	20.0
Picric acid	Ave	143426	149980		261	250	4.6	20.0
RDX	Ave	207587	209376		252	250	0.9	20.0
Nitrobenzene	Ave	371392	376600		254	250	1.4	20.0
3,5-Dinitroaniline	Lin2		430308		261	250	4.5	20.0
1,3-Dinitrobenzene	Ave	579530	594324		256	250	2.6	20.0
Nitroglycerin	Ave	124215	117659		2370	2500	-5.3	20.0
2-Nitrotoluene	Ave	247036	231776		235	250	-6.2	20.0
4-Nitrotoluene	Lin2		229736		261	250	4.6	20.0
4-Amino-2,6-dinitrotoluene	Lin2		279744		255	250	1.8	20.0
3-Nitrotoluene	Lin2		272672		249	250	-0.6	20.0
2-Amino-4,6-dinitrotoluene	Lin2		383416		251	250	0.4	20.0
1,3,5-Trinitrobenzene	Ave	411631	463312		281	250	12.6	20.0
2,6-Dinitrotoluene	Lin2		272120		258	250	3.0	20.0
2,4-Dinitrotoluene	Ave	545087	554640		254	250	1.8	20.0
Tetryl	Ave	308340	349660		284	250	13.4	20.0
2,4,6-Trinitrotoluene	Ave	384986	434328		282	250	12.8	20.0
PETN	Ave	123011	129696		2640	2500	5.4	20.0
1,2-Dinitrobenzene	Ave	256773	266660		260	250	3.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646572/24 Calibration Date: 03/21/2024 03:27

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 09/25/2023 18:42

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/25/2023 23:30

Lab File ID: 03200024.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.65	6.50	6.80
Picric acid	8.37	8.30	8.60
RDX	8.84	8.69	8.99
Nitrobenzene	11.43	11.27	11.57
3,5-Dinitroaniline	14.13	13.99	14.29
1,3-Dinitrobenzene	14.45	14.31	14.61
Nitroglycerin	14.89	14.75	15.05
2-Nitrotoluene	15.54	15.40	15.70
4-Nitrotoluene	15.76	15.62	15.92
4-Amino-2,6-dinitrotoluene	16.24	16.10	16.40
3-Nitrotoluene	16.60	16.46	16.76
2-Amino-4,6-dinitrotoluene	17.03	16.88	17.18
1,3,5-Trinitrobenzene	17.25	17.10	17.40
2,6-Dinitrotoluene	18.38	18.23	18.53
2,4-Dinitrotoluene	18.82	18.67	18.97
Tetryl	22.00	21.87	22.17
2,4,6-Trinitrotoluene	22.87	22.74	23.04
PETN	24.01	23.89	24.19
1,2-Dinitrobenzene	12.33	12.19	12.49

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-640909/20 Calibration Date: 01/24/2024 20:01

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 0124X020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	192087	187538		490	502	-2.4	20.0
HMX	Ave	95315	85476		448	500	-10.3	20.0
DNX	Lin1		144984		487	501	-2.8	20.0
MNX	Lin2		134955		583	585	-0.2	20.0
RDX	Lin2		96586		459	500	-8.1	20.0
Picric acid	Ave	75502	80894		536	500	7.1	20.0
1,3,5-Trinitrobenzene	Ave	216030	217776		504	500	0.8	20.0
1,3-Dinitrobenzene	Ave	292609	291816		499	500	-0.3	20.0
Nitrobenzene	Ave	184983	187346		506	500	1.3	20.0
3,5-Dinitroaniline	Lin2		207586		475	500	-4.9	20.0
Tetryl	Ave	180864	180568		499	500	-0.2	20.0
Nitroglycerin	Ave	61824	63893		5170	5000	3.3	20.0
2,4,6-Trinitrotoluene	Lin2		196558		461	500	-7.8	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	142142		474	500	-5.3	20.0
2-Amino-4,6-dinitrotoluene	Lin2		191684		483	500	-3.5	20.0
2,6-Dinitrotoluene	Lin2		141626		495	500	-0.9	20.0
2,4-Dinitrotoluene	Ave	292766	284434		486	500	-2.8	20.0
2-Nitrotoluene	Lin2		119028		490	500	-2.0	20.0
4-Nitrotoluene	Lin2		103024		492	500	-1.5	20.0
3-Nitrotoluene	Lin2		131416		493	500	-1.4	20.0
PETN	Ave	72603	72373		4980	5000	-0.3	20.0
1,2-Dinitrobenzene	Lin2		125666		485	500	-3.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-640909/20 Calibration Date: 01/24/2024 20:01

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 0124X020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.51	6.42	6.62
HMX	6.62	6.48	6.78
DNX	6.84	6.74	6.94
MNX	7.26	7.12	7.42
RDX	7.66	7.51	7.81
Picric acid	7.78	7.65	7.95
1,3,5-Trinitrobenzene	8.74	8.59	8.89
1,3-Dinitrobenzene	9.37	9.23	9.53
Nitrobenzene	9.74	9.59	9.89
3,5-Dinitroaniline	9.98	9.83	10.13
Tetryl	10.08	9.93	10.23
Nitroglycerin	10.55	10.39	10.69
2,4,6-Trinitrotoluene	10.99	10.88	11.08
4-Amino-2,6-dinitrotoluene	11.18	11.08	11.28
2-Amino-4,6-dinitrotoluene	11.44	11.33	11.53
2,6-Dinitrotoluene	11.59	11.48	11.68
2,4-Dinitrotoluene	11.76	11.66	11.86
2-Nitrotoluene	12.57	12.41	12.71
4-Nitrotoluene	13.00	12.84	13.14
3-Nitrotoluene	13.56	13.40	13.70
PETN	14.66	14.49	14.79
1,2-Dinitrobenzene	8.62	8.47	8.77

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-640909/29 Calibration Date: 01/24/2024 23:27

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 01240029.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	223759	195058		0.436	0.500	-12.8	20.0
2,4-diamino-6-nitrotoluene	Ave	139108	120098		0.432	0.500	-13.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-640909/29 Calibration Date: 01/24/2024 23:27

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 01240029.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.50	6.36	6.66
2,4-diamino-6-nitrotoluene	6.69	6.54	6.84

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/39 | Calibration Date: 03/20/2024 04:03

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/24/2024 19:38

Lab File ID: 03190039.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95315	93732		246	250	-1.7	20.0
RDX	Lin2		105060		250	250	-0.1	20.0
Picric acid	Ave	75502	73700		244	250	-2.4	20.0
1,3,5-Trinitrobenzene	Ave	216030	215668		250	250	-0.2	20.0
1,3-Dinitrobenzene	Ave	292609	296244		253	250	1.2	20.0
Nitrobenzene	Ave	184983	182588		247	250	-1.3	20.0
3,5-Dinitroaniline	Lin2		219600		252	250	0.7	20.0
Tetryl	Ave	180864	178840		247	250	-1.1	20.0
Nitroglycerin	Ave	61824	66785		2700	2500	8.0	20.0
2,4,6-Trinitrotoluene	Lin2		215344		253	250	1.0	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	149504		249	250	-0.3	20.0
2-Amino-4,6-dinitrotoluene	Lin2		198072		249	250	-0.5	20.0
2,6-Dinitrotoluene	Lin2		145820		255	250	1.9	20.0
2,4-Dinitrotoluene	Ave	292766	294716		252	250	0.7	20.0
2-Nitrotoluene	Lin2		119256		245	250	-2.2	20.0
4-Nitrotoluene	Lin2		104392		248	250	-0.9	20.0
3-Nitrotoluene	Lin2		130828		243	250	-2.8	20.0
PETN	Ave	72603	73695		2540	2500	1.5	20.0
1,2-Dinitrobenzene	Lin2		128152		247	250	-1.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/39 Calibration Date: 03/20/2024 04:03

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 03190039.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.47	6.77
RDX	7.65	7.50	7.80
Picric acid	7.88	7.72	8.02
1,3,5-Trinitrobenzene	8.73	8.58	8.88
1,3-Dinitrobenzene	9.36	9.21	9.51
Nitrobenzene	9.72	9.58	9.88
3,5-Dinitroaniline	9.96	9.82	10.12
Tetryl	10.06	9.92	10.22
Nitroglycerin	10.52	10.38	10.68
2,4,6-Trinitrotoluene	10.96	10.87	11.07
4-Amino-2,6-dinitrotoluene	11.15	11.06	11.26
2-Amino-4,6-dinitrotoluene	11.41	11.32	11.52
2,6-Dinitrotoluene	11.55	11.46	11.66
2,4-Dinitrotoluene	11.72	11.64	11.84
2-Nitrotoluene	12.52	12.39	12.69
4-Nitrotoluene	12.94	12.81	13.11
3-Nitrotoluene	13.50	13.37	13.67
PETN	14.60	14.47	14.77
1,2-Dinitrobenzene	8.60	8.46	8.76

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/40 Calibration Date: 03/20/2024 04:26

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190040.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	223759	216864		0.242	0.250	-3.1	20.0
2,4-diamino-6-nitrotoluene	Ave	139108	131192		0.236	0.250	-5.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/40 Calibration Date: 03/20/2024 04:26

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190040.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.50	6.35	6.65
2,4-diamino-6-nitrotoluene	6.68	6.53	6.83

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/47 | Calibration Date: 03/20/2024 07:06

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/24/2024 19:38

Lab File ID: 03190047.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95315	92548		243	250	-2.9	20.0
RDX	Lin2		107204		255	250	1.9	20.0
Picric acid	Ave	75502	74616		247	250	-1.2	20.0
1,3,5-Trinitrobenzene	Ave	216030	215988		250	250	-0.0	20.0
1,3-Dinitrobenzene	Ave	292609	297732		254	250	1.8	20.0
Nitrobenzene	Ave	184983	179968		243	250	-2.7	20.0
3,5-Dinitroaniline	Lin2		219216		251	250	0.5	20.0
Tetryl	Ave	180864	179676		248	250	-0.7	20.0
Nitroglycerin	Ave	61824	67186		2720	2500	8.7	20.0
2,4,6-Trinitrotoluene	Lin2		216212		254	250	1.4	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	150252		250	250	0.2	20.0
2-Amino-4,6-dinitrotoluene	Lin2		199904		251	250	0.5	20.0
2,6-Dinitrotoluene	Lin2		146412		256	250	2.3	20.0
2,4-Dinitrotoluene	Ave	292766	296516		253	250	1.3	20.0
2-Nitrotoluene	Lin2		117580		241	250	-3.6	20.0
4-Nitrotoluene	Lin2		102424		243	250	-2.8	20.0
3-Nitrotoluene	Lin2		128640		239	250	-4.5	20.0
PETN	Ave	72603	74191		2550	2500	2.2	20.0
1,2-Dinitrobenzene	Lin2		130672		252	250	0.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/47 Calibration Date: 03/20/2024 07:06

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 03190047.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.47	6.77
RDX	7.64	7.50	7.80
Picric acid	7.87	7.72	8.02
1,3,5-Trinitrobenzene	8.72	8.58	8.88
1,3-Dinitrobenzene	9.35	9.21	9.51
Nitrobenzene	9.72	9.58	9.88
3,5-Dinitroaniline	9.96	9.82	10.12
Tetryl	10.06	9.92	10.22
Nitroglycerin	10.52	10.38	10.68
2,4,6-Trinitrotoluene	10.95	10.87	11.07
4-Amino-2,6-dinitrotoluene	11.14	11.06	11.26
2-Amino-4,6-dinitrotoluene	11.40	11.32	11.52
2,6-Dinitrotoluene	11.54	11.46	11.66
2,4-Dinitrotoluene	11.72	11.64	11.84
2-Nitrotoluene	12.52	12.39	12.69
4-Nitrotoluene	12.94	12.81	13.11
3-Nitrotoluene	13.50	13.37	13.67
PETN	14.58	14.47	14.77
1,2-Dinitrobenzene	8.60	8.46	8.76

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/48 Calibration Date: 03/20/2024 07:29

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190048.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	223759	214812		0.240	0.250	-4.0	20.0
2,4-diamino-6-nitrotoluene	Ave	139108	129088		0.232	0.250	-7.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/48 Calibration Date: 03/20/2024 07:29

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190048.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.49	6.35	6.65
2,4-diamino-6-nitrotoluene	6.68	6.53	6.83

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/56 | Calibration Date: 03/20/2024 10:33

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/24/2024 19:38

Lab File ID: 03190056.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95315	93644		246	250	-1.8	20.0
RDX	Lin2		106868		254	250	1.6	20.0
Picric acid	Ave	75502	73508		243	250	-2.6	20.0
1,3,5-Trinitrobenzene	Ave	216030	215056		249	250	-0.5	20.0
1,3-Dinitrobenzene	Ave	292609	296856		254	250	1.5	20.0
Nitrobenzene	Ave	184983	178496		241	250	-3.5	20.0
3,5-Dinitroaniline	Lin2		219600		252	250	0.7	20.0
Tetryl	Ave	180864	179840		249	250	-0.6	20.0
Nitroglycerin	Ave	61824	66848		2700	2500	8.1	20.0
2,4,6-Trinitrotoluene	Lin2		215544		253	250	1.1	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	149668		249	250	-0.2	20.0
2-Amino-4,6-dinitrotoluene	Lin2		199732		251	250	0.4	20.0
2,6-Dinitrotoluene	Lin2		145988		255	250	2.0	20.0
2,4-Dinitrotoluene	Ave	292766	297052		254	250	1.5	20.0
2-Nitrotoluene	Lin2		117052		240	250	-4.0	20.0
4-Nitrotoluene	Lin2		102808		244	250	-2.5	20.0
3-Nitrotoluene	Lin2		128156		238	250	-4.9	20.0
PETN	Ave	72603	74148		2550	2500	2.1	20.0
1,2-Dinitrobenzene	Lin2		129836		250	250	0.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/56 Calibration Date: 03/20/2024 10:33

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 03190056.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.47	6.77
RDX	7.65	7.50	7.80
Picric acid	7.88	7.72	8.02
1,3,5-Trinitrobenzene	8.74	8.58	8.88
1,3-Dinitrobenzene	9.36	9.21	9.51
Nitrobenzene	9.72	9.58	9.88
3,5-Dinitroaniline	9.96	9.82	10.12
Tetryl	10.06	9.92	10.22
Nitroglycerin	10.52	10.38	10.68
2,4,6-Trinitrotoluene	10.96	10.87	11.07
4-Amino-2,6-dinitrotoluene	11.15	11.06	11.26
2-Amino-4,6-dinitrotoluene	11.40	11.32	11.52
2,6-Dinitrotoluene	11.55	11.46	11.66
2,4-Dinitrotoluene	11.72	11.64	11.84
2-Nitrotoluene	12.52	12.39	12.69
4-Nitrotoluene	12.94	12.81	13.11
3-Nitrotoluene	13.50	13.37	13.67
PETN	14.60	14.47	14.77
1,2-Dinitrobenzene	8.60	8.46	8.76

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/57 Calibration Date: 03/20/2024 10:56

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190057.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	223759	214620		0.240	0.250	-4.1	20.0
2,4-diamino-6-nitrotoluene	Ave	139108	129932		0.234	0.250	-6.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646412/57 Calibration Date: 03/20/2024 10:56

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 20:24

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 23:04

Lab File ID: 03190057.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.50	6.35	6.65
2,4-diamino-6-nitrotoluene	6.69	6.53	6.83

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646567/7 | Calibration Date: 03/20/2024 17:06

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/24/2024 19:38

Lab File ID: 03200007.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95315	91832		241	250	-3.7	20.0
RDX	Lin2		105696		251	250	0.5	20.0
Picric acid	Ave	75502	73336		243	250	-2.9	20.0
1,3,5-Trinitrobenzene	Ave	216030	215304		249	250	-0.3	20.0
1,3-Dinitrobenzene	Ave	292609	294864		252	250	0.8	20.0
Nitrobenzene	Ave	184983	190000		257	250	2.7	20.0
3,5-Dinitroaniline	Lin2		216576		248	250	-0.7	20.0
Tetryl	Ave	180864	180024		249	250	-0.5	20.0
Nitroglycerin	Ave	61824	66500		2690	2500	7.6	20.0
2,4,6-Trinitrotoluene	Lin2		214096		251	250	0.4	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	149904		250	250	-0.0	20.0
2-Amino-4,6-dinitrotoluene	Lin2		199376		250	250	0.2	20.0
2,6-Dinitrotoluene	Lin2		145644		254	250	1.7	20.0
2,4-Dinitrotoluene	Ave	292766	294412		251	250	0.6	20.0
2-Nitrotoluene	Lin2		124484		255	250	2.1	20.0
4-Nitrotoluene	Lin2		106608		253	250	1.2	20.0
3-Nitrotoluene	Lin2		137208		255	250	2.0	20.0
PETN	Ave	72603	73350		2530	2500	1.0	20.0
1,2-Dinitrobenzene	Lin2		129556		250	250	-0.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646567/7 Calibration Date: 03/20/2024 17:06

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 03200007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.46	6.76
RDX	7.64	7.49	7.79
Picric acid	7.87	7.72	8.02
1,3,5-Trinitrobenzene	8.73	8.58	8.88
1,3-Dinitrobenzene	9.35	9.20	9.50
Nitrobenzene	9.71	9.56	9.86
3,5-Dinitroaniline	9.95	9.80	10.10
Tetryl	10.05	9.90	10.20
Nitroglycerin	10.51	10.36	10.66
2,4,6-Trinitrotoluene	10.95	10.85	11.05
4-Amino-2,6-dinitrotoluene	11.14	11.04	11.24
2-Amino-4,6-dinitrotoluene	11.39	11.29	11.49
2,6-Dinitrotoluene	11.54	11.44	11.64
2,4-Dinitrotoluene	11.71	11.61	11.81
2-Nitrotoluene	12.51	12.36	12.66
4-Nitrotoluene	12.93	12.78	13.08
3-Nitrotoluene	13.49	13.34	13.64
PETN	14.58	14.43	14.73
1,2-Dinitrobenzene	8.59	8.44	8.74

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646567/15 | Calibration Date: 03/20/2024 19:01

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/24/2024 19:38

Lab File ID: 03200015.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95315	92132		242	250	-3.3	20.0
RDX	Lin2		106432		253	250	1.2	20.0
Picric acid	Ave	75502	74476		247	250	-1.4	20.0
1,3,5-Trinitrobenzene	Ave	216030	216616		251	250	0.3	20.0
1,3-Dinitrobenzene	Ave	292609	298260		255	250	1.9	20.0
Nitrobenzene	Ave	184983	191392		259	250	3.5	20.0
3,5-Dinitroaniline	Lin2		221732		254	250	1.6	20.0
Tetryl	Ave	180864	176644		244	250	-2.3	20.0
Nitroglycerin	Ave	61824	66865		2700	2500	8.2	20.0
2,4,6-Trinitrotoluene	Lin2		214996		252	250	0.8	20.0
4-Amino-2,6-dinitrotoluene	Ave	150025	150000		250	250	-0.0	20.0
2-Amino-4,6-dinitrotoluene	Lin2		198868		250	250	-0.0	20.0
2,6-Dinitrotoluene	Lin2		145660		254	250	1.7	20.0
2,4-Dinitrotoluene	Ave	292766	294884		252	250	0.7	20.0
2-Nitrotoluene	Lin2		125172		257	250	2.7	20.0
4-Nitrotoluene	Lin2		106444		253	250	1.0	20.0
3-Nitrotoluene	Lin2		136476		254	250	1.4	20.0
PETN	Ave	72603	73640		2540	2500	1.4	20.0
1,2-Dinitrobenzene	Lin2		130212		251	250	0.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-646567/15 Calibration Date: 03/20/2024 19:01

Instrument ID: CHHPLC_X3 Calib Start Date: 01/24/2024 16:05

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/24/2024 19:38

Lab File ID: 03200015.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.46	6.76
RDX	7.65	7.49	7.79
Picric acid	7.88	7.72	8.02
1,3,5-Trinitrobenzene	8.73	8.58	8.88
1,3-Dinitrobenzene	9.36	9.20	9.50
Nitrobenzene	9.72	9.56	9.86
3,5-Dinitroaniline	9.96	9.80	10.10
Tetryl	10.07	9.90	10.20
Nitroglycerin	10.53	10.36	10.66
2,4,6-Trinitrotoluene	10.97	10.85	11.05
4-Amino-2,6-dinitrotoluene	11.16	11.04	11.24
2-Amino-4,6-dinitrotoluene	11.41	11.29	11.49
2,6-Dinitrotoluene	11.56	11.44	11.64
2,4-Dinitrotoluene	11.73	11.61	11.81
2-Nitrotoluene	12.53	12.36	12.66
4-Nitrotoluene	12.95	12.78	13.08
3-Nitrotoluene	13.51	13.34	13.64
PETN	14.60	14.43	14.73
1,2-Dinitrobenzene	8.60	8.44	8.74

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 09/25/2023 18:42

Analysis Batch Number: 627290 End Date: 09/26/2023 05:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-627290/10		09/25/2023 18:42	1	09250010.D	Luna-phenylhex 4.6(mm)
IC 280-627290/11		09/25/2023 19:17	1	09250011.D	Luna-phenylhex 4.6(mm)
IC 280-627290/12		09/25/2023 19:53	1	09250012.D	Luna-phenylhex 4.6(mm)
IC 280-627290/13		09/25/2023 20:29	1	09250013.D	Luna-phenylhex 4.6(mm)
IC 280-627290/14		09/25/2023 21:05	1	09250014.D	Luna-phenylhex 4.6(mm)
IC 280-627290/15		09/25/2023 21:42	1	09250015.D	Luna-phenylhex 4.6(mm)
IC 280-627290/16		09/25/2023 22:18	1	09250016.D	Luna-phenylhex 4.6(mm)
IC 280-627290/17		09/25/2023 22:54	1	09250017.D	Luna-phenylhex 4.6(mm)
IC 280-627290/18		09/25/2023 23:30	1	09250018.D	Luna-phenylhex 4.6(mm)
ICV 280-627290/19		09/26/2023 00:06	1	09250019.D	Luna-phenylhex 4.6(mm)
IC 280-627290/20		09/26/2023 00:42	1	09250020.D	Luna-phenylhex 4.6(mm)
IC 280-627290/21		09/26/2023 01:18	1	09250021.D	Luna-phenylhex 4.6(mm)
IC 280-627290/22		09/26/2023 01:54	1	09250022.D	Luna-phenylhex 4.6(mm)
IC 280-627290/23		09/26/2023 02:30	1	09250023.D	Luna-phenylhex 4.6(mm)
IC 280-627290/24		09/26/2023 03:06	1	09250024.D	Luna-phenylhex 4.6(mm)
IC 280-627290/25		09/26/2023 03:42	1	09250025.D	Luna-phenylhex 4.6(mm)
IC 280-627290/26		09/26/2023 04:18	1	09250026.D	Luna-phenylhex 4.6(mm)
IC 280-627290/27		09/26/2023 04:54	1	09250027.D	Luna-phenylhex 4.6(mm)
ICV 280-627290/28		09/26/2023 05:31	1	09250028.D	Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 01/24/2024 16:05

Analysis Batch Number: 640909 End Date: 01/24/2024 23:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-640909/11		01/24/2024 16:05	1	01240011.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/12		01/24/2024 16:28	1	01240012.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/13		01/24/2024 16:51	1	01240013.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/14		01/24/2024 17:14	1	01240014.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/15		01/24/2024 17:37	1	01240015.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/16		01/24/2024 18:00	1	01240016.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/17		01/24/2024 18:23	1	01240017.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/19		01/24/2024 19:09	1	01240019.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/18		01/24/2024 19:38	1	01240020.D	UltraCarb5uODS 4.6(mm)
ICV 280-640909/20		01/24/2024 20:01	1	0124X020.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/21		01/24/2024 20:24	1	01240021.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/22		01/24/2024 20:46	1	01240022.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/23		01/24/2024 21:09	1	01240023.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/24		01/24/2024 21:32	1	01240024.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/25		01/24/2024 21:55	1	01240025.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/26		01/24/2024 22:18	1	01240026.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/27		01/24/2024 22:41	1	01240027.D	UltraCarb5uODS 4.6(mm)
IC 280-640909/28		01/24/2024 23:04	1	01240028.D	UltraCarb5uODS 4.6(mm)
ICV 280-640909/29		01/24/2024 23:27	1	01240029.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/20/2024 04:03

Analysis Batch Number: 646412 End Date: 03/20/2024 10:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-646412/39		03/20/2024 04:03	1	03190039.D	UltraCarb5uODS 4.6(mm)
CCV 280-646412/40		03/20/2024 04:26	1	03190040.D	UltraCarb5uODS 4.6(mm)
MB 280-645871/1-A		03/20/2024 04:49	1	03190041.D	UltraCarb5uODS 4.6(mm)
LCS 280-645871/2-A		03/20/2024 05:12	1	03190042.D	UltraCarb5uODS 4.6(mm)
LCS 280-645871/3-A		03/20/2024 05:35	1	03190043.D	UltraCarb5uODS 4.6(mm)
280-188555-1	X7-TP-C01-3642	03/20/2024 05:58	1	03190044.D	UltraCarb5uODS 4.6(mm)
280-188555-2	X7-TP-C02-2430	03/20/2024 06:21	1	03190045.D	UltraCarb5uODS 4.6(mm)
280-188555-3	FD-03062401	03/20/2024 06:43	1	03190046.D	UltraCarb5uODS 4.6(mm)
CCV 280-646412/47		03/20/2024 07:06	1	03190047.D	UltraCarb5uODS 4.6(mm)
CCV 280-646412/48		03/20/2024 07:29	1	03190048.D	UltraCarb5uODS 4.6(mm)
280-188555-4	X7-TP-C03-2436	03/20/2024 07:52	1	03190049.D	UltraCarb5uODS 4.6(mm)
280-188555-4 MS	X7-TP-C03-2436 MS	03/20/2024 08:15	1	03190050.D	UltraCarb5uODS 4.6(mm)
280-188555-4 MSD	X7-TP-C03-2436 MSD	03/20/2024 08:38	1	03190051.D	UltraCarb5uODS 4.6(mm)
280-188555-4 MS	X7-TP-C03-2436 MS	03/20/2024 09:01	1	03190052.D	UltraCarb5uODS 4.6(mm)
280-188555-4 MSD	X7-TP-C03-2436 MSD	03/20/2024 09:24	1	03190053.D	UltraCarb5uODS 4.6(mm)
280-188555-4 DU	X7-TP-C03-2436 DU	03/20/2024 09:47	1	03190054.D	UltraCarb5uODS 4.6(mm)
280-188555-4 TRL	X7-TP-C03-2436 TRL	03/20/2024 10:10	1	03190055.D	UltraCarb5uODS 4.6(mm)
CCV 280-646412/56		03/20/2024 10:33	1	03190056.D	UltraCarb5uODS 4.6(mm)
CCV 280-646412/57		03/20/2024 10:56	1	03190057.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/20/2024 17:06

Analysis Batch Number: 646567 End Date: 03/20/2024 19:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-646567/7		03/20/2024 17:06	1	03200007.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		03/20/2024 17:29	1000		UltraCarb5uODS 4.6(mm)
280-188555-2 DL	X7-TP-C02-2430 DL	03/20/2024 17:52	10	03200012.D	UltraCarb5uODS 4.6(mm)
280-188555-3 DL	FD-03062401 DL	03/20/2024 18:15	5	03200013.D	UltraCarb5uODS 4.6(mm)
280-188555-3 DL2	FD-03062401 DL2	03/20/2024 18:38	50	03200014.D	UltraCarb5uODS 4.6(mm)
CCV 280-646567/15		03/20/2024 19:01	1	03200015.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 03/20/2024 18:28

Analysis Batch Number: 646572 End Date: 03/21/2024 03:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-646572/7		03/20/2024 18:28	1	03200007.D	Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 19:04	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 19:40	1		Luna-phenylhex 4.6(mm)
280-188555-1	X7-TP-C01-3642	03/20/2024 20:16	1	03200012.D	Luna-phenylhex 4.6(mm)
280-188555-2	X7-TP-C02-2430	03/20/2024 20:52	1	03200013.D	Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 21:28	10		Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 22:04	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 22:40	5		Luna-phenylhex 4.6(mm)
ZZZZZ		03/20/2024 23:16	50		Luna-phenylhex 4.6(mm)
CCV 280-646572/18		03/20/2024 23:52	1	03200018.D	Luna-phenylhex 4.6(mm)
280-188555-4	X7-TP-C03-2436	03/21/2024 00:28	1	03200019.D	Luna-phenylhex 4.6(mm)
280-188555-4 MS	X7-TP-C03-2436 MS	03/21/2024 01:04	1	03200020.D	Luna-phenylhex 4.6(mm)
280-188555-4 MSD	X7-TP-C03-2436 MSD	03/21/2024 01:40	1	03200021.D	Luna-phenylhex 4.6(mm)
280-188555-4 DU	X7-TP-C03-2436 DU	03/21/2024 02:15	1	03200022.D	Luna-phenylhex 4.6(mm)
280-188555-4 TRL	X7-TP-C03-2436 TRL	03/21/2024 02:51	1	03200023.D	Luna-phenylhex 4.6(mm)
CCV 280-646572/24		03/21/2024 03:27	1	03200024.D	Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 627290 Batch Start Date: 09/25/23 18:42 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 DMT 00015	8330 LCS 00130	8330_ADDs 00037	8330_OP_DMT 00022	8330DiaminLCS 00060
IC 280-627290/10		8330B			1 mL	125 uL				
IC 280-627290/11		8330B			1 mL	50 uL				
IC 280-627290/12		8330B			1 mL	35 uL				
IC 280-627290/13		8330B			1 mL	20 uL				
IC 280-627290/14		8330B			1 mL	12.5 uL				
IC 280-627290/15		8330B			1 mL	5 uL				
IC 280-627290/16		8330B			1 mL	2.5 uL				
IC 280-627290/17		8330B			1 mL	1 uL				
IC 280-627290/18		8330B			1 mL	0.5 uL				
ICV 280-627290/19		8330B			1 mL		25 uL		25 uL	
IC 280-627290/20		8330B			1 mL			125 uL		
IC 280-627290/21		8330B			1 mL			50 uL		
IC 280-627290/22		8330B			1 mL			35 uL		
IC 280-627290/23		8330B			1 mL			20 uL		
IC 280-627290/24		8330B			1 mL			12.5 uL		
IC 280-627290/25		8330B			1 mL			5 uL		
IC 280-627290/26		8330B			1 mL			2 uL		
IC 280-627290/27		8330B			1 mL			1 uL		
ICV 280-627290/28		8330B			1 mL					12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8330IntermStk 00078	8330Surrogate 00150				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 627290 Batch Start Date: 09/25/23 18:42 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8330IntermStk 00078	8330Surrogate 00150				
IC 280-627290/10		8330B			250 uL					
IC 280-627290/11		8330B			100 uL					
IC 280-627290/12		8330B			70 uL					
IC 280-627290/13		8330B			40 uL					
IC 280-627290/14		8330B			25 uL					
IC 280-627290/15		8330B			10 uL					
IC 280-627290/16		8330B			5 uL					
IC 280-627290/17		8330B			2 uL					
IC 280-627290/18		8330B			1 uL					
ICV 280-627290/19		8330B				25 uL				
IC 280-627290/20		8330B								
IC 280-627290/21		8330B								
IC 280-627290/22		8330B								
IC 280-627290/23		8330B								
IC 280-627290/24		8330B								
IC 280-627290/25		8330B								
IC 280-627290/26		8330B								
IC 280-627290/27		8330B								
ICV 280-627290/28		8330B								

Batch Notes	
Methanol ID	230922

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 627290 Batch Start Date: 09/25/23 18:42 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 640909 Batch Start Date: 01/24/24 16:05 Batch Analyst: Gravage, Jordan P

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 DMT 00016	8330 LCS 00133	8330_ADDs 00038	8330_OP_DMT 00026	8330DiaminLCS 00064
IC 280-640909/11		8330B			1 mL	125 uL				
IC 280-640909/12		8330B			1 mL	50 uL				
IC 280-640909/13		8330B			1 mL	35 uL				
IC 280-640909/14		8330B			1 mL	20 uL				
IC 280-640909/15		8330B			1 mL	12.5 uL				
IC 280-640909/16		8330B			1 mL	5 uL				
IC 280-640909/17		8330B			1 mL	2.5 uL				
IC 280-640909/18		8330B			1 mL	1 uL				
IC 280-640909/19		8330B			1 mL	0.5 uL				
ICV 280-640909/20		8330B			1 mL		50 uL		50 uL	
IC 280-640909/21		8330B			1 mL			125 uL		
IC 280-640909/22		8330B			1 mL			50 uL		
IC 280-640909/23		8330B			1 mL			35 uL		
IC 280-640909/24		8330B			1 mL			20 uL		
IC 280-640909/25		8330B			1 mL			12.5 uL		
IC 280-640909/26		8330B			1 mL			5 uL		
IC 280-640909/27		8330B			1 mL			2 uL		
IC 280-640909/28		8330B			1 mL			1 uL		
ICV 280-640909/29		8330B			1 mL					25 uL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8330IntermStk 00079	8330Surrogate 00152				

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.: 280-188555-1

SDG No.:

Batch Number: 640909 Batch Start Date: 01/24/24 16:05 Batch Analyst: Gravage, Jordan P

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	8330IntermStk 00079	8330Surrogate 00152				
IC 280-640909/11		8330B			250 uL					
IC 280-640909/12		8330B			100 uL					
IC 280-640909/13		8330B			70 uL					
IC 280-640909/14		8330B			40 uL					
IC 280-640909/15		8330B			25 uL					
IC 280-640909/16		8330B			10 uL					
IC 280-640909/17		8330B			5 uL					
IC 280-640909/18		8330B			2 uL					
IC 280-640909/19		8330B			1 uL					
ICV 280-640909/20		8330B				50 uL				
IC 280-640909/21		8330B								
IC 280-640909/22		8330B								
IC 280-640909/23		8330B								
IC 280-640909/24		8330B								
IC 280-640909/25		8330B								
IC 280-640909/26		8330B								
IC 280-640909/27		8330B								
IC 280-640909/28		8330B								
ICV 280-640909/29		8330B								

Batch Notes	
Methanol ID	232689

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.: 280-188555-1

SDG No.:

Batch Number: 640909 Batch Start Date: 01/24/24 16:05 Batch Analyst: Gravage, Jordan P

Batch Method: 8330B Batch End Date:

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645628 Batch Start Date: 03/11/24 16:58 Batch Analyst: Lee, David C

Batch Method: Prep/Air Dry Batch End Date: 03/12/24 17:05

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	AnalysisComment					
280-188555-B-1	X7-TP-C01-3642	Prep/Air Dry, 8330B, 8330B	Solid	T	10g					
280-188555-B-2	X7-TP-C02-2430	Prep/Air Dry, 8330B, 8330B	Solid	T	10g					
280-188555-B-3	FD-03062401	Prep/Air Dry, 8330B, 8330B	Solid	T	10g					
280-188555-B-4	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8330B	Solid	T	10g					
280-188555-B-4 MS	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8330B	Solid	T	10g; Extra vol for Diamino					
280-188555-B-4 MSD	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8330B	Solid	T	10g; Extra vol for Diamino					
280-188555-B-4 DU	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8330B		T	10g					
280-188555-B-4 TRL	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8330B		T	10g					

Batch Notes	
Date and Time laid out to Dry	3/11/24 17:25
Laid out on Parchment or Foil	Foil
Analyst ID - Drying	DL
Analyst ID - Label Check	Reviewer: DN
SOP Number	DV-OP-0013
Batch Comment	Tower: Nano

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.

ISM Batch Number: 645625, 645628

DV-F-0070_Rev 2_01-7-2020		Use this spreadsheet to document drying samples to a constant weight.							
balance ID:		38602403	3-12-2024 1051	3-12-2024 1445	Dry?		Date/time 3	Dry?	
			EB	EB			analyst initials		
Login	Sample	Tare weight (weight of weighing vessel)	Gross weight (g) (weight of aliquot and weighing vessel)	Gross weight (g) (weight of aliquot and weighing vessel)	Change in weights 1, 2	Proceed with ISM?	Gross weight (g) (weight of aliquot and weighing vessel)	Change in weights 2, 3	Proceed with ISM?
188531	1	1	14.68	14.67	0.07%	Yes		107.32%	No
188531	2	0.96	13.81	13.8	0.08%	Yes		107.48%	No
188531	3	0.99	19.55	19.53	0.11%	Yes		105.34%	No
188531	4	0.98	17.17	17.17	0.00%	Yes		106.05%	No
188531	5	0.96	18.58	18.56	0.11%	Yes		105.45%	No
188555	1	0.98	23.04	23.05	-0.05%	Yes		104.44%	No
188555	2	0.98	15.36	15.34	0.14%	Yes		106.82%	No
188555	3	0.98	16.41	16.39	0.13%	Yes		106.36%	No
188555	4	1	15.12	15.1	0.14%	Yes		107.09%	No

8321B_NGu

Nitroguanidine (LC/MS)

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: NG724C14013.d

Lab ID: LCS 280-645870/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Nitroguanidine	203	186	92	50-150	

Column to be used to flag recovery and RPD values

FORM III 8321B

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: NG724C14018.d

Lab ID: 280-188555-4 MS Client ID: X7-TP-C03-2436 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Nitroguanidine	199	24 U	152	76	50-150	

Column to be used to flag recovery and RPD values

FORM III 8321B

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: NG724C14019.d

Lab ID: 280-188555-4 MSD Client ID: X7-TP-C03-2436 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitroguanidine	189	152	81	0	20	50-150	

Column to be used to flag recovery and RPD values

FORM III 8321B

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab File ID: NG724C14012.d Lab Sample ID: MB 280-645870/1-A

Matrix: Solid Date Extracted: 03/13/2024 13:09

Instrument ID: LC_LCMS7 Date Analyzed: 03/14/2024 14:23

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-645870/2-A	NG724C14013.d	03/14/2024 14:26
X7-TP-C01-3642	280-188555-1	NG724C14014.d	03/14/2024 14:30
X7-TP-C02-2430	280-188555-2	NG724C14015.d	03/14/2024 14:33
FD-03062401	280-188555-3	NG724C14016.d	03/14/2024 14:36
X7-TP-C03-2436	280-188555-4	NG724C14017.d	03/14/2024 14:39
X7-TP-C03-2436 MS	280-188555-4 MS	NG724C14018.d	03/14/2024 14:43
X7-TP-C03-2436 MSD	280-188555-4 MSD	NG724C14019.d	03/14/2024 14:46

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-188555-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-645870/1-A

Matrix: Solid | Lab File ID: NG724C14012.d

Analysis Method: 8321B | Date Collected:

Extraction Method: 8330B | Date Extracted: 03/13/2024 13:09

Sample wt/vol: 10(g) | Date Analyzed: 03/14/2024 14:23

Con. Extract Vol.: 20(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: Synergi Hydro ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	25	U	40	25	11

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 280-645982/10

Matrix: Solid Lab File ID: NG724C14010.d

Analysis Method: 8321B Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/14/2024 14:17

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Synergi Hydro ID:

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 645982 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
556-88-7	Nitroguanidine	10	U	20	10	3.7

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 645982

SDG No.:

Instrument ID: LC_LCMS7 | GC Column: Synergi Hyd ID: | Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2024 13:54 | Calibration End Date: 03/14/2024 14:14 | Calibration ID: 91219

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD001 280-645982/3	NG724C14003.d
Level 2	STD002 280-645982/4	NG724C14004.d
Level 3	STD003 280-645982/5	NG724C14005.d
Level 4	STD004 280-645982/6	NG724C14006.d
Level 5	STD005 280-645982/7	NG724C14007.d
Level 6	STD006 280-645982/8	NG724C14008.d
Level 7	STD007 280-645982/9	NG724C14009.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Nitroguanidine	1.279	1.274	1.274	1.274	1.274	1.268	1.263				0.774 - 1.774	1.272

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-188555-1 Analy Batch No.: 645982

SDG No.:

Instrument ID: LC_LCMS7 GC Column: Synergi Hyd ID: Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2024 13:54 Calibration End Date: 03/14/2024 14:14 Calibration ID: 91219

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD001 280-645982/3	NG724C14003.d
Level 2	STD002 280-645982/4	NG724C14004.d
Level 3	STD003 280-645982/5	NG724C14005.d
Level 4	STD004 280-645982/6	NG724C14006.d
Level 5	STD005 280-645982/7	NG724C14007.d
Level 6	STD006 280-645982/8	NG724C14008.d
Level 7	STD007 280-645982/9	NG724C14009.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Nitroguanidine	293.39 338.35	301.48 330.90	346.10 290.98	366.79	Qua1	-450.89887	368.363815	-0.150385 7						1.0000		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-188555-1 | Analy Batch No.: 645982

SDG No.:

Instrument ID: LC_LCMS7 | GC Column: Synergi Hy ID: | Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2024 13:54 | Calibration End Date: 03/14/2024 14:14 | Calibration ID: 91219

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD001 280-645982/3	NG724C14003.d
Level 2	STD002 280-645982/4	NG724C14004.d
Level 3	STD003 280-645982/5	NG724C14005.d
Level 4	STD004 280-645982/6	NG724C14006.d
Level 5	STD005 280-645982/7	NG724C14007.d
Level 6	STD006 280-645982/8	NG724C14008.d
Level 7	STD007 280-645982/9	NG724C14009.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Nitroguanidine	Qua1	1486 83800	3054 147379	8765	18578	34275	5.07 253	10.1 507	25.3	50.7	101

Curve Type Legend:
Qua1 = Quadratic 1/Conc

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: ICV 280-645982/11 Calibration Date: 03/14/2024 14:20

Instrument ID: LC_LCMS7 Calib Start Date: 03/14/2024 13:54

GC Column: Synergi Hydro ID: Calib End Date: 03/14/2024 14:14

Lab File ID: NG724C14011.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitroguanidine	Qua1		357.5		103	100	2.6	20.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Lab Sample ID: CCV 280-645982/20 Calibration Date: 03/14/2024 14:49

Instrument ID: LC_LCMS7 Calib Start Date: 03/14/2024 13:54

GC Column: Synergi Hydro ID: Calib End Date: 03/14/2024 14:14

Lab File ID: NG724C14020.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Nitroguanidine	Qua1		349.9		50.4	50.7	-0.6	30.0

LCMS ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: LC_LCMS7 Start Date: 03/14/2024 13:54

Analysis Batch Number: 645982 End Date: 03/14/2024 14:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD001 280-645982/3 IC		03/14/2024 13:54	1	NG724C14003.d	Synergi Hydro
STD002 280-645982/4 IC		03/14/2024 13:57	1	NG724C14004.d	Synergi Hydro
STD003 280-645982/5 IC		03/14/2024 14:01	1	NG724C14005.d	Synergi Hydro
STD004 280-645982/6 IC		03/14/2024 14:04	1	NG724C14006.d	Synergi Hydro
STD005 280-645982/7 IC		03/14/2024 14:07	1	NG724C14007.d	Synergi Hydro
STD006 280-645982/8 IC		03/14/2024 14:10	1	NG724C14008.d	Synergi Hydro
STD007 280-645982/9 IC		03/14/2024 14:14	1	NG724C14009.d	Synergi Hydro
ICB 280-645982/10		03/14/2024 14:17	1	NG724C14010.d	Synergi Hydro
ICV 280-645982/11		03/14/2024 14:20	1	NG724C14011.d	Synergi Hydro
MB 280-645870/1-A		03/14/2024 14:23	1	NG724C14012.d	Synergi Hydro
LCS 280-645870/2-A		03/14/2024 14:26	1	NG724C14013.d	Synergi Hydro
280-188555-1	X7-TP-C01-3642	03/14/2024 14:30	1	NG724C14014.d	Synergi Hydro
280-188555-2	X7-TP-C02-2430	03/14/2024 14:33	1	NG724C14015.d	Synergi Hydro
280-188555-3	FD-03062401	03/14/2024 14:36	1	NG724C14016.d	Synergi Hydro
280-188555-4	X7-TP-C03-2436	03/14/2024 14:39	1	NG724C14017.d	Synergi Hydro
280-188555-4 MS	X7-TP-C03-2436 MS	03/14/2024 14:43	1	NG724C14018.d	Synergi Hydro
280-188555-4 MSD	X7-TP-C03-2436 MSD	03/14/2024 14:46	1	NG724C14019.d	Synergi Hydro
CCV 280-645982/20		03/14/2024 14:49	1	NG724C14020.d	Synergi Hydro

LCMS BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645628 Batch Start Date: 03/11/24 16:58 Batch Analyst: Lee, David C

Batch Method: Prep/Air Dry Batch End Date: 03/12/24 17:05

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	AnalysisComment					
280-188555-B-1	X7-TP-C01-3642	Prep/Air Dry, 8330B, 8321B	Solid	T	10g					
280-188555-B-2	X7-TP-C02-2430	Prep/Air Dry, 8330B, 8321B	Solid	T	10g					
280-188555-B-3	FD-03062401	Prep/Air Dry, 8330B, 8321B	Solid	T	10g					
280-188555-B-4	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8321B	Solid	T	10g					
280-188555-B-4 MS	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8321B	Solid	T	10g; Extra vol for Diamino					
280-188555-B-4 MSD	X7-TP-C03-2436	Prep/Air Dry, 8330B, 8321B	Solid	T	10g; Extra vol for Diamino					

Batch Notes	
Date and Time laid out to Dry	3/11/24 17:25
Laid out on Parchment or Foil	Foil
Analyst ID - Drying	DL
Analyst ID - Label Check	Reviewer: DN
SOP Number	DV-OP-0013
Batch Comment	Tower: Nano

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

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-188555-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: D 2216 LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (%)	
Percent Moisture		0.1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: D 2216

Start Date: 03/12/2024 15:02 End Date: 03/12/2024 15:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				Moist																								
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
280-188555-1	1	T	15:02	X																								
280-188555-2	1	T	15:02	X																								
280-188555-3	1	T	15:02	X																								
280-188555-4	1	T	15:02	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: D 2216

Start Date: 03/12/2024 15:02 End Date: 03/12/2024 15:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				Moist																								
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: D 2216

Start Date: 03/12/2024 15:02 End Date: 03/12/2024 15:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				Moist																								
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									
ZZZZZZ			15:02																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-188555-1

SDG No.:

Batch Number: 645751 Batch Start Date: 03/12/24 15:02 Batch Analyst: Patino, Christian L

Batch Method: D 2216 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry	%_Moisture	%_Solid
280-188555-C-1	X7-TP-C01-3642	D 2216	Solid	T	35	0.98 g	16.66 g	14.36 g	14.6683673469388 %	85.3316326530612 %
280-188555-C-2	X7-TP-C02-2430	D 2216	Solid	T	36	0.98 g	18.06 g	15.66 g	14.0515222482436 %	85.9484777517564 %
280-188555-C-3	FD-03062401	D 2216	Solid	T	37	0.98 g	16.38 g	14.19 g	14.2207792207792 %	85.7792207792208 %
280-188555-C-4	X7-TP-C03-2436	D 2216	Solid	T	38	0.98 g	17.84 g	14.91 g	17.3784104389087 %	82.6215895610913 %

Batch Notes	
Balance ID	24750836
Balance is Level? (Y/N)	yes
Oven ID	E
Thermometer ID	1354
Date samples were placed in the oven	03/12/2024
Time samples were place in the oven	18:20
Temperature - Start - Uncorrected	103 Degrees C
Oven Temp In	103 Degrees C
Date samples were removed from oven	03/13/2024
Time Samples were removed from oven	09:54
Analyst ID - Weighing	ejs, cp, rcb
Temperature - End - Uncorrected	103 Degrees C
Oven Temp Out	103 Degrees C
Date and Time Samples in Desiccator	03/13/2024 09:54
Date and Time Samples out of Desiccator	03/13/2024 12:38
Batch Comment	ejs, cp, dry:RCB

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.

SVOC Calibration Calculations:

Initial Calibration 3/4/2024
Instrument SMS_G6

n-nitrosodiphenylamine

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
4	34809	571123	40	0.609483	0.6095
10	85745	627326	40	0.546733	0.5467
20	166824	680110	40	0.490579	0.4906
50	411990	574809	40	0.573394	0.5734
80	724168	638181	40	0.567369	0.5674
120	950402	582595	40	0.543775	0.5438
160	1343494	593240	40	0.566168	0.5662
200	1662524	609139	40	0.545860	0.5459
			Average	0.555420	0.5554
			Standard Deviation	0.0338	
			RSD	0.0609	
			%RSD	6.09076	6.1

Continuing Calibration 03/15/2024 @ 14:12
Instrument SMS_G6

n-nitrosodiphenylamine

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
80	819550	751464	40	0.545	-1.818	0.5453	-1.8

Sample Calculation
Sample Identification X7-TP-C01-3642
Compound n-nitrosodiphenylamine nondetected result

Compound Area
Internal Standard Amount (ng)
Dilution Factor
Internal Standard Area
Average RRF

Sample Volume (g)
Volume Extract (ml)
Injection Volume (µl)
Percent Solids

Concentration ug/kg

Surrogate 2-fluorophenol

Compound Area	400262		
Internal Standard Amount (ng)	40		
Dilution Factor	1	Volume Extract (ml)	1
Internal Standard Area	163530	Injection Volume (µl)	1
Average RRF	1.4571		
Concentration	67.191998		
Surrogate %R	67.19	Spike amount	100

LCS %R LCS 280-645670

n-nitrosodiphenylamine	Spike amount	LCS concentration
2040	2670	76.40

Tune
03/04/2024 @ 9:59 SMS_G6

Raw Abundance m/z 198	Raw Abundance m/z 51	% Abundance
317632	177088	55.75

MATRIX SPIKE / MATRIX SPIKE DUPLICATE
Sample X7-TP-C03-2436

	Result	Target	Sample Result	Calculation	Recovery
n-nitrosodiphenylamine-MS	2510 ug/kg	3130 ug/kg	ND	2510/3130*100	79.87
	Result	Target	Sample Result	Calculation	Recovery
n-nitrosodiphenylamine -MSD	2510 ug/kg	2970 ug/kg	ND	2510/2970*100	84.51

MS/MSD RPD	Calculated RPD	5.64
	Reported RPD	0

Sample Calculation
Sample Identification LCS - 280-645670/2
Compound n-nitrosodiphenylamine 2040 ug/kg

Compound Area	583477		
Internal Standard Amount (ng)	40	Sample Volume (g)	30
Dilution Factor	1	Volume Extract (ml)	1
Internal Standard Area	685788	Injection Volume (µl)	1
Average RRF	0.5554	Percent Solids	1
Concentration	2042.522 ug/kg		

Report Date: 18-Mar-2024 14:42:56 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524015.D
Lims ID: 280-188555-A-1-A
Client ID: X7-TP-C01-3642
Sample Type: Client
Inject. Date: 15-Mar-2024 18:40:30 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-1-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:11:07

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	163530	40.0	
*	2 Naphthalene-d8	136	5.481	5.486	-0.005	99	617270	40.0	
*	3 Acenaphthene-d10	164	7.171	7.171	0.000	91	339939	40.0	
*	4 Phenanthrene-d10	188	8.615	8.615	0.000	96	593362	40.0	
*	5 Chrysene-d12	240	11.455	11.455	0.000	99	498353	40.0	
*	6 Perylene-d12	264	13.808	13.814	-0.006	99	533724	40.0	
$	7 2-Fluorophenol	112	3.229	3.224	0.005	93	400262	67.2	
$	8 Phenol-d5	99	4.015	4.010	0.005	95	500783	68.3	
$	9 Nitrobenzene-d5	82	4.812	4.812	0.000	93	387803	64.2	
$	11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	771874	73.0	
$	12 2,4,6-Tribromophenol	330	7.941	7.946	-0.005	92	204172	91.9	
$	13 Terphenyl-d14	244	10.198	10.203	-0.005	97	1196344	86.7	
	102 2,4-Dinitrophenol	184		7.240				ND	
	126 N-Nitrosodiphenylamine	169		7.834				ND	
	125 Diphenylamine	169		7.834				ND	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

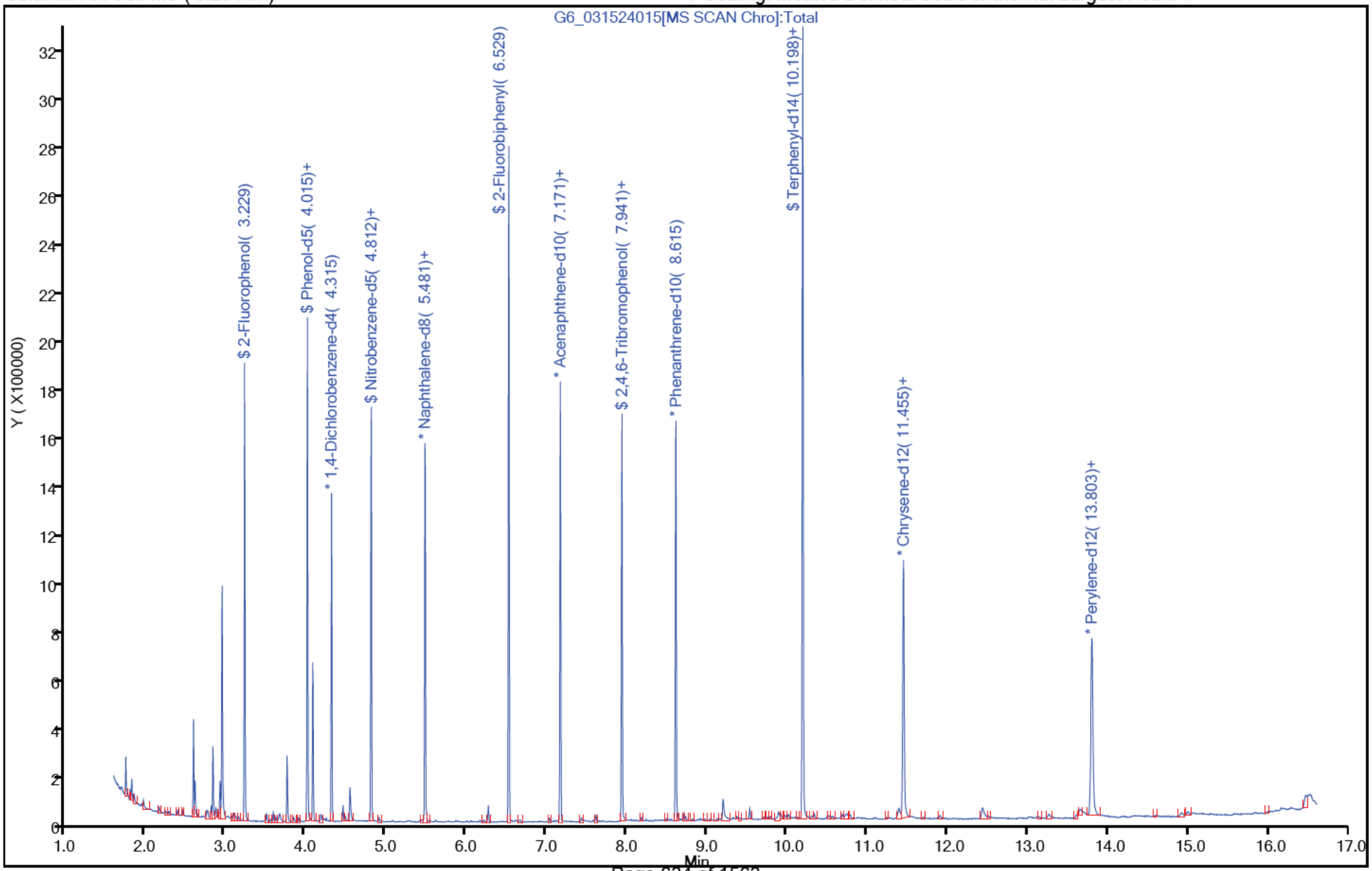
MS-IS_00037 Amount Added: 100.00 Units: uL Run Reagent

Report Date: 18-Mar-2024 14:42:56 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524015.D				
Injection Date:	15-Mar-2024 18:40:30	Instrument ID:	SMS_G6	Operator ID:	RC
Lims ID:	280-188555-A-1-A	Lab Sample ID:	280-188555-1	Worklist Smp#:	14
Client ID:	X7-TP-C01-3642				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	SMSG6_8270C	Limit Group:	MSSV - 8270C_625		

Column: Rxi-5Sil MS (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Report Date: 18-Mar-2024 14:42:56 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524015.D
Lims ID: 280-188555-A-1-A
Client ID: X7-TP-C01-3642
Sample Type: Client
Inject. Date: 15-Mar-2024 18:40:30 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-188555-a-1-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:42:52 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:11:07

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	100.0	67.2	67.19
$ 8 Phenol-d5	100.0	68.3	68.32
$ 9 Nitrobenzene-d5	100.0	64.2	64.16
$ 11 2-Fluorobiphenyl	100.0	73.0	72.98
$ 12 2,4,6-Tribromophenol	100.0	91.9	91.89
$ 13 Terphenyl-d14	100.0	86.7	86.68

Report Date: 18-Mar-2024 14:41:30 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\G6_031524013.D
Lims ID: LCS 280-645670/2-A
Client ID:
Sample Type: LCS
Inject. Date: 15-Mar-2024 17:57:30 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: lcs280-645670_2-a
Operator ID: RC Instrument ID: SMS_G6

Method: \\chromfs\Denver\ChromData\SMS_G6\20240315-131191.b\SMSG6_8270C.m
Limit Group: MSSV - 8270C_625
Method Label: 8270C / 625
Last Update: 18-Mar-2024 14:41:15 Calib Date: 15-Mar-2024 12:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\SMS_G6\20240315-131174.b\031524011.D

Column 1 : Rxi-5Sil MS (0.25 mm) Det: MS SCAN
Process Host: CTX1644

First Level Reviewer: HPV7 Date: 18-Mar-2024 14:08:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.315	4.315	0.000	95	199718	40.0	40.0	
* 2 Naphthalene-d8	136	5.486	5.486	0.000	99	727022	40.0	40.0	
* 3 Acenaphthene-d10	164	7.171	7.171	0.000	91	399482	40.0	40.0	
* 4 Phenanthrene-d10	188	8.615	8.615	0.000	96	685788	40.0	40.0	
* 5 Chrysene-d12	240	11.460	11.455	0.005	98	578823	40.0	40.0	
* 6 Perylene-d12	264	13.808	13.814	-0.006	99	666670	40.0	40.0	
$ 7 2-Fluorophenol	112	3.234	3.224	0.010	92	377489	100.0	51.9	
$ 8 Phenol-d5	99	4.015	4.010	0.005	95	474937	100.0	53.1	
$ 9 Nitrobenzene-d5	82	4.812	4.812	0.000	93	368442	100.0	51.8	
$ 11 2-Fluorobiphenyl	172	6.529	6.529	0.000	99	765454	100.0	61.6	
$ 12 2,4,6-Tribromophenol	330	7.946	7.946	0.000	92	212641	100.0	81.7	
$ 13 Terphenyl-d14	244	10.198	10.203	-0.005	98	1166629	100.0	72.8	
16 1,4-Dioxane	88	1.956	1.956	0.000	94	59955	80.0	17.1	
17 N-Nitrosodimethylamine	74	2.159	2.164	-0.005	89	184367	80.0	40.4	
18 Pyridine	79	2.197	2.197	0.000	86	362391	160.0	61.3	
20 2-Picoline	93	2.748	2.747	0.001	98	270849	80.0	37.7	
21 N-Nitrosomethylethylamine	88	2.833	2.828	0.005	93	141344	80.0	44.9	
22 Methyl methanesulfonate	80	3.068	3.068	0.000	87	174030	80.0	48.6	
23 Acrylamide	71	3.090	3.079	0.011	66	158523	80.0	53.3	
25 N-Nitrosodiethylamine	102	3.395	3.395	0.000	90	150476	80.0	49.7	
26 Ethyl methanesulfonate	79	3.646	3.646	0.000	98	249720	80.0	48.2	
27 Benzaldehyde	106	3.930	3.930	0.000	92	207022	80.0	38.1	
29 Phenol	94	4.026	4.026	0.000	93	444557	80.0	43.6	
28 Aniline	93	4.026	4.026	0.000	83	291170	80.0	28.5	
30 Pentachloroethane	117	4.069	4.068	0.001	95	110998	80.0	43.7	
32 Bis(2-chloroethyl)ether	93	4.079	4.079	0.000	95	324298	80.0	45.7	
33 2-Chlorophenol	128	4.138	4.138	0.000	98	349195	80.0	46.1	
34 n-Decane	43	4.197	4.197	0.000	97	316857	80.0	34.6	
35 1,3-Dichlorobenzene	146	4.272	4.267	0.006	99	307264	80.0	38.3	
37 1,4-Dichlorobenzene	146	4.331	4.331	0.000	95	315855	80.0	38.5	
39 Benzyl alcohol	108	4.443	4.443	0.000	94	233817	80.0	47.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
40 1,2-Dichlorobenzene	146	4.470	4.470	0.000	97	306142	80.0	39.4	
41 Indene	116	4.550	4.550	0.000	92	505299	80.0	43.7	
42 2-Methylphenol	108	4.566	4.555	0.011	92	315288	80.0	49.4	
43 2,2'-oxybis[1-chloropropane]	45	4.566	4.561	0.005	92	633324	80.0	49.6	
44 N-Nitrosopyrrolidine	100	4.652	4.646	0.006	84	195697	80.0	63.8	
45 Acetophenone	105	4.678	4.678	0.000	96	313789	80.0	32.6	
50 N-Nitrosomorpholine	116	4.684	4.684	0.000	94	75165	80.0	55.8	
46 N-Nitrosodi-n-propylamine	70	4.689	4.684	0.005	94	232177	80.0	47.8	
47 4-Methylphenol	108	4.705	4.700	0.005	94	371580	80.0	53.4	
48 3-Methylphenol	108	4.705	4.700	0.005	87	371580	80.0	53.4	
49 3 & 4 Methylphenol	108	4.705	4.700	0.005	77	371580	80.0	53.4	
51 2-Toluidine	106	4.710	4.710	0.000	92	422659	80.0	44.0	
52 Hexachloroethane	117	4.775	4.775	0.000	96	130677	80.0	39.0	
53 Nitrobenzene	77	4.828	4.828	0.000	93	321019	80.0	45.3	
54 N-Nitrosopiperidine	114	4.962	4.962	0.000	78	175283	80.0	56.1	
55 Isophorone	82	5.053	5.058	-0.005	98	561897	80.0	40.9	
56 2-Nitrophenol	139	5.128	5.128	0.000	91	181454	80.0	52.9	
58 2,4-Dimethylphenol	107	5.186	5.186	0.000	92	220441	80.0	39.4	
59 o,o',o''-Triethylphosphorothioat	198	5.245	5.245	0.000	87	144287	80.0	51.7	
60 Bis(2-chloroethoxy)methane	93	5.261	5.261	0.000	98	441395	80.0	53.1	
63 Benzoic acid	105	5.299	5.336	-0.037	91	221701	80.0	57.1	
62 2,4-Dichlorophenol	162	5.363	5.363	0.000	93	303278	80.0	55.3	
65 alpha,alpha-Dimethyl phenethylam	58	5.465	5.395	0.070	96	579936	80.0	34.9	M
66 1,2,4-Trichlorobenzene	180	5.438	5.438	0.000	94	270423	80.0	45.2	
67 Naphthalene	128	5.502	5.502	0.000	97	887330	80.0	46.6	
69 4-Chloroaniline	127	5.561	5.561	0.000	97	342990	80.0	41.4	
68 2,6-Dichlorophenol	162	5.572	5.572	0.000	97	290986	80.0	54.2	
70 Hexachloropropene	213	5.598	5.598	0.000	91	158825	80.0	52.2	
71 Hexachlorobutadiene	225	5.641	5.641	0.000	96	143016	80.0	44.6	
72 Quinoline	129	5.823	5.818	0.005	97	702616	80.0	60.9	
73 Caprolactam	55	5.882	5.871	0.011	73	255961	80.0	82.3	
75 p-Phenylene diamine	108		5.892				80.0	ND	7
76 N-Nitrosodi-n-butylamine	84	5.892	5.892	0.000	86	296891	80.0	80.0	
77 4-Chloro-3-methylphenol	107	6.048	6.042	0.006	95	303280	80.0	53.9	
78 Safrole, Total	162	6.090	6.090	0.000	93	252810	80.0	56.3	
80 2-Methylnaphthalene	142	6.165	6.171	-0.006	95	635220	80.0	48.5	
81 1-Methylnaphthalene	142	6.262	6.262	0.000	94	600473	80.0	50.4	
84 1,2,4,5-Tetrachlorobenzene	216	6.336	6.336	0.000	96	278511	80.0	48.9	
83 Hexachlorocyclopentadiene	237	6.336	6.336	0.000	76	155937	160.4	56.7	
85 Isosafrole Peak 1	162	6.374	6.374	0.000	99	49477	12.8	9.24	
87 2,4,6-Trichlorophenol	196	6.454	6.454	0.000	92	226725	80.0	63.3	
88 2,4,5-Trichlorophenol	196	6.492	6.486	0.006	95	251125	80.0	64.7	
89 Isosafrole Peak 2	162	6.593	6.593	0.000	99	279532	67.2	48.4	
90 1,1'-Biphenyl	154	6.620	6.620	0.000	95	765108	80.0	52.7	
91 2-Chloronaphthalene	162	6.636	6.636	0.000	95	660667	80.0	58.8	
92 1-Chloronaphthalene	162	6.657	6.657	0.000	99	569749	80.0	54.5	
93 2-Nitroaniline	65	6.738	6.738	0.000	88	227778	80.0	63.8	
94 1,4-Naphthoquinone	158	6.796	6.796	0.000	93	259251	80.0	63.6	
95 1,4-Dinitrobenzene	168	6.861	6.860	0.001	95	131882	80.0	75.0	
96 Dimethyl phthalate	163	6.930	6.930	0.000	98	757361	80.0	62.2	
97 1,3-Dinitrobenzene	168	6.941	6.946	-0.005	89	153467	80.0	73.5	
98 2,6-Dinitrotoluene	165	6.973	6.978	-0.005	95	186134	80.0	65.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
99 Acenaphthylene	152	7.032	7.037	-0.005	98	993307	80.0	59.0	
100 3-Nitroaniline	138	7.139	7.139	0.000	96	236894	80.0	66.7	
101 Acenaphthene	153	7.203	7.208	-0.005	93	613293	80.0	54.6	
102 2,4-Dinitrophenol	184	7.240	7.240	0.000	85	210423	160.0	126.5	
107 4-Nitrophenol	109	7.337	7.337	0.000	91	221845	160.0	124.5	
103 Pentachlorobenzene	250	7.347	7.347	0.000	97	294831	80.0	59.3	
109 2,4-Dinitrotoluene	165	7.369	7.369	0.000	91	244053	80.0	65.8	
108 Dibenzofuran	168	7.374	7.374	0.000	97	891233	80.0	56.1	
113 1-Naphthylamine	143	7.444	7.443	0.001	98	472987	80.0	44.0	
114 2,3,4,6-Tetrachlorophenol	232	7.508	7.508	0.000	71	215521	80.0	71.9	
115 2-Naphthylamine	143	7.524	7.524	0.000	98	674416	80.0	54.9	
116 Diethyl phthalate	149	7.615	7.620	-0.005	98	814811	80.0	64.2	
117 Hexadecane	57	7.652	7.658	-0.006	90	554937	80.0	58.8	
119 Thionazin	97	7.690	7.690	0.000	80	190008	80.0	66.4	
118 Fluorene	166	7.706	7.711	-0.005	97	721929	80.0	57.5	
120 4-Chlorophenyl phenyl ether	204	7.711	7.716	-0.005	92	328975	80.0	57.2	
121 N-Nitro-o-toluidine	152	7.722	7.722	0.000	94	253116	80.0	69.1	
122 4-Nitroaniline	138	7.732	7.738	-0.006	92	244806	80.0	69.9	
123 4,6-Dinitro-2-methylphenol	198	7.770	7.775	-0.005	85	293994	160.0	125.8	
126 N-Nitrosodiphenylamine	169	7.829	7.834	-0.005	99	583477	80.0	61.3	
125 Diphenylamine	169	7.829	7.834	-0.005	96	583477	68.0	53.1	
128 1,2-Diphenylhydrazine	77	7.866	7.871	-0.005	98	802736	80.9	57.9	
129 Azobenzene	77	7.866	7.871	-0.005	98	802736	80.0	57.3	
132 Sulfotepp	97	8.000	8.000	0.000	92	122493	80.0	62.0	
133 1,3,5-Trinitrobenzene	213	8.107	8.096	0.011	85	97390	80.0	81.4	
134 Diallate Peak 1	86	8.123	8.123	0.000	89	256839	59.2	47.7	
136 Phorate	121	8.123	8.123	0.000	95	160973	80.0	68.1	
137 Phenacetin	108	8.150	8.150	0.000	96	422828	80.0	68.1	
138 4-Bromophenyl phenyl ether	248	8.187	8.192	-0.005	65	234922	80.0	62.7	
139 Diallate Peak 2	86	8.203	8.203	0.000	88	97677	20.8	16.9	
140 Hexachlorobenzene	284	8.257	8.262	-0.005	97	323221	80.0	66.3	
141 Dimethoate	87	8.283	8.283	0.000	98	375648	80.0	82.3	
142 Atrazine	200	8.364	8.364	0.000	89	199524	80.0	67.8	
145 4-Aminobiphenyl	169	8.444	8.444	0.000	89	604291	80.0	45.8	
143 Pentachlorophenol	266	8.454	8.454	0.000	97	372078	160.0	140.5	
144 Pentachloronitrobenzene	237	8.465	8.465	0.000	93	108533	80.0	79.6	
147 Pronamide	173	8.524	8.524	0.000	91	350600	80.0	68.3	
288 n-Octadecane	57	8.556	8.561	-0.005	92	631534	80.0	66.0	
150 Disulfoton	88	8.636	8.636	0.000	96	452659	80.0	70.6	
149 Dinoseb	211	8.642	8.642	0.000	68	170700	80.0	75.9	
148 Phenanthrene	178	8.642	8.642	0.000	97	1023421	80.0	54.5	
151 Anthracene	178	8.690	8.695	-0.005	97	1121145	80.0	59.7	
152 Carbazole	167	8.850	8.856	-0.006	95	1156861	80.0	63.2	
153 Methyl parathion	109	9.000	8.995	0.005	94	299555	80.0	91.5	
155 Di-n-butyl phthalate	149	9.219	9.225	-0.006	99	1475343	80.0	70.2	
157 Ethyl Parathion	109	9.385	9.385	0.000	87	178619	80.0	75.1	
156 4-Nitroquinoline-1-oxide	190	9.396	9.396	0.000	92	88918	80.0	63.2	
158 Methapyrilene	97	9.492	9.492	0.000	98	166973	80.0	36.7	
159 Isodrin	193	9.658	9.658	0.000	94	142957	80.0	69.6	
160 Fluoranthene	202	9.802	9.808	-0.006	97	1213626	80.0	64.0	
161 Benzidine	184	9.947	9.941	0.006	100	867168	160.0	76.4	
162 Pyrene	202	10.022	10.032	-0.010	98	1287921	80.0	61.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
163 Aramite Peak 1	185	10.193	10.193	0.000	95	60832	40.8	35.3	
164 Aramite Peak 2	185	10.273	10.273	0.000	97	134872	39.2	54.0	
165 p-Dimethylamino azobenzene	120	10.353	10.353	0.000	93	373722	80.0	66.9	
166 Chlorobenzilate	251	10.412	10.412	0.000	94	363679	80.0	67.8	
167 Famphur	218	10.685	10.679	0.006	86	188615	80.0	36.3	
168 3,3'-Dimethylbenzidine	212	10.733	10.733	0.000	99	438067	80.0	43.7	
169 Butyl benzyl phthalate	149	10.760	10.770	-0.010	96	670236	80.0	69.8	
171 2-Acetylaminofluorene	181	11.049	11.048	0.001	95	482916	80.0	65.9	
172 3,3'-Dichlorobenzidine	252	11.434	11.434	0.000	74	887213	160.0	121.9	
174 4,4'-Methylene bis(2-chloroanil	231	11.439	11.439	0.000	93	208497	80.0	60.0	
173 Benzo[a]anthracene	228	11.450	11.455	-0.005	98	1085104	80.0	58.2	
175 Chrysene	228	11.498	11.503	-0.005	97	1147683	80.0	57.7	
176 Bis(2-ethylhexyl) phthalate	149	11.573	11.578	-0.005	98	913457	80.0	69.6	
177 6-Methylchrysene	242	12.188	12.188	0.000	98	843667	80.0	63.0	
178 Di-n-octyl phthalate	149	12.621	12.626	-0.005	99	1556582	80.0	73.6	
180 7,12-Dimethylbenz(a)anthracene	256	13.156	13.150	0.006	93	558251	80.0	65.1	
179 Benzo[b]fluoranthene	252	13.156	13.156	0.000	97	1222102	80.0	65.7	
181 Benzo[k]fluoranthene	252	13.199	13.204	-0.005	98	1285884	80.0	56.8	
183 Benzo[a]pyrene	252	13.707	13.718	-0.011	76	1098226	80.0	56.0	
184 3-Methylcholanthrene	268	14.375	14.386	-0.011	92	198705	80.0	18.0	
185 Dibenz[a,h]acridine	279	15.376	15.381	-0.005	90	788564	80.0	57.4	
186 Dibenz[a,j]acridine	279	15.472	15.482	-0.010	96	1000385	80.7	55.3	
187 Indeno[1,2,3-cd]pyrene	276	15.771	15.777	-0.006	98	955406	80.0	52.8	
188 Dibenz(a,h)anthracene	278	15.825	15.836	-0.011	93	1003105	80.0	57.7	
189 Benzo[g,h,i]perylene	276	16.189	16.194	-0.005	99	1043432	80.0	52.3	
S 201 Isosafrole	162				0		80.0	57.6	
S 202 Diallate	86				0		80.0	64.6	
S 203 Aramite, Total	185				0		80.0	89.3	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

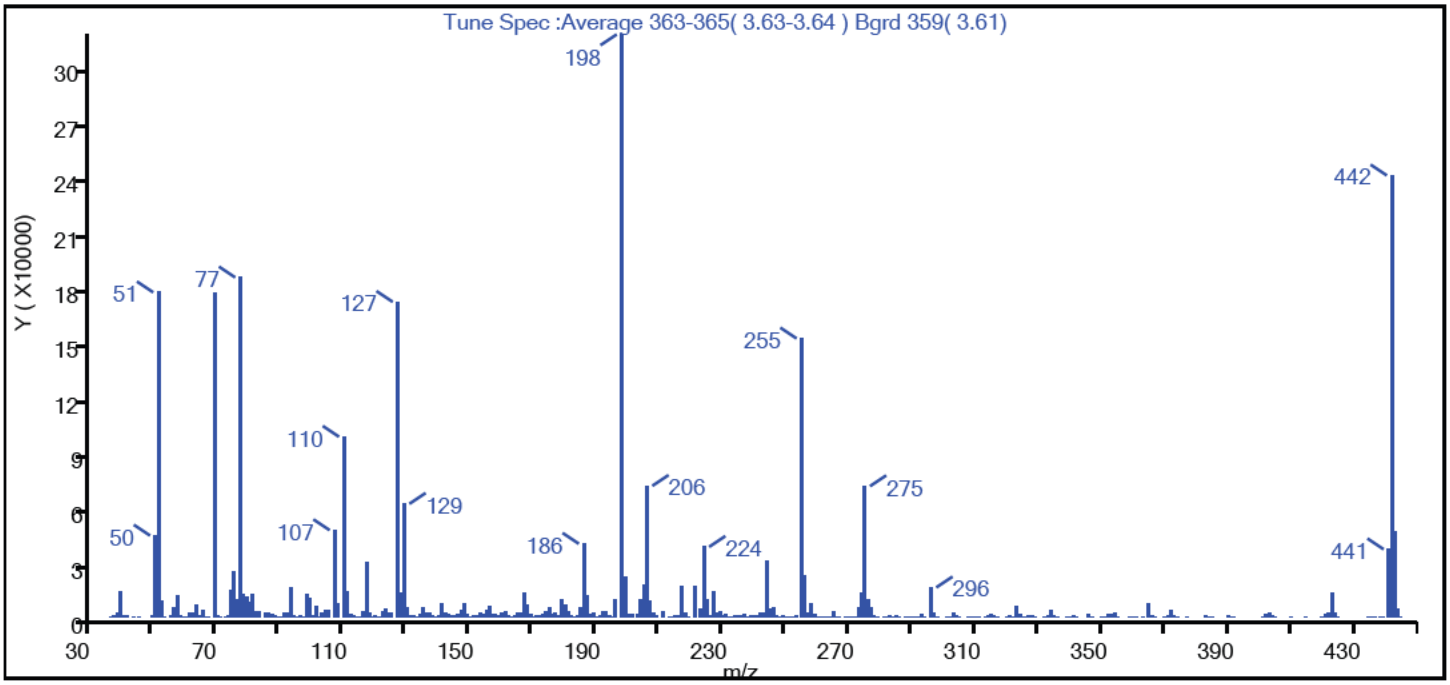
MS-IS_00037 Amount Added: 100.00 Units: uL Run Reagent

MS Tune Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424002C.D
Injection Date: 04-Mar-2024 09:59:30 Instrument ID: SMS_G6
Lims ID: DFTPP
Client ID:
Operator ID: RC ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMSG6_8270C Limit Group: MSSV - 8270C_625
Tune Method: DFTPP Method 8270

194 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	55.8
68	<2% of mass 69	0.0 (0.0)
69	Present	55.6
70	<2% of mass 69	0.2 (0.4)
127	40-60% of mass 198	54.1
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.8
275	10-30% of mass 198	22.5
365	>1% of mass 198	2.4
441	Present but less than mass 443	11.6 (79.0)
442	>40% of mass 198	75.8
443	17-23% of mass 442	14.7 (19.4)

Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424002C.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	264	129.00	61816	215.00	719	308.00	231
37.00	769	130.00	4992	216.00	918	309.00	224
38.00	2405	131.00	897	217.00	16480	310.00	308
39.00	14149	132.00	528	218.00	2281	311.00	44
40.00	687	133.00	252	219.00	212	313.00	205
41.00	470	134.00	1595	221.00	16680	314.00	911
43.00	117	135.00	4817	223.00	4506	315.00	1788
45.00	257	136.00	1898	224.00	38360	316.00	1092
49.00	602	137.00	2368	225.00	9626	317.00	226
50.00	44480	138.00	594	226.00	819	320.00	97
51.00	177088	139.00	313	227.00	13824	321.00	602
52.00	9086	140.00	755	228.00	1974	322.00	301
53.00	341	141.00	7082	229.00	3186	323.00	5915
55.00	708	142.00	2598	230.00	498	324.00	1172
56.00	4976	143.00	1605	231.00	1470	325.00	95
57.00	11776	144.00	465	232.00	199	326.00	175
58.00	535	145.00	502	233.00	290	327.00	1166
59.00	233	146.00	1293	234.00	843	328.00	490
60.00	112	147.00	3737	235.00	1001	329.00	129
61.00	2055	148.00	7271	236.00	680	332.00	427
62.00	2293	149.00	1526	237.00	1180	333.00	608
63.00	6321	150.00	425	238.00	152	334.00	3892
64.00	871	151.00	944	239.00	517	335.00	1062
65.00	3693	152.00	692	240.00	455	336.00	139
66.00	236	153.00	2368	241.00	867	339.00	66
67.00	142	154.00	1749	242.00	2163	340.00	105
69.00	176640	155.00	3873	243.00	2541	341.00	678
70.00	792	156.00	6037	244.00	30272	342.00	192
71.00	50	157.00	1404	245.00	4244	346.00	1397
72.00	91	158.00	1276	246.00	4972	347.00	238
73.00	1057	159.00	948	247.00	1058	350.00	58
74.00	14799	160.00	2159	248.00	270	351.00	149
75.00	24632	161.00	3290	249.00	1079	352.00	1894

Report Date: 04-Mar-2024 15:51:27 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424002C.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	9325	162.00	918	250.00	236	353.00	1262
77.00	185216	163.00	236	251.00	265	354.00	2030
78.00	12605	164.00	460	252.00	331	355.00	430
79.00	10825	165.00	2365	253.00	551	359.00	142
80.00	8369	166.00	2209	255.00	151936	360.00	47
81.00	12098	167.00	13497	256.00	22768	361.00	50
82.00	3010	168.00	6297	257.00	1923	363.00	37
83.00	2912	169.00	1178	258.00	7539	365.00	7661
85.00	2005	170.00	440	259.00	1234	366.00	1130
86.00	2443	171.00	617	260.00	243	367.00	97
87.00	1403	172.00	1136	261.00	274	370.00	227
88.00	528	173.00	1625	262.00	17	371.00	554
89.00	257	174.00	2928	263.00	67	372.00	3454
90.00	45	175.00	5255	264.00	51	373.00	927
91.00	2306	176.00	1634	265.00	2883	374.00	90
92.00	2609	177.00	2481	266.00	331	377.00	84
93.00	16408	178.00	520	267.00	19	383.00	943
94.00	1154	179.00	9548	269.00	19	384.00	277
95.00	274	180.00	6693	270.00	129	385.00	83
96.00	932	181.00	3286	271.00	364	390.00	455
97.00	43	182.00	552	272.00	105	391.00	390
98.00	12317	183.00	358	273.00	5214	392.00	244
99.00	10400	184.00	742	274.00	13501	401.00	243
100.00	928	185.00	5093	275.00	71416	402.00	1461
101.00	6163	186.00	40016	276.00	9446	403.00	2054
102.00	364	187.00	11406	277.00	5136	404.00	735
103.00	2123	188.00	1234	278.00	818	405.00	100
104.00	3679	189.00	1987	279.00	203	410.00	25
105.00	3392	190.00	352	281.00	51	415.00	68
107.00	47432	191.00	1002	282.00	138	420.00	20
108.00	7441	192.00	2977	283.00	586	421.00	1879
110.00	98336	193.00	3274	284.00	432	422.00	1952
111.00	13775	194.00	756	285.00	1005	423.00	13228
112.00	1691	195.00	370	286.00	194	424.00	2562

Report Date: 04-Mar-2024 15:51:27 Chrom Revision: 2.3 23-Feb-2024 16:51:14
Data File: \\chromfs\Denver\ChromData\SMS_G6\20240304-130782.b\G6_b030424002C.D\SMSG6_8270C.rslt\spe
Injection Date: 04-Mar-2024 09:59:30
Spectrum: Tune Spec :Average 363-365(3.63-3.64) Bgrd 359(3.61)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 325

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	481	196.00	9391	288.00	50	425.00	236
114.00	132	198.00	317632	289.00	212	435.00	17
115.00	204	199.00	21664	290.00	197	435.00	41
116.00	2660	200.00	1533	291.00	130	436.00	99
117.00	30208	201.00	1500	292.00	290	437.00	114
118.00	2149	203.00	1800	293.00	1349	438.00	121
119.00	272	204.00	9708	294.00	370	439.00	187
120.00	544	205.00	17432	296.00	16233	441.00	36992
121.00	49	206.00	71608	297.00	2410	442.00	240832
122.00	2798	207.00	8988	298.00	167	443.00	46832
123.00	4265	208.00	2130	301.00	241	444.00	4104
124.00	1951	209.00	662	302.00	387	445.00	242
125.00	1938	211.00	2654	303.00	2116		
127.00	171904	213.00	200	304.00	616		
128.00	12944	214.00	107	305.00	41		

Calculation Explosives	**Sample**		
	X7-TP-C02-2430		
Target Analyte	HMX		
	UltraCarb5uODS		
Analyte Response	40650		
M1 coefficient	95315.274		
Dilution Factor (DF)	1		
Volume Sample	10.89	g	
Extract Volume	40	ml	
	On Column Amount	0.426479391	ug/ml
		1566.50	ug/kg
	Reported Result	1600	ug/kg

Surrogate Recovery			
	X7-TP-C02-2430		
Target Analyte	1,2-dinitrobenzene		
	UltraCarb5uODS		
Analyte Response	33237		
M1 coefficient	129604.301		
B coefficient	20.2337929		
	On Column Amount	0.256293703	ug/ml
	Amount Added	0.25	
	Percent Recovery	102.5174811	
	Reported Result	102.52	

LCS %R	LCS 280-645871		
	HMX		
	LCS concentration	Spike amount	Percent Recovery
	918	1000	91.80

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Sample X7-TP-C03-2436

	Result	Target	Sample Result	Calculation	Recovery
HMX-MS	879 ug/kg	990 ug/kg	ND	879/990*100	88.79
	Result	Target	Sample Result	Calculation	Recovery
HMX -MSD	878 ug/kg	949 ug/kg	ND	878/949*100	92.52

MS/MSD RPD	Calculated RPD	4.12
	Reported RPD	0

Initial Calibration	1/24/2024
Instrument	CHHPLC X3
Column	UltraCarb5uODS

HMX

Analyte Concentration	Analyte Response	M1 coefficient	Reported M1 coefficient
0.01	846	84600	84600
0.02	1927	96350	96350
0.05	4523	90460	90460
0.1	9280	92800	92800
0.25	23043	92172	92172
0.4	40621	101553	101553
0.7	70062	100089	100089
1	100194	100194	100194
2.5	249051	99620	99620

Average	95315.274603	95315.2746
Standard Deviation	5697.4956	
RSD	0.0598	
%RSD	5.97753	6

Continuing Calibration	03/20/2024 @ 4:03
Instrument CHHPLCX3	
Column UltraCarb5uODS	

HMX

Analyte Concentration	Analyte Response	M1 coefficient	%D	Reported M1 coefficient	Reported %D
0.25	23433	93732.000	-1.661	93732	-1.7

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190045.D
Lims ID: 280-188555-B-2-B
Client ID: X7-TP-C02-2430
Sample Type: Client
Inject. Date: 20-Mar-2024 06:21:00 ALS Bottle#: 45 Worklist Smp#: 45
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-188555-B-2-B
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-Mar-2024 12:28:54 Calib Date: 24-Jan-2024 23:04:41
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1651

First Level Reviewer: LV5D Date: 20-Mar-2024 12:26:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1		6.496			ND	7
4 HMX	1	6.614	6.620	-0.006	40650	0.4265	M
5 2,4-diamino-6-nitrotoluene	1		6.683			ND	
8 RDX	1	7.634	7.647	-0.013	1055059	10.0	E
9 2,4,6-Trinitrophenol	1		7.874			ND	
$ 10 1,2-Dinitrobenzene	1	8.594	8.607	-0.013	33237	0.2563	
11 1,3,5-Trinitrobenzene	1		8.734			ND	
12 1,3-Dinitrobenzene	1		9.360			ND	
13 Nitrobenzene	1		9.727			ND	
14 3,5-Dinitroaniline	1		9.967			ND	
15 Tetryl	1		10.067			ND	
16 Nitroglycerin	2		10.533			ND	
17 2,4,6-Trinitrotoluene	1	10.941	10.967	-0.026	2017	0.009177	
18 4-Amino-2,6-dinitrotoluene	1		11.160			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.420			ND	
20 2,6-Dinitrotoluene	1		11.560			ND	
21 2,4-Dinitrotoluene	1		11.740			ND	
22 o-Nitrotoluene	1		12.540			ND	
23 p-Nitrotoluene	1		12.960			ND	
24 m-Nitrotoluene	1		13.520			ND	
25 PETN	2		14.620			ND	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\03190045.D				
Lims ID:	280-188555-B-2-B				
Client ID:	X7-TP-C02-2430				
Sample Type:	Client				
Inject. Date:	20-Mar-2024 06:21:00	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-188555-B-2-B				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240319-131313.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-Mar-2024 12:28:54	Calib Date:	24-Jan-2024 23:04:41		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240124-129631.b\01240028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1651				
First Level Reviewer: LV5D		Date:	20-Mar-2024 12:26:46		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2563	102.52