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ANALYTICAL REPORT

Job Number: 280-162386-1

Job Description: Cornhusker (CHAAP)

For:
Brice Environmental Services, Corp
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Attention: Corey Schwabenlander



Approved for release.
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6/6/2022 7:00 PM

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The Lab Certification ID# is 4025.

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

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.This report has been electronically signed and authorized by the signatory. Electronic signature

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Qualifiers

GC VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

HPLC/IC

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

General Chemistry

Qualifier	Qualifier Description
B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
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.
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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

CASE NARRATIVE

Client: Brice Environmental Services, Corp

Project: Cornhusker (CHAAP)

Report Number: 280-162386-1

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

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

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

RECEIPT

The samples were received on 5/14/2022 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.6º C, 2.2º C, 2.3º C and 4.7º C.

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): PZ007-22A (280-162386-1), PZ007-22A (280-162386-1[MS]), PZ007-22A (280-162386-1[MSD]), G0117-22A (280-162386-3), G0116-22A (280-162386-6), PZ014-22A (280-162386-7) and PZ013-22A (280-162386-9). The container labels lists the sample collection date as 06/13/2022, while the COC lists 05/13/2022. Logged per the COC.

One out of three VOA vials received does not have the sample collection date or time recorded on the client label. Logged per the COC. PZ007-22A (280-162386-1[MS])

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): G0092-22A (280-162386-8). The container labels lists the sample collection date as 6/12/22, while the COC lists 05/12/2022. Logged per the COC.

DISSOLVED GASES (GC)

Samples PZ007-22A (280-162386-1), G0087-22A (280-162386-2), G0117-22A (280-162386-3), G0022-22A (280-162386-4), G0088-22A (280-162386-5), G0116-22A (280-162386-6), PZ014-22A (280-162386-7), G0092-22A (280-162386-8), PZ013-22A (280-162386-9) and G0081-22A (280-162386-10) were analyzed for Dissolved Gases (GC) in accordance with RSK_175. The samples were analyzed on 05/26/2022.

The following sample(s) was collected in a properly preserved vial; however, the pH was 7 and outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: G0116-22A (280-162386-6).

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

NITROAROMATICS AND NITRAMINES (HPLC)

Samples PZ007-22A (280-162386-1), G0087-22A (280-162386-2), G0117-22A (280-162386-3), G0022-22A (280-162386-4), G0088-22A (280-162386-5), G0116-22A (280-162386-6), PZ014-22A (280-162386-7), G0092-22A (280-162386-8), PZ013-22A (280-162386-9) and G0081-22A (280-162386-10) were analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with 8330A. The samples were prepared on 05/19/2022 and analyzed on 05/19/2022 and 05/20/2022.

Surrogate recovery for the following sample in preparation batch 280-575516 and analytical batch 280-575712 for method 8330 was outside the lower control limits: G0116-22A (280-162386-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Surrogate recovered within control limit in the primary instrument.

In preparation batch 280-575516, the following samples required filtration to reduce matrix interferences: G0117-22A (280-162386-3), G0116-22A (280-162386-6) and PZ014-22A (280-162386-7).

In preparation batch 280-575516, the following samples: PZ007-22A (280-162386-1), PZ007-22A (280-162386-1[MS]), PZ007-22A (280-162386-1[MSD]), G0087-22A (280-162386-2), G0117-22A (280-162386-3), G0022-22A (280-162386-4), G0088-22A (280-162386-5), G0092-22A (280-162386-8), PZ013-22A (280-162386-9) and G0081-22A (280-162386-10) was decanted prior to preparation.

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

ALKALINITY
Samples PZ007-22A (280-162386-1), G0087-22A (280-162386-2), G0117-22A (280-162386-3), G0022-22A (280-162386-4), G0088-22A (280-162386-5), G0116-22A (280-162386-6), PZ014-22A (280-162386-7), G0092-22A (280-162386-8), PZ013-22A (280-162386-9) and G0081-22A (280-162386-10) were analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 05/24/2022.

Total Alkalinity as CaCO3 was detected in method blank MB 280-576106/32 at a level that was above one half the LOQ but below the LOQ. Associated sample results are greater than 10x the method blank concentration.

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

AMMONIA
Samples PZ007-22A (280-162386-1), G0087-22A (280-162386-2), G0117-22A (280-162386-3), G0022-22A (280-162386-4), G0088-22A (280-162386-5), G0116-22A (280-162386-6), PZ014-22A (280-162386-7), G0092-22A (280-162386-8), PZ013-22A (280-162386-9) and G0081-22A (280-162386-10) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 06/01/2022.

Samples G0117-22A (280-162386-3)[2X] and G0116-22A (280-162386-6)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

TOTAL KJELDAHL NITROGEN
Samples PZ007-22A (280-162386-1), G0087-22A (280-162386-2), G0117-22A (280-162386-3), G0022-22A (280-162386-4), G0088-22A (280-162386-5), G0116-22A (280-162386-6), PZ014-22A (280-162386-7), G0092-22A (280-162386-8), PZ013-22A (280-162386-9) and G0081-22A (280-162386-10) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 05/23/2022 and analyzed on 05/25/2022.

Nitrogen, Total Kjeldahl failed the recovery criteria high for the MS of sample PZ007-22AMS (280-162386-1) in batch 280-576217.
Nitrogen, Total Kjeldahl failed the recovery criteria high for the MSD of sample PZ007-22AMSD (280-162386-1) in batch 280-576217.

Sample G0116-22A (280-162386-6)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

NITRATE-NITRITE AS NITROGEN
Samples PZ007-22A (280-162386-1), G0087-22A (280-162386-2), G0117-22A (280-162386-3), G0022-22A (280-162386-4), G0088-22A (280-162386-5), G0116-22A (280-162386-6), PZ014-22A (280-162386-7), G0092-22A (280-162386-8), PZ013-22A (280-162386-9) and G0081-22A (280-162386-10) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 06/02/2022.

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

SULFIDE
Samples PZ007-22A (280-162386-1), G0087-22A (280-162386-2), G0117-22A (280-162386-3), G0022-22A (280-162386-4), G0088-22A (280-162386-5), G0116-22A (280-162386-6), PZ014-22A (280-162386-7), G0092-22A (280-162386-8), PZ013-22A (280-162386-9) and G0081-22A (280-162386-10) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 05/16/2022 and 05/17/2022.

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

ANIONS (28 DAYS)
Samples PZ007-22A (280-162386-1), G0087-22A (280-162386-2), G0117-22A (280-162386-3), G0022-22A (280-162386-4), G0088-22A (280-162386-5), G0116-22A (280-162386-6), PZ014-22A (280-162386-7), G0092-22A (280-162386-8), PZ013-22A (280-162386-9) and G0081-22A (280-162386-10) were analyzed for anions (28 days) in accordance with 9056A (28 Days). The samples were analyzed on 06/01/2022.

Samples PZ007-22A (280-162386-1)[5X], G0117-22A (280-162386-3)[5X], G0088-22A (280-162386-5)[2X], G0116-22A (280-162386-6)[5X], PZ014-22A (280-162386-7)[5X], G0092-22A (280-162386-8)[5X] and PZ013-22A (280-162386-9)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DISSOLVED ORGANIC CARBON
Samples PZ007-22A (280-162386-1), G0087-22A (280-162386-2), G0117-22A (280-162386-3), G0022-22A (280-162386-4), G0088-22A (280-162386-5), G0116-22A (280-162386-6), PZ014-22A (280-162386-7), G0092-22A (280-162386-8), PZ013-22A (280-162386-9) and G0081-22A (280-162386-10) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 05/26/2022 and 05/27/2022.

The following samples were unpreserved in the field: PZ007-22A (280-162386-1), PZ007-22A (280-162386-1[MS]), PZ007-22A (280-162386-1[MSD]), G0087-22A (280-162386-2), G0117-22A (280-162386-3), G0022-22A (280-162386-4), G0088-22A (280-162386-5), G0116-22A (280-162386-6), PZ014-22A (280-162386-7), G0092-22A (280-162386-8) and PZ013-22A (280-162386-9). The pH measured at the bench was >2, it was reduced to <2 using concentrated Sulfuric acid after filtration prior to analysis.

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

Detection Summary

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

Job ID: 280-162386-1

Client Sample ID: PZ007-22A — Lab Sample ID: 280-162386-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia	0.074	J	0.10	0.050	0.029	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.59		0.10	0.050	0.044	mg/L	1		353.2	Total/NA
Sulfate	850	D M	25	13	5.2	mg/L	5		9056A	Total/NA
Total Alkalinity as CaCO3	380	B	10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	4.2		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0087-22A — Lab Sample ID: 280-162386-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2-Amino-4,6-dinitrotoluene	0.42		0.11	0.10	0.051	ug/L	1		8330A	Total/NA
4-Amino-2,6-dinitrotoluene	0.73		0.15	0.12	0.058	ug/L	1		8330A	Total/NA
HMX	0.59	M	0.21	0.20	0.087	ug/L	1		8330A	Total/NA
RDX	0.19	J M	0.21	0.20	0.051	ug/L	1		8330A	Total/NA
Nitrate Nitrite as N	6.8		0.10	0.050	0.044	mg/L	1		353.2	Total/NA
Sulfate	140	M	5.0	2.5	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	290	B	10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	3.1		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0117-22A — Lab Sample ID: 280-162386-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	17		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
Ammonia	6.4		0.20	0.10	0.058	mg/L	2		350.1	Total/NA
Nitrogen, Total Kjeldahl	8.7		1.0	0.80	0.69	mg/L	1		351.2	Total/NA
Sulfate	380	D M	25	13	5.2	mg/L	5		9056A	Total/NA
Total Alkalinity as CaCO3	890	B	10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	10		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0022-22A — Lab Sample ID: 280-162386-4

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	4.3		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
2-Amino-4,6-dinitrotoluene	0.33		0.11	0.10	0.053	ug/L	1		8330A	Total/NA
4-Amino-2,6-dinitrotoluene	0.49		0.16	0.12	0.060	ug/L	1		8330A	Total/NA
Ammonia	0.89		0.10	0.050	0.029	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	7.5		0.10	0.050	0.044	mg/L	1		353.2	Total/NA
Sulfate	140	M	5.0	2.5	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	350	B	10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	3.9		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0088-22A — Lab Sample ID: 280-162386-5

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	0.013		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
1,3,5-Trinitrobenzene	4.1	M	0.21	0.20	0.085	ug/L	1		8330A	Total/NA
4-Amino-2,6-dinitrotoluene	0.38		0.15	0.12	0.058	ug/L	1		8330A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: G0088-22A (Continued) — Lab Sample ID: 280-162386-5

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia	0.096	J	0.10	0.050	0.029	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	1.4		0.10	0.050	0.044	mg/L	1		353.2	Total/NA
Sulfate	280	D M	10	5.0	2.1	mg/L	2		9056A	Total/NA
Total Alkalinity as CaCO3	300	B	10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	2.9		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0116-22A — Lab Sample ID: 280-162386-6

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	19		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
Ammonia	12		1.0	0.50	0.29	mg/L	10		350.1	Total/NA
Nitrogen, Total Kjeldahl	14	D	5.0	4.0	3.4	mg/L	5		351.2	Total/NA
Sulfate	250	D M	25	13	5.2	mg/L	5		9056A	Total/NA
Total Alkalinity as CaCO3	1000	B	10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	17		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: PZ014-22A — Lab Sample ID: 280-162386-7

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	7.8		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
Ammonia	0.49		0.10	0.050	0.029	mg/L	1		350.1	Total/NA
Nitrogen, Total Kjeldahl	1.5		1.0	0.80	0.69	mg/L	1		351.2	Total/NA
Sulfate	490	D M	25	13	5.2	mg/L	5		9056A	Total/NA
Total Alkalinity as CaCO3	590	B	10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	7.8		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0092-22A — Lab Sample ID: 280-162386-8

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	0.039		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
Sulfate	410	D M	25	13	5.2	mg/L	5		9056A	Total/NA
Total Alkalinity as CaCO3	330	B	10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	3.4		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: PZ013-22A — Lab Sample ID: 280-162386-9

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	9.3		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
2,4,6-Trinitrotoluene	0.98		0.11	0.10	0.046	ug/L	1		8330A	Total/NA
2-Amino-4,6-dinitrotoluene	3.3		0.11	0.10	0.051	ug/L	1		8330A	Total/NA
4-Amino-2,6-dinitrotoluene	4.3		0.15	0.12	0.059	ug/L	1		8330A	Total/NA
Ammonia	1.9		0.10	0.050	0.029	mg/L	1		350.1	Total/NA
Nitrogen, Total Kjeldahl	0.90	J	1.0	0.80	0.69	mg/L	1		351.2	Total/NA
Nitrate Nitrite as N	5.7		0.10	0.050	0.044	mg/L	1		353.2	Total/NA
Sulfate	340	D M	25	13	5.2	mg/L	5		9056A	Total/NA
Total Alkalinity as CaCO3	810	B	10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	8.6		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 280-162386-1

Client Sample ID: G0081-22A

Lab Sample ID: 280-162386-10

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	1.4		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
1,3,5-Trinitrobenzene	0.36	M	0.21	0.20	0.086	ug/L	1		8330A	Total/NA
Ammonia	0.49		0.10	0.050	0.029	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.13		0.10	0.050	0.044	mg/L	1		353.2	Total/NA
Sulfate	170	M	5.0	2.5	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	320	B	10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	6.0		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: PZ007-22A
Lab Sample ID: 280-162386-1

Date Collected: 05/13/22 09:15
Matrix: Water
Date Received: 05/14/22 09:25

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	0.0013	U	0.0050	0.0013	0.00063	mg/L		05/26/22 03:38	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084	ug/L		05/19/22 22:00	1
1,3-Dinitrobenzene	0.099	U	0.11	0.099	0.037	ug/L		05/19/22 22:00	1
2,4,6-Trinitrotoluene	0.099	U	0.11	0.099	0.045	ug/L		05/19/22 22:00	1
2,4-Dinitrotoluene	0.080	U	0.099	0.080	0.027	ug/L		05/19/22 22:00	1
2,6-Dinitrotoluene	0.080	U	0.099	0.080	0.040	ug/L		05/19/22 22:00	1
2-Amino-4,6-dinitrotoluene	0.099	U	0.11	0.099	0.050	ug/L		05/19/22 22:00	1
2-Nitrotoluene	0.20	U M	0.21	0.20	0.085	ug/L		05/19/22 22:00	1
3-Nitrotoluene	0.40	U	0.40	0.40	0.19	ug/L		05/19/22 22:00	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.057	ug/L		05/19/22 22:00	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.099	ug/L		05/19/22 22:00	1
HMX	0.20	U	0.21	0.20	0.087	ug/L		05/19/22 22:00	1
MNX	0.40	U	2.0	0.40	0.15	ug/L		05/19/22 22:00	1
Nitrobenzene	0.20	U	0.21	0.20	0.090	ug/L		05/19/22 22:00	1
RDX	0.20	U	0.21	0.20	0.051	ug/L		05/19/22 22:00	1
Tetryl	0.099	U	0.11	0.099	0.032	ug/L		05/19/22 22:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*108*	*M*	*83 - 119*	*05/19/22 14:06*	*05/19/22 22:00*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.074**	**J**	0.10	0.050	0.029	mg/L		06/01/22 09:58	1
Nitrogen, Total Kjeldahl	0.80	U J1	1.0	0.80	0.69	mg/L		05/25/22 17:12	1
Nitrate Nitrite as N	**0.59**		0.10	0.050	0.044	mg/L		06/02/22 18:27	1
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/17/22 10:24	1
Sulfate	**850**	**D M**	25	13	5.2	mg/L		06/01/22 00:16	5
Total Alkalinity as CaCO3	**380**	**B**	10	6.4	3.1	mg/L		05/24/22 15:01	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**4.2**		1.0	0.80	0.35	mg/L		05/26/22 22:15	1

Client Sample ID: G0087-22A
Lab Sample ID: 280-162386-2

Date Collected: 05/13/22 13:15
Matrix: Water
Date Received: 05/14/22 09:25

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	0.0013	U	0.0050	0.0013	0.00063	mg/L		05/26/22 04:30	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084	ug/L		05/19/22 23:54	1
1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.037	ug/L		05/19/22 23:54	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/19/22 23:54	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/19/22 23:54	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/19/22 23:54	1

Client Sample ID: G0087-22A

Date Collected: 05/13/22 13:15
Date Received: 05/14/22 09:25

Lab Sample ID: 280-162386-2

Matrix: Water

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

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Amino-4,6-dinitrotoluene	**0.42**		0.11	0.10	0.051	ug/L		05/19/22 23:54	1
2-Nitrotoluene	0.20	U M	0.21	0.20	0.085	ug/L		05/19/22 23:54	1
3-Nitrotoluene	0.40	U	0.40	0.40	0.19	ug/L		05/19/22 23:54	1
4-Amino-2,6-dinitrotoluene	**0.73**		0.15	0.12	0.058	ug/L		05/19/22 23:54	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/19/22 23:54	1
HMX	**0.59**	**M**	0.21	0.20	0.087	ug/L		05/19/22 23:54	1
MNX	0.40	U	2.0	0.40	0.15	ug/L		05/19/22 23:54	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/19/22 23:54	1
RDX	**0.19**	**J M**	0.21	0.20	0.051	ug/L		05/19/22 23:54	1
Tetryl	0.10	U M	0.11	0.10	0.032	ug/L		05/19/22 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*103*	*M*	*83 - 119*	*05/19/22 14:06*	*05/19/22 23:54*	*1*
1,2-Dinitrobenzene	*102*		*83 - 119*	*05/19/22 14:06*	*05/20/22 19:46*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.050	0.029	mg/L		06/01/22 10:06	1
Nitrogen, Total Kjeldahl	0.80	U	1.0	0.80	0.69	mg/L		05/25/22 17:13	1
Nitrate Nitrite as N	**6.8**		0.10	0.050	0.044	mg/L		06/02/22 18:33	1
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/17/22 10:24	1
Sulfate	**140**	**M**	5.0	2.5	1.0	mg/L		06/01/22 01:52	1
Total Alkalinity as CaCO3	**290**	**B**	10	6.4	3.1	mg/L		05/24/22 15:07	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**3.1**		1.0	0.80	0.35	mg/L		05/26/22 23:02	1

Client Sample ID: G0117-22A

Date Collected: 05/13/22 12:55
Date Received: 05/14/22 09:25

Lab Sample ID: 280-162386-3

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**17**		0.0050	0.0013	0.00063	mg/L		05/26/22 04:43	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.085	ug/L		05/20/22 00:17	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/20/22 20:21	1
2,4,6-Trinitrotoluene	0.10	U M	0.11	0.10	0.045	ug/L		05/20/22 00:17	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.028	ug/L		05/20/22 00:17	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/20/22 00:17	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/20/22 00:17	1
2-Nitrotoluene	0.20	U M	0.21	0.20	0.086	ug/L		05/20/22 00:17	1
3-Nitrotoluene	0.40	U	0.40	0.40	0.20	ug/L		05/20/22 00:17	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/20/22 00:17	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/20/22 00:17	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		05/20/22 00:17	1
MNX	0.40	U M	2.0	0.40	0.15	ug/L		05/20/22 00:17	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/20/22 00:17	1

Client Sample ID: G0117-22A
Lab Sample ID: 280-162386-3

Date Collected: 05/13/22 12:55
Matrix: Water
Date Received: 05/14/22 09:25

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

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/20/22 00:17	1
Tetryl	0.10	U M	0.11	0.10	0.032	ug/L		05/20/22 00:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*100*	*M*	*83 - 119*	*05/19/22 14:06*	*05/20/22 00:17*	*1*
1,2-Dinitrobenzene	*106*	*M*	*83 - 119*	*05/19/22 14:06*	*05/20/22 20:21*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**6.4**		0.20	0.10	0.058	mg/L		06/01/22 15:13	2
Nitrogen, Total Kjeldahl	**8.7**		1.0	0.80	0.69	mg/L		05/25/22 17:14	1
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.044	mg/L		06/02/22 18:47	1
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/17/22 12:50	1
Sulfate	**380**	**D M**	25	13	5.2	mg/L		06/01/22 15:12	5
Total Alkalinity as CaCO3	**890**	**B**	10	6.4	3.1	mg/L		05/24/22 15:17	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**10**		1.0	0.80	0.35	mg/L		05/26/22 23:21	1

Client Sample ID: G0022-22A
Lab Sample ID: 280-162386-4

Date Collected: 05/13/22 14:25
Matrix: Water
Date Received: 05/14/22 09:25

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**4.3**		0.0050	0.0013	0.00063	mg/L		05/26/22 04:56	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087	ug/L		05/20/22 01:49	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		05/20/22 01:49	1
2,4,6-Trinitrotoluene	0.10	U M	0.11	0.10	0.047	ug/L		05/20/22 20:57	1
2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028	ug/L		05/20/22 01:49	1
2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042	ug/L		05/20/22 01:49	1
2-Amino-4,6-dinitrotoluene	**0.33**		0.11	0.10	0.053	ug/L		05/20/22 01:49	1
2-Nitrotoluene	0.21	U M	0.22	0.21	0.089	ug/L		05/20/22 01:49	1
3-Nitrotoluene	0.41	U	0.41	0.41	0.20	ug/L		05/20/22 01:49	1
4-Amino-2,6-dinitrotoluene	**0.49**		0.16	0.12	0.060	ug/L		05/20/22 01:49	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		05/20/22 01:49	1
HMX	0.21	U	0.22	0.21	0.091	ug/L		05/20/22 01:49	1
MNX	0.41	U	2.1	0.41	0.16	ug/L		05/20/22 01:49	1
Nitrobenzene	0.21	U	0.22	0.21	0.094	ug/L		05/20/22 01:49	1
RDX	0.21	U	0.22	0.21	0.053	ug/L		05/20/22 01:49	1
Tetryl	0.10	U M	0.11	0.10	0.033	ug/L		05/20/22 01:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*106*	*M*	*83 - 119*	*05/19/22 14:06*	*05/20/22 01:49*	*1*
1,2-Dinitrobenzene	*108*		*83 - 119*	*05/19/22 14:06*	*05/20/22 20:57*	*1*

Client Sample ID: G0022-22A
Lab Sample ID: 280-162386-4

Date Collected: 05/13/22 14:25
Matrix: Water
Date Received: 05/14/22 09:25

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.89**		0.10	0.050	0.029	mg/L		06/01/22 10:11	1
Nitrogen, Total Kjeldahl	0.80	U	1.0	0.80	0.69	mg/L		05/25/22 17:15	1
Nitrate Nitrite as N	**7.5**		0.10	0.050	0.044	mg/L		06/02/22 18:49	1
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/17/22 12:50	1
Sulfate	**140**	**M**	5.0	2.5	1.0	mg/L		06/01/22 02:24	1
Total Alkalinity as CaCO3	**350**	**B**	10	6.4	3.1	mg/L		05/24/22 15:23	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**3.9**		1.0	0.80	0.35	mg/L		05/27/22 00:10	1

Client Sample ID: G0088-22A
Lab Sample ID: 280-162386-5

Date Collected: 05/13/22 15:35
Matrix: Water
Date Received: 05/14/22 09:25

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**0.013**		0.0050	0.0013	0.00063	mg/L		05/26/22 05:09	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	**4.1**	**M**	0.21	0.20	0.085	ug/L		05/20/22 02:12	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/20/22 02:12	1
2,4,6-Trinitrotoluene	0.10	U M	0.11	0.10	0.046	ug/L		05/20/22 21:32	1
2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028	ug/L		05/20/22 02:12	1
2,6-Dinitrotoluene	0.081	U	0.10	0.081	0.041	ug/L		05/20/22 02:12	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/20/22 21:32	1
2-Nitrotoluene	0.20	U M	0.21	0.20	0.086	ug/L		05/20/22 02:12	1
3-Nitrotoluene	0.40	U	0.40	0.40	0.20	ug/L		05/20/22 02:12	1
4-Amino-2,6-dinitrotoluene	**0.38**		0.15	0.12	0.058	ug/L		05/20/22 02:12	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/20/22 21:32	1
HMX	0.20	U M	0.21	0.20	0.089	ug/L		05/20/22 02:12	1
MNX	0.40	U	2.0	0.40	0.16	ug/L		05/20/22 02:12	1
Nitrobenzene	0.20	U	0.21	0.20	0.092	ug/L		05/20/22 02:12	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/20/22 02:12	1
Tetryl	0.10	U M	0.11	0.10	0.032	ug/L		05/20/22 02:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*107*		*83 - 119*	*05/19/22 14:06*	*05/20/22 02:12*	*1*
1,2-Dinitrobenzene	*103*		*83 - 119*	*05/19/22 14:06*	*05/20/22 21:32*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.096**	**J**	0.10	0.050	0.029	mg/L		06/01/22 10:14	1
Nitrogen, Total Kjeldahl	0.80	U	1.0	0.80	0.69	mg/L		05/25/22 17:16	1
Nitrate Nitrite as N	**1.4**		0.10	0.050	0.044	mg/L		06/02/22 18:51	1
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/17/22 12:50	1
Sulfate	**280**	**D M**	10	5.0	2.1	mg/L		06/01/22 02:40	2
Total Alkalinity as CaCO3	**300**	**B**	10	6.4	3.1	mg/L		05/24/22 15:30	1

Client Sample ID: G0088-22A
Lab Sample ID: 280-162386-5
Date Collected: 05/13/22 15:35
Matrix: Water
Date Received: 05/14/22 09:25

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**2.9**		1.0	0.80	0.35	mg/L		05/27/22 00:28	1

Client Sample ID: G0116-22A
Lab Sample ID: 280-162386-6
Date Collected: 05/13/22 14:40
Matrix: Water
Date Received: 05/14/22 09:25

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**19**		0.0050	0.0013	0.00063	mg/L		05/26/22 05:22	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088	ug/L		05/20/22 02:35	1
1,3-Dinitrobenzene	0.10	U Q	0.12	0.10	0.039	ug/L		05/20/22 22:07	1
2,4,6-Trinitrotoluene	0.10	U M	0.12	0.10	0.047	ug/L		05/20/22 02:35	1
2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029	ug/L		05/20/22 02:35	1
2,6-Dinitrotoluene	0.084	U M	0.10	0.084	0.042	ug/L		05/20/22 02:35	1
2-Amino-4,6-dinitrotoluene	0.10	U M	0.12	0.10	0.053	ug/L		05/20/22 02:35	1
2-Nitrotoluene	0.21	U M	0.22	0.21	0.090	ug/L		05/20/22 02:35	1
3-Nitrotoluene	0.42	U	0.42	0.42	0.20	ug/L		05/20/22 02:35	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061	ug/L		05/20/22 02:35	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.10	ug/L		05/20/22 02:35	1
HMX	0.21	U	0.22	0.21	0.092	ug/L		05/20/22 02:35	1
MNX	0.42	U M	2.1	0.42	0.16	ug/L		05/20/22 02:35	1
Nitrobenzene	0.21	U M	0.22	0.21	0.095	ug/L		05/20/22 02:35	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		05/20/22 02:35	1
Tetryl	0.10	U M	0.12	0.10	0.033	ug/L		05/20/22 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*119*	*M*	*83 - 119*	*05/19/22 14:06*	*05/20/22 02:35*	*1*
1,2-Dinitrobenzene	*81*	*M Q*	*83 - 119*	*05/19/22 14:06*	*05/20/22 22:07*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**12**		1.0	0.50	0.29	mg/L		06/01/22 10:27	10
Nitrogen, Total Kjeldahl	**14**	**D**	5.0	4.0	3.4	mg/L		05/25/22 17:29	5
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.044	mg/L		06/02/22 18:53	1
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/17/22 12:50	1
Sulfate	**250**	**D M**	25	13	5.2	mg/L		06/01/22 16:48	5
Total Alkalinity as CaCO3	**1000**	**B**	10	6.4	3.1	mg/L		05/24/22 15:42	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**17**		1.0	0.80	0.35	mg/L		05/27/22 00:45	1

Client Sample ID: PZ014-22A
Lab Sample ID: 280-162386-7

Date Collected: 05/13/22 15:50
Matrix: Water
Date Received: 05/14/22 09:25

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**7.8**		0.0050	0.0013	0.00063	mg/L		05/26/22 05:35	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.090	ug/L		05/20/22 02:58	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040	ug/L		05/20/22 02:58	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048	ug/L		05/20/22 02:58	1
2,4-Dinitrotoluene	0.086	U	0.11	0.086	0.029	ug/L		05/20/22 02:58	1
2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043	ug/L		05/20/22 02:58	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055	ug/L		05/20/22 02:58	1
2-Nitrotoluene	0.22	U M	0.23	0.22	0.092	ug/L		05/20/22 02:58	1
3-Nitrotoluene	0.43	U	0.43	0.43	0.21	ug/L		05/20/22 02:58	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062	ug/L		05/20/22 02:58	1
4-Nitrotoluene	0.43	U	0.44	0.43	0.11	ug/L		05/20/22 02:58	1
HMX	0.22	U M	0.23	0.22	0.094	ug/L		05/20/22 02:58	1
MNX	0.43	U	2.2	0.43	0.17	ug/L		05/20/22 02:58	1
Nitrobenzene	0.22	U	0.23	0.22	0.098	ug/L		05/20/22 02:58	1
RDX	0.22	U	0.23	0.22	0.055	ug/L		05/20/22 02:58	1
Tetryl	0.11	U M	0.12	0.11	0.034	ug/L		05/20/22 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*108*	*M*	*83 - 119*	*05/19/22 14:06*	*05/20/22 02:58*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.49**		0.10	0.050	0.029	mg/L		06/01/22 10:30	1
Nitrogen, Total Kjeldahl	**1.5**		1.0	0.80	0.69	mg/L		05/25/22 17:16	1
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.044	mg/L		06/02/22 18:55	1
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/17/22 12:50	1
Sulfate	**490**	**D M**	25	13	5.2	mg/L		06/01/22 17:04	5
Total Alkalinity as CaCO3	**590**	**B**	10	6.4	3.1	mg/L		05/24/22 15:50	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**7.8**		1.0	0.80	0.35	mg/L		05/27/22 01:03	1

Client Sample ID: G0092-22A
Lab Sample ID: 280-162386-8

Date Collected: 05/12/22 14:20
Matrix: Water
Date Received: 05/14/22 09:25

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**0.039**		0.0050	0.0013	0.00063	mg/L		05/26/22 05:48	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.089	ug/L		05/20/22 03:21	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039	ug/L		05/20/22 03:21	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048	ug/L		05/20/22 03:21	1
2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029	ug/L		05/20/22 03:21	1
2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.043	ug/L		05/20/22 03:21	1

Client Sample ID: G0092-22A

Date Collected: 05/12/22 14:20
Date Received: 05/14/22 09:25

Lab Sample ID: 280-162386-8

Matrix: Water

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

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054	ug/L		05/20/22 03:21	1
2-Nitrotoluene	0.21	U M	0.22	0.21	0.091	ug/L		05/20/22 03:21	1
3-Nitrotoluene	0.43	U	0.43	0.43	0.21	ug/L		05/20/22 03:21	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061	ug/L		05/20/22 03:21	1
4-Nitrotoluene	0.43	U	0.44	0.43	0.11	ug/L		05/20/22 03:21	1
HMX	0.21	U M	0.22	0.21	0.093	ug/L		05/20/22 03:21	1
MNX	0.43	U	2.1	0.43	0.16	ug/L		05/20/22 03:21	1
Nitrobenzene	0.21	U M	0.22	0.21	0.097	ug/L		05/20/22 03:21	1
RDX	0.21	U	0.22	0.21	0.055	ug/L		05/20/22 03:21	1
Tetryl	0.11	U M	0.12	0.11	0.034	ug/L		05/20/22 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*105*	*M*	*83 - 119*	*05/19/22 14:06*	*05/20/22 03:21*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.050	0.029	mg/L		06/01/22 10:33	1
Nitrogen, Total Kjeldahl	0.80	U	1.0	0.80	0.69	mg/L		05/25/22 17:16	1
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.044	mg/L		06/02/22 18:57	1
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/16/22 11:02	1
Sulfate	**410**	**D M**	25	13	5.2	mg/L		06/01/22 03:28	5
Total Alkalinity as CaCO3	**330**	**B**	10	6.4	3.1	mg/L		05/24/22 15:56	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**3.4**		1.0	0.80	0.35	mg/L		05/27/22 01:21	1

Client Sample ID: PZ013-22A

Date Collected: 05/13/22 11:40
Date Received: 05/14/22 09:25

Lab Sample ID: 280-162386-9

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**9.3**		0.0050	0.0013	0.00063	mg/L		05/26/22 06:01	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.085	ug/L		05/20/22 22:42	1
1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.037	ug/L		05/20/22 03:43	1
2,4,6-Trinitrotoluene	**0.98**		0.11	0.10	0.046	ug/L		05/20/22 03:43	1
2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028	ug/L		05/20/22 03:43	1
2,6-Dinitrotoluene	0.081	U	0.10	0.081	0.041	ug/L		05/20/22 03:43	1
2-Amino-4,6-dinitrotoluene	**3.3**		0.11	0.10	0.051	ug/L		05/20/22 03:43	1
2-Nitrotoluene	0.20	U M	0.21	0.20	0.087	ug/L		05/20/22 03:43	1
3-Nitrotoluene	0.41	U	0.41	0.41	0.20	ug/L		05/20/22 03:43	1
4-Amino-2,6-dinitrotoluene	**4.3**		0.15	0.12	0.059	ug/L		05/20/22 03:43	1
4-Nitrotoluene	0.41	U M	0.42	0.41	0.10	ug/L		05/20/22 22:42	1
HMX	0.20	U M	0.21	0.20	0.089	ug/L		05/20/22 03:43	1
MNX	0.41	U M	2.0	0.41	0.16	ug/L		05/20/22 03:43	1
Nitrobenzene	0.20	U	0.21	0.20	0.092	ug/L		05/20/22 03:43	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/20/22 03:43	1

Client Sample ID: PZ013-22A
Lab Sample ID: 280-162386-9

Date Collected: 05/13/22 11:40
Matrix: Water
Date Received: 05/14/22 09:25

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

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Tetryl	0.10	U M	0.11	0.10	0.032	ug/L		05/20/22 03:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*105*		*83 - 119*	*05/19/22 14:06*	*05/20/22 03:43*	*1*
1,2-Dinitrobenzene	*92*	*M*	*83 - 119*	*05/19/22 14:06*	*05/20/22 22:42*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**1.9**		0.10	0.050	0.029	mg/L		06/01/22 10:35	1
Nitrogen, Total Kjeldahl	**0.90**	**J**	1.0	0.80	0.69	mg/L		05/25/22 17:17	1
Nitrate Nitrite as N	**5.7**		0.10	0.050	0.044	mg/L		06/02/22 18:59	1
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/17/22 12:50	1
Sulfate	**340**	**D M**	25	13	5.2	mg/L		06/01/22 17:19	5
Total Alkalinity as CaCO3	**810**	**B**	10	6.4	3.1	mg/L		05/24/22 16:16	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**8.6**		1.0	0.80	0.35	mg/L		05/27/22 01:37	1

Client Sample ID: G0081-22A
Lab Sample ID: 280-162386-10

Date Collected: 05/13/22 12:05
Matrix: Water
Date Received: 05/14/22 09:25

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**1.4**		0.0050	0.0013	0.00063	mg/L		05/26/22 06:14	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	**0.36**	**M**	0.21	0.20	0.086	ug/L		05/20/22 04:06	1
1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038	ug/L		05/20/22 04:06	1
2,4,6-Trinitrotoluene	0.10	U M	0.11	0.10	0.046	ug/L		05/20/22 23:17	1
2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028	ug/L		05/20/22 04:06	1
2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041	ug/L		05/20/22 04:06	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		05/20/22 23:17	1
2-Nitrotoluene	0.20	U M	0.21	0.20	0.087	ug/L		05/20/22 04:06	1
3-Nitrotoluene	0.41	U	0.41	0.41	0.20	ug/L		05/20/22 04:06	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059	ug/L		05/20/22 23:17	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		05/20/22 04:06	1
HMX	0.20	U	0.21	0.20	0.089	ug/L		05/20/22 04:06	1
MNX	0.41	U	2.0	0.41	0.16	ug/L		05/20/22 04:06	1
Nitrobenzene	0.20	U	0.21	0.20	0.093	ug/L		05/20/22 04:06	1
RDX	0.20	U	0.21	0.20	0.053	ug/L		05/20/22 04:06	1
Tetryl	0.10	U M	0.11	0.10	0.032	ug/L		05/20/22 04:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*108*	*M*	*83 - 119*	*05/19/22 14:06*	*05/20/22 04:06*	*1*
1,2-Dinitrobenzene	*105*	*M*	*83 - 119*	*05/19/22 14:06*	*05/20/22 23:17*	*1*

Client Sample ID: G0081-22A
Date Collected: 05/13/22 12:05
Date Received: 05/14/22 09:25

Lab Sample ID: 280-162386-10
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.49**		0.10	0.050	0.029	mg/L		06/01/22 10:38	1
Nitrogen, Total Kjeldahl	0.80	U	1.0	0.80	0.69	mg/L		05/25/22 17:18	1
Nitrate Nitrite as N	**0.13**		0.10	0.050	0.044	mg/L		06/02/22 19:01	1
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/17/22 12:50	1
Sulfate	**170**	**M**	5.0	2.5	1.0	mg/L		06/01/22 04:32	1
Total Alkalinity as CaCO3	**320**	**B**	10	6.4	3.1	mg/L		05/24/22 16:23	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**6.0**		1.0	0.80	0.35	mg/L		05/27/22 01:56	1

Default Detection Limits

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

Job ID: 280-162386-1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	LOQ	DL	Units
Methane	0.0050	0.00063	mg/L

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Prep: 3535

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

General Chemistry

Analyte	LOQ	DL	Units
Ammonia	0.10	0.029	mg/L
Nitrate Nitrite as N	0.10	0.044	mg/L
Sulfate	5.0	1.0	mg/L
Total Alkalinity as CaCO3	10	3.1	mg/L

General Chemistry

Prep: 351.2

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

General Chemistry

Prep: 9030B

Analyte	LOQ	DL	Units
Sulfide	4.0	1.6	mg/L

General Chemistry - Dissolved

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

Surrogate Summary

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

Job ID: 280-162386-1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

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

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	12DNB1 (83-119)						
280-162386-1	PZ007-22A	108 M						
280-162386-1 MS	PZ007-22A	109						
280-162386-1 MS	PZ007-22A	107 M						
280-162386-1 MSD	PZ007-22A	108						
280-162386-1 MSD	PZ007-22A	106 M						
280-162386-2	G0087-22A	103 M						
280-162386-3	G0117-22A	100 M						
280-162386-4	G0022-22A	106 M						
280-162386-5	G0088-22A	107						
280-162386-6	G0116-22A	119 M						
280-162386-7	PZ014-22A	108 M						
280-162386-8	G0092-22A	105 M						
280-162386-9	PZ013-22A	105						
280-162386-10	G0081-22A	108 M						
LCS 280-575516/2-A	Lab Control Sample	105						
LCS 280-575516/3-A	Lab Control Sample	104 M						
MB 280-575516/1-A	Method Blank	106 M						

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

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

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	12DNB2 (83-119)						
280-162386-2	G0087-22A	102						
280-162386-3	G0117-22A	106 M						
280-162386-4	G0022-22A	108						
280-162386-5	G0088-22A	103						
280-162386-6	G0116-22A	81 M Q						
280-162386-9	PZ013-22A	92 M						
280-162386-10	G0081-22A	105 M						

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 280-576169/5
Matrix: Water
Analysis Batch: 576169

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	0.0013	U	0.0050	0.0013	0.00063	mg/L		05/25/22 17:42	1

Lab Sample ID: LCS 280-576169/3
Matrix: Water
Analysis Batch: 576169

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Methane			0.0657	0.0634		mg/L		97	73 - 125		

Lab Sample ID: LCSD 280-576169/4
Matrix: Water
Analysis Batch: 576169

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane			0.0657	0.0639		mg/L		97	73 - 125	1	20

Lab Sample ID: MB 280-576170/92
Matrix: Water
Analysis Batch: 576170

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	0.0013	U M	0.0050	0.0013	0.00063	mg/L		05/26/22 00:23	1

Lab Sample ID: LCS 280-576170/90
Matrix: Water
Analysis Batch: 576170

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Methane			0.0657	0.0651		mg/L		99	73 - 125		

Lab Sample ID: LCSD 280-576170/91
Matrix: Water
Analysis Batch: 576170

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane			0.0657	0.0601		mg/L		92	73 - 125	8	20

Lab Sample ID: 280-162386-1 MS
Matrix: Water
Analysis Batch: 576170

Client Sample ID: PZ007-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Methane	0.0013	U	0.0657	0.0601		mg/L		92	73 - 125		

Lab Sample ID: 280-162386-1 MSD
Matrix: Water
Analysis Batch: 576170

Client Sample ID: PZ007-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane	0.0013	U	0.0657	0.0640		mg/L		97	73 - 125	6	20

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: 280-162386-1 DU
Matrix: Water
Analysis Batch: 576170

Client Sample ID: PZ007-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Methane	0.0013	U	0.0013	U	mg/L		NC	20

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-575516/1-A
Matrix: Water
Analysis Batch: 575600

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575516

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084	ug/L		05/19/22 20:51	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/19/22 20:51	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/19/22 20:51	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/19/22 20:51	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/19/22 20:51	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/19/22 20:51	1
2-Nitrotoluene	0.20	U M	0.21	0.20	0.086	ug/L		05/19/22 20:51	1
3-Nitrotoluene	0.40	U	0.40	0.40	0.20	ug/L		05/19/22 20:51	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/19/22 20:51	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/19/22 20:51	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		05/19/22 20:51	1
MNX	0.40	U	2.0	0.40	0.15	ug/L		05/19/22 20:51	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/19/22 20:51	1
RDX	0.20	U M	0.21	0.20	0.052	ug/L		05/19/22 20:51	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/19/22 20:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*106*	*M*	*83 - 119*	*05/19/22 14:06*	*05/19/22 20:51*	*1*

Lab Sample ID: LCS 280-575516/2-A
Matrix: Water
Analysis Batch: 575600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575516

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	2.00	2.06		ug/L		103	73 - 125
1,3-Dinitrobenzene	2.00	2.09		ug/L		105	78 - 120
2,4,6-Trinitrotoluene	2.00	2.07		ug/L		104	71 - 123
2,4-Dinitrotoluene	2.00	1.96		ug/L		98	78 - 120
2,6-Dinitrotoluene	2.00	2.05		ug/L		102	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.98		ug/L		99	79 - 120
2-Nitrotoluene	2.00	1.98		ug/L		99	70 - 127
3-Nitrotoluene	2.00	1.62		ug/L		81	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.96		ug/L		98	76 - 125
4-Nitrotoluene	2.00	1.90		ug/L		95	71 - 127
HMX	2.00	2.00	M	ug/L		100	65 - 135
Nitrobenzene	2.00	1.92		ug/L		96	65 - 134
RDX	2.00	1.96		ug/L		98	68 - 130
Tetryl	2.00	2.06		ug/L		103	64 - 128

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

Lab Sample ID: LCS 280-575516/2-A
Matrix: Water
Analysis Batch: 575600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575516

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

Lab Sample ID: LCS 280-575516/3-A
Matrix: Water
Analysis Batch: 575600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575516

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
MNX			2.34	2.41	M	ug/L		103	57 - 132		

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

Lab Sample ID: 280-162386-1 MS
Matrix: Water
Analysis Batch: 575600

Client Sample ID: PZ007-22A
Prep Type: Total/NA
Prep Batch: 575516

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,3,5-Trinitrobenzene	0.20	U	1.97	2.06	M	ug/L		104	73 - 125		
1,3-Dinitrobenzene	0.099	U	1.97	2.10		ug/L		107	78 - 120		
2,4,6-Trinitrotoluene	0.099	U	1.97	2.05		ug/L		104	71 - 123		
2,4-Dinitrotoluene	0.080	U	1.97	1.89		ug/L		96	78 - 120		
2,6-Dinitrotoluene	0.080	U	1.97	1.99		ug/L		101	77 - 127		
2-Amino-4,6-dinitrotoluene	0.099	U	1.97	1.94		ug/L		98	79 - 120		
2-Nitrotoluene	0.20	U M	1.97	1.92		ug/L		97	70 - 127		
3-Nitrotoluene	0.40	U	1.97	1.51		ug/L		77	73 - 125		
4-Amino-2,6-dinitrotoluene	0.12	U	1.97	1.89		ug/L		96	76 - 125		
4-Nitrotoluene	0.40	U	1.97	1.85		ug/L		93	71 - 127		
HMX	0.20	U	1.97	2.01	M	ug/L		102	65 - 135		
Nitrobenzene	0.20	U	1.97	1.98		ug/L		100	65 - 134		
RDX	0.20	U	1.97	1.82	M	ug/L		92	68 - 130		
Tetryl	0.099	U	1.97	2.03		ug/L		103	64 - 128		

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dinitrobenzene	109		83 - 119

Lab Sample ID: 280-162386-1 MS
Matrix: Water
Analysis Batch: 575600

Client Sample ID: PZ007-22A
Prep Type: Total/NA
Prep Batch: 575516

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
MNX	0.40	U	2.35	2.33	M	ug/L		99	57 - 132		

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dinitrobenzene	107	M	83 - 119

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

Lab Sample ID: 280-162386-1 MSD
Matrix: Water
Analysis Batch: 575600

Client Sample ID: PZ007-22A
Prep Type: Total/NA
Prep Batch: 575516

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	0.20	U	1.94	2.02	M	ug/L		105	73 - 125	2	30
1,3-Dinitrobenzene	0.099	U	1.94	2.05		ug/L		106	78 - 120	3	30
2,4,6-Trinitrotoluene	0.099	U	1.94	1.99		ug/L		103	71 - 123	3	30
2,4-Dinitrotoluene	0.080	U	1.94	1.86		ug/L		96	78 - 120	1	30
2,6-Dinitrotoluene	0.080	U	1.94	1.96		ug/L		101	77 - 127	2	30
2-Amino-4,6-dinitrotoluene	0.099	U	1.94	1.89		ug/L		98	79 - 120	3	30
2-Nitrotoluene	0.20	U M	1.94	1.95		ug/L		100	70 - 127	1	30
3-Nitrotoluene	0.40	U	1.94	1.50		ug/L		78	73 - 125	1	30
4-Amino-2,6-dinitrotoluene	0.12	U	1.94	1.85		ug/L		96	76 - 125	2	30
4-Nitrotoluene	0.40	U	1.94	1.87		ug/L		97	71 - 127	2	30
HMX	0.20	U	1.94	1.96	M	ug/L		101	65 - 135	2	30
Nitrobenzene	0.20	U	1.94	1.96		ug/L		101	65 - 134	1	30
RDX	0.20	U	1.94	1.80	M	ug/L		93	68 - 130	1	30
Tetryl	0.099	U	1.94	1.99		ug/L		103	64 - 128	2	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*108*		*83 - 119*

Lab Sample ID: 280-162386-1 MSD
Matrix: Water
Analysis Batch: 575600

Client Sample ID: PZ007-22A
Prep Type: Total/NA
Prep Batch: 575516

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
MNX	0.40	U	2.46	2.39	M	ug/L		97	57 - 132	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*106*	*M*	*83 - 119*

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-576796/19
Matrix: Water
Analysis Batch: 576796

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.050	0.029	mg/L		06/01/22 09:55	1

Lab Sample ID: MB 280-576796/97
Matrix: Water
Analysis Batch: 576796

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.050	0.029	mg/L		06/01/22 13:23	1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 280-576796/17
Matrix: Water
Analysis Batch: 576796

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			2.50	2.50		mg/L		100	90 - 110		

Lab Sample ID: LCS 280-576796/95
Matrix: Water
Analysis Batch: 576796

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			2.50	2.37		mg/L		95	90 - 110		

Lab Sample ID: LCSD 280-576796/18
Matrix: Water
Analysis Batch: 576796

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			2.50	2.56		mg/L		103	90 - 110	2	10

Lab Sample ID: LCSD 280-576796/96
Matrix: Water
Analysis Batch: 576796

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia			2.50	2.46		mg/L		98	90 - 110	4	10

Lab Sample ID: 280-162386-1 MS
Matrix: Water
Analysis Batch: 576796

Client Sample ID: PZ007-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	0.074	J	1.00	1.09		mg/L		101	90 - 110		

Lab Sample ID: 280-162386-1 MSD
Matrix: Water
Analysis Batch: 576796

Client Sample ID: PZ007-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.074	J	1.00	1.09		mg/L		102	90 - 110	1	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-575901/2-A
Matrix: Water
Analysis Batch: 576217

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575901

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrogen, Total Kjeldahl	0.80	U	1.0	0.80	0.69	mg/L		05/25/22 17:11	1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 280-575901/1-A
Matrix: Water
Analysis Batch: 576217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575901

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrogen, Total Kjeldahl			6.00	6.20		mg/L		103	90 - 110		

Lab Sample ID: 280-162386-1 MS
Matrix: Water
Analysis Batch: 576217

Client Sample ID: PZ007-22A
Prep Type: Total/NA
Prep Batch: 575901

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrogen, Total Kjeldahl	0.80	U J1	3.00	3.36	J1	mg/L		112	90 - 110		

Lab Sample ID: 280-162386-1 MSD
Matrix: Water
Analysis Batch: 576217

Client Sample ID: PZ007-22A
Prep Type: Total/NA
Prep Batch: 575901

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Total Kjeldahl	0.80	U J1	3.00	3.37	J1	mg/L		112	90 - 110	1	25

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-576988/60
Matrix: Water
Analysis Batch: 576988

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.044	mg/L		06/02/22 18:25	1

Lab Sample ID: LCS 280-576988/59
Matrix: Water
Analysis Batch: 576988

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N			5.00	4.85		mg/L		97	90 - 110		

Lab Sample ID: 280-162386-1 MS
Matrix: Water
Analysis Batch: 576988

Client Sample ID: PZ007-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate Nitrite as N	0.59		4.00	4.47		mg/L		97	90 - 110		

Lab Sample ID: 280-162386-1 MSD
Matrix: Water
Analysis Batch: 576988

Client Sample ID: PZ007-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.59		4.00	4.45		mg/L		96	90 - 110	0	10

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

Lab Sample ID: MB 280-575031/2-A
Matrix: Water
Analysis Batch: 575054

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575031

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/16/22 11:02	1

Lab Sample ID: LCS 280-575031/1-A
Matrix: Water
Analysis Batch: 575054

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	19.4	13.6		mg/L		70	44 - 110

Lab Sample ID: MB 280-575174/2-A
Matrix: Water
Analysis Batch: 575192

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575174

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/17/22 10:24	1

Lab Sample ID: LCS 280-575174/1-A
Matrix: Water
Analysis Batch: 575192

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575174

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	19.1	12.8		mg/L		67	44 - 110

Lab Sample ID: 280-162386-1 MS
Matrix: Water
Analysis Batch: 575192

Client Sample ID: PZ007-22A
Prep Type: Total/NA
Prep Batch: 575174

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	2.0	U	19.1	12.8		mg/L		67	44 - 110

Lab Sample ID: 280-162386-1 MSD
Matrix: Water
Analysis Batch: 575192

Client Sample ID: PZ007-22A
Prep Type: Total/NA
Prep Batch: 575174

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	2.0	U	19.1	13.6		mg/L		71	44 - 110	6	20

Lab Sample ID: MB 280-575177/2-A
Matrix: Water
Analysis Batch: 575233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575177

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		05/17/22 12:50	1

Lab Sample ID: LCS 280-575177/1-A
Matrix: Water
Analysis Batch: 575233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575177

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	19.1	12.8		mg/L		67	44 - 110

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-576575/57
Matrix: Water
Analysis Batch: 576575

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	2.5	U	5.0	2.5	1.0	mg/L		06/01/22 00:00	1

Lab Sample ID: LCS 280-576575/55
Matrix: Water
Analysis Batch: 576575

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

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

Lab Sample ID: LCSD 280-576575/56
Matrix: Water
Analysis Batch: 576575

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate			100	101	M	mg/L		101	87 - 112	1	10

Lab Sample ID: MRL 280-576575/3
Matrix: Water
Analysis Batch: 576575

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate			5.00	4.56	J M	mg/L		91	50 - 150		

Lab Sample ID: 280-162386-1 MS
Matrix: Water
Analysis Batch: 576575

Client Sample ID: PZ007-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate	850	D M	250	1070	D M J1	mg/L		88	87 - 112		

Lab Sample ID: 280-162386-1 MSD
Matrix: Water
Analysis Batch: 576575

Client Sample ID: PZ007-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	850	D M	250	1080	D M J1	mg/L		90	87 - 112	0	10

Lab Sample ID: 280-162386-1 DU
Matrix: Water
Analysis Batch: 576575

Client Sample ID: PZ007-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	850	D M		834	D M	mg/L				2	10

Lab Sample ID: MB 280-576718/6
Matrix: Water
Analysis Batch: 576718

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	2.5	U	5.0	2.5	1.0	mg/L		06/01/22 12:28	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCS 280-576718/4
Matrix: Water
Analysis Batch: 576718

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate			100	98.3	M	mg/L		98	87 - 112		

Lab Sample ID: LCSD 280-576718/5
Matrix: Water
Analysis Batch: 576718

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate			100	97.7	M	mg/L		98	87 - 112	1	10

Lab Sample ID: MRL 280-576718/3
Matrix: Water
Analysis Batch: 576718

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate			5.00	4.07	J M	mg/L		81	50 - 150		

Lab Sample ID: 280-162386-3 MS
Matrix: Water
Analysis Batch: 576718

Client Sample ID: G0117-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate	380	D M	250	653	D	mg/L		109	87 - 112		

Lab Sample ID: 280-162386-3 MSD
Matrix: Water
Analysis Batch: 576718

Client Sample ID: G0117-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	380	D M	250	656	D M	mg/L		110	87 - 112	0	10

Lab Sample ID: 280-162386-3 DU
Matrix: Water
Analysis Batch: 576718

Client Sample ID: G0117-22A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	380	D M		380	D M	mg/L				0.2	10

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

Lab Sample ID: MB 280-576248/2-A
Matrix: Water
Analysis Batch: 576443

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	0.80	U	1.0	0.80	0.35	mg/L		05/26/22 22:01	1

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

Lab Sample ID: LCS 280-576248/1-A
Matrix: Water
Analysis Batch: 576443

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon - Quad			25.0	25.1		mg/L		100	88 - 112		

Lab Sample ID: 280-162386-1 MS
Matrix: Water
Analysis Batch: 576443

Client Sample ID: PZ007-22A
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon - Quad	4.2		25.0	28.4		mg/L		97	88 - 112		

Lab Sample ID: 280-162386-1 MSD
Matrix: Water
Analysis Batch: 576443

Client Sample ID: PZ007-22A
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon - Quad	4.2		25.0	28.7		mg/L		98	88 - 112	1	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-576106/32
Matrix: Water
Analysis Batch: 576106

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3	5.40	J	10	6.4	3.1	mg/L		05/24/22 14:33	1

Lab Sample ID: MB 280-576106/6
Matrix: Water
Analysis Batch: 576106

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3	6.4	U	10	6.4	3.1	mg/L		05/24/22 11:33	1

Lab Sample ID: LCS 280-576106/31
Matrix: Water
Analysis Batch: 576106

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3			200	201		mg/L		101	89 - 109		

Lab Sample ID: LCSD 280-576106/5
Matrix: Water
Analysis Batch: 576106

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3			200	186		mg/L		93	89 - 109	2	10

GC VOA

Analysis Batch: 576169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-576169/5	Method Blank	Total/NA	Water	RSK-175	
LCS 280-576169/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 280-576169/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 576170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Total/NA	Water	RSK-175	
280-162386-2	G0087-22A	Total/NA	Water	RSK-175	
280-162386-3	G0117-22A	Total/NA	Water	RSK-175	
280-162386-4	G0022-22A	Total/NA	Water	RSK-175	
280-162386-5	G0088-22A	Total/NA	Water	RSK-175	
280-162386-6	G0116-22A	Total/NA	Water	RSK-175	
280-162386-7	PZ014-22A	Total/NA	Water	RSK-175	
280-162386-8	G0092-22A	Total/NA	Water	RSK-175	
280-162386-9	PZ013-22A	Total/NA	Water	RSK-175	
280-162386-10	G0081-22A	Total/NA	Water	RSK-175	
MB 280-576170/92	Method Blank	Total/NA	Water	RSK-175	
LCS 280-576170/90	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 280-576170/91	Lab Control Sample Dup	Total/NA	Water	RSK-175	
280-162386-1 MS	PZ007-22A	Total/NA	Water	RSK-175	
280-162386-1 MSD	PZ007-22A	Total/NA	Water	RSK-175	
280-162386-1 DU	PZ007-22A	Total/NA	Water	RSK-175	

HPLC/IC

Prep Batch: 575516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Total/NA	Water	3535	
280-162386-2	G0087-22A	Total/NA	Water	3535	
280-162386-3	G0117-22A	Total/NA	Water	3535	
280-162386-4	G0022-22A	Total/NA	Water	3535	
280-162386-5	G0088-22A	Total/NA	Water	3535	
280-162386-6	G0116-22A	Total/NA	Water	3535	
280-162386-7	PZ014-22A	Total/NA	Water	3535	
280-162386-8	G0092-22A	Total/NA	Water	3535	
280-162386-9	PZ013-22A	Total/NA	Water	3535	
280-162386-10	G0081-22A	Total/NA	Water	3535	
MB 280-575516/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-575516/2-A	Lab Control Sample	Total/NA	Water	3535	
LCS 280-575516/3-A	Lab Control Sample	Total/NA	Water	3535	
280-162386-1 MS	PZ007-22A	Total/NA	Water	3535	
280-162386-1 MS	PZ007-22A	Total/NA	Water	3535	
280-162386-1 MSD	PZ007-22A	Total/NA	Water	3535	
280-162386-1 MSD	PZ007-22A	Total/NA	Water	3535	

Analysis Batch: 575600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Total/NA	Water	8330A	575516
280-162386-2	G0087-22A	Total/NA	Water	8330A	575516
280-162386-3	G0117-22A	Total/NA	Water	8330A	575516
280-162386-4	G0022-22A	Total/NA	Water	8330A	575516

HPLC/IC (Continued)

Analysis Batch: 575600 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-5	G0088-22A	Total/NA	Water	8330A	575516
280-162386-6	G0116-22A	Total/NA	Water	8330A	575516
280-162386-7	PZ014-22A	Total/NA	Water	8330A	575516
280-162386-8	G0092-22A	Total/NA	Water	8330A	575516
280-162386-9	PZ013-22A	Total/NA	Water	8330A	575516
280-162386-10	G0081-22A	Total/NA	Water	8330A	575516
MB 280-575516/1-A	Method Blank	Total/NA	Water	8330A	575516
LCS 280-575516/2-A	Lab Control Sample	Total/NA	Water	8330A	575516
LCS 280-575516/3-A	Lab Control Sample	Total/NA	Water	8330A	575516
280-162386-1 MS	PZ007-22A	Total/NA	Water	8330A	575516
280-162386-1 MS	PZ007-22A	Total/NA	Water	8330A	575516
280-162386-1 MSD	PZ007-22A	Total/NA	Water	8330A	575516
280-162386-1 MSD	PZ007-22A	Total/NA	Water	8330A	575516

Analysis Batch: 575712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-2	G0087-22A	Total/NA	Water	8330A	575516
280-162386-3	G0117-22A	Total/NA	Water	8330A	575516
280-162386-4	G0022-22A	Total/NA	Water	8330A	575516
280-162386-5	G0088-22A	Total/NA	Water	8330A	575516
280-162386-6	G0116-22A	Total/NA	Water	8330A	575516
280-162386-9	PZ013-22A	Total/NA	Water	8330A	575516
280-162386-10	G0081-22A	Total/NA	Water	8330A	575516

General Chemistry

Prep Batch: 575031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-8	G0092-22A	Total/NA	Water	9030B	
MB 280-575031/2-A	Method Blank	Total/NA	Water	9030B	
LCS 280-575031/1-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 575054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-8	G0092-22A	Total/NA	Water	9034	575031
MB 280-575031/2-A	Method Blank	Total/NA	Water	9034	575031
LCS 280-575031/1-A	Lab Control Sample	Total/NA	Water	9034	575031

Prep Batch: 575174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Total/NA	Water	9030B	
280-162386-2	G0087-22A	Total/NA	Water	9030B	
MB 280-575174/2-A	Method Blank	Total/NA	Water	9030B	
LCS 280-575174/1-A	Lab Control Sample	Total/NA	Water	9030B	
280-162386-1 MS	PZ007-22A	Total/NA	Water	9030B	
280-162386-1 MSD	PZ007-22A	Total/NA	Water	9030B	

Prep Batch: 575177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-3	G0117-22A	Total/NA	Water	9030B	
280-162386-4	G0022-22A	Total/NA	Water	9030B	

General Chemistry (Continued)

Prep Batch: 575177 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-5	G0088-22A	Total/NA	Water	9030B	
280-162386-6	G0116-22A	Total/NA	Water	9030B	
280-162386-7	PZ014-22A	Total/NA	Water	9030B	
280-162386-9	PZ013-22A	Total/NA	Water	9030B	
280-162386-10	G0081-22A	Total/NA	Water	9030B	
MB 280-575177/2-A	Method Blank	Total/NA	Water	9030B	
LCS 280-575177/1-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 575192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Total/NA	Water	9034	575174
280-162386-2	G0087-22A	Total/NA	Water	9034	575174
MB 280-575174/2-A	Method Blank	Total/NA	Water	9034	575174
LCS 280-575174/1-A	Lab Control Sample	Total/NA	Water	9034	575174
280-162386-1 MS	PZ007-22A	Total/NA	Water	9034	575174
280-162386-1 MSD	PZ007-22A	Total/NA	Water	9034	575174

Analysis Batch: 575233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-3	G0117-22A	Total/NA	Water	9034	575177
280-162386-4	G0022-22A	Total/NA	Water	9034	575177
280-162386-5	G0088-22A	Total/NA	Water	9034	575177
280-162386-6	G0116-22A	Total/NA	Water	9034	575177
280-162386-7	PZ014-22A	Total/NA	Water	9034	575177
280-162386-9	PZ013-22A	Total/NA	Water	9034	575177
280-162386-10	G0081-22A	Total/NA	Water	9034	575177
MB 280-575177/2-A	Method Blank	Total/NA	Water	9034	575177
LCS 280-575177/1-A	Lab Control Sample	Total/NA	Water	9034	575177

Prep Batch: 575901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Total/NA	Water	351.2	
280-162386-2	G0087-22A	Total/NA	Water	351.2	
280-162386-3	G0117-22A	Total/NA	Water	351.2	
280-162386-4	G0022-22A	Total/NA	Water	351.2	
280-162386-5	G0088-22A	Total/NA	Water	351.2	
280-162386-6	G0116-22A	Total/NA	Water	351.2	
280-162386-7	PZ014-22A	Total/NA	Water	351.2	
280-162386-8	G0092-22A	Total/NA	Water	351.2	
280-162386-9	PZ013-22A	Total/NA	Water	351.2	
280-162386-10	G0081-22A	Total/NA	Water	351.2	
MB 280-575901/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-575901/1-A	Lab Control Sample	Total/NA	Water	351.2	
280-162386-1 MS	PZ007-22A	Total/NA	Water	351.2	
280-162386-1 MSD	PZ007-22A	Total/NA	Water	351.2	

Analysis Batch: 576106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Total/NA	Water	SM 2320B	
280-162386-2	G0087-22A	Total/NA	Water	SM 2320B	
280-162386-3	G0117-22A	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 576106 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-4	G0022-22A	Total/NA	Water	SM 2320B	
280-162386-5	G0088-22A	Total/NA	Water	SM 2320B	
280-162386-6	G0116-22A	Total/NA	Water	SM 2320B	
280-162386-7	PZ014-22A	Total/NA	Water	SM 2320B	
280-162386-8	G0092-22A	Total/NA	Water	SM 2320B	
280-162386-9	PZ013-22A	Total/NA	Water	SM 2320B	
280-162386-10	G0081-22A	Total/NA	Water	SM 2320B	
MB 280-576106/32	Method Blank	Total/NA	Water	SM 2320B	
MB 280-576106/6	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-576106/31	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 280-576106/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 576217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Total/NA	Water	351.2	575901
280-162386-2	G0087-22A	Total/NA	Water	351.2	575901
280-162386-3	G0117-22A	Total/NA	Water	351.2	575901
280-162386-4	G0022-22A	Total/NA	Water	351.2	575901
280-162386-5	G0088-22A	Total/NA	Water	351.2	575901
280-162386-6	G0116-22A	Total/NA	Water	351.2	575901
280-162386-7	PZ014-22A	Total/NA	Water	351.2	575901
280-162386-8	G0092-22A	Total/NA	Water	351.2	575901
280-162386-9	PZ013-22A	Total/NA	Water	351.2	575901
280-162386-10	G0081-22A	Total/NA	Water	351.2	575901
MB 280-575901/2-A	Method Blank	Total/NA	Water	351.2	575901
LCS 280-575901/1-A	Lab Control Sample	Total/NA	Water	351.2	575901
280-162386-1 MS	PZ007-22A	Total/NA	Water	351.2	575901
280-162386-1 MSD	PZ007-22A	Total/NA	Water	351.2	575901

Filtration Batch: 576248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Dissolved	Water	FILTRATION	
280-162386-2	G0087-22A	Dissolved	Water	FILTRATION	
280-162386-3	G0117-22A	Dissolved	Water	FILTRATION	
280-162386-4	G0022-22A	Dissolved	Water	FILTRATION	
280-162386-5	G0088-22A	Dissolved	Water	FILTRATION	
280-162386-6	G0116-22A	Dissolved	Water	FILTRATION	
280-162386-7	PZ014-22A	Dissolved	Water	FILTRATION	
280-162386-8	G0092-22A	Dissolved	Water	FILTRATION	
280-162386-9	PZ013-22A	Dissolved	Water	FILTRATION	
280-162386-10	G0081-22A	Dissolved	Water	FILTRATION	
MB 280-576248/2-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-576248/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
280-162386-1 MS	PZ007-22A	Dissolved	Water	FILTRATION	
280-162386-1 MSD	PZ007-22A	Dissolved	Water	FILTRATION	

Analysis Batch: 576443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Dissolved	Water	9060A	576248
280-162386-2	G0087-22A	Dissolved	Water	9060A	576248
280-162386-3	G0117-22A	Dissolved	Water	9060A	576248

General Chemistry (Continued)

Analysis Batch: 576443 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-4	G0022-22A	Dissolved	Water	9060A	576248
280-162386-5	G0088-22A	Dissolved	Water	9060A	576248
280-162386-6	G0116-22A	Dissolved	Water	9060A	576248
280-162386-7	PZ014-22A	Dissolved	Water	9060A	576248
280-162386-8	G0092-22A	Dissolved	Water	9060A	576248
280-162386-9	PZ013-22A	Dissolved	Water	9060A	576248
280-162386-10	G0081-22A	Dissolved	Water	9060A	576248
MB 280-576248/2-A	Method Blank	Dissolved	Water	9060A	576248
LCS 280-576248/1-A	Lab Control Sample	Dissolved	Water	9060A	576248
280-162386-1 MS	PZ007-22A	Dissolved	Water	9060A	576248
280-162386-1 MSD	PZ007-22A	Dissolved	Water	9060A	576248

Analysis Batch: 576575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Total/NA	Water	9056A	
280-162386-2	G0087-22A	Total/NA	Water	9056A	
280-162386-4	G0022-22A	Total/NA	Water	9056A	
280-162386-5	G0088-22A	Total/NA	Water	9056A	
280-162386-8	G0092-22A	Total/NA	Water	9056A	
280-162386-10	G0081-22A	Total/NA	Water	9056A	
MB 280-576575/57	Method Blank	Total/NA	Water	9056A	
LCS 280-576575/55	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-576575/56	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-576575/3	Lab Control Sample	Total/NA	Water	9056A	
280-162386-1 MS	PZ007-22A	Total/NA	Water	9056A	
280-162386-1 MSD	PZ007-22A	Total/NA	Water	9056A	
280-162386-1 DU	PZ007-22A	Total/NA	Water	9056A	

Analysis Batch: 576718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-3	G0117-22A	Total/NA	Water	9056A	
280-162386-6	G0116-22A	Total/NA	Water	9056A	
280-162386-7	PZ014-22A	Total/NA	Water	9056A	
280-162386-9	PZ013-22A	Total/NA	Water	9056A	
MB 280-576718/6	Method Blank	Total/NA	Water	9056A	
LCS 280-576718/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-576718/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-576718/3	Lab Control Sample	Total/NA	Water	9056A	
280-162386-3 MS	G0117-22A	Total/NA	Water	9056A	
280-162386-3 MSD	G0117-22A	Total/NA	Water	9056A	
280-162386-3 DU	G0117-22A	Total/NA	Water	9056A	

Analysis Batch: 576796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Total/NA	Water	350.1	
280-162386-2	G0087-22A	Total/NA	Water	350.1	
280-162386-3	G0117-22A	Total/NA	Water	350.1	
280-162386-4	G0022-22A	Total/NA	Water	350.1	
280-162386-5	G0088-22A	Total/NA	Water	350.1	
280-162386-6	G0116-22A	Total/NA	Water	350.1	
280-162386-7	PZ014-22A	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 576796 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-8	G0092-22A	Total/NA	Water	350.1	
280-162386-9	PZ013-22A	Total/NA	Water	350.1	
280-162386-10	G0081-22A	Total/NA	Water	350.1	
MB 280-576796/19	Method Blank	Total/NA	Water	350.1	
MB 280-576796/97	Method Blank	Total/NA	Water	350.1	
LCS 280-576796/17	Lab Control Sample	Total/NA	Water	350.1	
LCS 280-576796/95	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-576796/18	Lab Control Sample Dup	Total/NA	Water	350.1	
LCSD 280-576796/96	Lab Control Sample Dup	Total/NA	Water	350.1	
280-162386-1 MS	PZ007-22A	Total/NA	Water	350.1	
280-162386-1 MSD	PZ007-22A	Total/NA	Water	350.1	

Analysis Batch: 576988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162386-1	PZ007-22A	Total/NA	Water	353.2	
280-162386-2	G0087-22A	Total/NA	Water	353.2	
280-162386-3	G0117-22A	Total/NA	Water	353.2	
280-162386-4	G0022-22A	Total/NA	Water	353.2	
280-162386-5	G0088-22A	Total/NA	Water	353.2	
280-162386-6	G0116-22A	Total/NA	Water	353.2	
280-162386-7	PZ014-22A	Total/NA	Water	353.2	
280-162386-8	G0092-22A	Total/NA	Water	353.2	
280-162386-9	PZ013-22A	Total/NA	Water	353.2	
280-162386-10	G0081-22A	Total/NA	Water	353.2	
MB 280-576988/60	Method Blank	Total/NA	Water	353.2	
LCS 280-576988/59	Lab Control Sample	Total/NA	Water	353.2	
280-162386-1 MS	PZ007-22A	Total/NA	Water	353.2	
280-162386-1 MSD	PZ007-22A	Total/NA	Water	353.2	

Client Sample ID: PZ007-22A
Lab Sample ID: 280-162386-1

Date Collected: 05/13/22 09:15
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	576170	05/26/22 03:38	CAS	TAL DEN
Total/NA	Prep	3535			502.8 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575600	05/19/22 22:00	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	576796	06/01/22 09:58	MMP	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	575901	05/23/22 15:54	SVC	TAL DEN
Total/NA	Analysis	351.2		1			576217	05/25/22 17:12	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	576988	06/02/22 18:27	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	575174	05/17/22 09:10	ZPM	TAL DEN
Total/NA	Analysis	9034		1			575192	05/17/22 10:24	ZPM	TAL DEN
Total/NA	Analysis	9056A		5	10 mL	10 mL	576575	06/01/22 00:16	RAF	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576248	05/26/22 08:42	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	576443	05/26/22 22:15	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			576106	05/24/22 15:01	KEG	TAL DEN

Client Sample ID: G0087-22A
Lab Sample ID: 280-162386-2

Date Collected: 05/13/22 13:15
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	576170	05/26/22 04:30	CAS	TAL DEN
Total/NA	Prep	3535			501.7 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575600	05/19/22 23:54	JZ	TAL DEN
Total/NA	Prep	3535			501.7 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575712	05/20/22 19:46	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	576796	06/01/22 10:06	MMP	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	575901	05/23/22 15:54	SVC	TAL DEN
Total/NA	Analysis	351.2		1			576217	05/25/22 17:13	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	576988	06/02/22 18:33	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	575174	05/17/22 09:10	ZPM	TAL DEN
Total/NA	Analysis	9034		1			575192	05/17/22 10:24	ZPM	TAL DEN
Total/NA	Analysis	9056A		1	10 mL	10 mL	576575	06/01/22 01:52	RAF	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576248	05/26/22 08:42	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	576443	05/26/22 23:02	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			576106	05/24/22 15:07	KEG	TAL DEN

Client Sample ID: G0117-22A
Lab Sample ID: 280-162386-3

Date Collected: 05/13/22 12:55
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	576170	05/26/22 04:43	CAS	TAL DEN
Total/NA	Prep	3535			497.3 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575600	05/20/22 00:17	JZ	TAL DEN

Client Sample ID: G0117-22A
Lab Sample ID: 280-162386-3

Date Collected: 05/13/22 12:55
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			497.3 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575712	05/20/22 20:21	JZ	TAL DEN
Total/NA	Analysis	350.1		2	10 mL	10 mL	576796	06/01/22 15:13	MMP	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	575901	05/23/22 15:54	SVC	TAL DEN
Total/NA	Analysis	351.2		1			576217	05/25/22 17:14	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	576988	06/02/22 18:47	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	575177	05/17/22 09:13	ZPM	TAL DEN
Total/NA	Analysis	9034		1			575233	05/17/22 12:50	ZPM	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	576718	06/01/22 15:12	RAF	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576248	05/26/22 08:42	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	576443	05/26/22 23:21	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			576106	05/24/22 15:17	KEG	TAL DEN

Client Sample ID: G0022-22A
Lab Sample ID: 280-162386-4

Date Collected: 05/13/22 14:25
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	576170	05/26/22 04:56	CAS	TAL DEN
Total/NA	Prep	3535			482.8 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575600	05/20/22 01:49	JZ	TAL DEN
Total/NA	Prep	3535			482.8 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575712	05/20/22 20:57	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	576796	06/01/22 10:11	MMP	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	575901	05/23/22 15:54	SVC	TAL DEN
Total/NA	Analysis	351.2		1			576217	05/25/22 17:15	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	576988	06/02/22 18:49	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	575177	05/17/22 09:13	ZPM	TAL DEN
Total/NA	Analysis	9034		1			575233	05/17/22 12:50	ZPM	TAL DEN
Total/NA	Analysis	9056A		1	10 mL	10 mL	576575	06/01/22 02:24	RAF	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576248	05/26/22 08:42	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	576443	05/27/22 00:10	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			576106	05/24/22 15:23	KEG	TAL DEN

Client Sample ID: G0088-22A
Lab Sample ID: 280-162386-5

Date Collected: 05/13/22 15:35
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	576170	05/26/22 05:09	CAS	TAL DEN
Total/NA	Prep	3535			494.5 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575600	05/20/22 02:12	JZ	TAL DEN
Total/NA	Prep	3535			494.5 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575712	05/20/22 21:32	JZ	TAL DEN

Client Sample ID: G0088-22A
Lab Sample ID: 280-162386-5

Date Collected: 05/13/22 15:35
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	576796	06/01/22 10:14	MMP	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	575901	05/23/22 15:54	SVC	TAL DEN
Total/NA	Analysis	351.2		1			576217	05/25/22 17:16	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	576988	06/02/22 18:51	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	575177	05/17/22 09:13	ZPM	TAL DEN
Total/NA	Analysis	9034		1			575233	05/17/22 12:50	ZPM	TAL DEN
Total/NA	Analysis	9056A		2	10 mL	10 mL	576575	06/01/22 02:40	RAF	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576248	05/26/22 08:42	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	576443	05/27/22 00:28	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			576106	05/24/22 15:30	KEG	TAL DEN

Client Sample ID: G0116-22A
Lab Sample ID: 280-162386-6

Date Collected: 05/13/22 14:40
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	576170	05/26/22 05:22	CAS	TAL DEN
Total/NA	Prep	3535			476.8 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575600	05/20/22 02:35	JZ	TAL DEN
Total/NA	Prep	3535			476.8 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575712	05/20/22 22:07	JZ	TAL DEN
Total/NA	Analysis	350.1		10	10 mL	10 mL	576796	06/01/22 10:27	MMP	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	575901	05/23/22 15:54	SVC	TAL DEN
Total/NA	Analysis	351.2		5			576217	05/25/22 17:29	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	576988	06/02/22 18:53	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	575177	05/17/22 09:13	ZPM	TAL DEN
Total/NA	Analysis	9034		1			575233	05/17/22 12:50	ZPM	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	576718	06/01/22 16:48	RAF	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576248	05/26/22 08:42	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	576443	05/27/22 00:45	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			576106	05/24/22 15:42	KEG	TAL DEN

Client Sample ID: PZ014-22A
Lab Sample ID: 280-162386-7

Date Collected: 05/13/22 15:50
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	576170	05/26/22 05:35	CAS	TAL DEN
Total/NA	Prep	3535			464.7 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575600	05/20/22 02:58	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	576796	06/01/22 10:30	MMP	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	575901	05/23/22 15:54	SVC	TAL DEN
Total/NA	Analysis	351.2		1			576217	05/25/22 17:16	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	576988	06/02/22 18:55	SVC	TAL DEN

Client Sample ID: PZ014-22A
Lab Sample ID: 280-162386-7

Date Collected: 05/13/22 15:50
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9030B			50 mL	50 mL	575177	05/17/22 09:13	ZPM	TAL DEN
Total/NA	Analysis	9034		1			575233	05/17/22 12:50	ZPM	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	576718	06/01/22 17:04	RAF	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576248	05/26/22 08:42	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	576443	05/27/22 01:03	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			576106	05/24/22 15:50	KEG	TAL DEN

Client Sample ID: G0092-22A
Lab Sample ID: 280-162386-8

Date Collected: 05/12/22 14:20
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	576170	05/26/22 05:48	CAS	TAL DEN
Total/NA	Prep	3535			470.3 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575600	05/20/22 03:21	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	576796	06/01/22 10:33	MMP	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	575901	05/23/22 15:54	SVC	TAL DEN
Total/NA	Analysis	351.2		1			576217	05/25/22 17:16	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	576988	06/02/22 18:57	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	575031	05/16/22 10:04	ZPM	TAL DEN
Total/NA	Analysis	9034		1			575054	05/16/22 11:02	ZPM	TAL DEN
Total/NA	Analysis	9056A		5	10 mL	10 mL	576575	06/01/22 03:28	RAF	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576248	05/26/22 08:42	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	576443	05/27/22 01:21	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			576106	05/24/22 15:56	KEG	TAL DEN

Client Sample ID: PZ013-22A
Lab Sample ID: 280-162386-9

Date Collected: 05/13/22 11:40
Matrix: Water
Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	576170	05/26/22 06:01	CAS	TAL DEN
Total/NA	Prep	3535			492.4 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575600	05/20/22 03:43	JZ	TAL DEN
Total/NA	Prep	3535			492.4 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575712	05/20/22 22:42	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	576796	06/01/22 10:35	MMP	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	575901	05/23/22 15:54	SVC	TAL DEN
Total/NA	Analysis	351.2		1			576217	05/25/22 17:17	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	576988	06/02/22 18:59	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	575177	05/17/22 09:13	ZPM	TAL DEN
Total/NA	Analysis	9034		1			575233	05/17/22 12:50	ZPM	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	576718	06/01/22 17:19	RAF	TAL DEN

Lab Chronicle

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

Job ID: 280-162386-1

Client Sample ID: PZ013-22A

Lab Sample ID: 280-162386-9

Date Collected: 05/13/22 11:40

Matrix: Water

Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576248	05/26/22 08:42	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	576443	05/27/22 01:37	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			576106	05/24/22 16:16	KEG	TAL DEN

Client Sample ID: G0081-22A

Lab Sample ID: 280-162386-10

Date Collected: 05/13/22 12:05

Matrix: Water

Date Received: 05/14/22 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	576170	05/26/22 06:14	CAS	TAL DEN
Total/NA	Prep	3535			489.4 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575600	05/20/22 04:06	JZ	TAL DEN
Total/NA	Prep	3535			489.4 mL	5 mL	575516	05/19/22 14:06	DCL	TAL DEN
Total/NA	Analysis	8330A		1			575712	05/20/22 23:17	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	576796	06/01/22 10:38	MMP	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	575901	05/23/22 15:54	SVC	TAL DEN
Total/NA	Analysis	351.2		1			576217	05/25/22 17:18	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	576988	06/02/22 19:01	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	575177	05/17/22 09:13	ZPM	TAL DEN
Total/NA	Analysis	9034		1			575233	05/17/22 12:50	ZPM	TAL DEN
Total/NA	Analysis	9056A		1	10 mL	10 mL	576575	06/01/22 04:32	RAF	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576248	05/26/22 08:42	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	576443	05/27/22 01:56	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			576106	05/24/22 16:23	KEG	TAL DEN

Laboratory References:

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

Accreditation/Certification Summary

Client: Brice Environmental Services, Corp
Job ID: 280-162386-1
Project/Site: Cornhusker (CHAAP)

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23

Method Summary

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

Job ID: 280-162386-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

None = None

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

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

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

Laboratory References:

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

Sample Summary

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

Job ID: 280-162386-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-162386-1	PZ007-22A	Water	05/13/22 09:15	05/14/22 09:25
280-162386-2	G0087-22A	Water	05/13/22 13:15	05/14/22 09:25
280-162386-3	G0117-22A	Water	05/13/22 12:55	05/14/22 09:25
280-162386-4	G0022-22A	Water	05/13/22 14:25	05/14/22 09:25
280-162386-5	G0088-22A	Water	05/13/22 15:35	05/14/22 09:25
280-162386-6	G0116-22A	Water	05/13/22 14:40	05/14/22 09:25
280-162386-7	PZ014-22A	Water	05/13/22 15:50	05/14/22 09:25
280-162386-8	G0092-22A	Water	05/12/22 14:20	05/14/22 09:25
280-162386-9	PZ013-22A	Water	05/13/22 11:40	05/14/22 09:25
280-162386-10	G0081-22A	Water	05/13/22 12:05	05/14/22 09:25

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 550959

Lab Sample ID: IC 280-550959/2 Client Sample ID:

Date Analyzed: 09/24/21 13:28 Lab File ID: 004F0201.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	1.29	Peak assignment corrected	sciannac	09/24/21 13:54
Ethane	1.56	Peak assignment corrected	sciannac	09/24/21 13:54
Ethylene	1.86	Peak assignment corrected	sciannac	09/24/21 13:54
Acetylene	4.18	Peak assignment corrected	sciannac	09/24/21 13:55

Lab Sample ID: IC 280-550959/2 Client Sample ID:

Date Analyzed: 09/24/21 13:28 Lab File ID: 004F0201.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	1.69	Peak assignment corrected	sciannac	09/24/21 13:54
Ethylene	2.61	Peak assignment corrected	sciannac	09/24/21 13:54
Acetylene	2.76	Peak assignment corrected	sciannac	09/24/21 13:55
Ethane	3.03	Peak assignment corrected	sciannac	09/24/21 13:54

Lab Sample ID: IC 280-550959/4 Client Sample ID:

Date Analyzed: 09/24/21 13:54 Lab File ID: 006F0401.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.23	Peak assignment corrected	sciannac	09/24/21 15:50

Lab Sample ID: IC 280-550959/4 Client Sample ID:

Date Analyzed: 09/24/21 13:54 Lab File ID: 006F0401.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	2.75	Peak assignment corrected	sciannac	09/24/21 15:50

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 550959

Lab Sample ID: IC 280-550959/5 Client Sample ID:

Date Analyzed: 09/24/21 14:07 Lab File ID: 007F0501.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.23	Split Peak	sciannac	09/24/21 15:50

Lab Sample ID: IC 280-550959/5 Client Sample ID:

Date Analyzed: 09/24/21 14:07 Lab File ID: 007F0501.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	2.75	Split Peak	sciannac	09/24/21 15:50
Ethane	3.03	Split Peak	sciannac	09/24/21 15:50

Lab Sample ID: IC 280-550959/6 Client Sample ID:

Date Analyzed: 09/24/21 14:20 Lab File ID: 008F0601.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.23	Peak assignment corrected	sciannac	09/24/21 15:44

Lab Sample ID: IC 280-550959/6 Client Sample ID:

Date Analyzed: 09/24/21 14:20 Lab File ID: 008F0601.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	1.68	Baseline Smoothing	sciannac	09/29/21 09:21
Acetylene	2.75	Peak assignment corrected	sciannac	09/24/21 15:44

Lab Sample ID: IC 280-550959/7 Client Sample ID:

Date Analyzed: 09/24/21 14:33 Lab File ID: 009F0701.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.23	Peak assignment corrected	sciannac	09/24/21 15:46

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 550959

Lab Sample ID: IC 280-550959/7 Client Sample ID:

Date Analyzed: 09/24/21 14:33 Lab File ID: 009F0701.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	2.75	Peak assignment corrected	sciannac	09/24/21 15:46

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 576169

Lab Sample ID: CCVRT 280-576169/2 Client Sample ID:

Date Analyzed: 05/25/22 17:03 Lab File ID: 002F0201.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	1.79	Peak assignment corrected	sciannac	05/25/22 18:01
Acetylene	4.04	Peak assignment corrected	sciannac	05/25/22 18:02

Lab Sample ID: CCVRT 280-576169/2 Client Sample ID:

Date Analyzed: 05/25/22 17:03 Lab File ID: 002F0201.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	2.62	Peak assignment corrected	sciannac	05/25/22 18:01
Acetylene	2.77	Peak assignment corrected	sciannac	05/25/22 18:01

Lab Sample ID: CCV 280-576169/75 Client Sample ID:

Date Analyzed: 05/25/22 20:43 Lab File ID: 019F1901.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.21	Peak assignment corrected	sciannac	05/26/22 11:04

Lab Sample ID: CCV 280-576169/75 Client Sample ID:

Date Analyzed: 05/25/22 20:43 Lab File ID: 019F1901.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	2.75	Peak assignment corrected	sciannac	05/26/22 11:04

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 576170

Lab Sample ID: CCVRT 280-576170/2 Client Sample ID:

Date Analyzed: 05/25/22 17:03 Lab File ID: 002F0201.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	1.79	Peak assignment corrected	sciannac	05/25/22 18:01
Acetylene	4.04	Peak assignment corrected	sciannac	05/25/22 18:02

Lab Sample ID: CCV 280-576170/89 Client Sample ID:

Date Analyzed: 05/25/22 23:44 Lab File ID: 033F3301.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.21	Split Peak	sciannac	05/27/22 16:01

Lab Sample ID: CCV 280-576170/89 Client Sample ID:

Date Analyzed: 05/25/22 23:44 Lab File ID: 033F3301.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	2.75	Split Peak	sciannac	05/27/22 16:00

Lab Sample ID: MB 280-576170/92 Client Sample ID:

Date Analyzed: 05/26/22 00:23 Lab File ID: 036F3601.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	1.26	Peak assignment corrected	sciannac	05/27/22 16:05

Lab Sample ID: MB 280-576170/92 Client Sample ID:

Date Analyzed: 05/26/22 00:23 Lab File ID: 036F3601.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	1.60	Peak assignment corrected	sciannac	05/27/22 16:05

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 576170

Lab Sample ID: CCV 280-576170/106 Client Sample ID:

Date Analyzed: 05/26/22 03:25 Lab File ID: 050F5001.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	1.84	Peak assignment corrected	sciannac	05/31/22 09:31
Acetylene	4.21	Peak assignment corrected	sciannac	05/31/22 09:31

Lab Sample ID: CCV 280-576170/106 Client Sample ID:

Date Analyzed: 05/26/22 03:25 Lab File ID: 050F5001.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	2.61	Peak assignment corrected	sciannac	05/31/22 09:31
Acetylene	2.76	Peak assignment corrected	sciannac	05/31/22 09:31

Lab Sample ID: 280-162386-10 Client Sample ID: G0081-22A

Date Analyzed: 05/26/22 06:14 Lab File ID: 063F6301.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	1.27	Peak not integrated	sciannac	05/31/22 14:04

Lab Sample ID: CCV 280-576170/120 Client Sample ID:

Date Analyzed: 05/26/22 06:27 Lab File ID: 064F6401.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.21	Peak assignment corrected	sciannac	05/26/22 10:47

Lab Sample ID: CCV 280-576170/120 Client Sample ID:

Date Analyzed: 05/26/22 06:27 Lab File ID: 064F6401.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	2.75	Peak assignment corrected	sciannac	05/26/22 10:47

RSK-175

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

Lab Sample ID: IC 280-562503/11 Client Sample ID:

Date Analyzed: 01/04/22 18:28 Lab File ID: 01040011.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.59	Baseline	zhangji	01/04/22 19:18

Lab Sample ID: IC 280-562503/12 Client Sample ID:

Date Analyzed: 01/04/22 18:51 Lab File ID: 01040012.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	01/04/22 19:18

Lab Sample ID: IC 280-562503/18 Client Sample ID:

Date Analyzed: 01/04/22 21:08 Lab File ID: 01040018.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.61	Baseline	zhangji	01/05/22 12:01
Picric acid	7.95	Baseline	zhangji	01/05/22 12:02
PETN	14.74	Baseline	zhangji	01/05/22 12:01

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

Lab Sample ID: IC 280-562503/19 Client Sample ID:

Date Analyzed: 01/04/22 21:31 Lab File ID: 01040019.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	01/05/22 11:59
RDX	7.60	Baseline	zhangji	01/05/22 12:00
Picric acid	7.94	Baseline	zhangji	01/05/22 12:00
2,4,6-Trinitrotoluene	10.95	Baseline	zhangji	01/05/22 12:00
4-Amino-2,6-dinitrotoluene	11.15	Baseline	zhangji	01/05/22 12:00
2-Amino-4,6-dinitrotoluene	11.41	Baseline	zhangji	01/05/22 12:00
2,6-Dinitrotoluene	11.58	Baseline	zhangji	01/05/22 12:00
2,4-Dinitrotoluene	11.75	Baseline	zhangji	01/05/22 12:00
PETN	14.71	Baseline	zhangji	01/05/22 12:00

Lab Sample ID: ICV 280-562503/20 Client Sample ID:

Date Analyzed: 01/04/22 21:54 Lab File ID: 01040020.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.60	Baseline	zhangji	01/05/22 11:59
Picric acid	7.92	Baseline	zhangji	01/05/22 11:59

Lab Sample ID: IC 280-562503/30 Client Sample ID:

Date Analyzed: 01/05/22 01:43 Lab File ID: 01040030.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	zhangji	01/05/22 12:05
DNX	6.79	Baseline	zhangji	01/05/22 12:07
MNX	7.22	Baseline	zhangji	01/05/22 12:07

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

Lab Sample ID: IC 280-562503/31 Client Sample ID:

Date Analyzed: 01/05/22 02:06 Lab File ID: 01040031.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:07
DNX	6.80	Baseline	zhangji	01/05/22 12:07
MNX	7.22	Baseline	zhangji	01/05/22 12:07

Lab Sample ID: IC 280-562503/32 Client Sample ID:

Date Analyzed: 01/05/22 02:29 Lab File ID: 01040032.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:07
DNX	6.80	Baseline	zhangji	01/05/22 12:07
MNX	7.22	Baseline	zhangji	01/05/22 12:08

Lab Sample ID: IC 280-562503/33 Client Sample ID:

Date Analyzed: 01/05/22 02:52 Lab File ID: 01040033.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:07
DNX	6.80	Baseline	zhangji	01/05/22 12:07
MNX	7.22	Baseline	zhangji	01/05/22 12:08

Lab Sample ID: IC 280-562503/34 Client Sample ID:

Date Analyzed: 01/05/22 03:15 Lab File ID: 01040034.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:08
DNX	6.80	Baseline	zhangji	01/05/22 12:08
MNX	7.22	Baseline	zhangji	01/05/22 12:08

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

Lab Sample ID: IC 280-562503/35 Client Sample ID:

Date Analyzed: 01/05/22 03:38 Lab File ID: 01040035.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:08
DNX	6.80	Baseline	zhangji	01/05/22 12:08
MNX	7.22	Baseline	zhangji	01/05/22 12:08

Lab Sample ID: IC 280-562503/36 Client Sample ID:

Date Analyzed: 01/05/22 04:01 Lab File ID: 01040036.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:09
DNX	6.80	Baseline	zhangji	01/05/22 12:09
MNX	7.22	Baseline	zhangji	01/05/22 12:09

Lab Sample ID: IC 280-562503/37 Client Sample ID:

Date Analyzed: 01/05/22 04:24 Lab File ID: 01040037.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:09
DNX	6.80	Baseline	zhangji	01/05/22 12:09
MNX	7.22	Baseline	zhangji	01/05/22 12:09

Lab Sample ID: ICV 280-562503/38 Client Sample ID:

Date Analyzed: 01/05/22 04:47 Lab File ID: 01040038.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:09
DNX	6.80	Baseline	zhangji	01/05/22 12:09
MNX	7.22	Baseline	zhangji	01/05/22 12:09

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 575600

Lab Sample ID: CCV 280-575600/9 Client Sample ID:

Date Analyzed: 05/19/22 20:28 Lab File ID: 05190009.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.49	Baseline	zhangji	05/20/22 13:38
DNX	6.80	Baseline	zhangji	05/20/22 13:39

Lab Sample ID: MB 280-575516/1-A Client Sample ID:

Date Analyzed: 05/19/22 20:51 Lab File ID: 05190011.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	zhangji	05/20/22 11:58
2-Nitrotoluene		Invalid Compound ID	zhangji	05/20/22 11:57
RDX		Invalid Compound ID	zhangji	05/20/22 11:57

Lab Sample ID: LCS 280-575516/2-A Client Sample ID:

Date Analyzed: 05/19/22 21:14 Lab File ID: 05190012.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	05/20/22 13:38

Lab Sample ID: LCS 280-575516/3-A Client Sample ID:

Date Analyzed: 05/19/22 21:37 Lab File ID: 05190013.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.22	Baseline	zhangji	05/20/22 11:59
1,2-Dinitrobenzene	8.55	Baseline	zhangji	05/20/22 11:59

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 575600

Lab Sample ID: 280-162386-1 Client Sample ID: PZ007-22A

Date Analyzed: 05/19/22 22:00 Lab File ID: 05190014.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	zhangji	05/20/22 11:59
2-Nitrotoluene		Invalid Compound ID	zhangji	05/20/22 11:59

Lab Sample ID: 280-162386-1 MS Client Sample ID: PZ007-22A MS

Date Analyzed: 05/19/22 22:23 Lab File ID: 05190015.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	05/20/22 12:07
RDX	7.60	Baseline	zhangji	05/20/22 12:08
1,3,5-Trinitrobenzene	8.68	Baseline	zhangji	05/20/22 12:08

Lab Sample ID: 280-162386-1 MSD Client Sample ID: PZ007-22A MSD

Date Analyzed: 05/19/22 22:46 Lab File ID: 05190016.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	05/20/22 12:08
RDX	7.60	Baseline	zhangji	05/20/22 12:08
1,3,5-Trinitrobenzene	8.68	Baseline	zhangji	05/20/22 12:10

Lab Sample ID: 280-162386-1 MS Client Sample ID: PZ007-22A MS

Date Analyzed: 05/19/22 23:08 Lab File ID: 05190017.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.22	Baseline	zhangji	05/20/22 12:10
1,2-Dinitrobenzene	8.56	Baseline	zhangji	05/20/22 12:10

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 575600

Lab Sample ID: 280-162386-1 MSD Client Sample ID: PZ007-22A MSD

Date Analyzed: 05/19/22 23:31 Lab File ID: 05190018.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.22	Baseline	zhangji	05/20/22 12:11
1,2-Dinitrobenzene	8.55	Baseline	zhangji	05/20/22 12:10

Lab Sample ID: 280-162386-2 Client Sample ID: G0087-22A

Date Analyzed: 05/19/22 23:54 Lab File ID: 05190019.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	05/20/22 12:11
RDX	7.60	Baseline	zhangji	05/20/22 12:11
1,2-Dinitrobenzene	8.55	Baseline	zhangji	05/20/22 12:11
1,3-Dinitrobenzene	9.31	Baseline	zhangji	05/20/22 12:11
2-Nitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:11
Tetryl		Invalid Compound ID	zhangji	05/20/22 12:11

Lab Sample ID: 280-162386-3 Client Sample ID: G0117-22A

Date Analyzed: 05/20/22 00:17 Lab File ID: 05190020.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.55	Baseline	zhangji	05/20/22 12:14
1,3-Dinitrobenzene	9.33	Baseline	zhangji	05/20/22 12:14
2,4,6-Trinitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:14
2-Nitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:14
MNX		Invalid Compound ID	zhangji	05/20/22 12:14
Tetryl		Invalid Compound ID	zhangji	05/20/22 12:14

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 575600

Lab Sample ID: CCV 280-575600/21 Client Sample ID:

Date Analyzed: 05/20/22 00:40 Lab File ID: 05190021.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	05/20/22 12:15

Lab Sample ID: CCV 280-575600/23 Client Sample ID:

Date Analyzed: 05/20/22 01:26 Lab File ID: 05190023.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.49	Baseline	zhangji	05/20/22 12:15
DNX	6.80	Baseline	zhangji	05/20/22 12:15

Lab Sample ID: 280-162386-4 Client Sample ID: G0022-22A

Date Analyzed: 05/20/22 01:49 Lab File ID: 05190024.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	zhangji	05/20/22 12:15
2-Nitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:15
Tetryl		Invalid Compound ID	zhangji	05/20/22 12:15

Lab Sample ID: 280-162386-5 Client Sample ID: G0088-22A

Date Analyzed: 05/20/22 02:12 Lab File ID: 05190025.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	8.68	Baseline	zhangji	05/20/22 12:22
2-Nitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:22
HMX		Invalid Compound ID	zhangji	05/20/22 12:22
Tetryl		Invalid Compound ID	zhangji	05/20/22 12:22

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 575600

Lab Sample ID: 280-162386-6 Client Sample ID: G0116-22A

Date Analyzed: 05/20/22 02:35 Lab File ID: 05190026.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.55	Baseline	zhangji	05/20/22 12:22
1,3-Dinitrobenzene	9.29	Baseline	zhangji	05/20/22 12:22
2,4,6-Trinitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:22
2,6-Dinitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:22
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:22
2-Nitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:22
MNX		Invalid Compound ID	zhangji	05/20/22 12:22
Nitrobenzene		Invalid Compound ID	zhangji	05/20/22 12:22
Tetryl		Invalid Compound ID	zhangji	05/20/22 12:22

Lab Sample ID: 280-162386-7 Client Sample ID: PZ014-22A

Date Analyzed: 05/20/22 02:58 Lab File ID: 05190027.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	zhangji	05/20/22 12:23
1,3-Dinitrobenzene		Invalid Compound ID	zhangji	05/20/22 12:22
2-Nitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:23
HMX		Invalid Compound ID	zhangji	05/20/22 12:22
Tetryl		Invalid Compound ID	zhangji	05/20/22 12:23

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 575600

Lab Sample ID: 280-162386-8 Client Sample ID: G0092-22A

Date Analyzed: 05/20/22 03:21 Lab File ID: 05190028.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	zhangji	05/20/22 12:23
2-Nitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:23
HMX		Invalid Compound ID	zhangji	05/20/22 12:23
Nitrobenzene		Invalid Compound ID	zhangji	05/20/22 12:23
Tetryl		Invalid Compound ID	zhangji	05/20/22 12:23

Lab Sample ID: 280-162386-9 Client Sample ID: PZ013-22A

Date Analyzed: 05/20/22 03:43 Lab File ID: 05190029.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene		Invalid Compound ID	zhangji	05/20/22 12:26
2-Nitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:26
HMX		Invalid Compound ID	zhangji	05/20/22 12:26
MNX		Invalid Compound ID	zhangji	05/20/22 12:26
Tetryl		Invalid Compound ID	zhangji	05/20/22 12:26

Lab Sample ID: 280-162386-10 Client Sample ID: G0081-22A

Date Analyzed: 05/20/22 04:06 Lab File ID: 05190030.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	zhangji	05/20/22 12:28
1,3,5-Trinitrobenzene	8.69	Baseline	zhangji	05/20/22 12:28
1,3-Dinitrobenzene		Invalid Compound ID	zhangji	05/20/22 12:28
2-Nitrotoluene		Invalid Compound ID	zhangji	05/20/22 12:28
Tetryl		Invalid Compound ID	zhangji	05/20/22 12:28

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 575600

Lab Sample ID: CCV 280-575600/33 Client Sample ID:

Date Analyzed: 05/20/22 05:15 Lab File ID: 05190033.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	zhangji	05/20/22 12:30

Lab Sample ID: CCV 280-575600/35 Client Sample ID:

Date Analyzed: 05/20/22 06:01 Lab File ID: 05190035.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.49	Baseline	zhangji	05/20/22 12:30
DNX	6.80	Baseline	zhangji	05/20/22 12:30

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 567560

Lab Sample ID: IC 280-567560/10 Client Sample ID:

Date Analyzed: 03/02/22 21:22 Lab File ID: 03020010.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	18.73	Unspecified		
1,3,5-Trinitrobenzene	18.85	Split Peak	zhangji	03/03/22 12:08

Lab Sample ID: IC 280-567560/15 Client Sample ID:

Date Analyzed: 03/03/22 00:17 Lab File ID: 03020015.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	26.21	Baseline Smoothing	zhangji	03/03/22 12:12

Lab Sample ID: IC 280-567560/16 Client Sample ID:

Date Analyzed: 03/03/22 00:53 Lab File ID: 03020016.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	16.07	Baseline Smoothing	zhangji	03/03/22 12:12
PETN	26.22	Baseline Smoothing	zhangji	03/03/22 12:12

Lab Sample ID: IC 280-567560/17 Client Sample ID:

Date Analyzed: 03/03/22 01:28 Lab File ID: 03020017.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	16.06	Baseline Smoothing	zhangji	03/03/22 12:12
2-Amino-4,6-dinitrotoluene	18.76	Baseline Smoothing	zhangji	03/03/22 12:10
1,3,5-Trinitrobenzene	18.96	Baseline Smoothing	zhangji	03/03/22 12:10
PETN	26.22	Baseline Smoothing	zhangji	03/03/22 12:12

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 567560

Lab Sample ID: IC 280-567560/18 Client Sample ID:

Date Analyzed: 03/03/22 02:03 Lab File ID: 03020018.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	16.05	Baseline Smoothing	zhangji	03/03/22 12:12
2-Amino-4,6-dinitrotoluene	18.75	Baseline Smoothing	zhangji	03/03/22 12:11
1,3,5-Trinitrobenzene	18.95	Baseline Smoothing	zhangji	03/03/22 12:11
PETN	26.22	Baseline Smoothing	zhangji	03/03/22 12:11

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 575712

Lab Sample ID: CCV 280-575712/7 Client Sample ID:

Date Analyzed: 05/20/22 16:51 Lab File ID: 05200007.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetryl	24.43	Baseline Smoothing	zhangji	05/20/22 17:45
2,4,6-Trinitrotoluene	25.19	Baseline Smoothing	zhangji	05/20/22 17:45

Lab Sample ID: 280-162386-2 Client Sample ID: G0087-22A

Date Analyzed: 05/20/22 19:46 Lab File ID: 05200013.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.77	Baseline Smoothing	zhangji	05/20/22 20:44
RDX	8.94	Baseline Smoothing	zhangji	05/20/22 20:44
2,4,6-Trinitrotoluene		Invalid Compound ID	zhangji	05/20/22 20:44
Tetryl		Invalid Compound ID	zhangji	05/20/22 20:44

Lab Sample ID: 280-162386-3 Client Sample ID: G0117-22A

Date Analyzed: 05/20/22 20:21 Lab File ID: 05200014.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetryl		Invalid Compound ID	zhangji	05/20/22 20:57
1,2-Dinitrobenzene	13.12	Baseline Smoothing	zhangji	05/20/22 20:57
2-Nitrotoluene	16.66	Baseline Smoothing	zhangji	05/20/22 20:57

Lab Sample ID: 280-162386-4 Client Sample ID: G0022-22A

Date Analyzed: 05/20/22 20:57 Lab File ID: 05200015.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.77	Baseline Smoothing	zhangji	05/21/22 12:21
2,4,6-Trinitrotoluene		Invalid Compound ID	zhangji	05/21/22 12:21
Tetryl		Invalid Compound ID	zhangji	05/21/22 12:21

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 575712

Lab Sample ID: 280-162386-5 Client Sample ID: G0088-22A

Date Analyzed: 05/20/22 21:32 Lab File ID: 05200016.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.76	Baseline Smoothing	zhangji	05/21/22 12:26
2,4,6-Trinitrotoluene		Invalid Compound ID	zhangji	05/21/22 12:21
Tetryl		Invalid Compound ID	zhangji	05/21/22 12:21

Lab Sample ID: 280-162386-6 Client Sample ID: G0116-22A

Date Analyzed: 05/20/22 22:07 Lab File ID: 05200017.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Trinitrotoluene		Invalid Compound ID	zhangji	05/21/22 12:28
2,6-Dinitrotoluene		Invalid Compound ID	zhangji	05/21/22 12:28
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	zhangji	05/21/22 12:28
3-Nitrotoluene		Invalid Compound ID	zhangji	05/21/22 12:28
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	zhangji	05/21/22 12:28
Tetryl		Invalid Compound ID	zhangji	05/21/22 12:28
Nitrobenzene	11.93	Baseline Smoothing	zhangji	05/21/22 12:28
1,2-Dinitrobenzene	13.13	Baseline Smoothing	zhangji	05/21/22 12:28

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 575712

Lab Sample ID: 280-162386-9 Client Sample ID: PZ013-22A

Date Analyzed: 05/20/22 22:42 Lab File ID: 05200018.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.77	Baseline Smoothing	zhangji	05/21/22 12:29
4-Nitrotoluene		Invalid Compound ID	zhangji	05/21/22 12:29
Nitrobenzene		Invalid Compound ID	zhangji	05/21/22 12:28
Tetryl		Invalid Compound ID	zhangji	05/21/22 12:29
1,2-Dinitrobenzene	13.13	Baseline Smoothing	zhangji	05/21/22 12:29
4-Amino-2,6-dinitrotoluene	17.59	Baseline Smoothing	zhangji	05/21/22 12:29
2-Amino-4,6-dinitrotoluene	18.57	Baseline Smoothing	zhangji	05/21/22 12:29
2,4,6-Trinitrotoluene	25.09	Baseline Smoothing	zhangji	05/21/22 12:29

Lab Sample ID: 280-162386-10 Client Sample ID: G0081-22A

Date Analyzed: 05/20/22 23:17 Lab File ID: 05200019.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.77	Baseline Smoothing	zhangji	05/21/22 12:29
2,4,6-Trinitrotoluene		Invalid Compound ID	zhangji	05/21/22 12:29
Tetryl		Invalid Compound ID	zhangji	05/21/22 12:29
1,2-Dinitrobenzene	13.14	Baseline Smoothing	zhangji	05/21/22 12:29
2-Nitrotoluene	16.66	Baseline Smoothing	zhangji	05/21/22 12:29
1,3,5-Trinitrobenzene	18.75	Baseline Smoothing	zhangji	05/21/22 12:29

Lab Sample ID: CCV 280-575712/20 Client Sample ID:

Date Analyzed: 05/20/22 23:52 Lab File ID: 05200020.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetryl	24.32	Baseline Smoothing	zhangji	05/21/22 12:30
2,4,6-Trinitrotoluene	25.08	Baseline Smoothing	zhangji	05/21/22 12:30

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 576257

Lab Sample ID: STD 280-576257/2 IC Client Sample ID:

Date Analyzed: 05/26/22 10:38 Lab File ID: 0003.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.56	Baseline Smoothing	foxr	05/26/22 12:36
Chloride	3.73	Baseline Smoothing	foxr	05/26/22 12:35
Sulfate	10.17	Baseline Smoothing	foxr	05/26/22 12:36

Lab Sample ID: STD 280-576257/3 IC Client Sample ID:

Date Analyzed: 05/26/22 10:54 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.56	Baseline Smoothing	foxr	05/26/22 12:36
Sulfate	10.18	Baseline Smoothing	foxr	05/26/22 12:37

Lab Sample ID: STD 280-576257/4 IC Client Sample ID:

Date Analyzed: 05/26/22 11:10 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.56	Baseline Smoothing	foxr	05/26/22 12:37
Sulfate	10.18	Baseline Smoothing	foxr	05/26/22 12:37

Lab Sample ID: STD 280-576257/5 IC Client Sample ID:

Date Analyzed: 05/26/22 11:25 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.56	Baseline Smoothing	foxr	05/26/22 12:37
Sulfate	10.24	Baseline Smoothing	foxr	05/26/22 12:37

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 576257

Lab Sample ID: STD 280-576257/6 IC Client Sample ID:

Date Analyzed: 05/26/22 11:41 Lab File ID: 0007.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.56	Baseline Smoothing	foxr	05/26/22 12:38
Sulfate	10.31	Baseline Smoothing	foxr	05/26/22 12:38

Lab Sample ID: STD 280-576257/7 IC Client Sample ID:

Date Analyzed: 05/26/22 11:57 Lab File ID: 0008.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.36	Baseline Smoothing	foxr	05/26/22 12:38

Lab Sample ID: ICV 280-576257/8 Client Sample ID:

Date Analyzed: 05/26/22 12:13 Lab File ID: 0009.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.56	Baseline Smoothing	foxr	05/26/22 12:38
Sulfate	10.26	Baseline Smoothing	foxr	05/26/22 12:39

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 576718

Lab Sample ID: CCV 280-576718/1 Client Sample ID:

Date Analyzed: 06/01/22 11:09 Lab File ID: 0002.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.55	Baseline Smoothing	foxr	06/01/22 11:29
Sulfate	10.07	Baseline Smoothing	foxr	06/01/22 11:29

Lab Sample ID: MRL 280-576718/3 Client Sample ID:

Date Analyzed: 06/01/22 11:41 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.95	Baseline Smoothing	foxr	06/01/22 12:24

Lab Sample ID: LCS 280-576718/4 Client Sample ID:

Date Analyzed: 06/01/22 11:57 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.06	Baseline Smoothing	foxr	06/01/22 12:25

Lab Sample ID: LCSD 280-576718/5 Client Sample ID:

Date Analyzed: 06/01/22 12:13 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.07	Baseline Smoothing	foxr	06/01/22 12:37

Lab Sample ID: 280-162386-3 Client Sample ID: G0117-22A

Date Analyzed: 06/01/22 15:12 Lab File ID: 0016.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.04	Baseline Smoothing	foxr	06/01/22 16:04

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 576718

Lab Sample ID: 280-162386-3 DU Client Sample ID: G0117-22A DU

Date Analyzed: 06/01/22 15:28 Lab File ID: 0017.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.04	Baseline Smoothing	foxr	06/01/22 16:06

Lab Sample ID: CCV 280-576718/18 Client Sample ID:

Date Analyzed: 06/01/22 15:44 Lab File ID: 0018.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.55	Baseline Smoothing	foxr	06/01/22 16:06
Sulfate	10.03	Baseline Smoothing	foxr	06/01/22 16:06

Lab Sample ID: 280-162386-3 MSD Client Sample ID: G0117-22A MSD

Date Analyzed: 06/01/22 16:32 Lab File ID: 0021.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.11	Baseline Smoothing	foxr	06/02/22 11:35

Lab Sample ID: 280-162386-6 Client Sample ID: G0116-22A

Date Analyzed: 06/01/22 16:48 Lab File ID: 0022.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.03	Baseline Smoothing	foxr	06/02/22 11:36

Lab Sample ID: 280-162386-7 Client Sample ID: PZ014-22A

Date Analyzed: 06/01/22 17:04 Lab File ID: 0023.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.07	Baseline Smoothing	foxr	06/02/22 11:36

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 576718

Lab Sample ID: 280-162386-9 Client Sample ID: PZ013-22A

Date Analyzed: 06/01/22 17:19 Lab File ID: 0024.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.04	Baseline Smoothing	foxr	06/02/22 11:36

Lab Sample ID: CCV 280-576718/30 Client Sample ID:

Date Analyzed: 06/01/22 18:54 Lab File ID: 0030.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.55	Baseline Smoothing	foxr	06/02/22 11:38
Sulfate	10.04	Baseline Smoothing	foxr	06/02/22 11:38

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 575123

Lab Sample ID: STD 280-575123/2 IC Client Sample ID:

Date Analyzed: 05/16/22 17:34 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.39	Incomplete Integration	jindaratc	05/16/22 19:10
Sulfate	11.53	Baseline Smoothing	mitchellj	05/17/22 09:48

Lab Sample ID: STD 280-575123/3 IC Client Sample ID:

Date Analyzed: 05/16/22 17:50 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.40	Baseline Smoothing	mitchellj	05/17/22 09:49
Sulfate	11.59	Baseline Smoothing	mitchellj	05/17/22 09:49

Lab Sample ID: STD 280-575123/4 IC Client Sample ID:

Date Analyzed: 05/16/22 18:06 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.39	Baseline Smoothing	mitchellj	05/17/22 09:49
Sulfate	11.53	Baseline Smoothing	mitchellj	05/17/22 09:49

Lab Sample ID: STD 280-575123/5 IC Client Sample ID:

Date Analyzed: 05/16/22 18:22 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.00	Peak Tail	jindaratc	05/16/22 19:11
Chloride	4.28	Peak assignment corrected	jindaratc	05/16/22 18:42
Bromide	6.45	Peak assignment corrected	jindaratc	05/16/22 18:42
Sulfate	10.17	Baseline Smoothing	mitchellj	05/17/22 09:50

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 575123

Lab Sample ID: STD 280-575123/6 IC Client Sample ID:

Date Analyzed: 05/16/22 18:38 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	4.30	Peak assignment corrected	jindaratc	05/16/22 19:00
Bromide	6.43	Peak assignment corrected	jindaratc	05/16/22 19:00
Sulfate	10.12	Baseline Smoothing	mitchellj	05/17/22 09:51

Lab Sample ID: STD 280-575123/7 IC Client Sample ID:

Date Analyzed: 05/16/22 18:54 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	4.33	Incomplete Integration	jindaratc	05/16/22 19:13
Bromide	6.42	Peak assignment corrected	jindaratc	05/16/22 19:12
Sulfate	10.10	Baseline Smoothing	mitchellj	05/17/22 09:51

Lab Sample ID: ICV 280-575123/8 Client Sample ID:

Date Analyzed: 05/16/22 19:10 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.00	Baseline Smoothing	mitchellj	05/17/22 09:51
Sulfate	10.13	Baseline Smoothing	mitchellj	05/17/22 09:53

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 576575

Lab Sample ID: MRL 280-576575/3 Client Sample ID:

Date Analyzed: 05/31/22 11:29 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.98	Baseline Smoothing	foxr	05/31/22 12:01

Lab Sample ID: CCV 280-576575/48 Client Sample ID:

Date Analyzed: 05/31/22 21:37 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.98	Baseline Smoothing	foxr	06/01/22 11:36

Lab Sample ID: LCS 280-576575/55 Client Sample ID:

Date Analyzed: 05/31/22 23:28 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.98	Baseline Smoothing	foxr	06/01/22 11:40

Lab Sample ID: LCSD 280-576575/56 Client Sample ID:

Date Analyzed: 05/31/22 23:44 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.00	Baseline Smoothing	foxr	06/01/22 11:40

Lab Sample ID: 280-162386-1 Client Sample ID: PZ007-22A

Date Analyzed: 06/01/22 00:16 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.97	Baseline Smoothing	foxr	06/01/22 11:41

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 576575

Lab Sample ID: 280-162386-1 DU Client Sample ID: PZ007-22A DU

Date Analyzed: 06/01/22 00:32 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.97	Baseline Smoothing	foxr	06/01/22 11:41

Lab Sample ID: CCV 280-576575/60 Client Sample ID:

Date Analyzed: 06/01/22 00:48 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.98	Baseline Smoothing	foxr	06/01/22 11:42

Lab Sample ID: 280-162386-1 MS Client Sample ID: PZ007-22A MS

Date Analyzed: 06/01/22 01:20 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.95	Baseline Smoothing	foxr	06/01/22 11:42

Lab Sample ID: 280-162386-1 MSD Client Sample ID: PZ007-22A MSD

Date Analyzed: 06/01/22 01:36 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.95	Baseline Smoothing	foxr	06/01/22 11:42

Lab Sample ID: 280-162386-2 Client Sample ID: G0087-22A

Date Analyzed: 06/01/22 01:52 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.99	Baseline Smoothing	foxr	06/01/22 11:43

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 576575

Lab Sample ID: 280-162386-4 Client Sample ID: G0022-22A

Date Analyzed: 06/01/22 02:24 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.00	Baseline Smoothing	foxr	06/01/22 11:44

Lab Sample ID: 280-162386-5 Client Sample ID: G0088-22A

Date Analyzed: 06/01/22 02:40 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.99	Baseline Smoothing	foxr	06/01/22 11:44

Lab Sample ID: 280-162386-8 Client Sample ID: G0092-22A

Date Analyzed: 06/01/22 03:28 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.99	Baseline Smoothing	foxr	06/01/22 11:48

Lab Sample ID: CCV 280-576575/72 Client Sample ID:

Date Analyzed: 06/01/22 04:00 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.98	Baseline Smoothing	foxr	06/01/22 11:49

Lab Sample ID: CCB 280-576575/73 Client Sample ID:

Date Analyzed: 06/01/22 04:16 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.07	Baseline Smoothing	foxr	06/01/22 11:49

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Batch Number: 576575

Lab Sample ID: 280-162386-10 Client Sample ID: G0081-22A

Date Analyzed: 06/01/22 04:32 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.99	Baseline Smoothing	foxr	06/01/22 11:50

Lab Sample ID: CCV 280-576575/87 Client Sample ID:

Date Analyzed: 06/01/22 10:24 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.96	Baseline Smoothing	foxr	06/01/22 11:54

Lab Sample ID: CCB 280-576575/88 Client Sample ID:

Date Analyzed: 06/01/22 10:40 Lab File ID: Info 2_DENPC584_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.06	Baseline Smoothing	foxr	06/01/22 11:54

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal low_01654	06/02/22	06/01/22	di water, Lot na	100 mL	350.1 cal_00537	10 mL	Ammonia	10 mg/L
.350.1 cal_00537	06/03/22	05/27/22	Di Water, Lot na	100 mL	NH3 CAL STD_00034	10 mL	Ammonia	100 mg/L
..NH3 CAL STD_00034	04/30/23	Ricca, Lot 4008G09			(Purchased Reagent)		Ammonia	1000 mg/L
350.1 cal_00537	06/03/22	05/27/22	Di Water, Lot na	100 mL	NH3 CAL STD_00034	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00034	04/30/23	Ricca, Lot 4008G09			(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00522	06/03/22	05/27/22	na, Lot na	100 mL	NH3 ICV STD_00032	10 mL	Ammonia	100.2 mg/L
.NH3 ICV STD_00032	08/01/22	Inorganic Ventures, Lot N2-NH669544			(Purchased Reagent)		Ammonia	1002 mg/L
8330 DMT_00010	04/30/22	12/02/21	Acetonitrile, Lot 211161	5 mL	MNX,TNX,DNX_00057	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.02 ug/mL
.MNX,TNX,DNX_00057	04/30/22	Agilent, Lot 0006594482			(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.1 ug/mL
8330 DMT_00011	10/29/22	04/29/22	Acetonitrile, Lot 211161	5 mL	MNX,TNX,DNX_00066	1 mL	MNX	23.4 ug/mL
.MNX,TNX,DNX_00066	02/28/23	Agilent, Lot 0006659035			(Purchased Reagent)		MNX	117 ug/mL
8330 LCS_00111	05/12/22	11/12/21	Acetonitrile, Lot Acetonitrile_00059	100 mL	8330LCSMix1_00129	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_00028	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
.8330LCSMix1_00129	04/30/26	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_00028	04/30/26	Restek, Lot A0171368			(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330 LCS_00113	09/01/22	03/01/22	Acetonitrile, Lot Acetonitrile_00055	100 mL	8330 LCSMix2_00112	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_00096	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00098	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00111	1.1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00113	0.9 mL	PETN	100 ug/mL
					8330LCSMix1_00126	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_00102	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330 LCSMix2_00112	03/01/23		Restek, Lot A0171386		(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_00096	03/01/23		Restek, Lot A0161480		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00098	03/01/23		Restek, Lot A0161480		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00111	03/01/23		Restek, Lot A0172687		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00113	03/01/23		Restek, Lot A0172687		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00126	03/01/23		Restek, Lot A0171502		(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_00102	03/01/23		Restek, Lot A0175186		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
8330_OP_DMT_00012	04/30/22	09/23/21	Acetonitrile, Lot Acetonitrile 00056	10 mL	MNX,TNX,DNX_00063	1 mL	MNX	11.67 ug/mL
.MNX,TNX,DNX_00063	04/30/22		Agilent, Lot 0006599273		(Purchased Reagent)		MNX	116.7 ug/mL
8330_OP_DMT_00014	02/28/23	05/05/22	Acetonitrile, Lot Acetonitrile_00065	10 mL	MNX,TNX,DNX_00067	1 mL	DNX	10.04 ug/mL
							MNX	11.7 ug/mL
							TNX	10 ug/mL
.MNX,TNX,DNX_00067	02/28/23		Agilent, Lot 0006659035		(Purchased Reagent)		DNX	100.4 ug/mL
							MNX	117 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							TNX	100 ug/mL
8330IntermStk_00070	03/31/22	01/04/22	Acetonitrile, Lot ACN_238	10 mL	8330_NG1000_00006	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00006	1 mL	PETN	100 ug/mL
					8330ICALStock_00032	1 mL	1,3,5-Trinitrobenzene	10.02 ug/mL
							1,3-Dinitrobenzene	10.02 ug/mL
							2,4,6-Trinitrotoluene	10.04 ug/mL
							2,4-Dinitrotoluene	10.04 ug/mL
							2,6-Dinitrotoluene	10.04 ug/mL
							2-Amino-4,6-dinitrotoluene	10.04 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10.01 ug/mL
							4-Amino-2,6-dinitrotoluene	10.01 ug/mL
							4-Nitrotoluene	10.02 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10.04 ug/mL
							RDX	10 ug/mL
							Tetryl	10.02 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00067	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG1000_00006	01/04/23	Restek, Lot A0175997			(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00006	01/04/23	Restek, Lot A0175907			(Purchased Reagent)		PETN	1000 ug/mL
.8330ICALStock_00032	03/31/22	01/04/22	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00019	1 mL	1,3,5-Trinitrobenzene	100.2 ug/mL
							1,3-Dinitrobenzene	100.2 ug/mL
							2,4,6-Trinitrotoluene	100.4 ug/mL
							2,4-Dinitrotoluene	100.4 ug/mL
							2,6-Dinitrotoluene	100.4 ug/mL
							2-Amino-4,6-dinitrotoluene	100.4 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100.1 ug/mL
							4-Amino-2,6-dinitrotoluene	100.1 ug/mL
							4-Nitrotoluene	100.2 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100.4 ug/mL
							RDX	100 ug/mL
							Tetryl	100.2 ug/mL
					8330SurrStock_00169	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00019	03/31/22	Ultra Scientific, Lot CT-0801			(Purchased Reagent)		1,3,5-Trinitrobenzene	1002 ug/mL
							1,3-Dinitrobenzene	1002 ug/mL
							2,4,6-Trinitrotoluene	1004 ug/mL
							2,4-Dinitrotoluene	1004 ug/mL
							2,6-Dinitrotoluene	1004 ug/mL
							2-Amino-4,6-dinitrotoluene	1004 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1001 ug/mL
							4-Amino-2,6-dinitrotoluene	1001 ug/mL
							4-Nitrotoluene	1002 ug/mL

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							HMX	1000 ug/mL
							Nitrobenzene	1004 ug/mL
							RDX	1000 ug/mL
							Tetryl	1002 ug/mL
..8330SurrStock_00169	01/04/23	AccuStandard, Lot 219051500			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00067	07/08/22	AccuStandard, Lot 218031154-02			(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330IntermStk_00072	07/08/22	04/20/22	Acetonitrile, Lot ACN_238	10 mL	8330ICALStock_00033	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
.8330ICALStock_00033	04/01/23	04/01/22	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00021	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_00170	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00021	04/01/23	Agilent, Lot 0006604365			(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

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock_00170	04/01/23	AccuStandard, Lot 219051500			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00127	05/16/22	11/16/21	Acetonitrile, Lot Acetonitrile_00059	500 mL	8330SurrStkSS_00203	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00204	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00207	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00211	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00212	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00203	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00204	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00207	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00211	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00212	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00128	07/21/22	01/21/22	Acetonitrile, Lot Acetonitrile_00059	500 mL	8330SurrStkSS_00205	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00206	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00208	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00209	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00210	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00205	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00206	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00208	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00209	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00210	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
Alk daily lcs_01041	05/27/22	05/23/22	Di Water, Lot na	1000 mL	Alk stk std_00022	4 mL	Total Alkalinity as CaCO3	200 mg/L
.Alk stk std_00022	10/30/22	SPEX, Lot 2-85BT			(Purchased Reagent)		Total Alkalinity as CaCO3	50 g/L
IC CAL cl/so4_00419	05/18/22	05/11/22	Di Water, Lot na	100 mL	IC CL cal_00071	25 mL	Chloride	250 mg/L
					IC SO4 Cal_00003	25 mL	Sulfate	250 mg/L
.IC CL cal_00071	11/30/22	SPEX CertiPrep, Lot 5-67CL-2x			(Purchased Reagent)		Chloride	1000 mg/L
.IC SO4 Cal_00003	12/30/22	SPEX CertiPrep, Lot 5-118SO49-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00423	06/01/22	05/25/22	Di Water, Lot na	100 mL	IC CL cal_00071	25 mL	Chloride	250 mg/L
					IC SO4 Cal_00003	25 mL	Sulfate	250 mg/L
.IC CL cal_00071	11/30/22	SPEX CertiPrep, Lot 5-67CL-2x			(Purchased Reagent)		Chloride	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC SO4 Cal_00003	12/30/22	SPEX CertiPrep, Lot 5-118SO49-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00424	06/08/22	06/01/22	Di Water, Lot na	100 mL	IC SO4 ICV_00023	25 mL	Sulfate	250 mg/L
.IC SO4 ICV_00023	06/11/23	ERA, Lot 060720m			(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00637	05/18/22	05/11/22	Di Water, Lot NA	100 mL	IC BR ICV_00022	5 mL	Bromide	50 mg/L
					IC FL cal_00019	5 mL	Fluoride	50 mg/L
.IC BR ICV_00022	01/31/23	ricca, Lot 4108277			(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00019	01/31/23	Ricca, Lot 4108A94			(Purchased Reagent)		Fluoride	1000 mg/L
IC Cal low_00641	06/01/22	05/25/22	Di Water, Lot NA	100 mL	IC BR ICV_00022	5 mL	Bromide	50 mg/L
					IC FL cal_00019	5 mL	Fluoride	50 mg/L
.IC BR ICV_00022	01/31/23	ricca, Lot 4108277			(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00019	01/31/23	Ricca, Lot 4108A94			(Purchased Reagent)		Fluoride	1000 mg/L
IC LCS_01878	06/01/22	05/25/22	Di Water, Lot 27	200 mL	IC SO4 Cal_00003	20 mL	Sulfate	100 mg/L as N
.IC SO4 Cal_00003	12/30/22	SPEX CertiPrep, Lot 5-118SO49-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC LCS_01879	06/08/22	06/01/22	Di Water, Lot 27	200 mL	IC SO4 ICV_00023	20 mL	Sulfate	100 mg/L as N
.IC SO4 ICV_00023	06/11/23	ERA, Lot 060720m			(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00022	07/06/22	ERA, Lot 060720m			(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00759	06/01/22	05/25/22	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00025	5 mL	Sulfate	5000.51 mg/L
.IC SPK 6 ANIO_00025	10/12/22	10/12/21	Di Water, Lot NA	1000 mL	IC MS/MSD S04_00006	18.1408 g	Sulfate	10001 mg/L
..IC MS/MSD S04_00006	09/29/23	FISHER, Lot 147276			(Purchased Reagent)		Sulfate	0.5513 g/g
ICMS/MSD WEEK_00760	06/08/22	06/01/22	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00025	5 mL	Sulfate	5000.51 mg/L
.IC SPK 6 ANIO_00025	10/12/22	10/12/21	Di Water, Lot NA	1000 mL	IC MS/MSD S04_00006	18.1408 g	Sulfate	10001 mg/L
..IC MS/MSD S04_00006	09/29/23	FISHER, Lot 147276			(Purchased Reagent)		Sulfate	0.5513 g/g
NXN CAL INT_00623	06/08/22	06/01/22	Di Water, Lot NA	100 mL	NOXT Cal STD_00025	10 mL	Nitrate Nitrite as N	100 mg/L
.NOXT Cal STD_00025	10/31/22	RICCA, Lot 2104e50			(Purchased Reagent)		Nitrate Nitrite as N	1000 mg/L
NXN ICV INT_00599	06/08/22	06/01/22	Di Water, Lot NA	100 mL	NOXT ICV STD_00028	10 mL	Nitrate Nitrite as N	100 mg/L
.NOXT ICV STD_00028	01/20/23	ERA, Lot 420121m			(Purchased Reagent)		Nitrate Nitrite as N	1000 mg/L
RSK175methane_00010	04/16/22	Supelco Analytical, Lot 160-401480003-1			(Purchased Reagent)		Methane	650500 ug/L
RSK7gasMathes_00031	03/09/22	Matheson, Lot DL0396162			(Purchased Reagent)		Acetylene	10667 ug/L
							Ethane	12317 ug/L
							Ethylene	11490 ug/L
							Methane	6570.3 ug/L
RSK7gasMathes_00034	03/22/23	Matheson, Lot 9301615705			(Purchased Reagent)		Methane	6570.3 ug/L
SFD ICV INT_02134	07/05/22	05/16/22	ELGA Water, Lot N/A	500 mL	50% NaOH_00023	2 mL	Sodium Hydroxide	2000 mg/L
					SFD ICV STK_00008	3.62548 g	Sulfide	968.003 mg/L
.50% NaOH_00023	01/31/24	RICCA, Lot 1102857			(Purchased Reagent)		Sodium Hydroxide	50 %
.SFD ICV STK_00008	04/03/24	Acros, Lot A0412804			(Purchased Reagent)		Sulfide	0.1335 g/g
SFD ICV INT_02135	07/05/22	05/17/22	ELGA Water, Lot N/A	500 mL	50% NaOH_00023	2 mL	Sodium Hydroxide	2000 mg/L
					SFD ICV STK_00008	3.5806 g	Sulfide	956.02 mg/L
.50% NaOH_00023	01/31/24	RICCA, Lot 1102857			(Purchased Reagent)		Sodium Hydroxide	50 %
.SFD ICV STK_00008	04/03/24	Acros, Lot A0412804			(Purchased Reagent)		Sulfide	0.1335 g/g

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
TKN 25ppm_00831	05/29/22	04/28/22	Di Water, Lot 1	100 mL	TKN 100PPM_00144	25 mL	Nitrogen, Total Kjeldahl	25 mg/L
.TKN 100PPM_00144	05/29/22	04/28/22	Di Water, Lot 1	500 mL	TKN CAL STD_00019	50 mL	Nitrogen, Total Kjeldahl	100 mg/L
..TKN CAL STD_00019	08/31/24	nsi lab solutions, Lot 200817			(Purchased Reagent)		Nitrogen, Total Kjeldahl	1000 mg/L
TKN ICV 25_00117	05/29/22	04/28/22	DI water, Lot 1	100 mL	TKN ICV 100_00106	25 mL	Nitrogen, Total Kjeldahl	25 mg/L
.TKN ICV 100_00106	05/29/22	04/28/22	Di Water, Lot 1	500 mL	TKN ICV_00013	50 mL	Nitrogen, Total Kjeldahl	100 mg/L
..TKN ICV_00013	07/02/22	ERA, Lot 200220m			(Purchased Reagent)		Nitrogen, Total Kjeldahl	1000 mg/L
TOC ICV Std_00049	01/31/23	Ricca, Lot 1201B45			(Purchased Reagent)		Dissolved Organic Carbon - Quad	1000 ppm
							DOC Result 1	1000 ppm
							DOC Result 2	1000 ppm
							DOC Result 3	1000 ppm
							DOC Result 4	1000 ppm
TOC LCS Std_00054	12/31/23	Agilent, Lot 0006645841			(Purchased Reagent)		Dissolved Organic Carbon - Quad	1001 ppm
							DOC Result 1	1001 ppm
							DOC Result 2	1001 ppm
							DOC Result 3	1001 ppm
							DOC Result 4	1001 ppm

Reagent

50% NaOH_00023

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Certificate of Analysis

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

Lot Number: 1102857 **Product Number:** 7291

Manufacture Date: FEB 05, 2021
Expiration Date: JAN 2024

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

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

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Sulfuric Acid/Phenolphthalein)	50-52 % (w/w)	50 % (w/w)	723
Chloride (Cl)	max 0.002 %	< 0.002 %	
Heavy Metals (as Ag)	max 0.001 %	< 0.001 %	
Iron (Fe)	max 5 ppm	0.2 ppm	3126
NH_4OH Precipitate	max 0.01 %	0.00009 %	
Nickel (Ni)	max 5 ppm	< 1 ppm	3136
Nitrogen Compounds (as N)	max 5 ppm	< 5 ppm	
Phosphate (PO_4)	max 5 ppm	< 5 ppm	
Potassium (K)	max 0.01 %	0.002 %	3141
Sodium Carbonate (Na_2CO_3)	max 0.1 %	0.02 %	
Sulfate (SO_4)	max 0.001 %	< 0.001 %	

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

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

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

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



Israel Alamudun (02/05/2021)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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

Reagent

8330 LCS_00111

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20211112-106450.b\LCS111.D

Lims ID: LCS111 Inj. Date: 12-Nov-2021 17:18:59

Worklist ID: 280-0106450-021 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
4 HMX	0.5000	0.4991	99.8	65-135
8 RDX	0.5000	0.4595	91.9	68-130
9 2,4,6-Trinitrophenol	0.5000	0.4794	95.9	73-124
11 1,3,5-Trinitrobenzene	0.5000	0.4892	97.8	73-125
12 1,3-Dinitrobenzene	0.5000	0.4864	97.3	78-120
13 Nitrobenzene	0.5000	0.4870	97.4	65-134
15 Tetryl	0.5000	0.4805	96.1	64-128
16 Nitroglycerin	5.00	4.94	98.9	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4933	98.7	71-123
18 4AMD	0.5000	0.4752	95.0	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.4783	95.7	79-120
20 2,6-Dinitrotoluene	0.5000	0.4939	98.8	77-127
21 2,4-Dinitrotoluene	0.5000	0.4820	96.4	78-120
22 o-Nitrotoluene	0.5000	0.4819	96.4	70-127
23 p-Nitrotoluene	0.5000	0.4905	98.1	71-127
24 m-Nitrotoluene	0.5000	0.4585	91.7	73-125
25 PETN	5.00	4.87	97.5	73-127

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

280-155295-A-3-A 280-155295-B-7-A

Reagent

8330 LCS_00113

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20220301-108907.b\071-0601.D

Lims ID: 8330LCS113 Inj. Date: 01-Mar-2022 16:06:37

Worklist ID: 280-0108907-067 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	0.4640	92.8	65-135	66-115	
8 RDX	0.5000	0.4736	94.7	68-130	69-122	
9 2,4,6-Trinitrophenol	0.5000	0.5129	102.6	73-124	80-120	63-135
11 1,3,5-Trinitrobenzene	0.5000	0.5000	100.0	73-125	62-127	
12 1,3-Dinitrobenzene	0.5000	0.5038	100.8	78-120	59-131	
13 Nitrobenzene	0.5000	0.5047	100.9	65-134	46-144	
15 Tetryl	0.5000	0.4990	99.8	64-128	56-131	
16 Nitroglycerin	5.00	5.05	101.0	74-127	70-125	
17 2,4,6-Trinitrotoluene	0.5000	0.4952	99.0	71-123	46-139	
18 4AMD	0.5000	0.4892	97.8	76-125	43-120	
19 2-Amino-4,6-dinitrotolu	0.5000	0.4885	97.7	79-120	46-124	
20 2,6-Dinitrotoluene	0.5000	0.5015	100.3	77-127	51-130	
21 2,4-Dinitrotoluene	0.5000	0.4744	94.9	78-120	53-127	
22 o-Nitrotoluene	0.5000	0.4879	97.6	70-127	37-138	
23 p-Nitrotoluene	0.5000	0.5210	104.2	71-127	41-137	
24 m-Nitrotoluene	0.5000	0.4604	92.1	73-125	31-140	
25 PETN	5.00	5.23	104.6	73-127	67-127	

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

280-159056-B-1-B	280-159056-B-2-B	280-159056-B-3-B
280-159056-B-4-B	280-159130-B-1-A	280-159130-A-2-A
280-159130-B-3-A	280-159130-B-4-A	280-159130-A-5-A
280-159130-A-6-A	280-159137-A-1-A	280-159137-B-2-A
280-159137-A-3-A	280-159137-A-4-A	280-159137-A-5-A

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

280-159005-C-1-B	280-159005-C-2-B	280-159005-C-3-B
280-159005-D-4-D	280-159005-D-5-B	280-159043-C-1-B
280-159043-D-2-B	280-159043-D-3-B	280-159043-D-4-B
280-159043-D-5-B	280-159088-D-1-C	280-159088-C-2-C
280-159088-D-3-C	280-159088-D-4-C	

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

860-21351-C-1-C	280-159025-A-1-C	280-159025-A-2-C

Reagent

8330 LCSMix2_00112

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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. : 31451 **Lot No.:** A0171368

Description : 8330 Calibration Mix #2

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

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

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Tetryl **CAS #** 479-45-8 **Purity** 99%	(Lot 091120JLM)	1,008.0 µg/mL	+/- 5.9872 µg/mL +/- 55.2213 µg/mL +/- 64.3934 µg/mL	Gravimetric Unstressed Stressed
2	4-Amino-2,6-dinitrotoluene **CAS #** 19406-51-0 **Purity** 99%	(Lot ER070908-01)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL	Gravimetric Unstressed Stressed
3	2-Amino-4,6-dinitrotoluene **CAS #** 35572-78-2 **Purity** 99%	(Lot 29550-55)	1,006.0 µg/mL	+/- 5.9753 µg/mL +/- 55.1117 µg/mL +/- 64.2657 µg/mL	Gravimetric Unstressed Stressed
4	2,6-Dinitrotoluene **CAS #** 606-20-2 **Purity** 99%	(Lot 1437483V)	1,008.0 µg/mL	+/- 5.9872 µg/mL +/- 55.2213 µg/mL +/- 64.3934 µg/mL	Gravimetric Unstressed Stressed
5	2-Nitrotoluene **CAS #** 88-72-2 **Purity** 99%	(Lot BCBZ7826)	1,010.0 µg/mL	+/- 5.9991 µg/mL +/- 55.3308 µg/mL +/- 64.5212 µg/mL	Gravimetric Unstressed Stressed
6	4-Nitrotoluene **CAS #** 99-99-0 **Purity** 99%	(Lot FAU01)	1,010.0 µg/mL	+/- 5.9991 µg/mL +/- 55.3308 µg/mL +/- 64.5212 µg/mL	Gravimetric Unstressed Stressed
7	3-Nitrotoluene **CAS #** 99-08-1 **Purity** 99%	(Lot 07329LG)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL	Gravimetric Unstressed Stressed

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

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

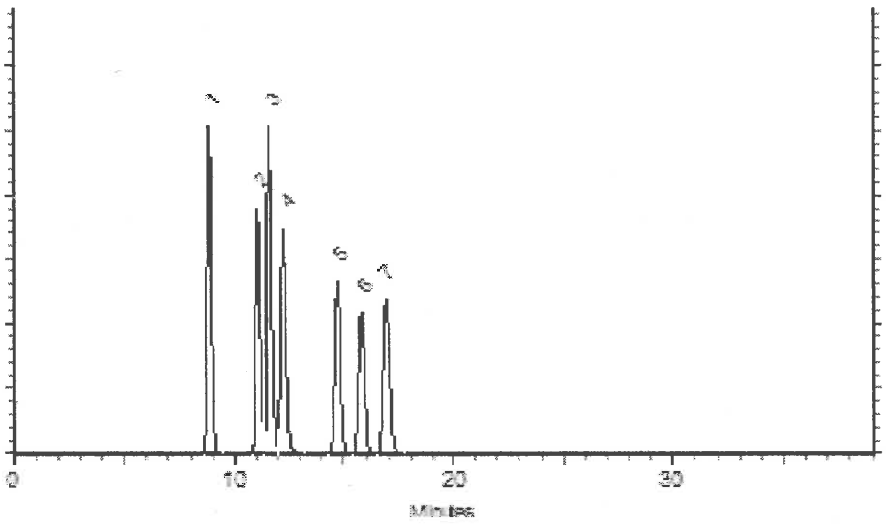
Flow Rate:
1.0 ml/min.

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.

Cory Meyer - Operations Tech I

Alexis Shelow - Operations Tech I

Date Mixed: 15-Apr-2021 **Balance:** 1128342314

Date Passed: 20-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330 Stock_TS_00019

Agilent

Certificate of Analysis
ISO Guide 34

Stock Standard

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

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

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

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

Matrix: acetonitrile

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

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

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

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

ANAB ACCREDITED TESTING LABORATORY
ISO17025 Cert No. AT-1937

Certificate of Analysis
ISO Guide 34

Stock Standard

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

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

Analyte	CAS#	Analyte Lot	True Value

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

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

ISO17025 Cert No.
AT-1937

Reagent

8330 Stock_TS_00021

Agilent

Certificate of Analysis

Product Name: Stock Standard

Product Number: NAIM-833E-1

Lot Number: 0006604365

Lot Issue Date: 28-May-2021

Expiration Date: 30-Jun-2024

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
HMX	002691-41-0	RM06237	1001 ± 5 µg/mL
RDX	000121-82-4	RM10915	1001 ± 5 µg/mL
1,3,5-trinitrobenzene	000099-35-4	RM17843	1001 ± 5 µg/mL
m-dinitrobenzene	000099-65-0	RM14290	1002 ± 5 µg/mL
nitrobenzene	000098-95-3	RM11472	1004 ± 5 µg/mL
2,4,6-trinitrotoluene (TNT)	000118-96-7	RM16204	1001 ± 5 µg/mL
2,4-dinitrotoluene	000121-14-2	RM10279	1004 ± 5 µg/mL
tetryl	000479-45-8	RM14651	1003 ± 5 µg/mL
2,6-dinitrotoluene	000606-20-2	RM10763	1003 ± 5 µg/mL
2-nitrotoluene	000088-72-2	NT01996	1004 ± 5 µg/mL
3-nitrotoluene	000099-08-1	NT02212	1002 ± 5 µg/mL
4-nitrotoluene	000099-99-0	NT02096	1002 ± 5 µg/mL
2-amino-4,6-dinitrotoluene	035572-78-2	RM04229	1004 ± 5 µg/mL
4-amino-2,6-dinitrotoluene	019406-51-0	RM04226	1003 ± 5 µg/mL

Matrix: acetonitrile

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

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert
No. AT-1937

Reagent

8330_NG_Stk_00096

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Certificate of Composition

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0161840

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : June 30, 2023 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin	5,032.0 µg/mL	+/- 46.7949	µg/mL	Gravimetric
	CAS # 55-63-0 (Lot 200507JLM)		+/- 278.0096	µg/mL	Unstressed
	Purity 99%		+/- 323.4663	µg/mL	Stressed

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00098

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0161840

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : June 30, 2023 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin	5,032.0 µg/mL	+/- 46.7949	µg/mL	Gravimetric
	CAS # 55-63-0 (Lot 200507JLM)		+/- 278.0096	µg/mL	Unstressed
	Purity 99%		+/- 323.4663	µg/mL	Stressed

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG1000_00006

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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.:** A0175997

Description : Nitroglycerin Standard

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

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

Expiration Date : September 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Nitroglycerin (Lot 200507JLM)	1,000.0 µg/mL	+/- 5.9397 µg/mL	Gravimetric
	CAS # 55-63-0		+/- 54.7830 µg/mL	Unstressed
	Purity 99%		+/- 63.8824 µg/mL	Stressed

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 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
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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_OP_DMT_00012

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20210923-104924.b\09230005.D

Lims ID: DMT LCS 12 Inj. Date: 23-Sep-2021 17:32:02

Worklist ID: 280-0104924-005 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
2 TNX	0.5005	0.5409	108.1	50-150
5 DNX	0.5005	0.5315	106.2	50-150
6 MNX	0.5835	0.6076	104.1	50-150

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

410-54924-B-2-B 410-54924-B-4-B 410-54924-B-6-D

410-54924-B-8-D 410-54873-B-2-F 410-54873-B-4-B

410-54873-B-6-B

Reagent

8330_OP_DMT_00014

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20220505-110724.b\05050011.D

Lims ID: DMTLCS14 Inj. Date: 05-May-2022 19:41:44

Worklist ID: 280-0110724-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
3 TNX	0.5000	0.5258	105.2	50-150		
6 DNX	0.5020	0.5146	102.5	50-150	66-119	
7 MNX	0.5850	0.5996	102.5	68-123	57-132	

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

580-113280-A-8-A 280-161899-A-1-A 280-161899-A-2-A

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

410-82564-D-1-A 410-82564-D-2-A 410-82564-D-3-A
410-82564-D-4-A 410-82564-D-5-A 410-82564-D-6-A
410-82564-D-7-A 410-82564-D-8-A 410-82564-E-9-A
410-82564-E-10-A 410-82564-E-11-A 410-82564-D-12-A
410-82564-D-13-A 280-161779-F-1-A 280-161779-G-2-A
280-161779-G-3-A 280-161779-F-4-A

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

550-183393-N-1-A

Reagent

8330_PETN_Stk_00111

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CERTIFIED REFERENCE MATERIAL

Certificate of Composition

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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0172687

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, 2024 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	PETN	5,032.0 µg/mL	+/- 46.7949	µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 278.0096	µg/mL	Unstressed
	Purity 99%		+/- 323.4663	µg/mL	Stressed

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

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

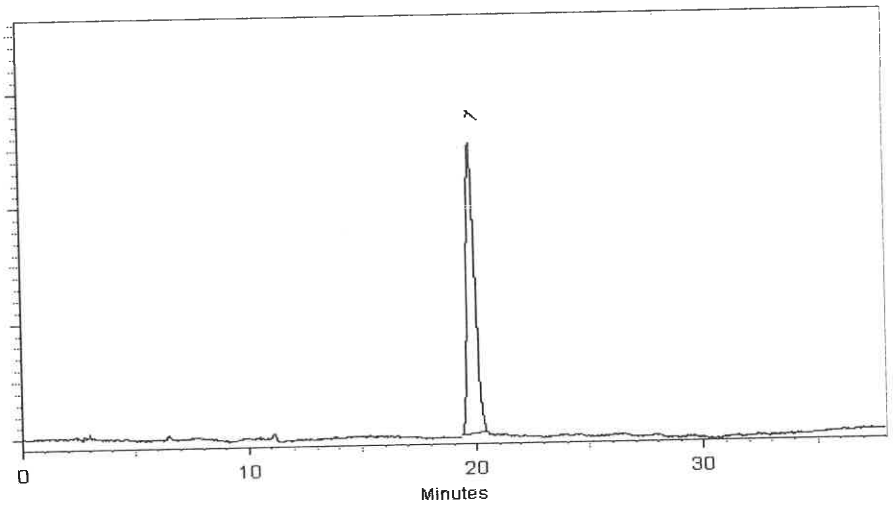
Flow Rate:
1.0 ml/min.

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.

Katelyn McGinni - Operations Tech I

Date Mixed: 24-May-2021 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

Date Passed: 27-May-2021

REVIEWED
By Jennifer Polimo at 2:38 pm, May 27, 2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00113

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Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0172687

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, 2024 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	PETN	5,032.0 µg/mL	+/- 46.7949	µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 278.0096	µg/mL	Unstressed
	Purity 99%		+/- 323.4663	µg/mL	Stressed

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

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

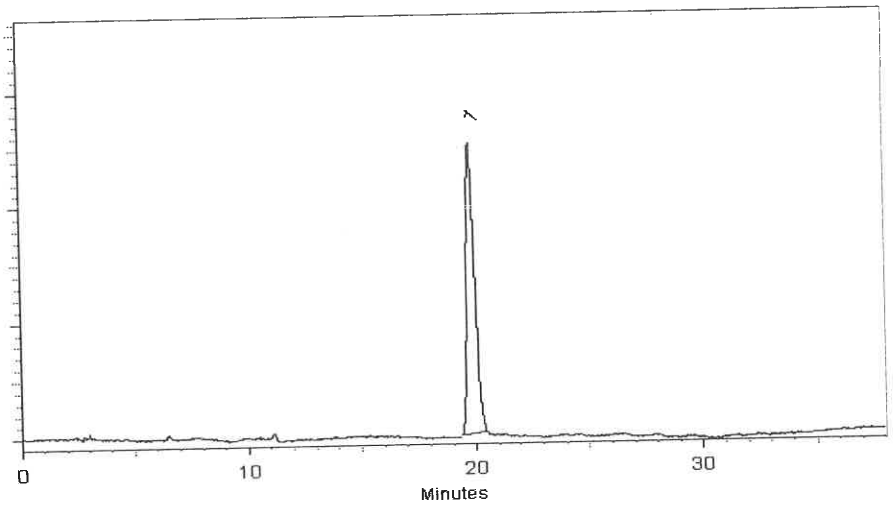
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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Date Mixed: 24-May-2021 **Balance:** 1128353505

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Date Passed: 27-May-2021

REVIEWED
By Jennifer Polimo at 2:38 pm, May 27, 2021

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General Certified Reference Material Notes

Expiration Notes:

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Purity Notes:

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN1000_00006

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31600 **Lot No.:** A0175907

Description : PETN Standard

PETN Standard 1000µg/mL, Methanol, 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		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	PETN		1,006.8 µg/mL	+/- 10.1422	µg/mL	Gravimetric
	CAS # 78-11-5	(Lot 051108JLM)		+/- 55.7605	µg/mL	Unstressed
	Purity 99%			+/- 64.8363	µg/mL	Stressed

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

General Certified Reference Material Notes

Expiration Notes:

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Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
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Certified Uncertainty Value Notes:

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Manufacturing Notes:

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Handling Notes:

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Reagent

8330LCSMix1_00126

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Certificate #3222.01

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

Catalog No. : 31450 **Lot No.:** A0171502

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, 2026 **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** 99%	(Lot 210324JLM)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL		Gravimetric Unstressed Stressed
2	RDX **CAS #** 121-82-4 **Purity** 99%	(Lot 080220JLM)	1,003.0 µg/mL	+/- 5.9575 µg/mL +/- 54.9474 µg/mL +/- 64.0740 µg/mL		Gravimetric Unstressed Stressed
3	1,3,5-Trinitrobenzene **CAS #** 99-35-4 **Purity** 99%	(Lot A6TDK)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL		Gravimetric Unstressed Stressed
4	1,3-Dinitrobenzene **CAS #** 99-65-0 **Purity** 99%	(Lot 1-DXX-24-1)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL		Gravimetric Unstressed Stressed
5	Nitrobenzene **CAS #** 98-95-3 **Purity** 99%	(Lot MKCK4267)	1,010.0 µg/mL	+/- 5.9991 µg/mL +/- 55.3308 µg/mL +/- 64.5212 µg/mL		Gravimetric Unstressed Stressed
6	2,4,6-Trinitrotoluene **CAS #** 118-96-7 **Purity** 99%	(Lot D10587700)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL		Gravimetric Unstressed Stressed
7	2,4-Dinitrotoluene **CAS #** 121-14-2 **Purity** 99%	(Lot MKAA0690)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL		Gravimetric Unstressed Stressed

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

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

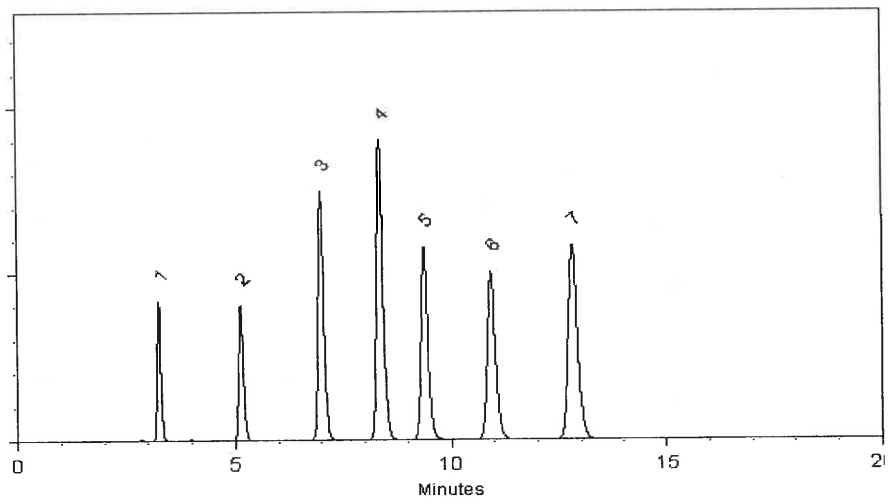
Flow Rate:
1.0 ml/min.

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.

Lane Kibe - Mix Technician

Date Mixed: 20-Apr-2021 **Balance:** 1127510105

Alexis Shelow - Operations Tech I

Date Passed: 23-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
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Reagent

8330LCSMix1_00129

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Catalog No. : 31450 **Lot No.:** A0171502

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, 2026 **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** 99%	(Lot 210324JLM)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL		Gravimetric Unstressed Stressed
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3	1,3,5-Trinitrobenzene **CAS #** 99-35-4 **Purity** 99%	(Lot A6TDK)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL		Gravimetric Unstressed Stressed
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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:
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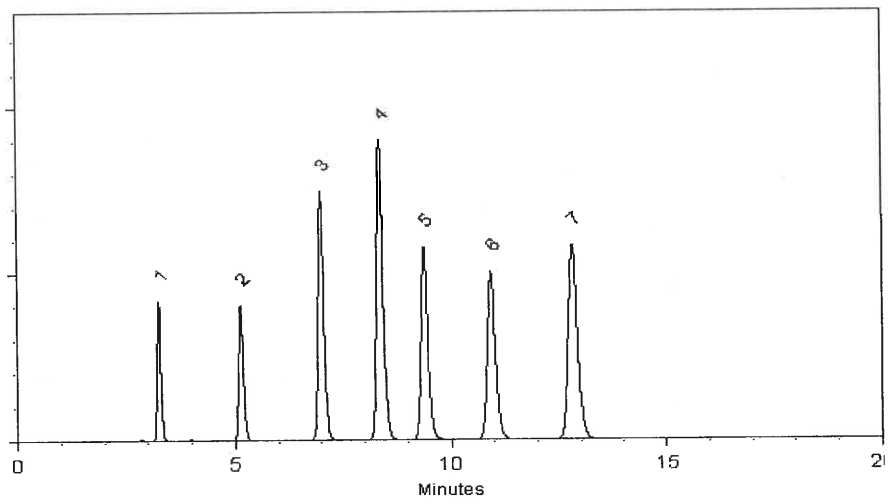
Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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Reagent

8330LCSmix2_00028

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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. : 31451 **Lot No.:** A0171368

Description : 8330 Calibration Mix #2

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

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

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Tetryl		1,008.0 µg/mL	+/- 5.9872 µg/mL		Gravimetric
	CAS # 479-45-8	(Lot 091120JLM)		+/- 55.2213 µg/mL		Unstressed
	Purity 99%			+/- 64.3934 µg/mL		Stressed
2	4-Amino-2,6-dinitrotoluene		1,002.0 µg/mL	+/- 5.9516 µg/mL		Gravimetric
	CAS # 19406-51-0	(Lot ER070908-01)		+/- 54.8926 µg/mL		Unstressed
	Purity 99%			+/- 64.0101 µg/mL		Stressed
3	2-Amino-4,6-dinitrotoluene		1,006.0 µg/mL	+/- 5.9753 µg/mL		Gravimetric
	CAS # 35572-78-2	(Lot 29550-55)		+/- 55.1117 µg/mL		Unstressed
	Purity 99%			+/- 64.2657 µg/mL		Stressed
4	2,6-Dinitrotoluene		1,008.0 µg/mL	+/- 5.9872 µg/mL		Gravimetric
	CAS # 606-20-2	(Lot 1437483V)		+/- 55.2213 µg/mL		Unstressed
	Purity 99%			+/- 64.3934 µg/mL		Stressed
5	2-Nitrotoluene		1,010.0 µg/mL	+/- 5.9991 µg/mL		Gravimetric
	CAS # 88-72-2	(Lot BCBZ7826)		+/- 55.3308 µg/mL		Unstressed
	Purity 99%			+/- 64.5212 µg/mL		Stressed
6	4-Nitrotoluene		1,010.0 µg/mL	+/- 5.9991 µg/mL		Gravimetric
	CAS # 99-99-0	(Lot FAU01)		+/- 55.3308 µg/mL		Unstressed
	Purity 99%			+/- 64.5212 µg/mL		Stressed
7	3-Nitrotoluene		1,000.0 µg/mL	+/- 5.9397 µg/mL		Gravimetric
	CAS # 99-08-1	(Lot 07329LG)		+/- 54.7830 µg/mL		Unstressed
	Purity 99%			+/- 63.8824 µg/mL		Stressed

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

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

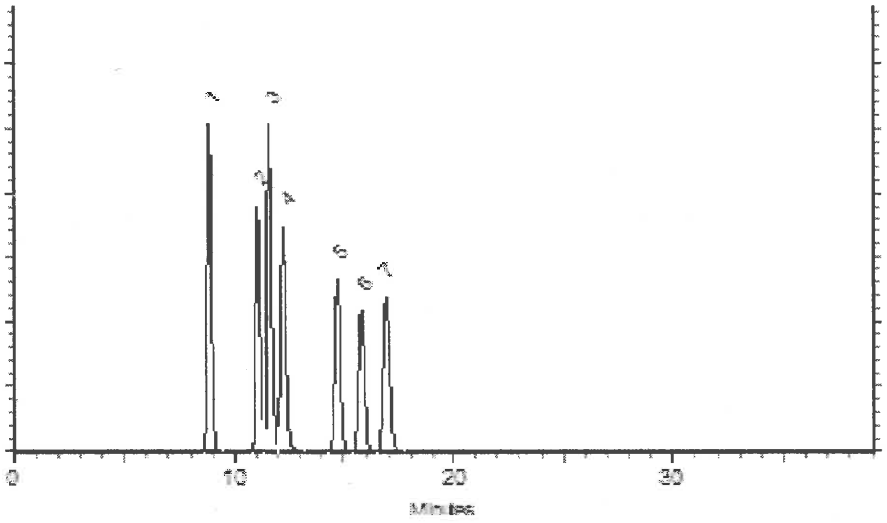
Flow Rate:
1.0 ml/min.

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.

Cory Meyer - Operations Tech I

Alexis Shelow - Operations Tech I

Date Mixed: 15-Apr-2021 **Balance:** 1128342314

Date Passed: 20-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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- 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.
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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

8330PAStkPS_00067

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3
Description: Picric acid
Lot: 218031154-02
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Jun 8, 2020
Expiration: Jul 8, 2022
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

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

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

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

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

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

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

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

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

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

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

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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

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

Reagent

8330Surrogate_00127

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20211116-106552.b\071-0801.D

Lims ID: Surr127 Inj. Date: 16-Nov-2021 17:37:51

Worklist ID: 280-0106552-072 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
$ 10 1,2-Dinitrobenzene	0.5000	0.5055	101.1	83-119

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

280-155547-B-1-A

Reagent

8330Surrogate_00128

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20220121-108087.b\01210004.D

Lims ID: CaCl2_Sol_00078 Inj. Date: 21-Jan-2022 15:41:36

Worklist ID: 280-0108087-004 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
$ 10 1,2-Dinitrobenzene	0.5000	0.5226	104.5	78-119

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

280-157690-A-1-B	280-157690-A-2-B	280-157690-A-3-B
280-157690-A-4-B	280-157690-A-5-B	280-157690-A-6-B
280-157690-A-7-E	280-157690-A-8-B	280-157690-A-9-B
280-157690-A-10-B	280-157690-A-11-B	280-157690-A-12-B
280-157690-A-13-B	280-157690-A-14-B	280-157690-A-15-B
280-157690-A-16-B	280-157690-A-17-B	280-157690-A-18-B

Reagent

8330SurrStkSS_00203

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

Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943 µg/mL	Unstressed
	Purity 99%		+/- 57.5086 µg/mL	Stressed

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.
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- Purity values are rounded to the nearest whole number.

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- 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
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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:

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Reagent

8330SurrStkSS_00204

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Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943 µg/mL	Unstressed
	Purity 99%		+/- 57.5086 µg/mL	Stressed

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

General Certified Reference Material Notes

Expiration Notes:

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Purity Notes:

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Manufacturing Notes:

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Handling Notes:

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Reagent

8330SurrStkSS_00205

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CERTIFIED REFERENCE MATERIAL

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Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
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Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

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Reagent

8330SurrStkSS_00206

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Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
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Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

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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

8330SurrStkSS_00207

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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. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943	µg/mL	Unstressed
	Purity 99%		+/- 57.5086	µg/mL	Stressed

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 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

8330SurrStkSS_00208

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943 µg/mL	Unstressed
	Purity 99%		+/- 57.5086 µg/mL	Stressed

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 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

8330SurrStkSS_00209

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CERTIFIED REFERENCE MATERIAL

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943 µg/mL	Unstressed
	Purity 99%		+/- 57.5086 µg/mL	Stressed

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 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

8330SurrStkSS_00210

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ilac-MRA

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943 µg/mL	Unstressed
	Purity 99%		+/- 57.5086 µg/mL	Stressed

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 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

8330SurrStkSS_00211

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CERTIFIED REFERENCE MATERIAL

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943 µg/mL	Unstressed
	Purity 99%		+/- 57.5086 µg/mL	Stressed

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 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

8330SurrStkSS_00212

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CERTIFIED REFERENCE MATERIAL

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943 µg/mL	Unstressed
	Purity 99%		+/- 57.5086 µg/mL	Stressed

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 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:

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- 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
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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

8330SurrStock_00169

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

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

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

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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

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

Reagent

8330SurrStock_00170

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

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



Signal Word: Danger

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

Certified Reference Material

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

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

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

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

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

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

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

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

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

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

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

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

Reagent

Alk stk std_00022

spex certiprep

ACCREDITED
Reference Materials Producer
Cert# 2495.01

SPEXertificate®
Certificate of Reference Material

ilac-MRA ACCREDITED
Chemical Testing
Cert# 2495.02

Catalog Number: VTACO-3 **Lot No.:** 2-85BT

Description: Custom Standard

Matrix: H_2O

This Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for conductance meters and conductivity cells used in water purity measurements. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared gravimetrically using high purity sodium carbonate (Na_2CO_3) Lot# H04155 and ASTM Type I water, using Class A laboratory ware to give precise concentration.

Certified Value:

Analyte:	Na_2CO_3
Alkalinity:	50,000 µg/mL as $CaCO_3$
Uncertainty:	±500 µg/mL
Traceable to:	Standard made from NIST SRM # 351a

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867. This CRM is guaranteed stable to ±1% of the certified concentration inclusive of uncertainty of measurements and other components such as homogeneity, long and short-term stability for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: OCT - - 2021

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO/IEC 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials – Contents of certificates, labels, and accompanying documentation
- ISO Guide 35: Reference Materials – Guidance for characterization and assessment of homogeneity and stability
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:
All analytes and matrix materials are obtained and verified by Spex CertiPrep from pre-qualified vendors as per ISO 9001, ISO/IEC 17025 and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of Spex CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at CRMSales@spex.com.

Instructions for Use:
Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:
Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:
The homogeneity of the CRM has been confirmed by procedures consistent with ISO/IEC 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:
The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X = certified value, U = expanded uncertainty, x = property value
- $U = ku_c$ where k = 2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:
All certified values reported were derived from the Certification Report, Spex CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at CRMSales@spex.com.

Legal Notice:
Spex CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against Spex CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall Spex CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

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203 Norcross Avenue • Metuchen, NJ 08840
www.spexcertiprep.com • Email: CRMSales@spex.com
Phone: 1.800.LAB.SPEX • 1.732.549.7144 Fax: 732.603.9647

Reagent

IC BR ICV_00022

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br

Lot Number: 4108277 **Product Number:** 1180

Manufacture Date: AUG 02, 2021
Expiration Date: JAN 2023

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

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1180-16	500 mL natural poly	18 months
1180-4	120 mL natural poly	18 months

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

Karen Bodewes

Karen Bodewes (08/02/2021)
Quality Control
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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

Reagent

IC CL cal_00071

ACCREDITED
Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

ilac-MRA ACCREDITED
Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 5-67CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 998 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 09141H. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 997 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.01	NO_3^-	<0.06
F^-	<0.05	$PO4^{-3}$	<0.03
NO_2^-	<0.05	$SO4^{-2}$	<0.08

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2021 Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

IC FL cal_00019

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Fluoride Standard, 1000 ppm F^-

Lot Number: 4108A94 **Product Number:** 3173

Manufacture Date: AUG 04, 2021

Expiration Date: JAN 2023

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1005 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months
3173-32	1 L natural poly	18 months

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

Karen Bodewes (08/04/2021)

Quality Control

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

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

Reagent

IC MS/MSD S04_00006

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**P304**	**Quality Test / Release Date 3/2/2015**	
Lot Number	**147276**		
Description	**POTASSIUM SULFATE, CRYSTAL, CERTIFIED, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Feb-2020**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	This product is not manufactured from, or with, any type of animal product, nor any derivative of an animal product. As such, this product should not be considered a vector for BSE or TSE.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE CRYSTALS
ASSAY	%	>= 99	99.4
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.005	<0.0050
NITROGEN COMPOUNDS	ppm	<= 5	<5
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.5	5.5
SODIUM (Na)	%	<= 0.02	<0.020



Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC SO4 Cal_00003

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 5-118SO49-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 999 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# AN07201A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as BaSO4.

Instrumental Analysis by Ion Chromatography: 999 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.01	NO_2^-	<0.01
Cl^-	<0.03	NO_3^-	<0.02
F^-	<0.003	$PO4^{-3}$	<0.08

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2021 Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

IC SO4 ICV_00022

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product:	1000 mg/L Sulfate
Catalog Number:	062-125mL, 995-500mL
Lot No.	060720m
Starting Material:	Potassium Sulfate (K_2SO_4)
Matrix:	18 megohm deionized water
Density:	1.0001 ± 0.0010 mg/L at 21.2 °C and 755 mm Hg
Verification Method:	Ion Chromatography
Certificate Issue Date:	July 13, 2020
Expiration Date:	July 6, 2022
Revision Number:	Original

CERTIFICATION

Parameter	Certified Value[1]	Uncertainty[2]	NIST Traceability	
	mg/L	%	SRM Number[3]	Recovery %
Sulfate	1000	0.984	3181	97.7

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

Reagent

IC SO4 ICV_00023

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product:	1000 mg/L Sulfate
Catalog Number:	062-125mL, 995-500mL
Lot No.	260621m
Starting Material:	Potassium Sulfate (K_2SO_4)
Matrix:	18 megohm deionized water
Density:	0.9991 ± 0.0003 g/mL 18.5 °C and 749 mm Hg
Verification Method:	Ion Chromatography
Certificate Issue Date:	July 1, 2021
Expiration Date:	June 11, 2023
Revision Number:	Original

CERTIFICATION

Parameter	Certified Value[1]	Uncertainty[2]	NIST Traceability	
	mg/L	%	SRM Number[3]	Recovery %
Sulfate	1000	0.983	3181	99.8

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

Reagent

MNX,TNX,DNX_00057

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-23984 **Lot Issue Date:** 10-Mar-2021

Lot Number: 0006594482 **Expiration Date:** 30-Apr-2022

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	N/A	RM12426	99.7 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	N/A	RM12428	100.1 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	N/A	RM12428	116.7 ± 0.6 µg/mL

Matrix: acetonitrile

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

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

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

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

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

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760

www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY
ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis

Product Number: CUS-23984 **Lot Number:** 0006594482

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

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

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760
Page: 2 of 2
www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY
ISO 17025 Cert
No. AT-1937

Reagent

MNX,TNX,DNX_00063

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-23984

Lot Number: 0006599273

Lot Issue Date: 02-Apr-2021

Expiration Date: 30-Apr-2022

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	N/A	RM12426	100.4 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	N/A	RM12428	100.1 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	N/A	RM12428	116.7 ± 0.6 µg/mL

Matrix: acetonitrile

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

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

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

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

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

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760

www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY
ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis

Product Number: CUS-23984 **Lot Number:** 0006599273

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

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

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760
Page: 2 of 2
www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO 17025 Cert
No. AT-1937

Reagent

MNX,TNX,DNX_00066

ISO 17034

Agilent
Trusted Answers

Reference Material Certificate

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

Lot Number: 0006659035
Lot Issue Date: 11-Jan-2022
Expiration Date: 28-Feb-2023

Component Name	CERTIFIED VALUES Concentration	Expanded 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)	100.4 ±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	117.0 ±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

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

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

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

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

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

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

Expiration of Certification:

Reagent

MNX,TNX,DNX_00067

ISO 17034

Agilent
Trusted Answers

Reference Material Certificate

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

Lot Number: 0006659035
Lot Issue Date: 11-Jan-2022
Expiration Date: 28-Feb-2023

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
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1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	117.0 ±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

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

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

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

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

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

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

Expiration of Certification:

Reagent

NH3 ICV STD_00032

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

CERTIFICATE OF ANALYSIS

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

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	N2-NH669544
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.0000%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 3 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **1005 ± 3 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

Assay Method #2 **997 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

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

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

Characterization of CRM/RM by Two Methods

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

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

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

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

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

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

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

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

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

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

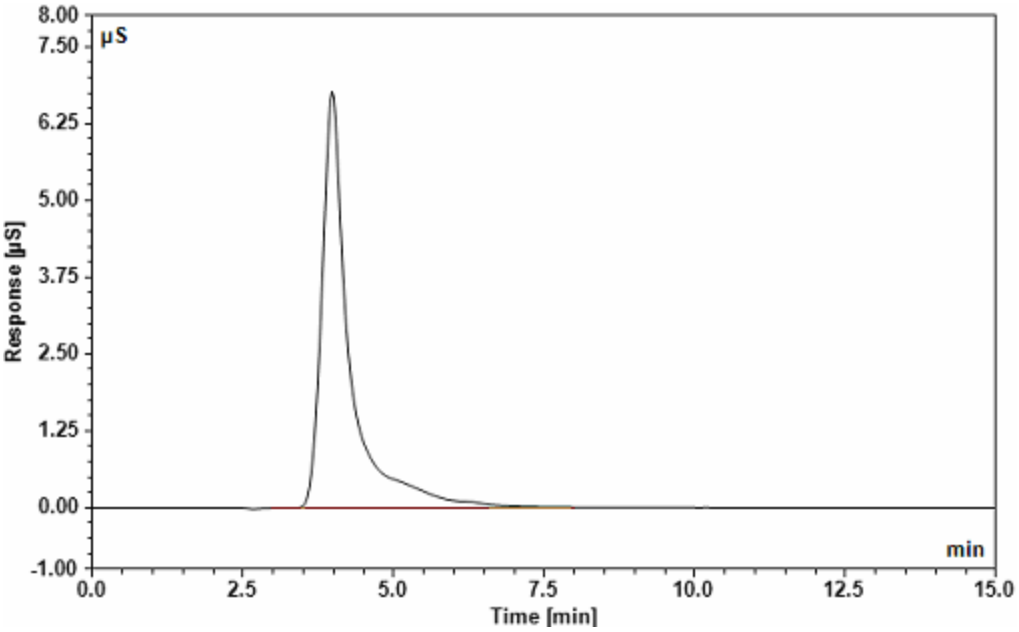
4.2 Balance Calibration

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

4.3 Glassware Calibration

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

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

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

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 01, 2018

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

11.2 Lot Expiration Date

- **August 01, 2022**

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

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

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

James King Jr
Chemist, Technical Manager



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

NOXT Cal STD_00025

RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3)

Lot Number: 2104E50 **Product Number:** 5459

Manufacture Date: APR 19, 2021
Expiration Date: OCT 2022

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

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

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

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

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

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

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

Kerry Kingsbury (04/19/2021)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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

Reagent

PicricARestek_00102

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.:** A0175186

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 : August 31, 2026 **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	1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
	CAS # 88-89-1 (Lot 06130CU)		+/- 55.1117	µg/mL	Unstressed
	Purity 99%		+/- 64.2657	µg/mL	Stressed

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

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

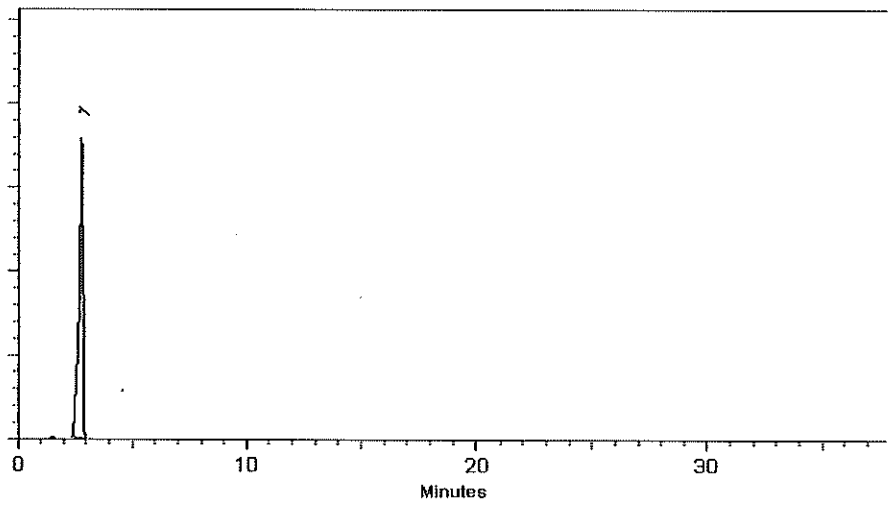
Flow Rate:
1.0 ml/min.

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.

Lane Kibe - Mix Technician

Date Mixed: 06-Aug-2021 **Balance:** B345965662

Alexis Shelow - Operations Tech I

Date Passed: 10-Aug-2021

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

RSK175methane_00010

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA, LLC
6141 Easton Road
Bldg 1
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF BATCH ANALYSIS

Grade of Product: CP

Customer:	SIGMA-ALDRICH		
Part Number:	ME CPP14C514	Reference Number:	160-401480003-1
Cylinder Analyzed:	ST0000198540	Cylinder Volume:	14.0 LG
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	240 PSIG
Analysis Date:	Apr 16, 2019	Valve Outlet:	160
Lot Number:	160-401480003-1		

Expiration Date: Apr 16, 2022

ANALYTICAL RESULTS

Component	Requested Purity	Certified Concentration
METHANE	> 99.0 %	> 99.0 %

Cylinders in Batch:

ST0000198540, ST0000198541, ST0000198542, ST0000198543

Notes:MANUFACTURE DATE 4-16-2019
PO# P481562
P/N 22562

Impurities verified against analytical standards traceable to NIST by weight and/or analysis.

Approved for Release

Reagent

RSK7gasMathes_00031

MATHESON
ask. . .The Gas Professionals™

Analysis Report

To: MATHESON LINWELD
4705 NOME ST
P O BOX 39126
DENVER, CO 80239

MTG Customer No: 504445

Manufacturing Location
1700 SCEPTER ROAD
WAVERLY, TN 37185

Product: Multi-Component Mixture
Grade: CERTIFIED
MTG Part No: G2682238

Cylinder Size: 4
Valve: CGA 350 SS
Contents:
Net: 7.57 ft³; 0.21 m³

Pressure: 1400 psia @ 70°F; 9653 kPa @ 21°C

CYLINDER NUMBER(S)
*DI.039162

	Requested Concentration	Certified Concentration	Units -	Blend Tolerance	Certified Accuracy
Butane	1.00	1.00	%	±10%	±2%
Acetylene	1.00	1.00	%	±10%	±2%
Isobutylene	1.00	1.01	%	±10%	±2%
Propane	1.00	1.00	%	±10%	±2%
Ethane	1.00	1.01	%	±10%	±2%
Ethylene	1.00	1.00	%	±10%	±2%
Methane	1.00	1.00	%	±10%	±2%
Nitrogen	Balance	Balance			

TRACEABILITY

COMMENTS

* Indicates the actual cylinder(s) analyzed.

Lot No: 9300606746
Fill Date: 02/23/2020
Expiration Date: 03/09/2022
Analysis Date: 03/09/2020

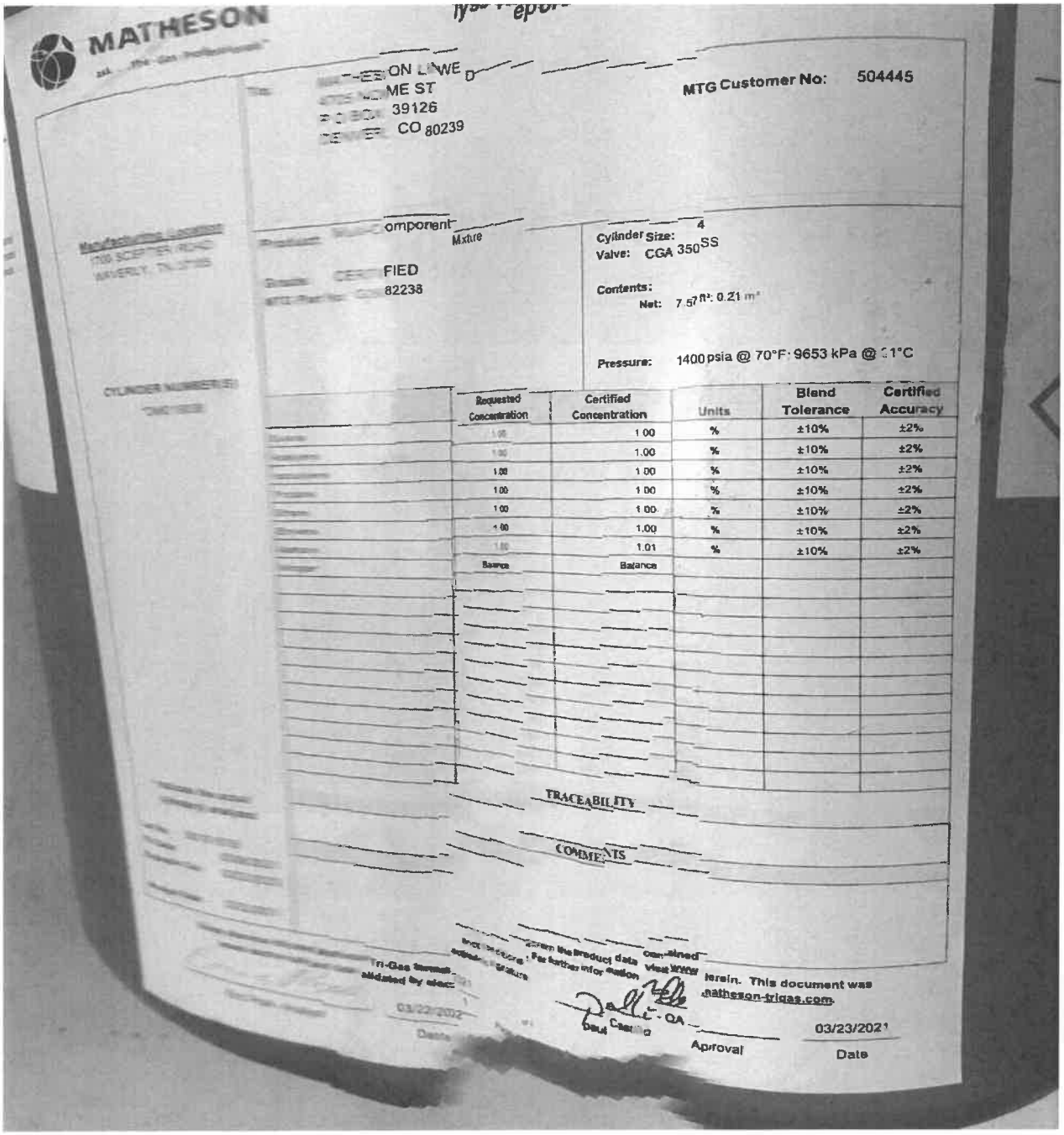
Unless otherwise indicated, Matheson Tri-Gas terms and conditions govern the product data contained herein. This document was issued electronically and data validated by electronic signature. For further information visit www.matheson-trigas.com.

Eric Popa - Analyst — 03/09/2020 Date

Meriah Boyett - QA Approval — 03/09/2020 Date

Reagent

RSK7gasMathes_00034


MATHESON
MTG Customer No: 504445
CO 80239
Component
Mixture
Cylinder Size: 4
Valve: CGA 350 SS
Contents:
Net: 7.57 ft³: 0.21 m³
Pressure: 1400 psia @ 70°F: 9653 kPa @ 21°C
Requested Concentration
Certified Concentration
Units
Blend Tolerance
Certified Accuracy
1.00 % ±10% ±2%
1.00 % ±10% ±2%
1.00 % ±10% ±2%
1.00 % ±10% ±2%
1.00 % ±10% ±2%
1.00 % ±10% ±2%
1.01 % ±10% ±2%
Balance Balance
TRACEABILITY
COMMENTS
03/22/2021
03/23/2021
Approval
Date

MTG Part No: [illegible]

Net: [illegible]

Pressure: 1400 psia @ 70°F; 9653 kPa @ 21°C

CYLINDER NUMBER(S)

*DM019038

	Requested Concentration	Certified Concentration	Units	Blend Tolerance	Certified Accuracy
Butane	1.00	1.00	%	±10%	±2%
Acetylene	1.00	1.00	%	±10%	±2%
Isobutylene	1.00	1.00	%	±10%	±2%
Propane	1.00	1.00	%	±10%	±2%
Ethane	1.00	1.00	%	±10%	±2%
Ethylene	1.00	1.00	%	±10%	±2%
Methane	1.00	1.01	%	±10%	±2%
Nitrogen	Balance	Balance			

TRACEABILITY

COMMENTS

*** indicates the actual cylinder(s) analyzed.**

Lot No: 9301615705
Fill Date: 03/08/2021
Expiration Date: 03/22/2023

Analysis Date: 03/22/2021

Unless otherwise indicated, Matheson Tri-Gas terms and conditions govern the product data contained herein. This document was issued electronically and data validated by electronic signature. For further information visit www.matheson-trigas.com.

Eric Popa - Analyst — 03/22/2021 (Date)

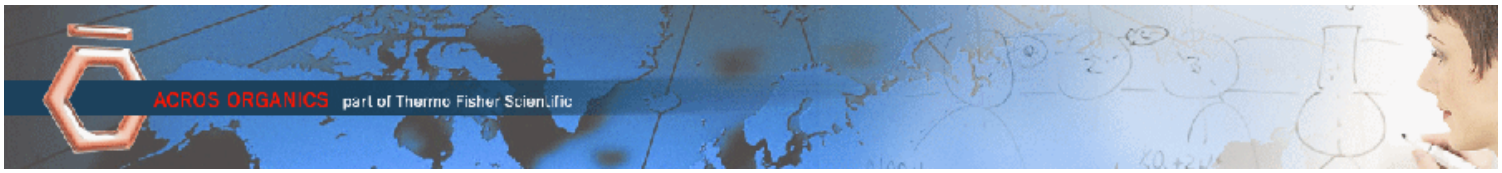
Paul Castillo - QA Approval — 03/23/2021 (Date)

Page 1 of 1

[redacted]

Reagent

SFD ICV STK_00008



Version	1
Molecular weight	240.18
Molecular formula	Na2 S . 9 H2 O
CAS No	1313-84-4
Linear formula	Na2S.9H2O
Flash point (°C)	

Certificate of Analysis

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties,expressed or implied, including the implied

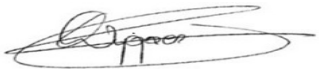
warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to human or animals. It is the responsiblity of the purchaser, formulator or those performing further manufacturing to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	38706	**Quality Test / Release Date**	22 April 2021
Lot Number	A0412804	**Suggested Retest Date**	April 2024
Description	Sodium sulfide nonahydrate,98+%,extra pure		
Country of Origin	INDIA		
Declaration of Origin	synthetic		

Origin Comment	

Result Name	Specifications	Test Value
Appearance (Color)	Colorless to light yellow	Light yellow
Appearance (Form)	Adhering crystals and/or chunks	Adhering crystals
Titration Iodimetric	32.0 to 38.0 % (Na2S)	32.3 % (Na2S)
Total nitrogen (as N)	=<0.005 %	=<0.005 %
Sulfite (as SO2)	=<2000 ppm	=<1000 ppm
Thiosulphate (S2O3)	=<5000 ppm	=<1000 ppm





C. Wygaerts, QA Manager Issued: 27 April 2021

Acros Organics
ENA23, zone 1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410,USA Fax 201-796-1329

Reagent

TKN CAL STD_00019

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Certificate of Analysis

TKN Calibration Standard - 1000 mg/L

Catalog Number: IS-009, IS-009-500
Lot Number: 200817
Manufacture Date: 08/17/20
Certified Date: 08/17/20

Expiration: 08/31/2024
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-30	TKN from Glycine	56-40-6	99.8%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

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Catalog Number: IS-009, IS-009-500
Lot Number: 200817

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Reagent

TKN ICV_00013

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Total Kjeldahl Nitrogen (TKN)
CATALOG NUMBER:	043 -125 mL; 996 - 500 mL
LOT NUMBER:	200220m
ISSUE DATE:	March 20, 2020
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	6.1%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	0.9966 ± 0.0020 g/mL at 19.4°C and 753 mm Hg
TRACEABILITY[3]:	98.3%
NIST/SRM:	194a Ammonium Dihydrogen Phosphate
VERIFICATION METHOD:	Ion Selective Electrode (ISE)
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 02/07/2022.** The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

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

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC ICV Std_00049

RICCA CHEMICAL COMPANY®

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

Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 1201B45 **Product Number:** 1847

Manufacture Date: JAN 24, 2022
Expiration Date: JAN 2023

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

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

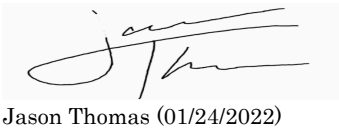
Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-4	120 mL amber glass	12 months

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



Jason Thomas (01/24/2022)

Operations Manager

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

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

Reagent

TOC LCS Std_00054

ISO 17034

Agilent
Trusted Answers

Reference Material Certificate

Product Name: Total Organic Carbon (TOC) Standard
Product Number: IQC-106
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006645841
Lot Issue Date: 12-Nov-2021
Expiration Date: 31-Dec-2023

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
potassium hydrogen phthalate (KHP) (as TOC)	1002	± 5 mg/L	000877-24-7	RM19275

Matrix: water (low TOC, < 50 ppb)

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system. The analyte concentration(s) were prepared and verified by an ISO 17034 / ISO 17025 accredited laboratory and compared to calibration standards independently prepared using NIST SRM(s) when available. The certified value and uncertainty value at the 95% confidence level for each analyte is determined gravimetrically.

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

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

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

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

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

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

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

Sample lot approver:

Monica Bourgeois
QMS Representative

RSK_175_DOD5

Dissolved Gases (GC)

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 003F0301.D

Lab ID: LCS 280-576169/3 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Methane	0.0657	0.0634	97	73-125	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 034F3401.D

Lab ID: LCS 280-576170/90 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Methane	0.0657	0.0651	99	73-125	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 004F0401.D

Lab ID: LCSD 280-576169/4 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methane	0.0657	0.0639	97	1	20	73-125	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 035F3501.D

Lab ID: LCSD 280-576170/91 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methane	0.0657	0.0601	92	8	20	73-125	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 053F5301.D

Lab ID: 280-162386-1 MS Client ID: PZ007-22A MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Methane	0.0657	0.0013 U	0.0601	92	73-125	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 054F5401.D

Lab ID: 280-162386-1 MSD Client ID: PZ007-22A MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methane	0.0657	0.0640	97	6	20	73-125	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: MB 280-576169/5

Matrix: Water Date Extracted:

Lab File ID:(1) 005F0501.D Lab File ID:(2) 005F0501.D

Date Analyzed:(1) 05/25/2022 17:42 Date Analyzed:(2) 05/25/2022 17:42

Instrument ID:(1) VGC_J Instrument ID:(2) VGC_J

GC Column:(1) HP-Plot Q ID: 0.53(mm) GC Column:(2) Rt-Alumina K ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-576169/3	05/25/2022 17:16	05/25/2022 17:16
	LCSD 280-576169/4	05/25/2022 17:29	05/25/2022 17:29
G0092-22A	280-162386-8	05/25/2022 18:59	05/25/2022 18:59

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: MB 280-576170/92

Matrix: Water Date Extracted:

Lab File ID:(1) 036F3601.D Lab File ID:(2) 036F3601.D

Date Analyzed:(1) 05/26/2022 00:23 Date Analyzed:(2) 05/26/2022 00:23

Instrument ID:(1) VGC_J Instrument ID:(2) VGC_J

GC Column:(1) HP-Plot Q ID: 0.53(mm) GC Column:(2) Rt-Alumina K ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-576170/90	05/25/2022 23:57	05/25/2022 23:57
	LCSD 280-576170/91	05/26/2022 00:10	05/26/2022 00:10
PZ007-22A	280-162386-1	05/26/2022 03:38	05/26/2022 03:38
PZ007-22A DU	280-162386-1 DU	05/26/2022 03:51	05/26/2022 03:51
PZ007-22A MS	280-162386-1 MS	05/26/2022 04:04	05/26/2022 04:04
PZ007-22A MSD	280-162386-1 MSD	05/26/2022 04:17	05/26/2022 04:17
G0087-22A	280-162386-2	05/26/2022 04:30	05/26/2022 04:30
G0117-22A	280-162386-3	05/26/2022 04:43	05/26/2022 04:43
G0022-22A	280-162386-4	05/26/2022 04:56	05/26/2022 04:56
G0088-22A	280-162386-5	05/26/2022 05:09	05/26/2022 05:09
G0116-22A	280-162386-6	05/26/2022 05:22	05/26/2022 05:22
PZ014-22A	280-162386-7	05/26/2022 05:35	05/26/2022 05:35
G0092-22A	280-162386-8	05/26/2022 05:48	05/26/2022 05:48
PZ013-22A	280-162386-9	05/26/2022 06:01	05/26/2022 06:01
G0081-22A	280-162386-10	05/26/2022 06:14	05/26/2022 06:14

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ007-22A MS Lab Sample ID: 280-162386-1 MS

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/26/2022 04:04 Date Analyzed (2): 05/26/2022 04:04

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	0.0601		5.6
	2		1.27	1.23	1.31	0.0636		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ007-22A MSD Lab Sample ID: 280-162386-1 MSD

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/26/2022 04:17 Date Analyzed (2): 05/26/2022 04:17

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	0.0640		5.6
	2		1.27	1.23	1.31	0.0677		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0117-22A Lab Sample ID: 280-162386-3

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/26/2022 04:43 Date Analyzed (2): 05/26/2022 04:43

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	17		10.4
	2		1.27	1.23	1.31	19		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0022-22A Lab Sample ID: 280-162386-4

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/26/2022 04:56 Date Analyzed (2): 05/26/2022 04:56

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	4.3		10.2
	2		1.26	1.23	1.31	4.8		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0088-22A Lab Sample ID: 280-162386-5

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/26/2022 05:09 Date Analyzed (2): 05/26/2022 05:09

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	0.013		13.3
	2		1.26	1.23	1.31	0.015		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0116-22A Lab Sample ID: 280-162386-6

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/26/2022 05:22 Date Analyzed (2): 05/26/2022 05:22

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	19		10.2
	2		1.27	1.23	1.31	21		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ014-22A Lab Sample ID: 280-162386-7

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/26/2022 05:35 Date Analyzed (2): 05/26/2022 05:35

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	7.8		10.0
	2		1.27	1.23	1.31	8.6		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0092-22A Lab Sample ID: 280-162386-8

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/25/2022 18:59 Date Analyzed (2): 05/25/2022 18:59

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	0.037		11.2
	2		1.26	1.23	1.31	0.042		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0092-22A Lab Sample ID: 280-162386-8

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/26/2022 05:48 Date Analyzed (2): 05/26/2022 05:48

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	0.039		11.6
	2		1.26	1.23	1.31	0.044		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ013-22A Lab Sample ID: 280-162386-9

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/26/2022 06:01 Date Analyzed (2): 05/26/2022 06:01

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	9.3		10.5
	2		1.27	1.23	1.31	10		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0081-22A Lab Sample ID: 280-162386-10

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/26/2022 06:14 Date Analyzed (2): 05/26/2022 06:14

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	1.4		4.8
	2		1.27	1.23	1.31	1.5		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-576169/3

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/25/2022 17:16 Date Analyzed (2): 05/25/2022 17:16

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.68	1.64	1.72	0.0634		2.1
	2		1.27	1.23	1.31	0.0648		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-576169/4

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/25/2022 17:29 Date Analyzed (2): 05/25/2022 17:29

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	0.0639		2.7
	2		1.27	1.23	1.31	0.0657		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-576170/90

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/25/2022 23:57 Date Analyzed (2): 05/25/2022 23:57

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	0.0651		3.4
	2		1.26	1.23	1.31	0.0673		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-576170/91

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 05/26/2022 00:10 Date Analyzed (2): 05/26/2022 00:10

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	0.0601		3.3
	2		1.26	1.23	1.31	0.0622		

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ007-22A | Lab Sample ID: 280-162386-1

Matrix: Water | Lab File ID: 051F5101.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 09:15

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 03:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0013	U	0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\051F5101.D
Lims ID: 280-162386-H-1
Client ID: PZ007-22A
Sample Type: Client
Inject. Date: 26-May-2022 03:38:14 ALS Bottle#: 51 Worklist Smp#: 107
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-H-1
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 09:31:56

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						7
1		1.269			ND	
2		1.679				
3 Ethane						
1		1.521			ND	
2		3.037				
4 Ethylene						
1		1.788			ND	
2		2.619				
5 Propane						
1		2.533			ND	
2		4.933				
6 Acetylene						
1		4.043			ND	
2		2.767				
7 Butane						
1		4.394			ND	
2		6.432				
8 isobutylene						
1		5.298			ND	
2		6.274				

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

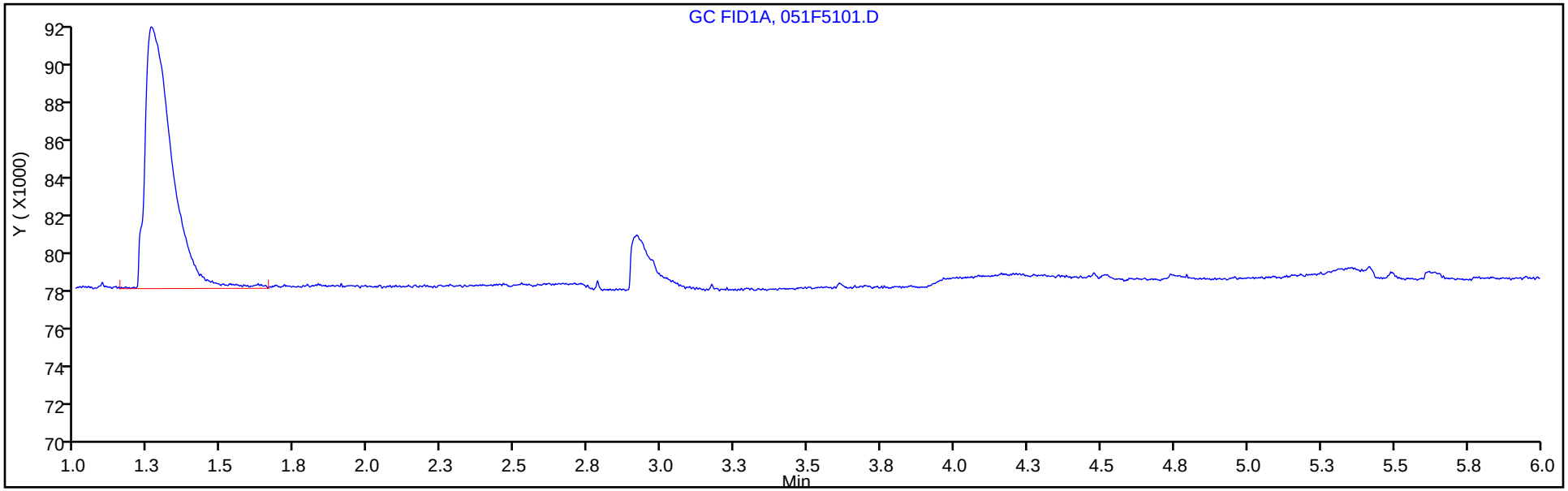
Report Date: 31-May-2022 14:05:47 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

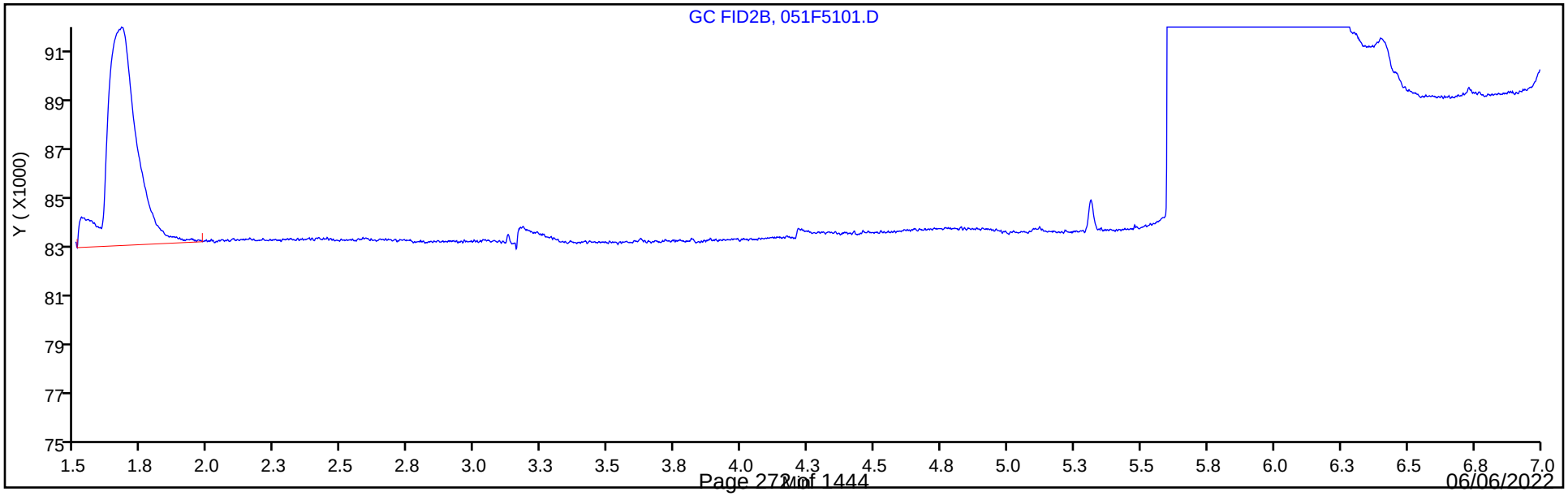
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\051F5101.D

Injection Date:	26-May-2022 03:38:14	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-H-1	Lab Sample ID:	280-162386-1	Worklist Smp#:	107
Client ID:	PZ007-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	51
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0087-22A | Lab Sample ID: 280-162386-2

Matrix: Water | Lab File ID: 055F5501.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 13:15

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 04:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0013	U	0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\055F5501.D
Lims ID: 280-162386-G-2
Client ID: G0087-22A
Sample Type: Client
Inject. Date: 26-May-2022 04:30:18 ALS Bottle#: 55 Worklist Smp#: 111
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-G-2
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 14:02:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						7
1		1.269			ND	
2		1.679				
3 Ethane						
1		1.521			ND	
2		3.037				
4 Ethylene						
1		1.788			ND	
2		2.619				
5 Propane						
1		2.533			ND	
2		4.933				
6 Acetylene						
1		4.043			ND	
2		2.767				
7 Butane						
1		4.394			ND	
2		6.432				
8 isobutylene						
1		5.298			ND	
2		6.274				

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

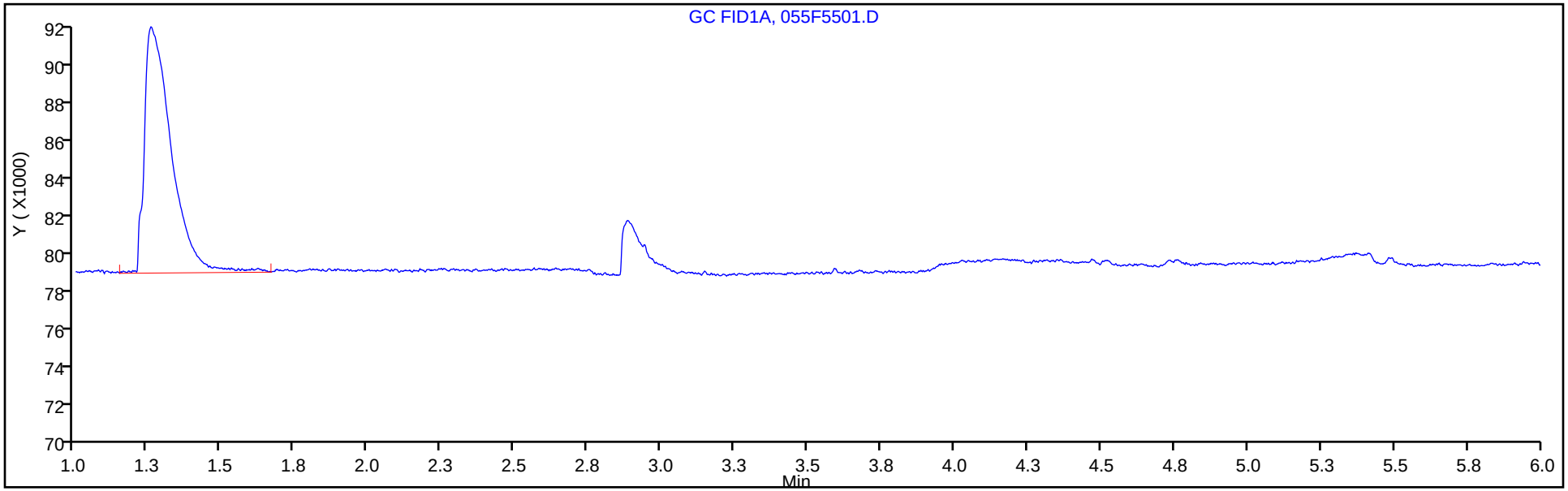
Report Date: 31-May-2022 14:05:50 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

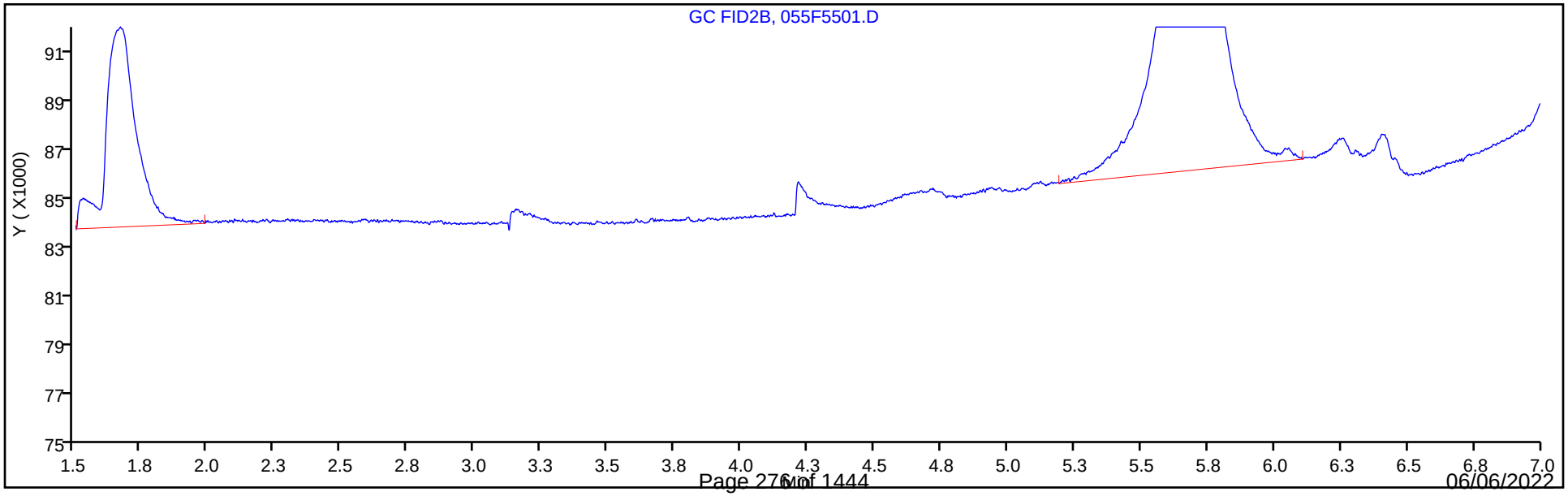
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\055F5501.D

Injection Date:	26-May-2022 04:30:18	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-G-2	Lab Sample ID:	280-162386-2	Worklist Smp#:	111
Client ID:	G0087-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	55
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0117-22A | Lab Sample ID: 280-162386-3

Matrix: Water | Lab File ID: 056F5601.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 12:55

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 04:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	17		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\056F5601.D
Lims ID: 280-162386-H-3
Client ID: G0117-22A
Sample Type: Client
Inject. Date: 26-May-2022 04:43:18 ALS Bottle#: 56 Worklist Smp#: 112
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-H-3
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 14:02:57

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						
1	1.268	1.269	-0.001	652875865	18561	
2	1.666	1.679	-0.013	603629108	16718	
					RPD = 10.45	
3 Ethane						
1		1.521			ND	
2		3.037				
4 Ethylene						
1		1.788			ND	
2		2.619				
5 Propane						
1		2.533			ND	
2		4.933				
6 Acetylene						
1		4.043			ND	
2		2.767				
7 Butane						
1		4.394			ND	
2		6.432				
8 isobutylene					7	
1		5.298			ND	
2		6.274				

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

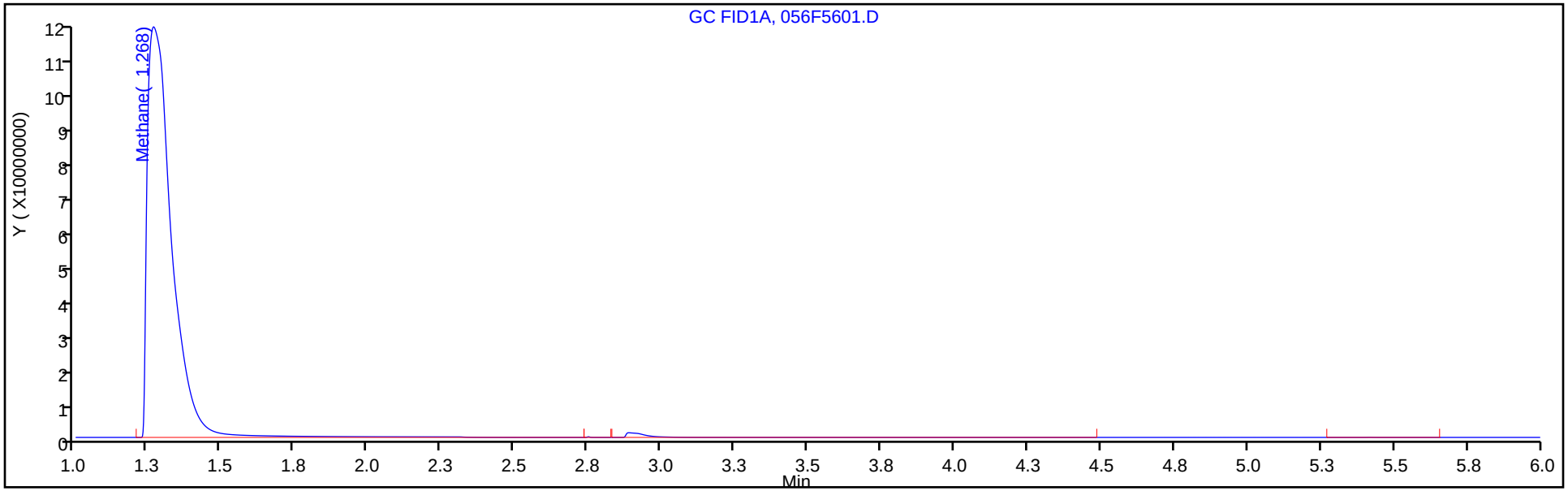
Report Date: 31-May-2022 14:05:50 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

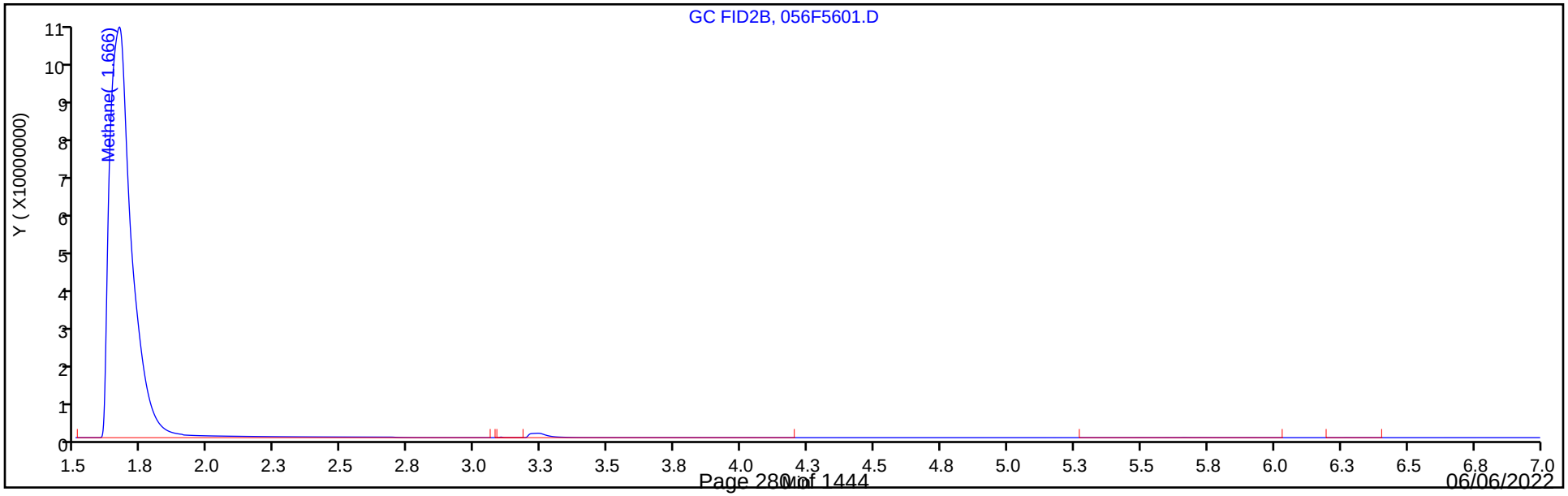
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\056F5601.D

Injection Date:	26-May-2022 04:43:18	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-H-3	Lab Sample ID:	280-162386-3	Worklist Smp#:	112
Client ID:	G0117-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	56
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0022-22A | Lab Sample ID: 280-162386-4

Matrix: Water | Lab File ID: 057F5701.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 14:25

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 04:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	4.3		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\057F5701.D
Lims ID: 280-162386-G-4
Client ID: G0022-22A
Sample Type: Client
Inject. Date: 26-May-2022 04:56:18 ALS Bottle#: 57 Worklist Smp#: 113
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-G-4
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 14:03:10

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						
1	1.264	1.269	-0.005	167539201	4761.7	
2	1.669	1.679	-0.010	155318356	4300.4	
					RPD = 10.18	
3 Ethane						
1		1.521			ND	
2		3.037				
4 Ethylene						
1		1.788			ND	
2		2.619				
5 Propane						
1		2.533			ND	
2		4.933				
6 Acetylene						
1		4.043			ND	
2		2.767				
7 Butane						
1		4.394			ND	
2		6.432				
8 isobutylene						
1		5.298			ND	
2		6.274				

QC Flag Legend

Processing Flags

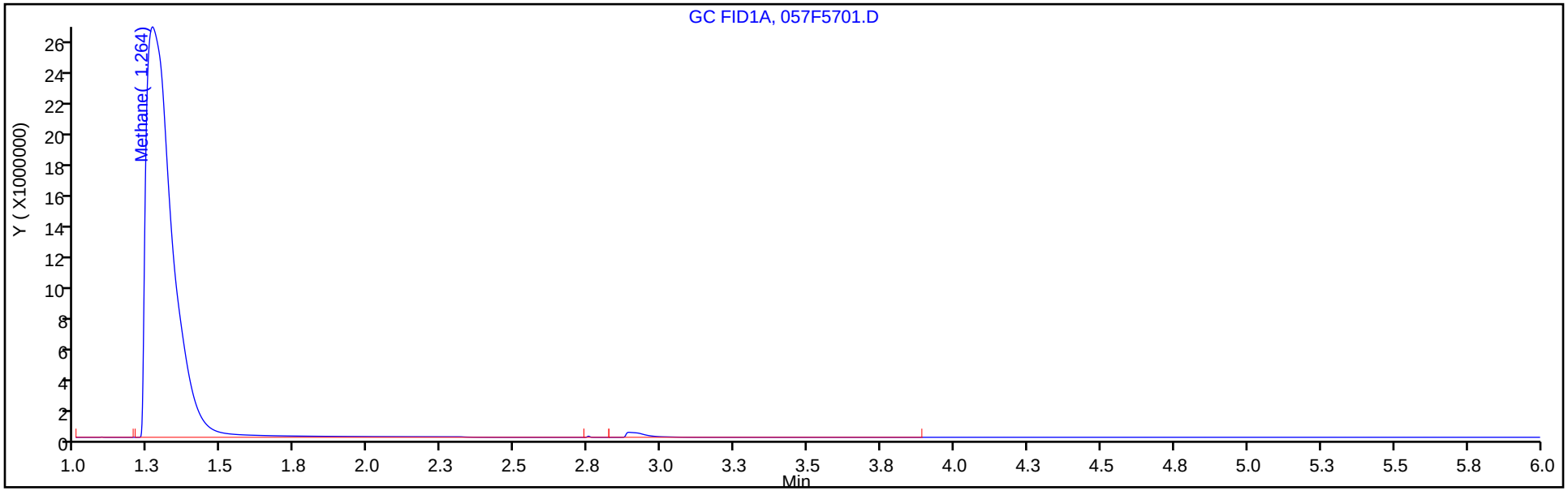
Report Date: 31-May-2022 14:05:51 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

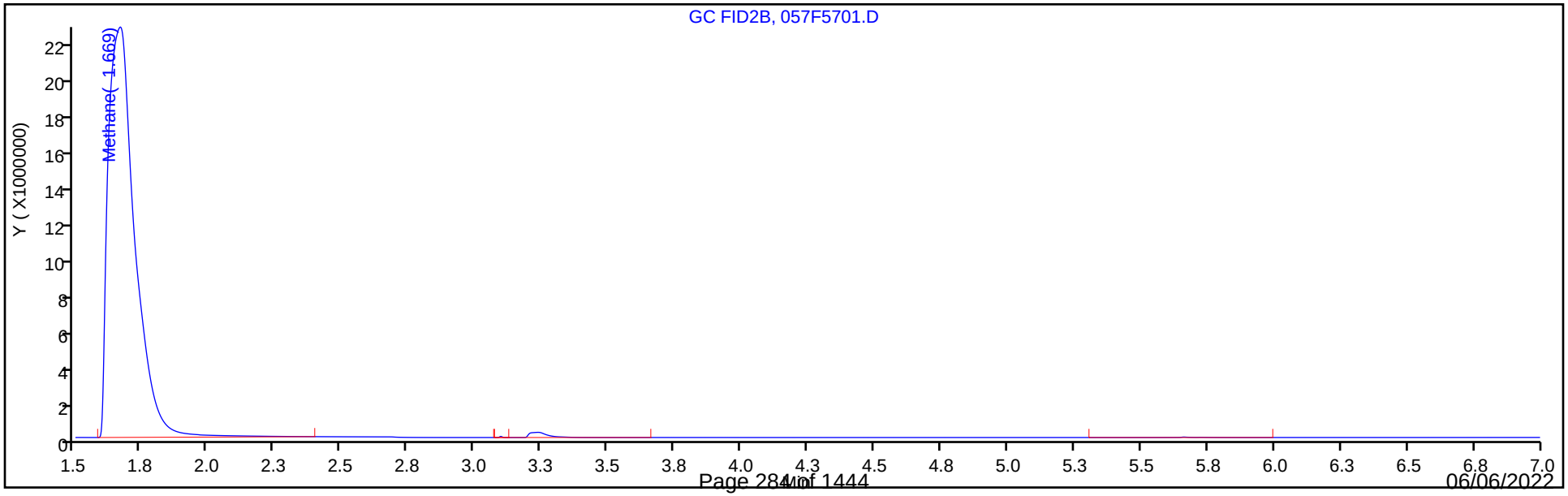
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\057F5701.D

Injection Date:	26-May-2022 04:56:18	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-G-4	Lab Sample ID:	280-162386-4	Worklist Smp#:	113
Client ID:	G0022-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	57
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0088-22A | Lab Sample ID: 280-162386-5

Matrix: Water | Lab File ID: 058F5801.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 15:35

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 05:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.013		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\058F5801.D
Lims ID: 280-162386-H-5
Client ID: G0088-22A
Sample Type: Client
Inject. Date: 26-May-2022 05:09:18 ALS Bottle#: 58 Worklist Smp#: 114
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-H-5
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 14:03:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						
1	1.263	1.269	-0.006	590630	14.9	
2	1.671	1.679	-0.008	534702	13.1	
					RPD = 13.28	
3 Ethane						
1		1.521			ND	
2		3.037				
4 Ethylene						
1		1.788			ND	
2		2.619				
5 Propane						
1		2.533			ND	
2		4.933				
6 Acetylene						
1		4.043			ND	
2		2.767				
7 Butane						
1		4.394			ND	
2		6.432				
8 isobutylene						
1		5.298			ND	
2		6.274				

QC Flag Legend

Processing Flags

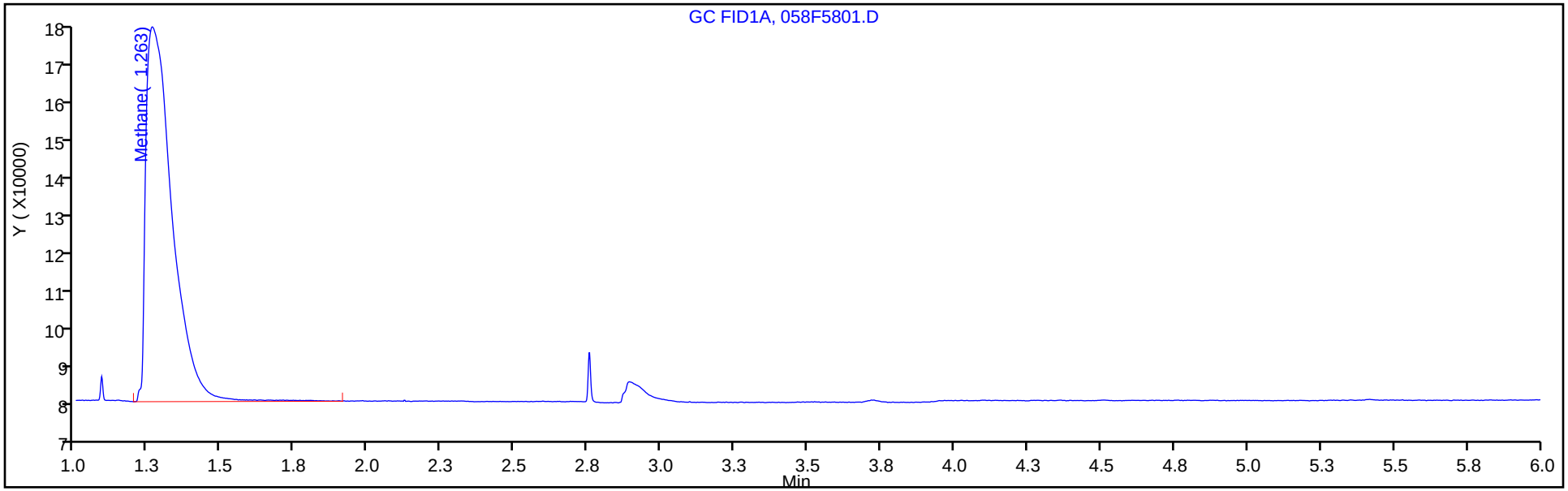
Report Date: 31-May-2022 14:05:52 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

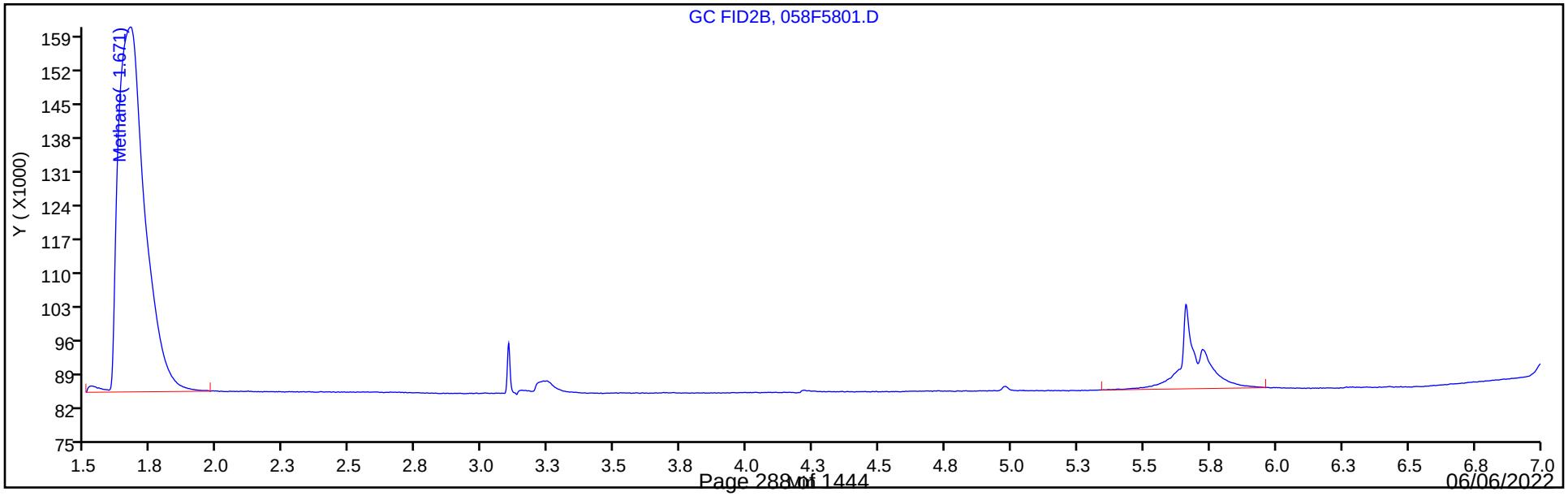
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\058F5801.D

Injection Date:	26-May-2022 05:09:18	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-H-5	Lab Sample ID:	280-162386-5	Worklist Smp#:	114
Client ID:	G0088-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	58
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0116-22A | Lab Sample ID: 280-162386-6

Matrix: Water | Lab File ID: 059F5901.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 14:40

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 05:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	19		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\059F5901.D
Lims ID: 280-162386-G-6
Client ID: G0116-22A
Sample Type: Client
Inject. Date: 26-May-2022 05:22:20 ALS Bottle#: 59 Worklist Smp#: 115
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-G-6
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 14:03:57

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						E
1	1.265	1.269	-0.004	750659735	21341	E
2	1.665	1.679	-0.014	695965410	19276	
					RPD = 10.17	
3 Ethane						
1		1.521			ND	
2		3.037				
4 Ethylene						
1		1.788			ND	
2		2.619				
5 Propane						
1		2.533			ND	
2		4.933				
6 Acetylene						
1		4.043			ND	
2		2.767				
7 Butane						
1		4.394			ND	
2		6.432				
8 isobutylene						7
1		5.298			ND	
2		6.274				

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

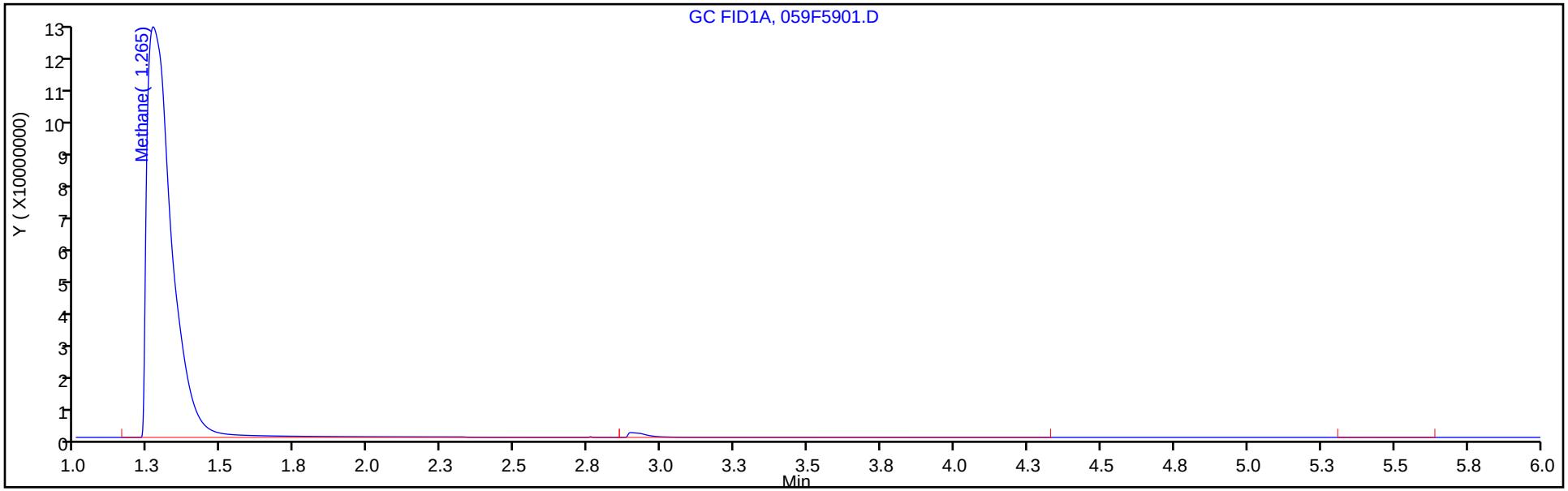
Report Date: 31-May-2022 14:05:52 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

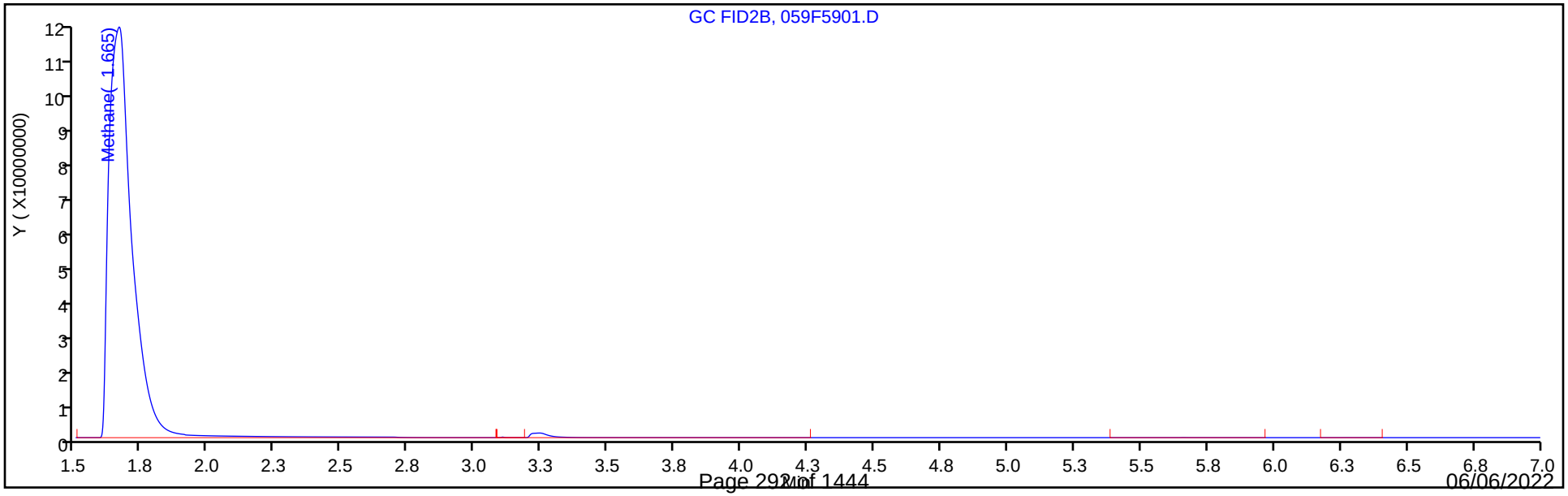
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\059F5901.D

Injection Date:	26-May-2022 05:22:20	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-G-6	Lab Sample ID:	280-162386-6	Worklist Smp#:	115
Client ID:	G0116-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	59
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ014-22A | Lab Sample ID: 280-162386-7

Matrix: Water | Lab File ID: 060F6001.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 15:50

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 05:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	7.8		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\060F6001.D
Lims ID: 280-162386-G-7
Client ID: PZ014-22A
Sample Type: Client
Inject. Date: 26-May-2022 05:35:23 ALS Bottle#: 60 Worklist Smp#: 116
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-G-7
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 14:04:09

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						
1	1.265	1.269	-0.004	301563262	8572.4	
2	1.668	1.679	-0.011	279969394	7753.0	
					RPD = 10.04	
3 Ethane						
1		1.521			ND	
2		3.037				
4 Ethylene						
1		1.788			ND	
2		2.619				
5 Propane						
1		2.533			ND	
2		4.933				
6 Acetylene						
1		4.043			ND	
2		2.767				
7 Butane						
1		4.394			ND	
2		6.432				
8 isobutylene						
1		5.298			ND	
2		6.274				

QC Flag Legend

Processing Flags

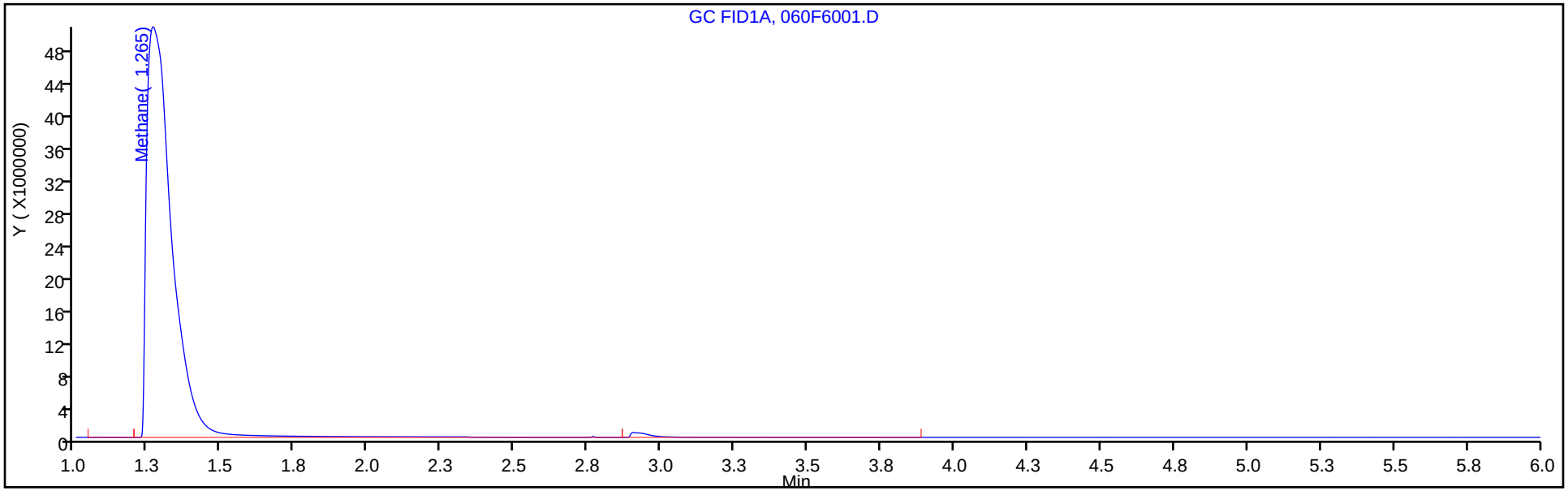
Report Date: 31-May-2022 14:05:53 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

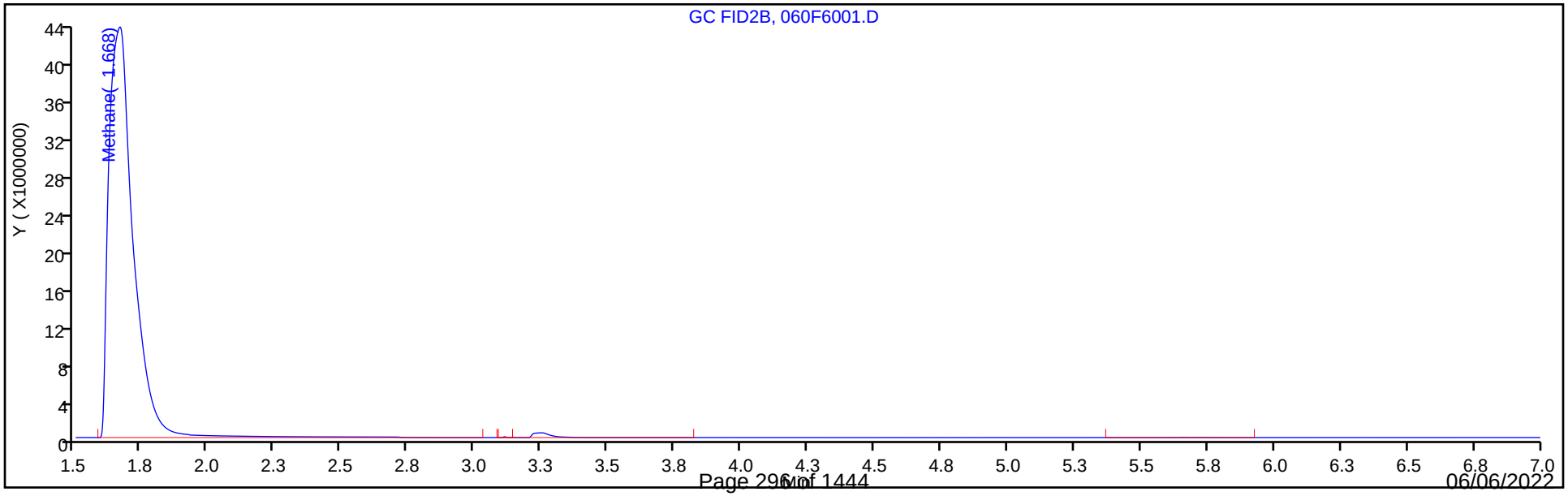
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\060F6001.D

Injection Date:	26-May-2022 05:35:23	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-G-7	Lab Sample ID:	280-162386-7	Worklist Smp#:	116
Client ID:	PZ014-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	60
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0092-22A | Lab Sample ID: 280-162386-8

Matrix: Water | Lab File ID: 061F6101.D

Analysis Method: RSK-175 | Date Collected: 05/12/2022 14:20

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 05:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.039		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\061F6101.D
Lims ID: 280-162386-I-8
Client ID: G0092-22A
Sample Type: Client
Inject. Date: 26-May-2022 05:48:26 ALS Bottle#: 61 Worklist Smp#: 117
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-I-8
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 14:04:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						
1	1.263	1.269	-0.006	1607888	43.9	
2	1.670	1.679	-0.009	1472288	39.0	
					RPD = 11.61	
3 Ethane						
1		1.521			ND	
2		3.037				
4 Ethylene						
1		1.788			ND	
2		2.619				
5 Propane						
1		2.533			ND	
2		4.933				
6 Acetylene						
1		4.043			ND	
2		2.767				
7 Butane						
1		4.394			ND	
2		6.432				
8 isobutylene						
1		5.298			ND	
2		6.274				

QC Flag Legend

Processing Flags

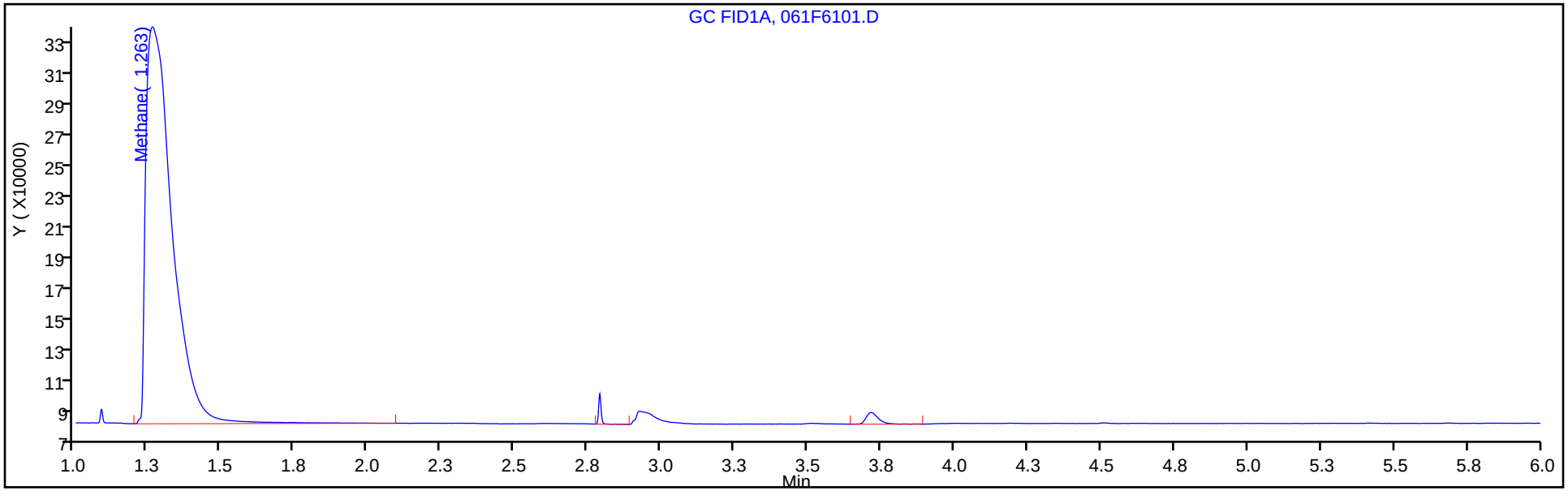
Report Date: 31-May-2022 14:05:54 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

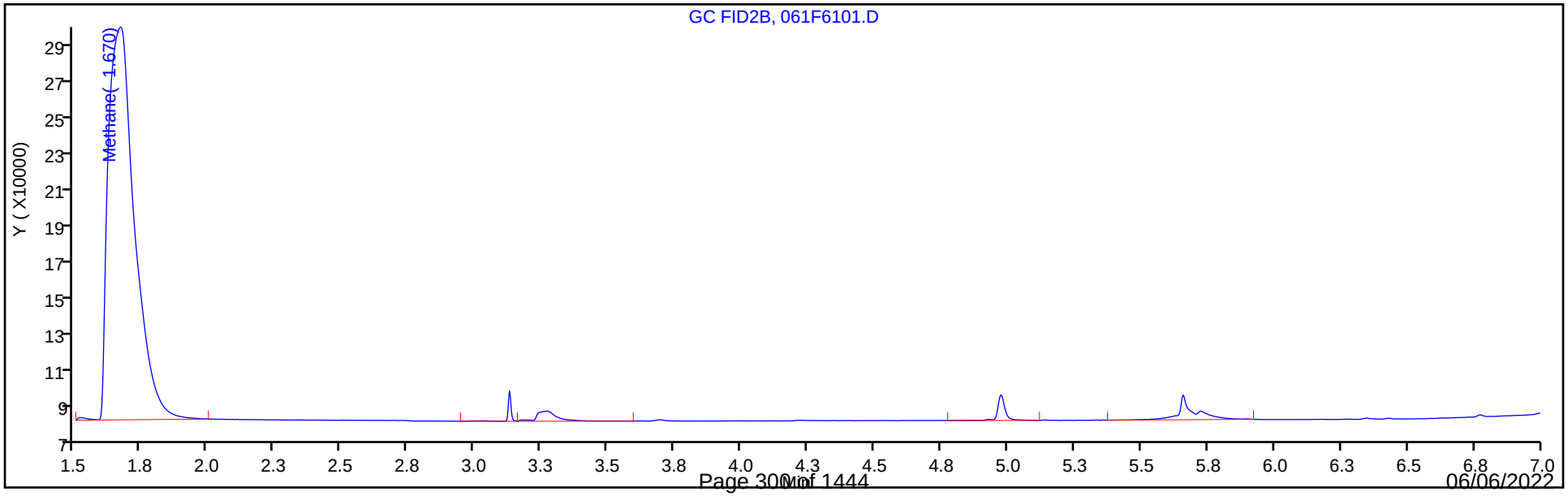
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\061F6101.D

Injection Date:	26-May-2022 05:48:26	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-I-8	Lab Sample ID:	280-162386-8	Worklist Smp#:	117
Client ID:	G0092-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	61
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ013-22A | Lab Sample ID: 280-162386-9

Matrix: Water | Lab File ID: 062F6201.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 11:40

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 06:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	9.3		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\062F6201.D
Lims ID: 280-162386-G-9
Client ID: PZ013-22A
Sample Type: Client
Inject. Date: 26-May-2022 06:01:30 ALS Bottle#: 62 Worklist Smp#: 118
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-G-9
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 14:04:18

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						
1	1.267	1.269	-0.002	361782903	10285	
2	1.668	1.679	-0.011	334477677	9262.8	
					RPD = 10.45	
3 Ethane						
1		1.521			ND	
2		3.037				
4 Ethylene						
1		1.788			ND	
2		2.619				
5 Propane						
1		2.533			ND	
2		4.933				
6 Acetylene						
1		4.043			ND	
2		2.767				
7 Butane						
1		4.394			ND	
2		6.432				
8 isobutylene						
1		5.298			ND	
2		6.274				

QC Flag Legend

Processing Flags

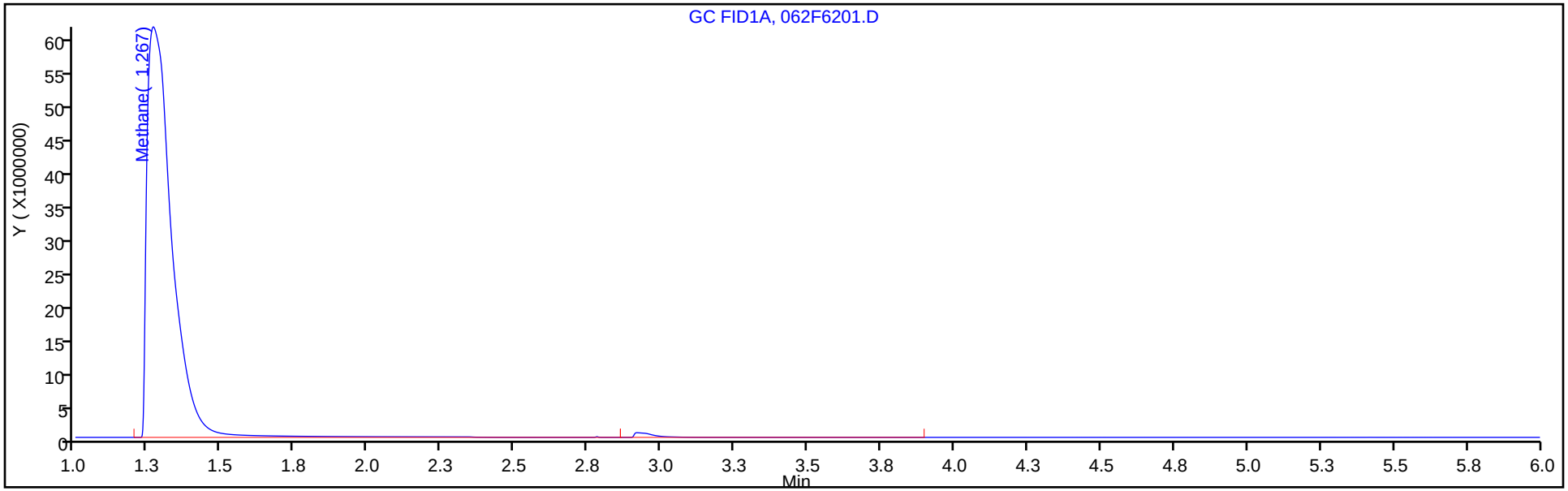
Report Date: 31-May-2022 14:05:54 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

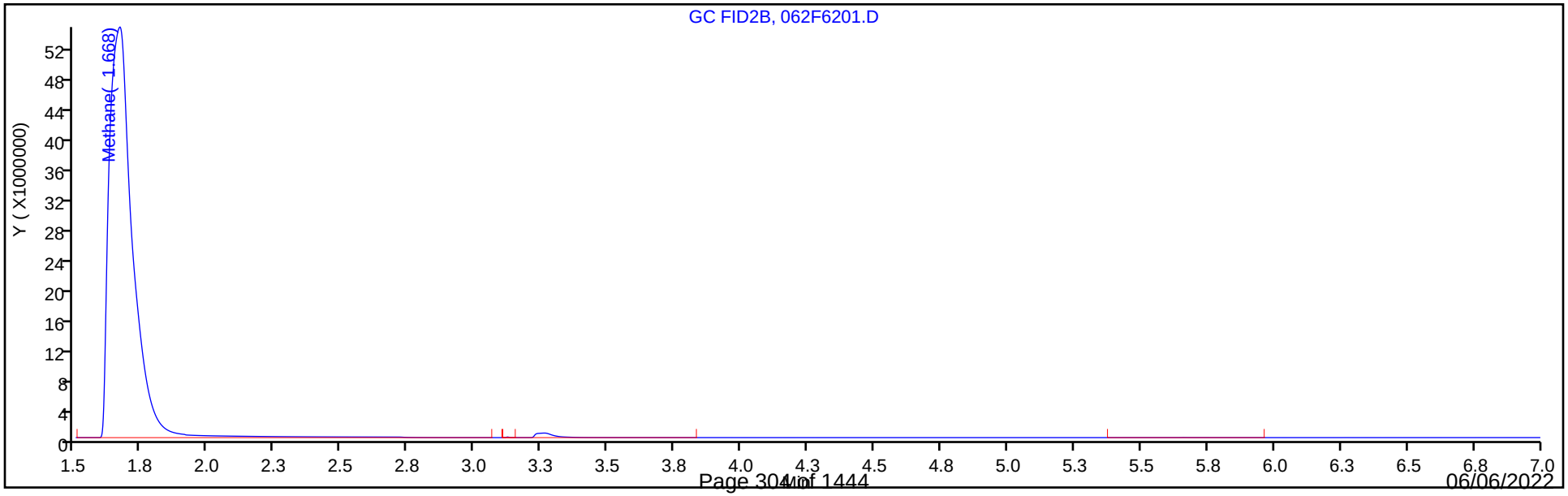
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\062F6201.D

Injection Date:	26-May-2022 06:01:30	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-G-9	Lab Sample ID:	280-162386-9	Worklist Smp#:	118
Client ID:	PZ013-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	62
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0081-22A | Lab Sample ID: 280-162386-10

Matrix: Water | Lab File ID: 063F6301.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 12:05

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 06:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	1.4		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\063F6301.D
Lims ID: 280-162386-G-10
Client ID: G0081-22A
Sample Type: Client
Inject. Date: 26-May-2022 06:14:33 ALS Bottle#: 63 Worklist Smp#: 119
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-G-10
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 14:04:55

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						M
1	1.265	1.269	-0.004	51796136	1470.8	M
2	1.669	1.679	-0.010	50670445	1401.8	
					RPD = 4.81	
3 Ethane						
1		1.521			ND	
2		3.037				
4 Ethylene						
1		1.788			ND	
2		2.619				
5 Propane						
1		2.533			ND	
2		4.933				
6 Acetylene						
1		4.043			ND	
2		2.767				
7 Butane						
1		4.394			ND	
2		6.432				
8 isobutylene						
1		5.298			ND	
2		6.274				

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

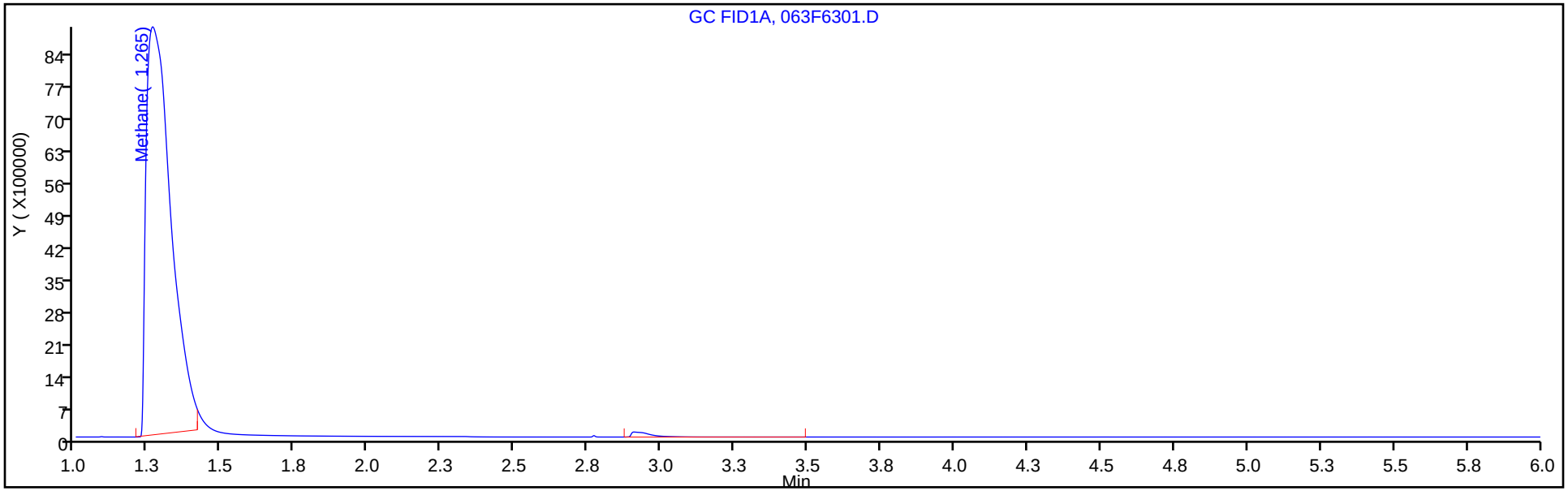
Report Date: 31-May-2022 14:05:55 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

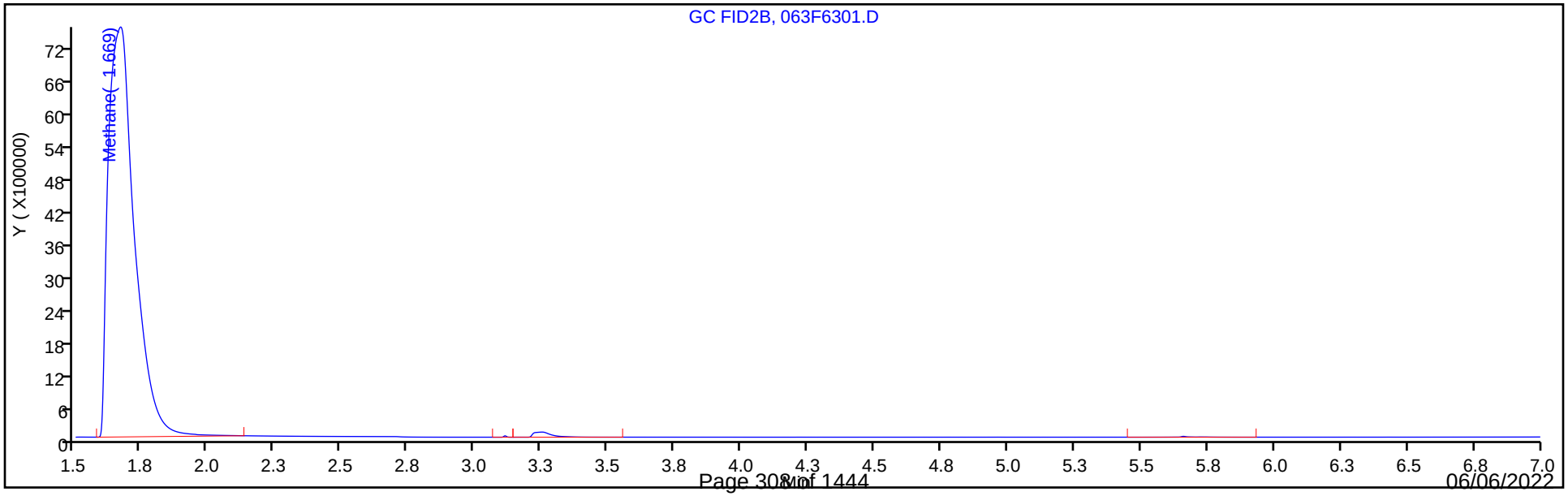
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\063F6301.D

Injection Date:	26-May-2022 06:14:33	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-G-10	Lab Sample ID:	280-162386-10	Worklist Smp#:	119
Client ID:	G0081-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	63
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58237

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Methane	1.292	1.293	1.293	1.295	1.295	1.294	1.293	1.292	1.288		1.259 - 1.339	1.293
Ethane	1.559	1.562	1.561	1.561	1.560	1.561					1.506 - 1.606	1.561
Ethylene	1.859	1.867	1.870	1.870	1.873	1.873					1.794 - 1.894	1.869
Acetylene	4.184	4.213	4.226	4.230	4.230	4.228					4.150 - 4.310	4.219

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58237

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Methane	113753 36593 34286	77207 30893	37613 37193	37343 37763	Lin2	65341.4749	35170.8362							0.9950		0.9900
Ethane	30155 35527	35278 30441	32231	35816	Ave		33241.2722				7.9		20.0			
Ethylene	33189 37346	37318 31937	33977	37589	Ave		35225.9675				7.1		20.0			
Acetylene	26445 29412	29909 25729	27524	29815	Ave		28139.0195				6.5		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58237

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Methane	Lin2	93424 8118988	126818 60484705	494257 245647963	2453548 669092603	4808571	0.821 263	1.64 1626	13.1 6505	65.7 19515	131
Ethane	Ave	46427 14997572	108631	793971	4411499	8751636	1.54 493	3.08	24.6	123	246
Ethylene	Ave	47667 14678124	107197	780792	4318968	8582166	1.44 460	2.87	23.0	115	230
Acetylene	Ave	35261 10977943	79761	587204	3180347	6274725	1.33 427	2.67	21.3	107	213

Curve Type Legend

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Sep-2021 13:28:57 ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:57:02

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							a
1	1.292	1.299	-0.007	93424	0.8213	0.7985	a
2	1.689	1.686	0.003	91227	0.8213	0.7920	a
						RPD = 0.81	
3 Ethane							a
1	1.559	1.556	0.003	46427	1.54	1.40	a
2	3.032	3.028	0.004	46984	1.54	1.41	a
						RPD = 0.77	
4 Ethylene							a
1	1.859	1.844	0.015	47667	1.44	1.35	a
2	2.612	2.609	0.003	41226	1.44	1.33	a
						RPD = 1.67	
5 Propane							a
1	2.682	2.721	-0.039	76526	2.26	2.13	a
2	4.937	4.929	0.008	73050	2.26	2.09	a
						RPD = 1.83	
6 Acetylene							a
1	4.184	4.230	-0.046	35261	1.33	1.25	a
2	2.759	2.746	0.013	41503	1.33	1.21	a
						RPD = 3.15	
7 Butane							Ma
1	4.555	4.528	0.027	101912	2.98	2.80	a
2	6.435	6.426	0.009	95155	2.98	2.71	M
						RPD = 3.27	
8 isobutylene							Ma
1	5.437	5.403	0.034	92868	2.87	2.57	M
2	6.277	6.274	0.003	91569	2.87	2.76	a
						RPD = 7.02	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

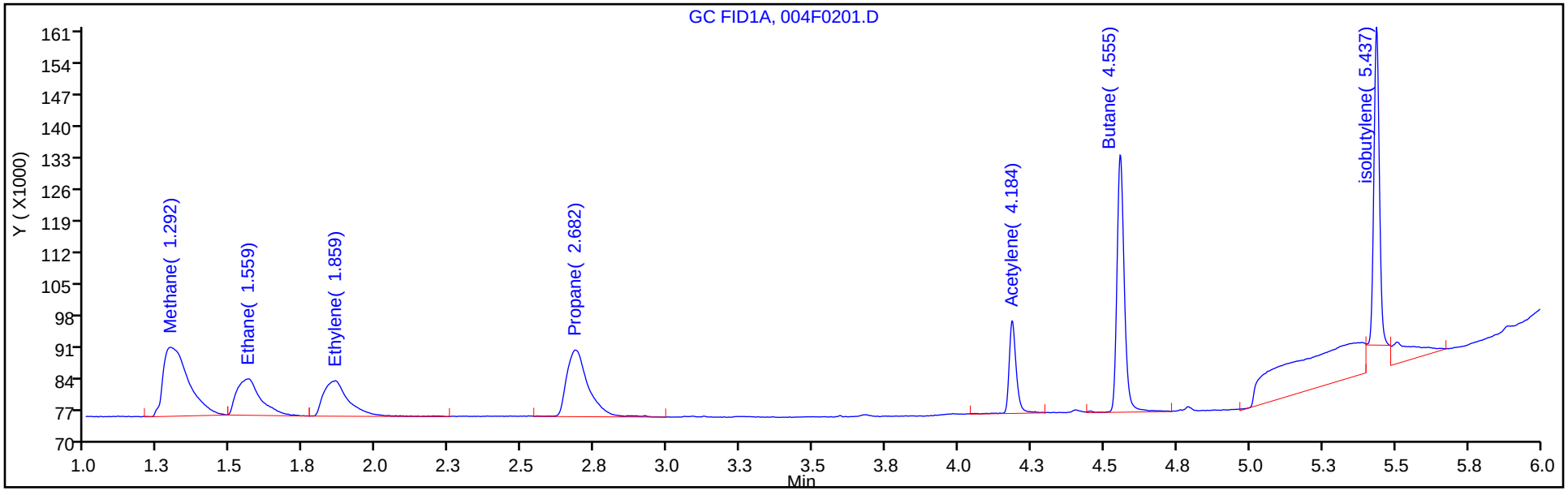
Report Date: 29-Sep-2021 10:55:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

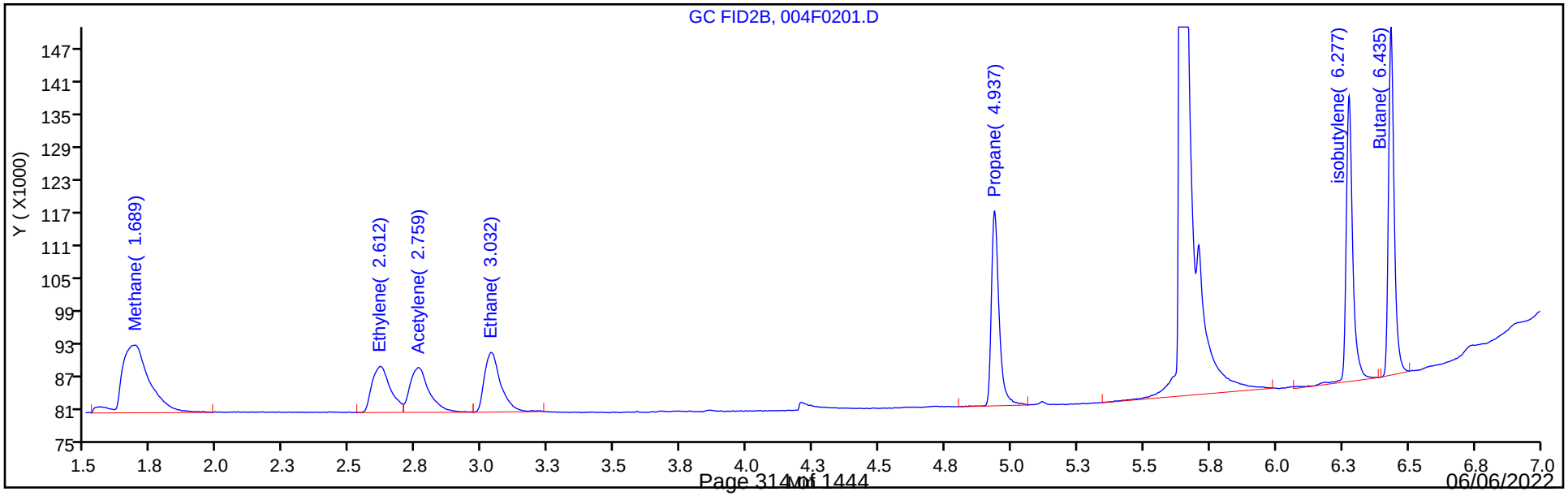
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D

Injection Date:	24-Sep-2021 13:28:57	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	2
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

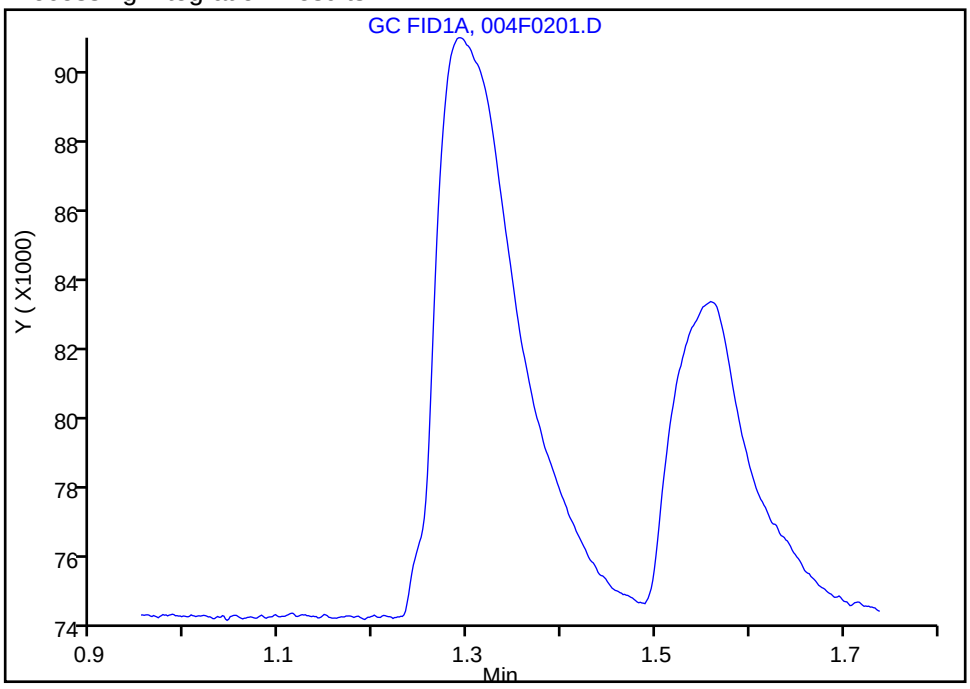
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

2 Methane, CAS: 74-82-8

Signal: 1

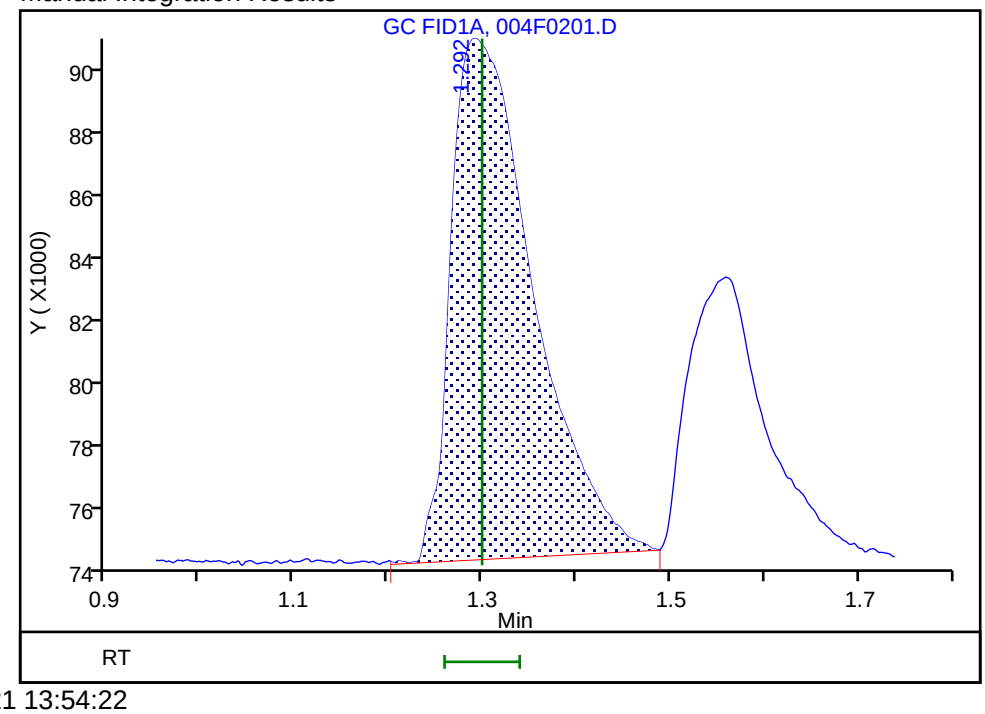
Not Detected
Expected RT: 1.30

Processing Integration Results



Manual Integration Results

RT: 1.29
Area: 93424
Amount: 0.798461
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:22
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

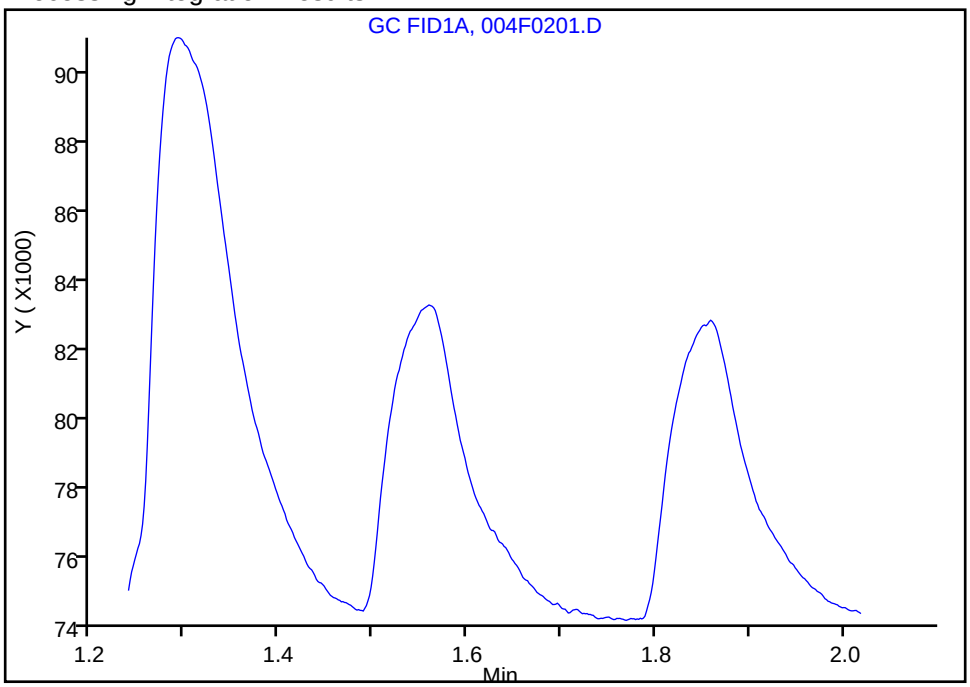
Data File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D				
Injection Date:	24-Sep-2021 13:28:57	Instrument ID:	VGC_J		
Lims ID:	ic				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	4	Worklist Smp#:	2
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

3 Ethane, CAS: 74-84-0

Signal: 1

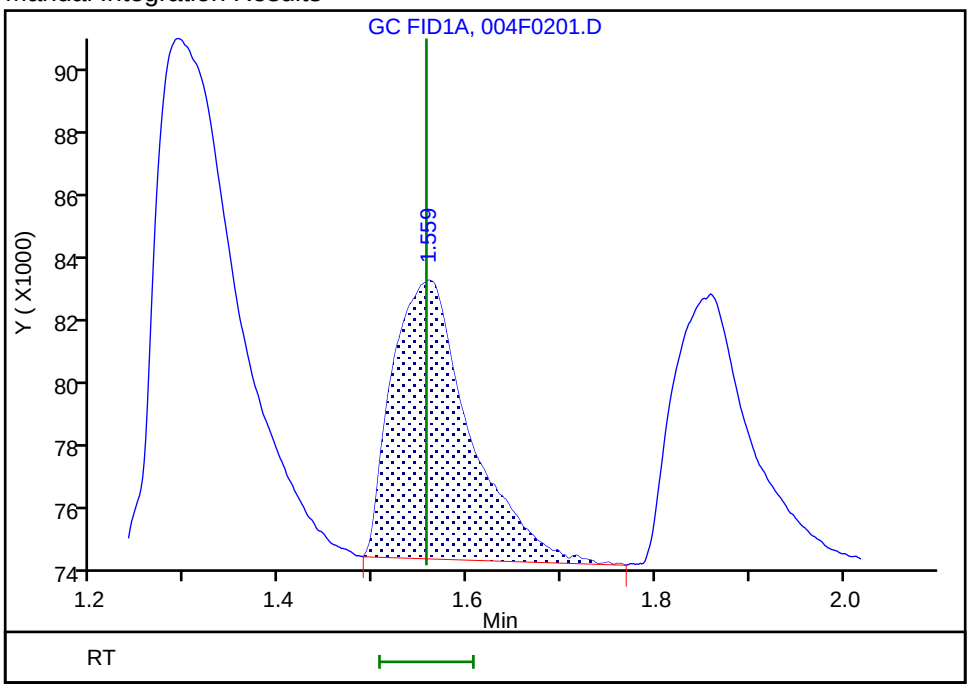
Not Detected
Expected RT: 1.56

Processing Integration Results



Manual Integration Results

RT: 1.56
Area: 46427
Amount: 1.396667
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:28
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

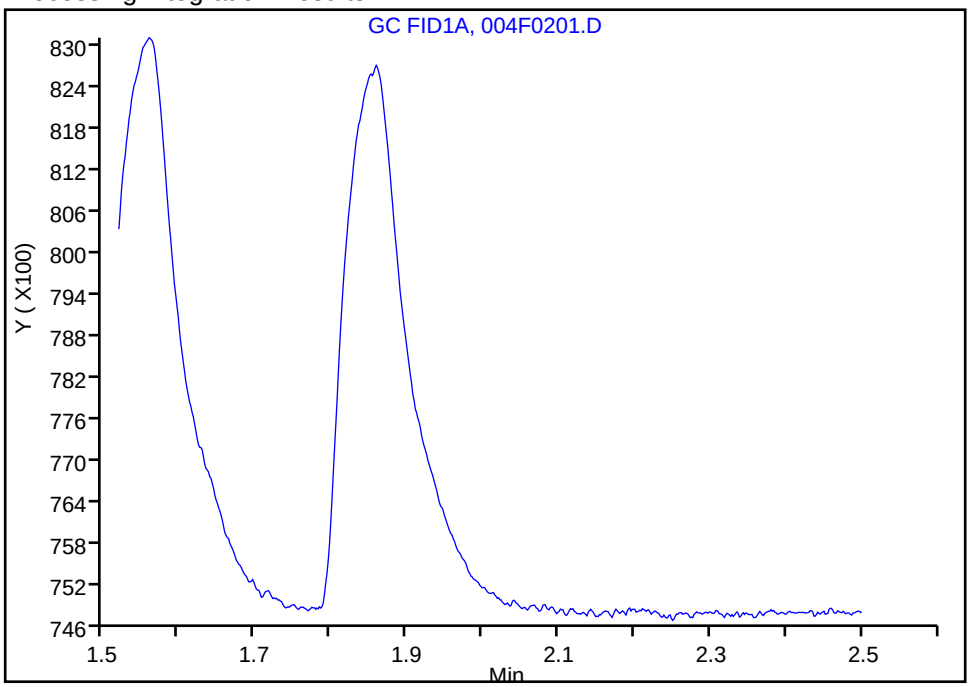
Data File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D				
Injection Date:	24-Sep-2021 13:28:57	Instrument ID:	VGC_J		
Lims ID:	ic				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	4	Worklist Smp#:	2
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

4 Ethylene, CAS: 74-85-1

Signal: 1

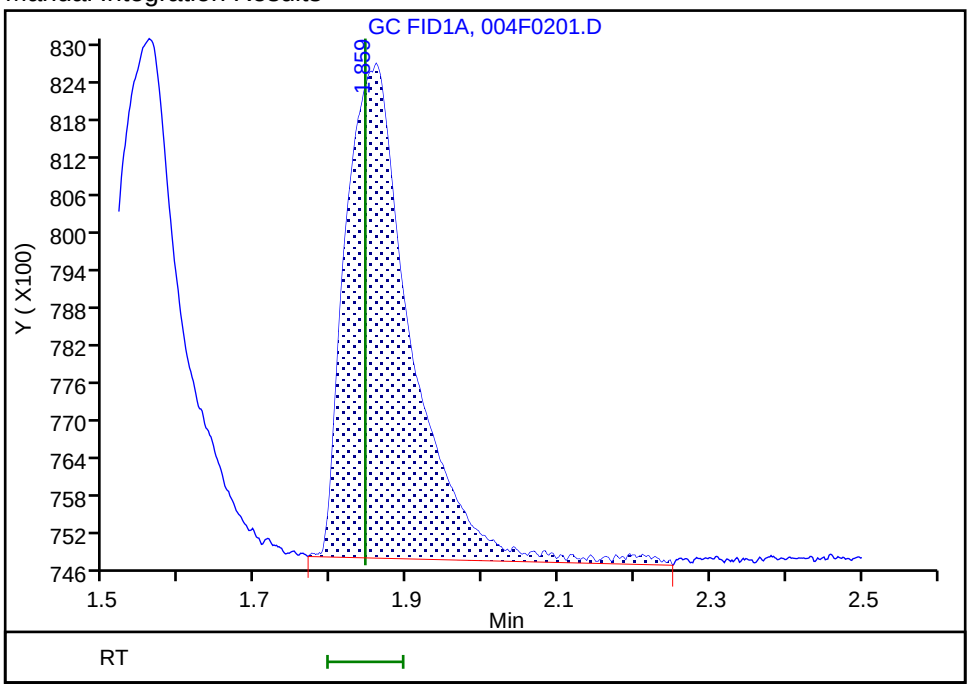
Not Detected
Expected RT: 1.84

Processing Integration Results



Manual Integration Results

RT: 1.86
Area: 47667
Amount: 1.353178
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:47
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

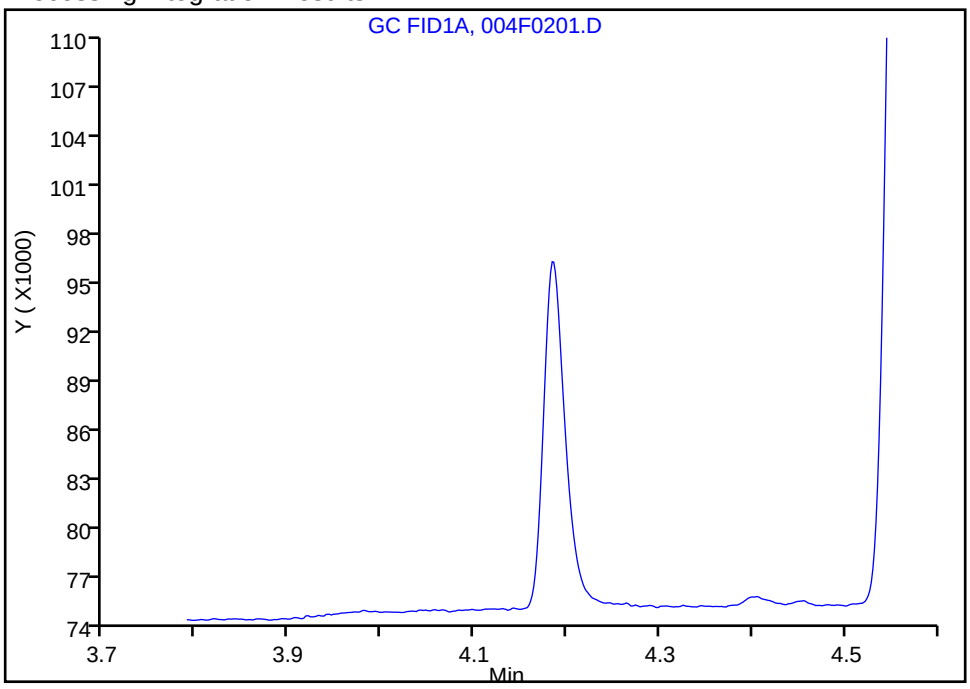
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

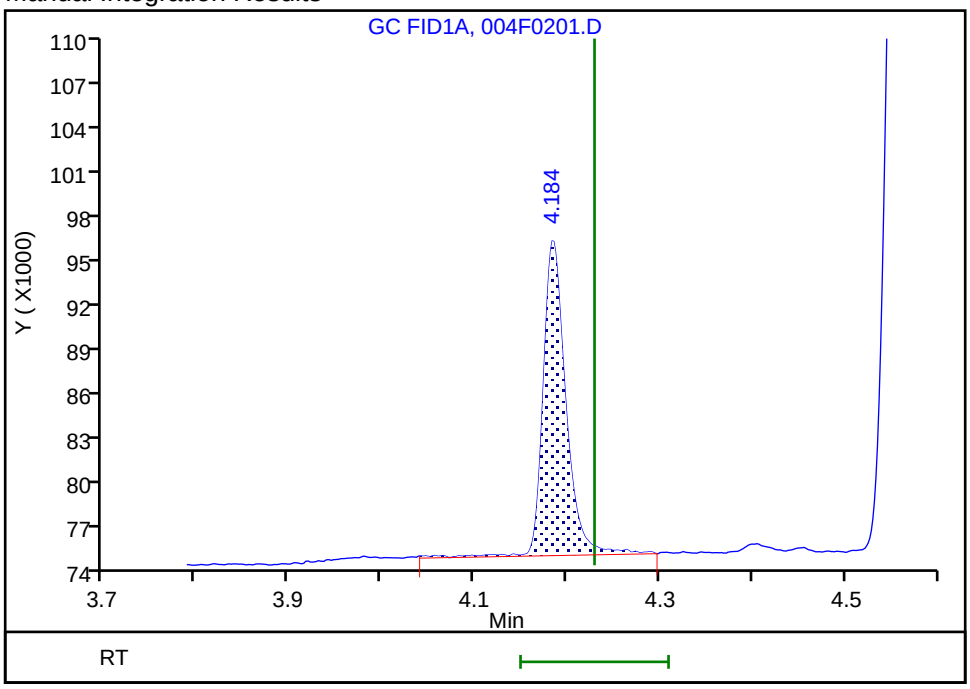
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.18
Area: 35261
Amount: 1.253100
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:55:04
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Sep-2021 13:41:52 ALS Bottle#: 5 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:13 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:58:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.299	-0.006	126818	1.64	1.75	
2	1.686	1.686	0.000	126529	1.64	1.77	
						RPD = 1.24	
3 Ethane							
1	1.562	1.556	0.006	108631	3.08	3.27	
2	3.031	3.028	0.003	107446	3.08	3.22	
						RPD = 1.52	
4 Ethylene							
1	1.867	1.844	0.023	107197	2.87	3.04	
2	2.613	2.609	0.004	95159	2.87	3.07	
						RPD = 0.93	
5 Propane							
1	2.700	2.721	-0.021	174390	4.52	4.84	
2	4.935	4.929	0.006	170185	4.52	4.86	
						RPD = 0.37	
6 Acetylene							
1	4.213	4.230	-0.017	79761	2.67	2.83	
2	2.756	2.746	0.010	94797	2.67	2.77	
						RPD = 2.17	
7 Butane							Ma
1	4.575	4.528	0.047	232737	5.95	6.39	a
2	6.435	6.426	0.009	221865	5.95	6.31	M
						RPD = 1.20	
8 isobutylene							Ma
1	5.457	5.403	0.054	232885	5.75	6.45	
2	6.276	6.274	0.002	200266	5.75	6.03	M
						RPD = 6.65	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

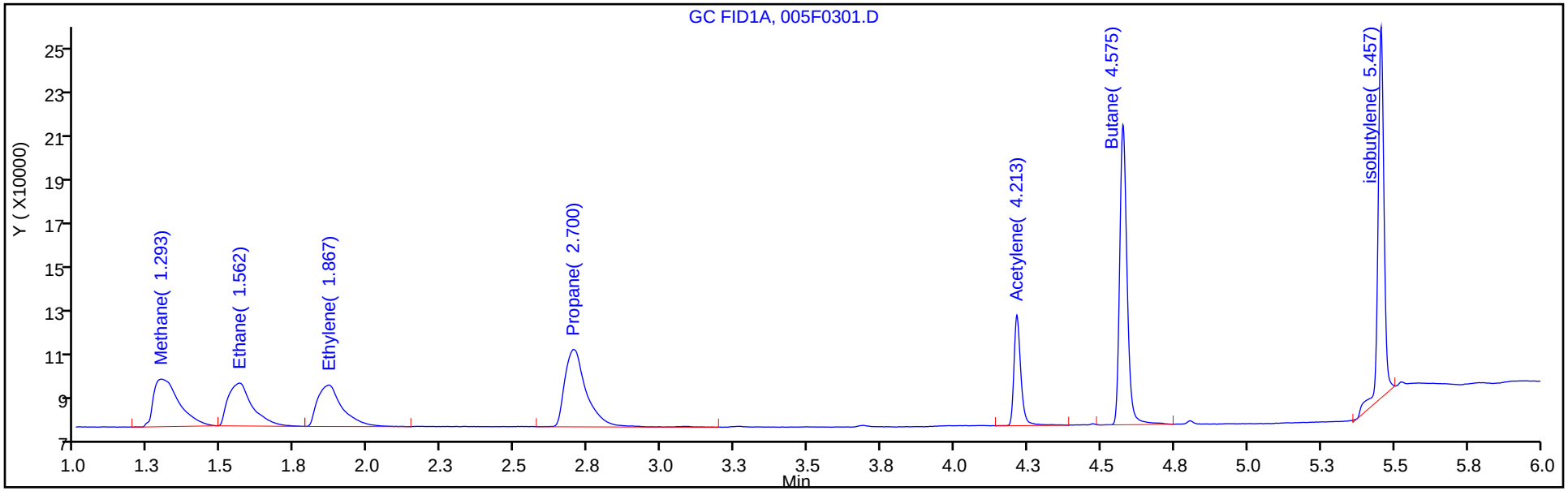
Report Date: 29-Sep-2021 10:55:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

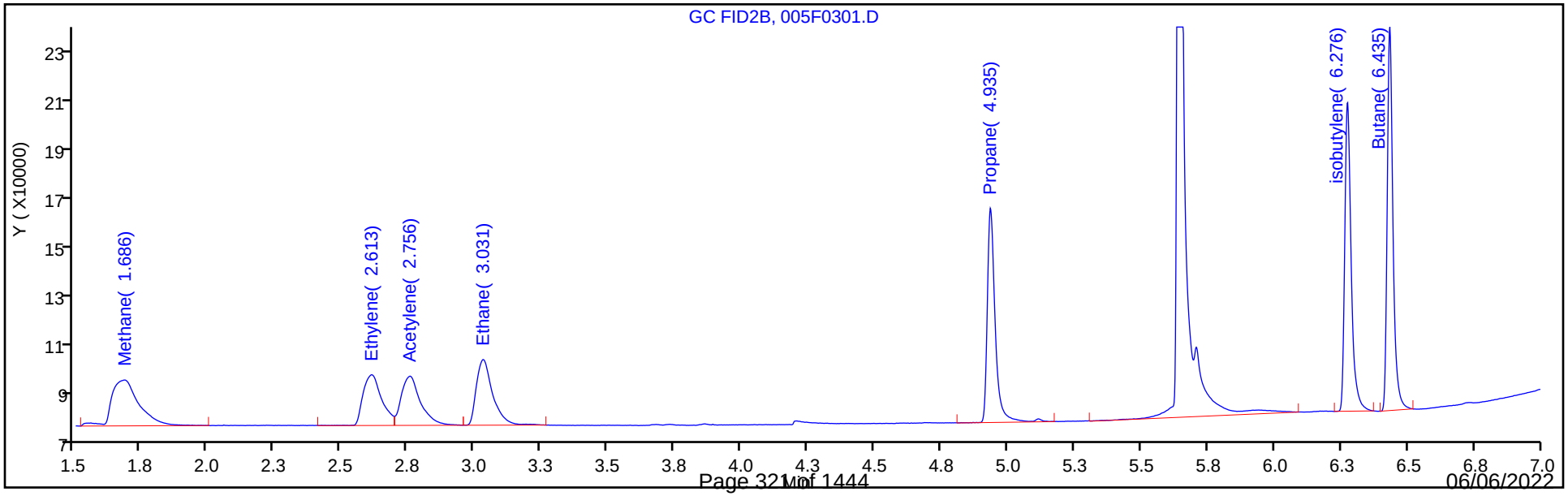
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D

Injection Date:	24-Sep-2021 13:41:52	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Sep-2021 13:54:46 ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:51:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.299	-0.006	494257	13.1	12.2	
2	1.684	1.686	-0.002	509129	13.1	12.4	
						RPD = 1.40	
3 Ethane							
1	1.561	1.556	0.005	793971	24.6	23.9	
2	3.029	3.028	0.001	803791	24.6	24.1	
						RPD = 0.81	
4 Ethylene							
1	1.870	1.844	0.026	780792	23.0	22.2	
2	2.609	2.609	0.000	687818	23.0	22.2	
						RPD = 0.16	
5 Propane							
1	2.711	2.721	-0.010	1259121	36.1	35.0	
2	4.934	4.929	0.005	1221976	36.1	34.9	
						RPD = 0.18	
6 Acetylene							a
1	4.226	4.230	-0.004	587204	21.3	20.9	a
2	2.753	2.746	0.007	713476	21.3	20.9	a
						RPD = 0.03	
7 Butane							Ma
1	4.586	4.528	0.058	1686797	47.6	46.3	a
2	6.433	6.426	0.007	1612366	47.6	45.9	M
						RPD = 0.93	
8 isobutylene							Ma
1	5.465	5.403	0.062	1589725	46.0	44.0	
2	6.274	6.274	0.000	1464027	46.0	44.1	M
						RPD = 0.20	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

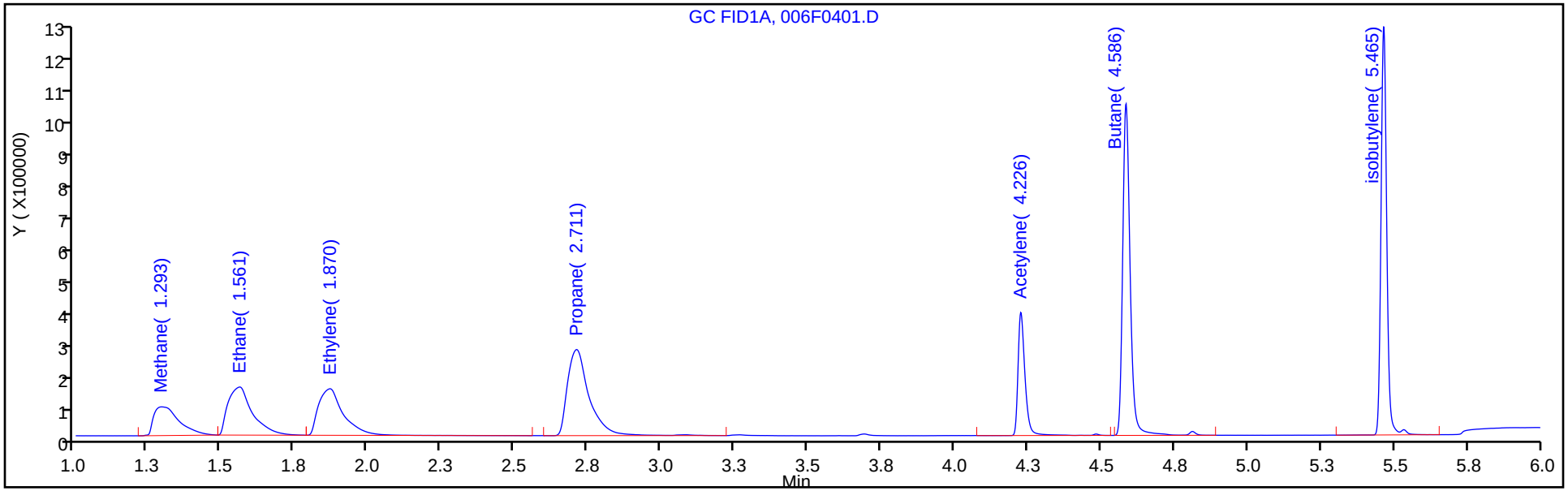
Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

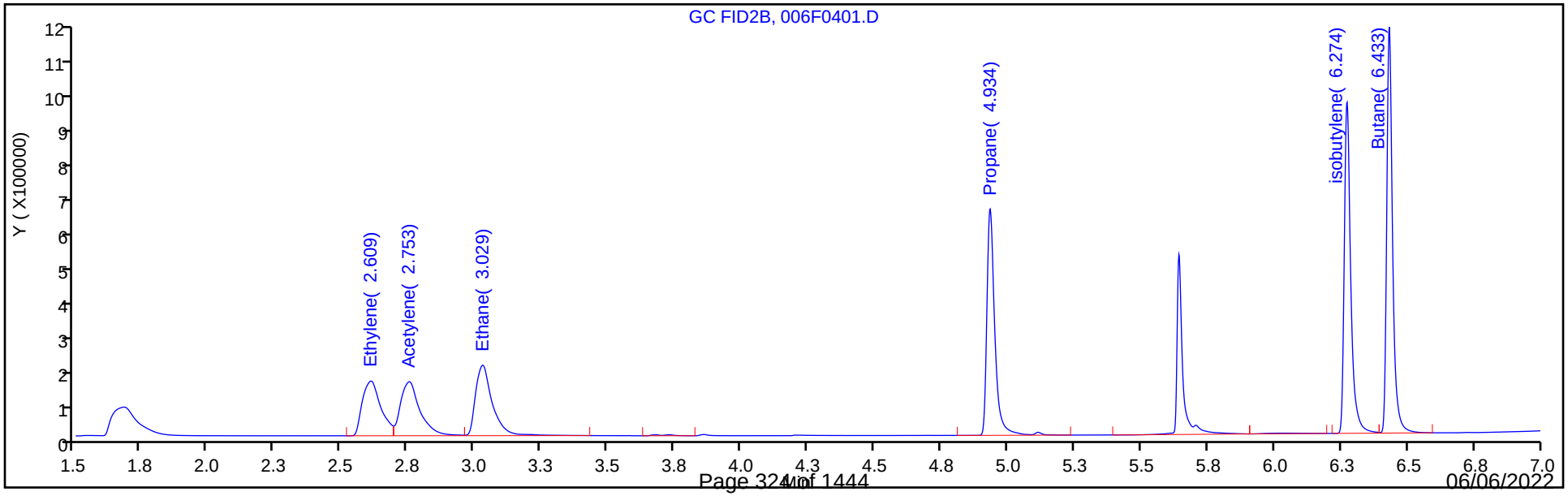
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D

Injection Date:	24-Sep-2021 13:54:46	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

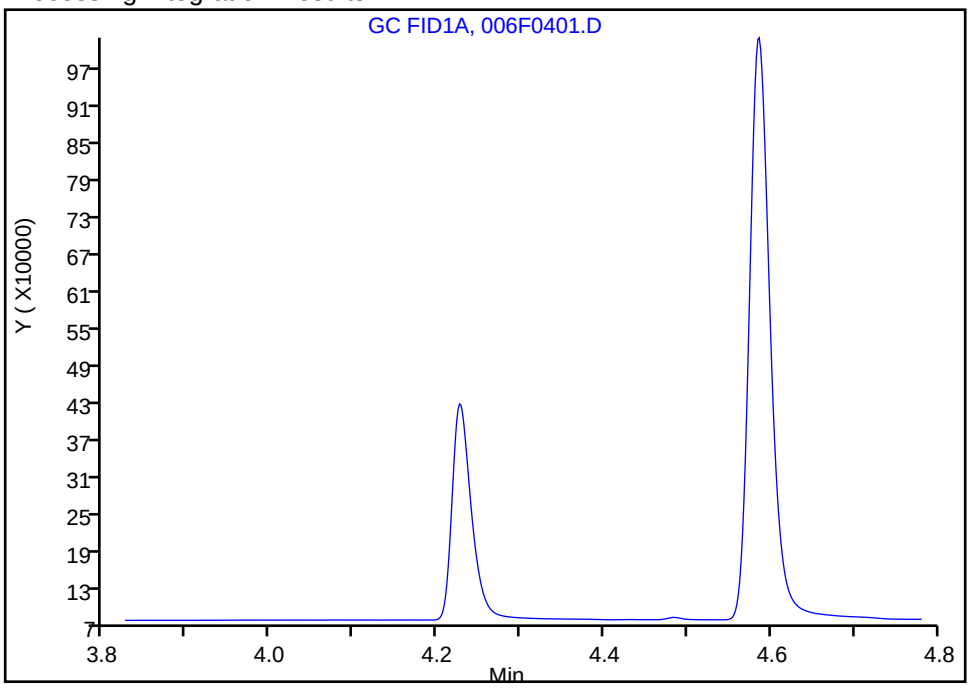
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Injection Date: 24-Sep-2021 13:54:46 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

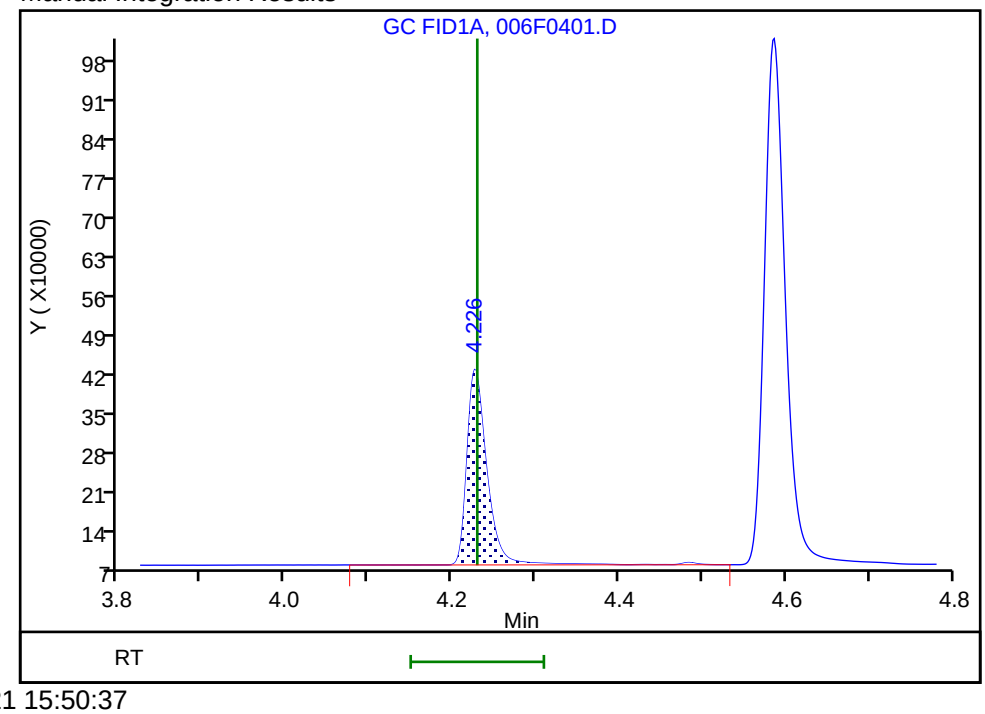
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 587204
Amount: 20.867962
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:50:37
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Sep-2021 14:07:45 ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:50:30

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.295	1.295	0.000	2453548	65.7	67.9	
2	1.681	1.681	0.000	2553566	65.7	69.0	
						RPD = 1.60	
3 Ethane							Ma
1	1.561	1.561	0.000	4411499	123.2	132.7	
2	3.026	3.026	0.000	4450065	123.2	133.3	M
						RPD = 0.45	
4 Ethylene							
1	1.870	1.870	0.000	4318968	114.9	122.6	
2	2.608	2.608	0.000	3812973	114.9	123.1	
						RPD = 0.38	
5 Propane							
1	2.716	2.716	0.000	6962772	180.6	193.4	
2	4.933	4.933	0.000	6754582	180.6	192.9	
						RPD = 0.22	
6 Acetylene							a
1	4.230	4.230	0.000	3180347	106.7	113.0	a
2	2.751	2.751	0.000	3899802	106.7	114.1	a
						RPD = 0.95	
7 Butane							
1	4.590	4.590	0.000	9255328	238.1	254.1	
2	6.430	6.430	0.000	8939530	238.1	254.4	
						RPD = 0.11	
8 isobutylene							
1	5.468	5.468	0.000	8777969	229.8	243.0	
2	6.271	6.271	0.000	8052089	229.8	242.5	
						RPD = 0.20	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

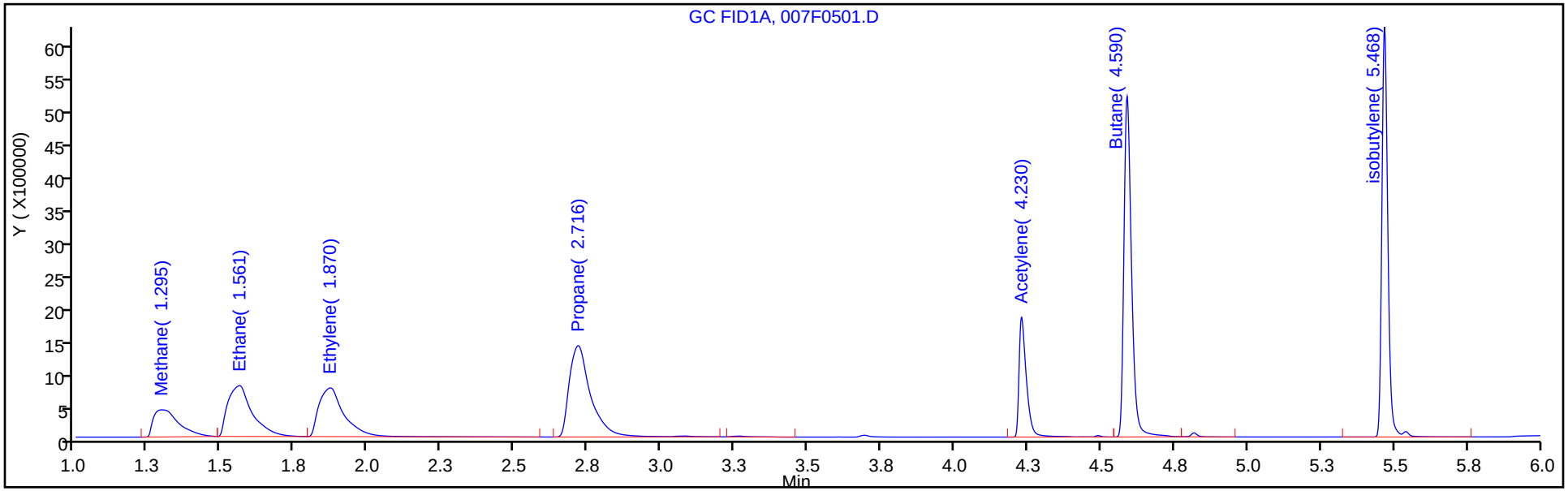
Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

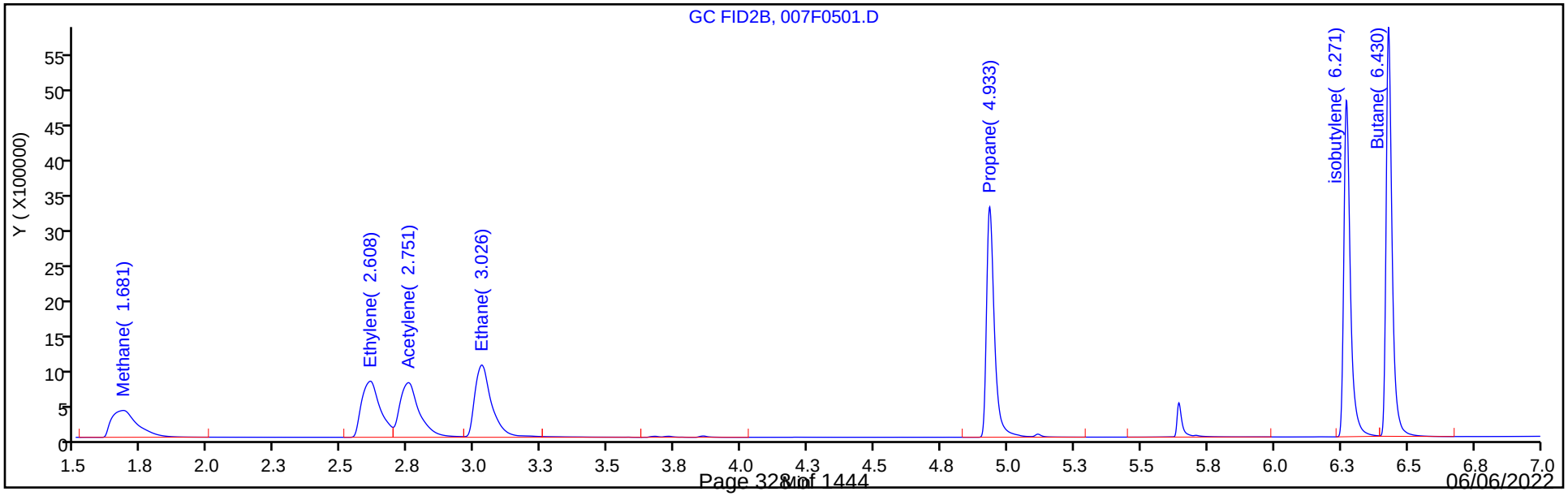
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D

Injection Date:	24-Sep-2021 14:07:45	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

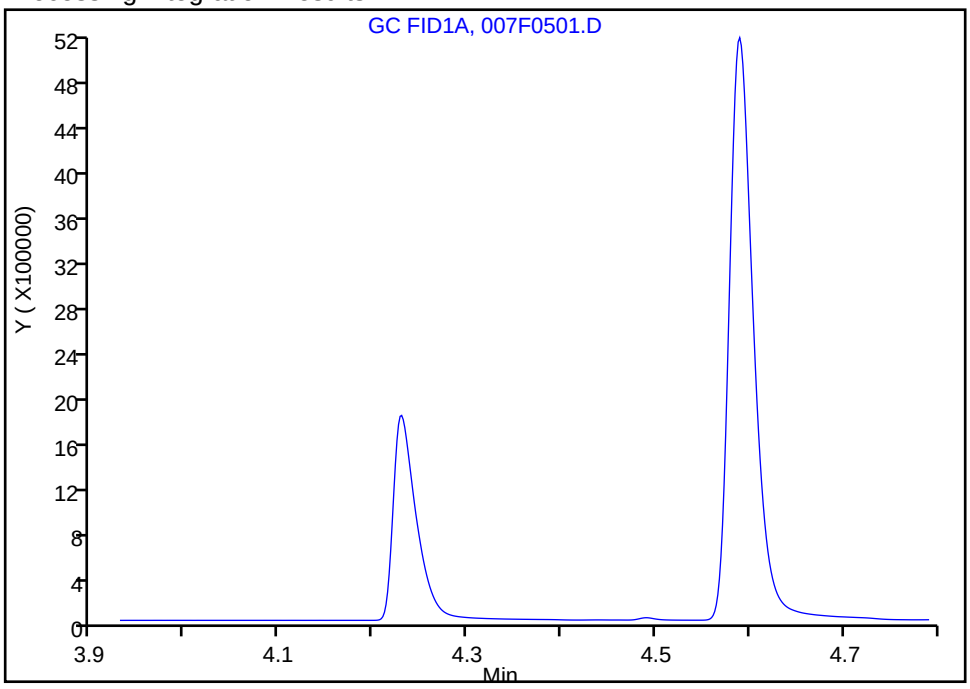
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Injection Date: 24-Sep-2021 14:07:45 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

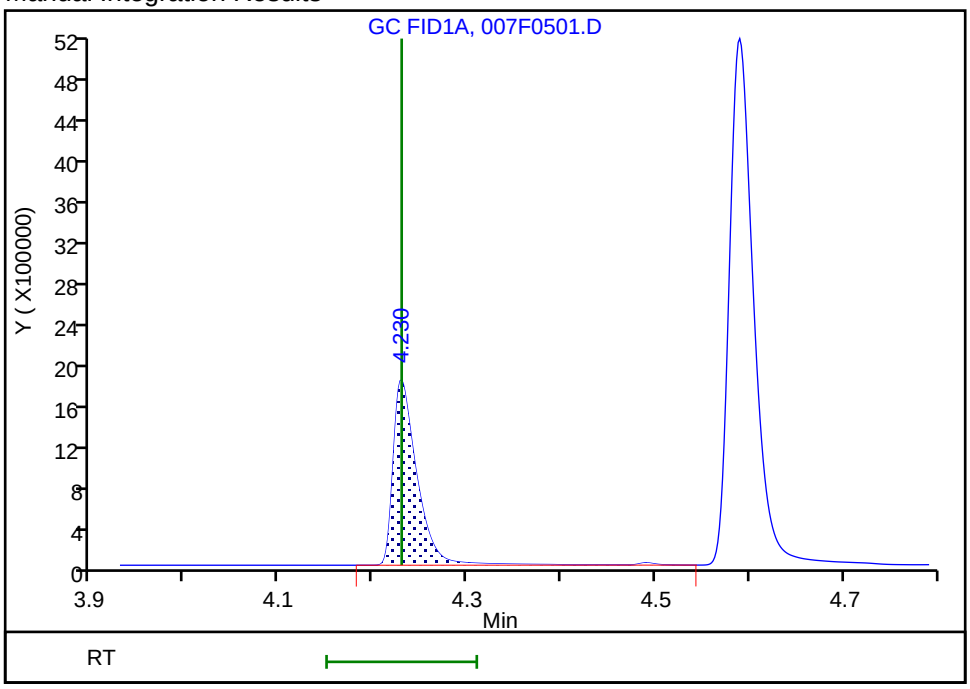
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 3180347
Amount: 113.0227
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:50:17
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Sep-2021 14:20:44 ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:15 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:46:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							M
1	1.295	1.295	0.000	4808571	131.4	134.9	
2	1.678	1.678	0.000	5065048	131.4	138.6	M
						RPD = 2.70	
3 Ethane							
1	1.560	1.560	0.000	8751636	246.3	263.3	
2	3.023	3.023	0.000	8976911	246.3	268.9	
						RPD = 2.12	
4 Ethylene							
1	1.873	1.873	0.000	8582166	229.8	243.6	
2	2.603	2.603	0.000	7548044	229.8	243.6	
						RPD = 0.00	
5 Propane							M
1	2.721	2.721	0.000	13578180	361.3	377.1	M
2	4.929	4.929	0.000	13344347	361.3	381.1	
						RPD = 1.08	
6 Acetylene							a
1	4.230	4.230	0.000	6274725	213.3	223.0	a
2	2.746	2.746	0.000	7865310	213.3	230.1	a
						RPD = 3.15	
7 Butane							Ma
1	4.591	4.591	0.000	18468578	476.1	507.1	a
2	6.426	6.426	0.000	17766895	476.1	505.6	M
						RPD = 0.29	
8 isobutylene							Ma
1	5.468	5.468	0.000	17314841	459.7	479.3	
2	6.269	6.269	0.000	15966351	459.7	480.9	M
						RPD = 0.33	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

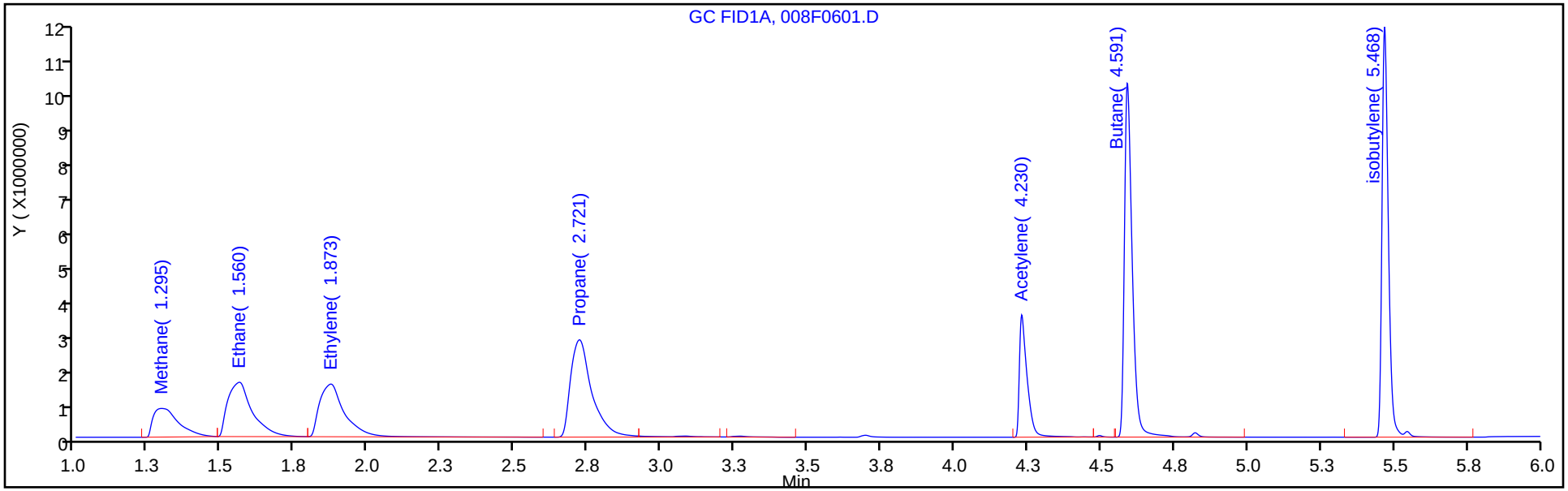
Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

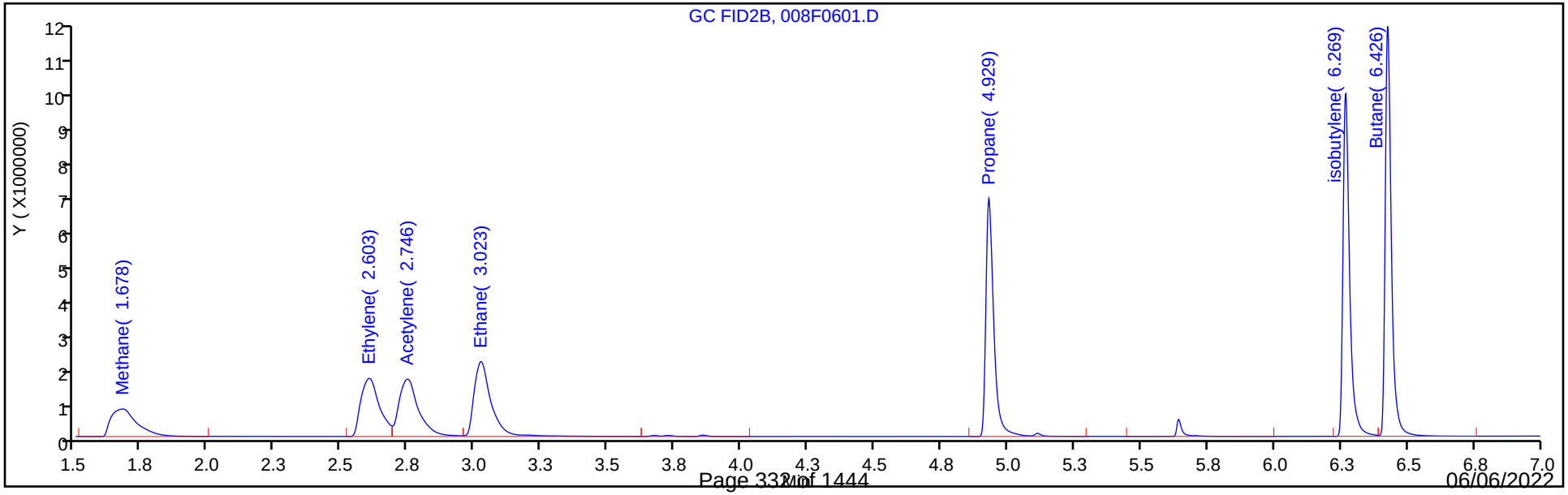
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D

Injection Date:	24-Sep-2021 14:20:44	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

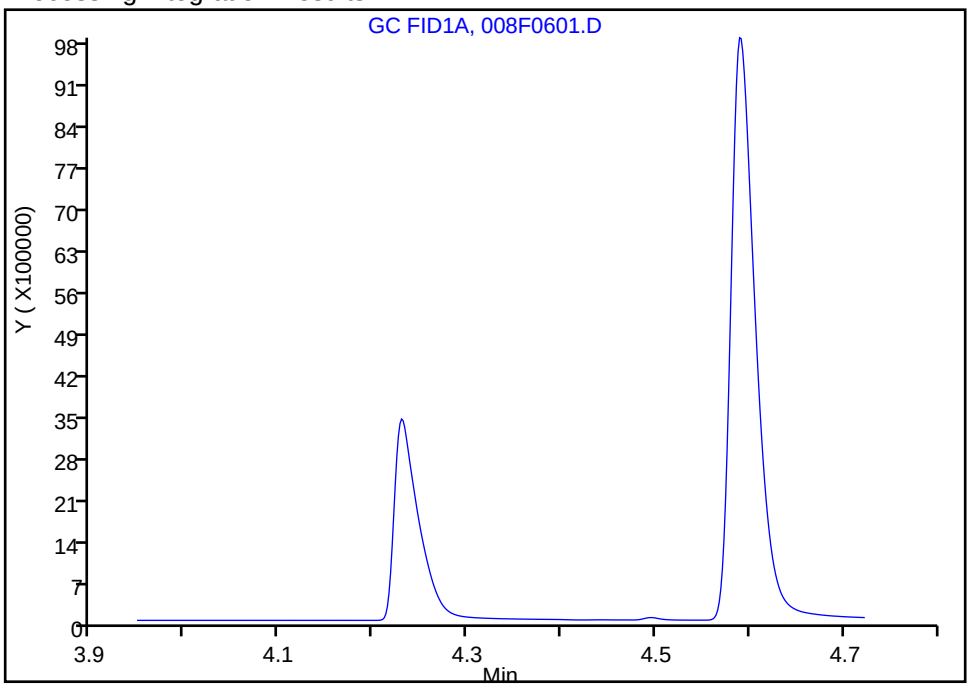
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Injection Date: 24-Sep-2021 14:20:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

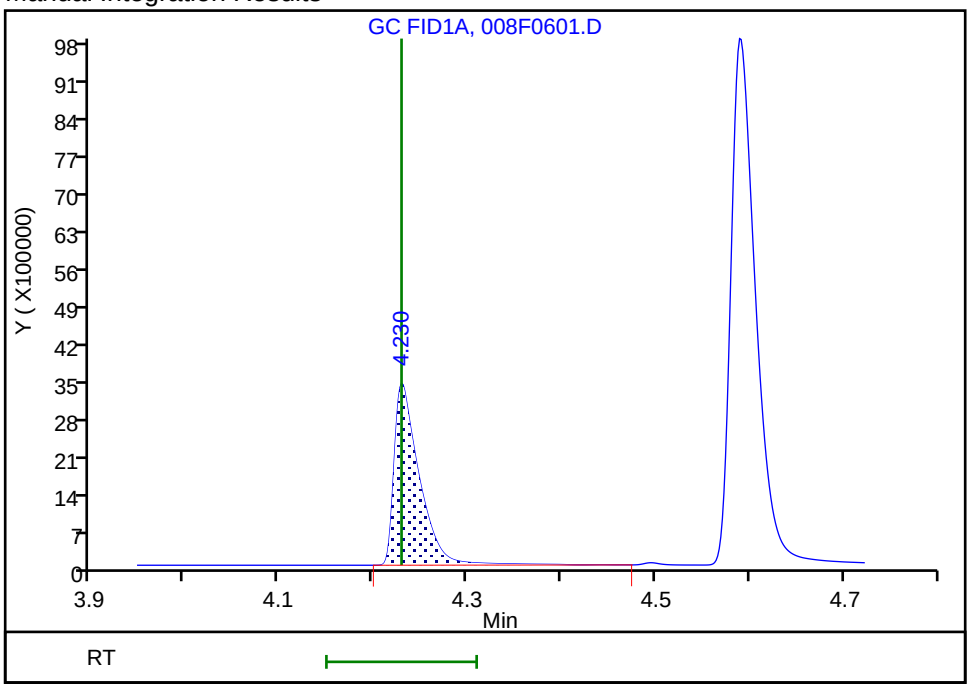
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 6274725
Amount: 222.9902
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:44:55
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Sep-2021 14:33:44 ALS Bottle#: 9 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:16 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:47:03

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.294	1.295	-0.001	8118988	262.8	229.0	
2	1.678	1.678	0.000	8455607	262.8	232.5	
						RPD = 1.51	
3 Ethane							
1	1.561	1.560	0.001	14997572	492.7	451.2	
2	3.021	3.023	-0.002	14625440	492.7	438.1	
						RPD = 2.94	
4 Ethylene							
1	1.873	1.873	0.000	14678124	459.6	416.7	
2	2.602	2.603	-0.001	12909086	459.6	416.7	
						RPD = 0.00	
5 Propane							
1	2.723	2.721	0.002	23539538	722.6	653.7	
2	4.926	4.929	-0.003	23034734	722.6	657.9	
						RPD = 0.65	
6 Acetylene							a
1	4.228	4.230	-0.002	10977943	426.7	390.1	a
2	2.746	2.746	0.000	13452620	426.7	393.6	a
						RPD = 0.88	
7 Butane							Ma
1	4.588	4.591	-0.003	30555104	952.3	838.9	a
2	6.423	6.426	-0.003	31281741	952.3	890.2	M
						RPD = 5.93	
8 isobutylene							Ma
1	5.466	5.468	-0.002	30754275	919.4	851.3	
2	6.266	6.269	-0.003	28385241	919.4	854.9	M
						RPD = 0.42	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

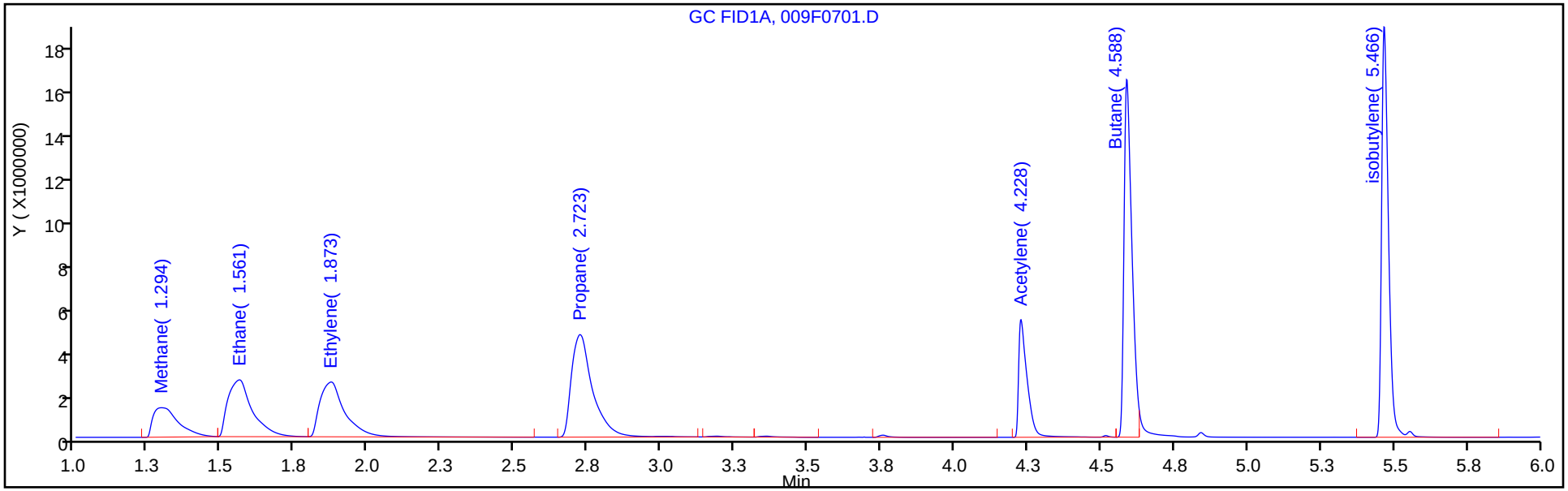
Report Date: 29-Sep-2021 10:55:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

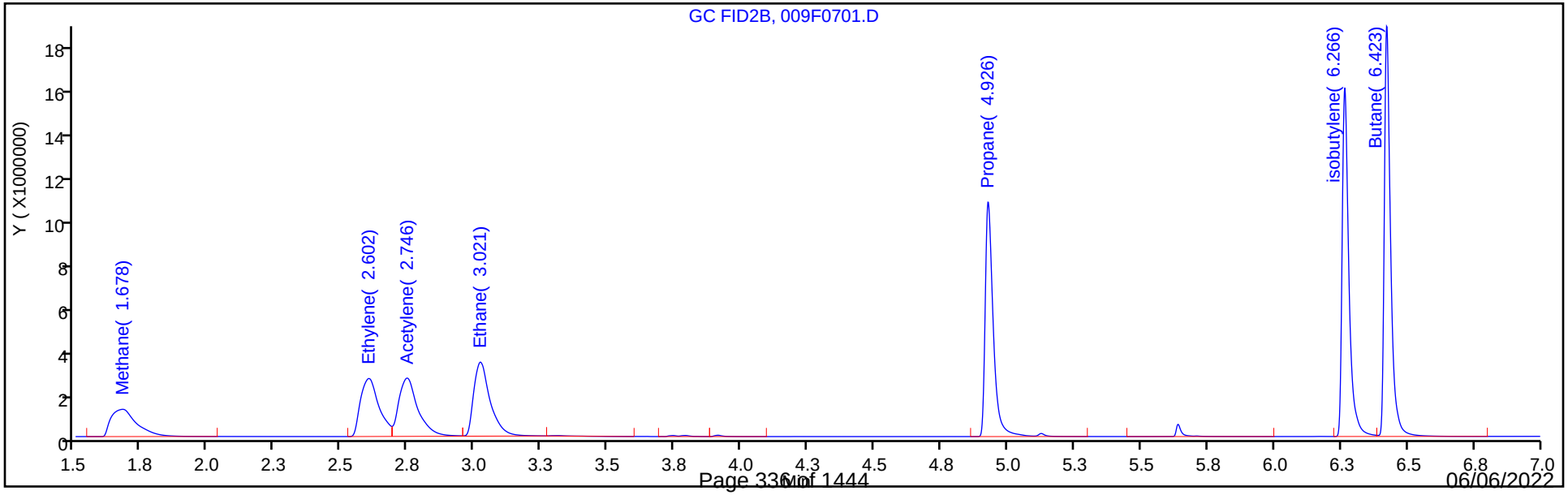
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D

Injection Date:	24-Sep-2021 14:33:44	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

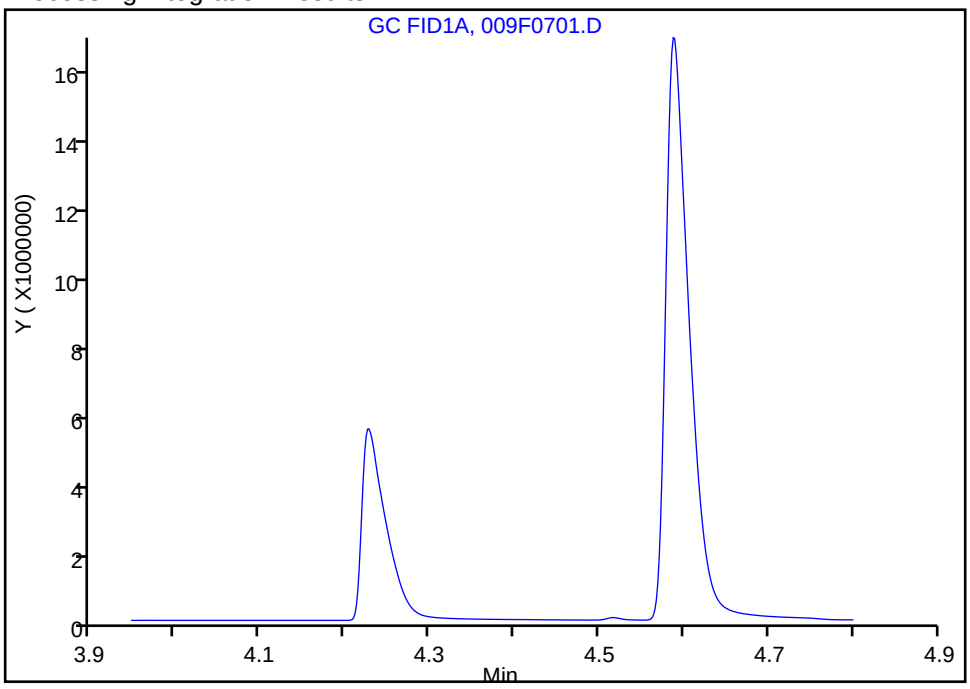
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D
Injection Date: 24-Sep-2021 14:33:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 9 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

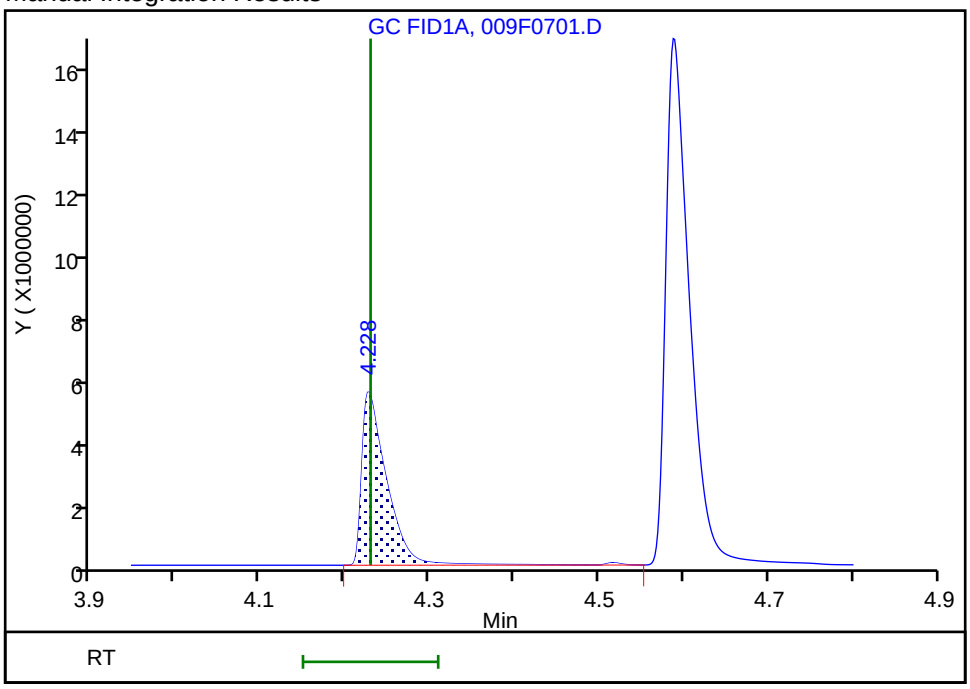
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 10977943
Amount: 390.1324
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:46:29
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Sep-2021 14:46:48 ALS Bottle#: 10 Worklist Smp#: 9
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:17 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:04

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.295	-0.002	60484705	1626.3	1717.9	
2	1.676	1.678	-0.002	59798125	1626.3	1654.6	
						RPD = 3.75	

QC Flag Legend
Processing Flags

Reagents:
RSK175methane_00010 Amount Added: 50.00 Units: uL

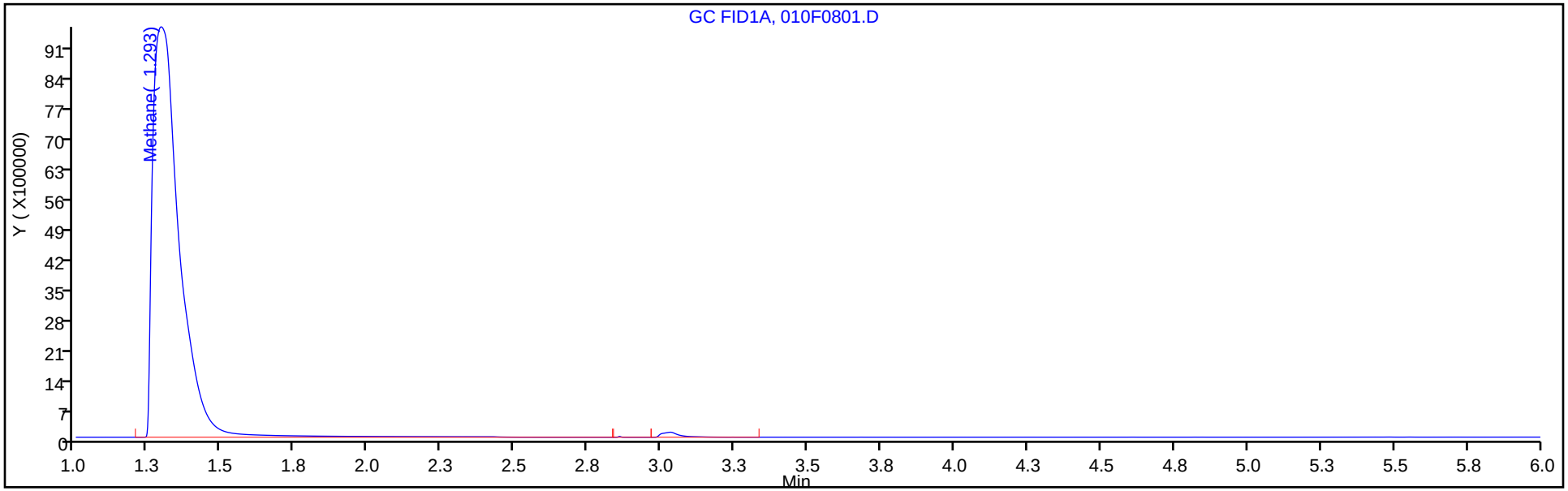
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

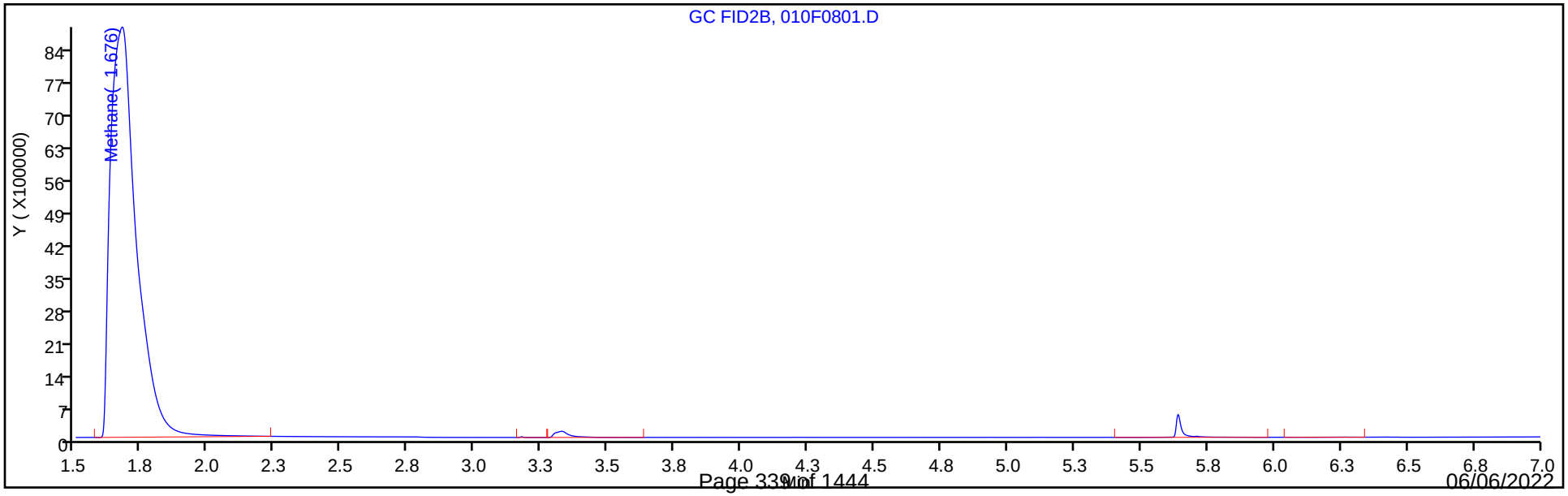
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D

Injection Date:	24-Sep-2021 14:46:48	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 24-Sep-2021 14:59:53 ALS Bottle#: 11 Worklist Smp#: 10
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:17 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.292	1.295	-0.003	245647963	6505.0	6982.6	
2	1.673	1.678	-0.005	247051774	6505.0	6841.2	
						RPD = 2.04	

QC Flag Legend

Processing Flags

Reagents:

RSK175methane_00010 Amount Added: 200.00 Units: uL

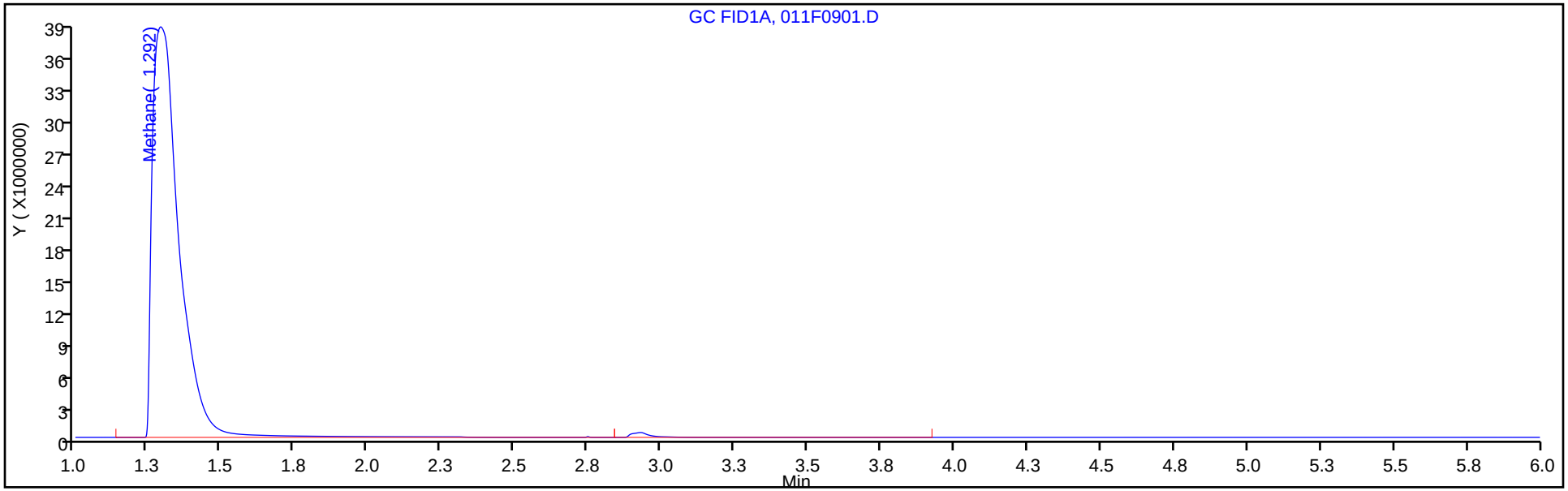
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

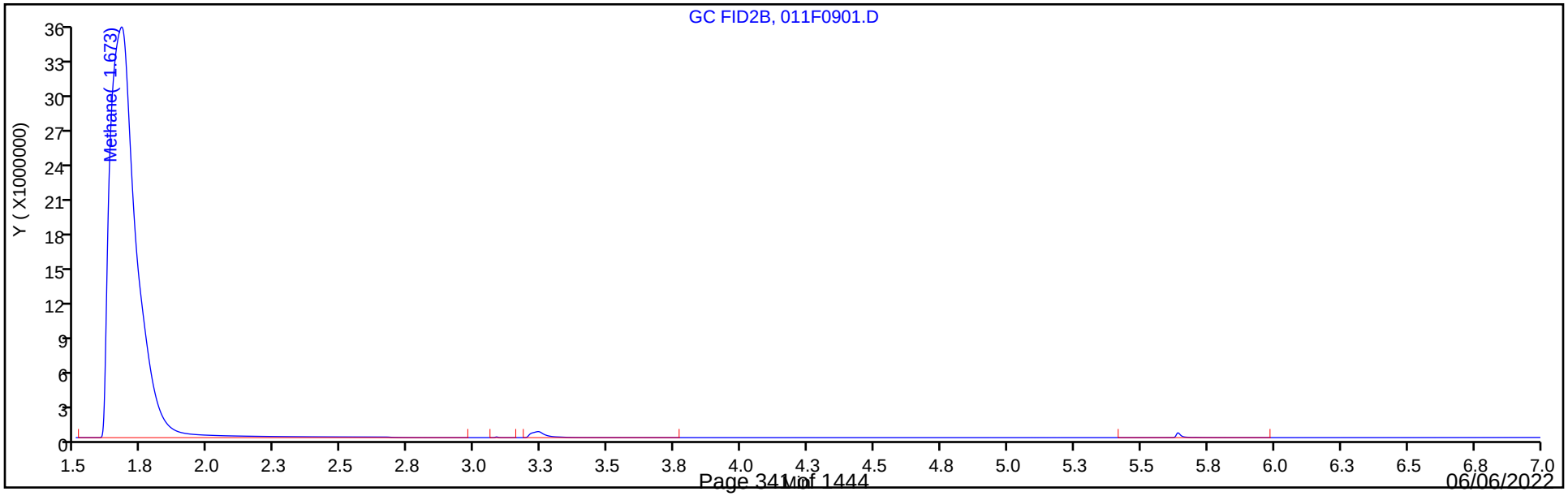
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D

Injection Date:	24-Sep-2021 14:59:53	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	10		
Inject. Date:	24-Sep-2021 15:12:55	ALS Bottle#:	12	Worklist Smp#:	11
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	ic				
Operator ID:	sciannac	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	29-Sep-2021 10:55:18	Calib Date:	24-Sep-2021 15:12:55		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D				
Column 1 :	Rt-Alumina BOND/KCl (0.53 mm)		Det: GC FID1A		
Column 2 :	HP-PLOT/Q (0.53 mm)		Det: GC FID2B		
Process Host:	CTX1655				

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.288	1.295	-0.007	669092603	19515	19022	
2	1.669	1.678	-0.009	675608539	19515	18712	
						RPD = 1.65	

QC Flag Legend

Processing Flags

Reagents:

RSK175methane_00010 Amount Added: 600.00 Units: uL

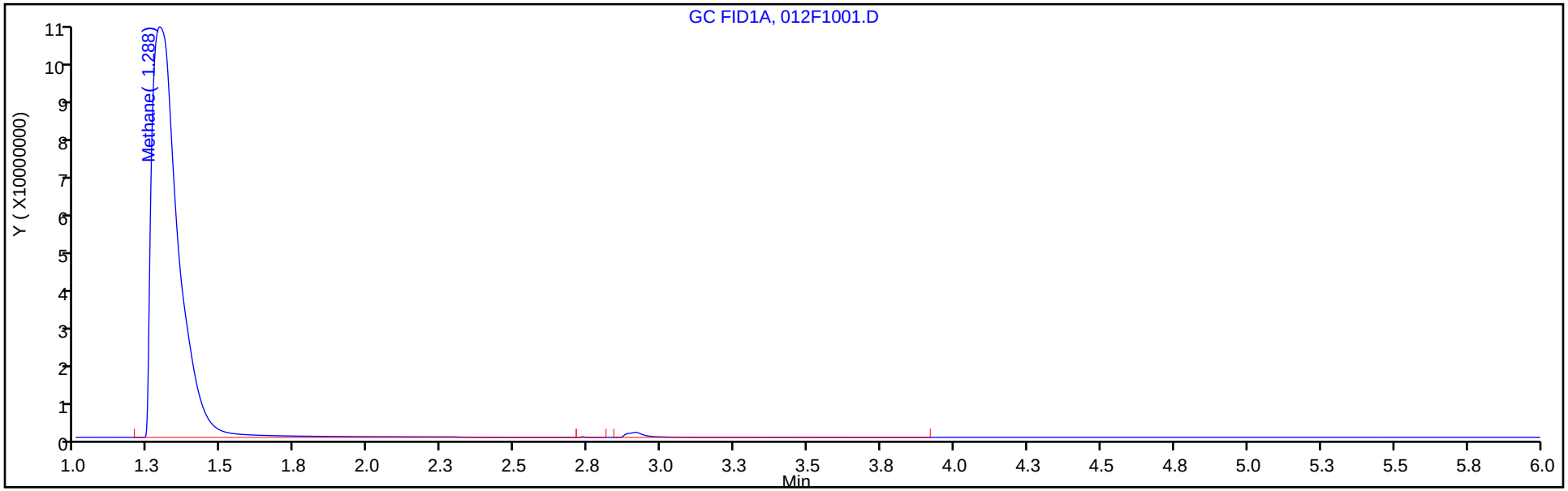
Report Date: 29-Sep-2021 10:55:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

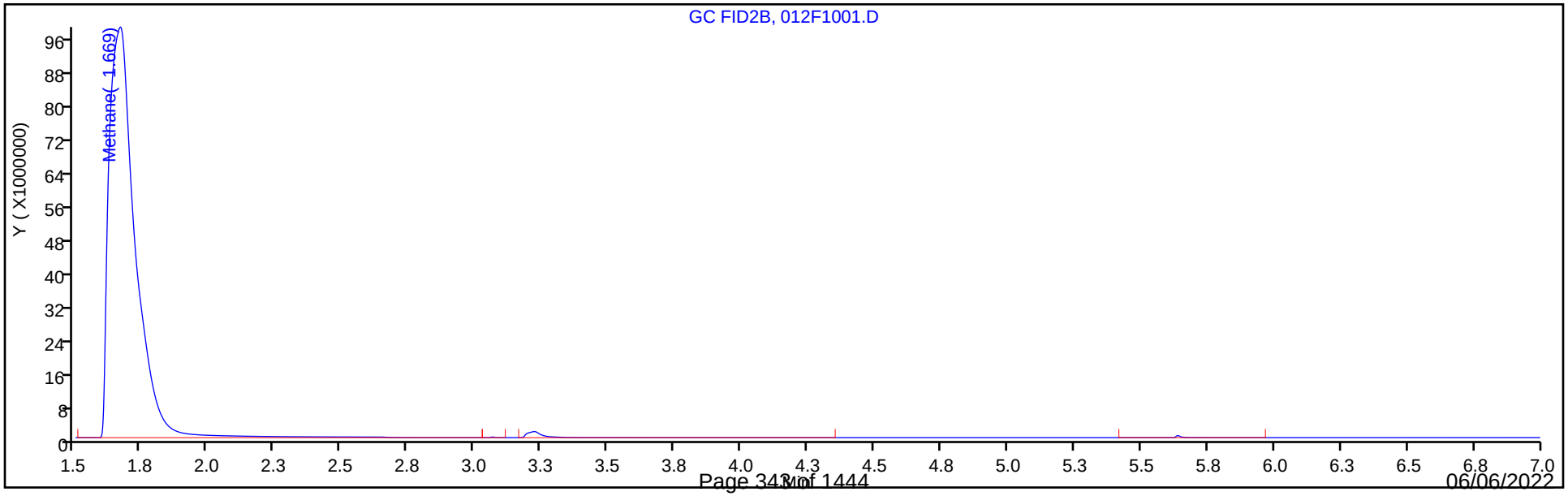
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Injection Date:	24-Sep-2021 15:12:55	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	11
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Calibration / Methane

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

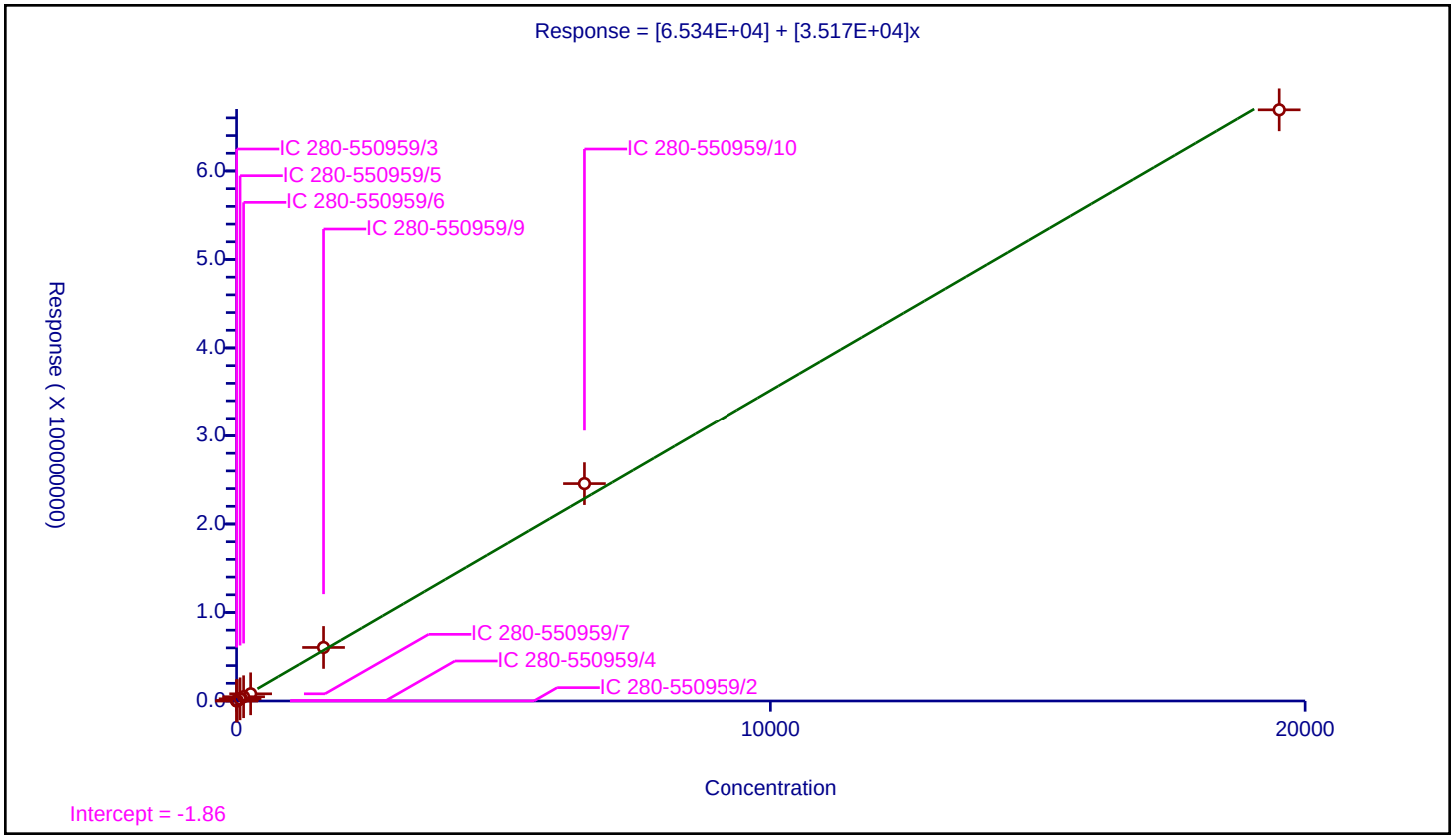
Curve Coefficients

Intercept:	6.534E+04
Slope:	3.517E+04

Error Coefficients

Standard Error:	9210000
Relative Standard Error:	7.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	0.821288	93424.0			113753.101076	Y
2	IC 280-550959/3	1.642575	126818.0			77206.82465	Y
3	IC 280-550959/4	13.1406	494257.0			37612.970488	Y
4	IC 280-550959/5	65.703	2453548.0			37343.013257	Y
5	IC 280-550959/6	131.406	4808571.0			36593.237752	Y
6	IC 280-550959/7	262.812	8118988.0			30892.759844	Y
7	IC 280-550959/9	1626.25	60484705.0			37192.747118	Y
8	IC 280-550959/10	6505.0	245647963.0			37762.945888	Y
9	IC 280-550959/11	19515.0	669092603.0			34286.067282	Y



Calibration / Ethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

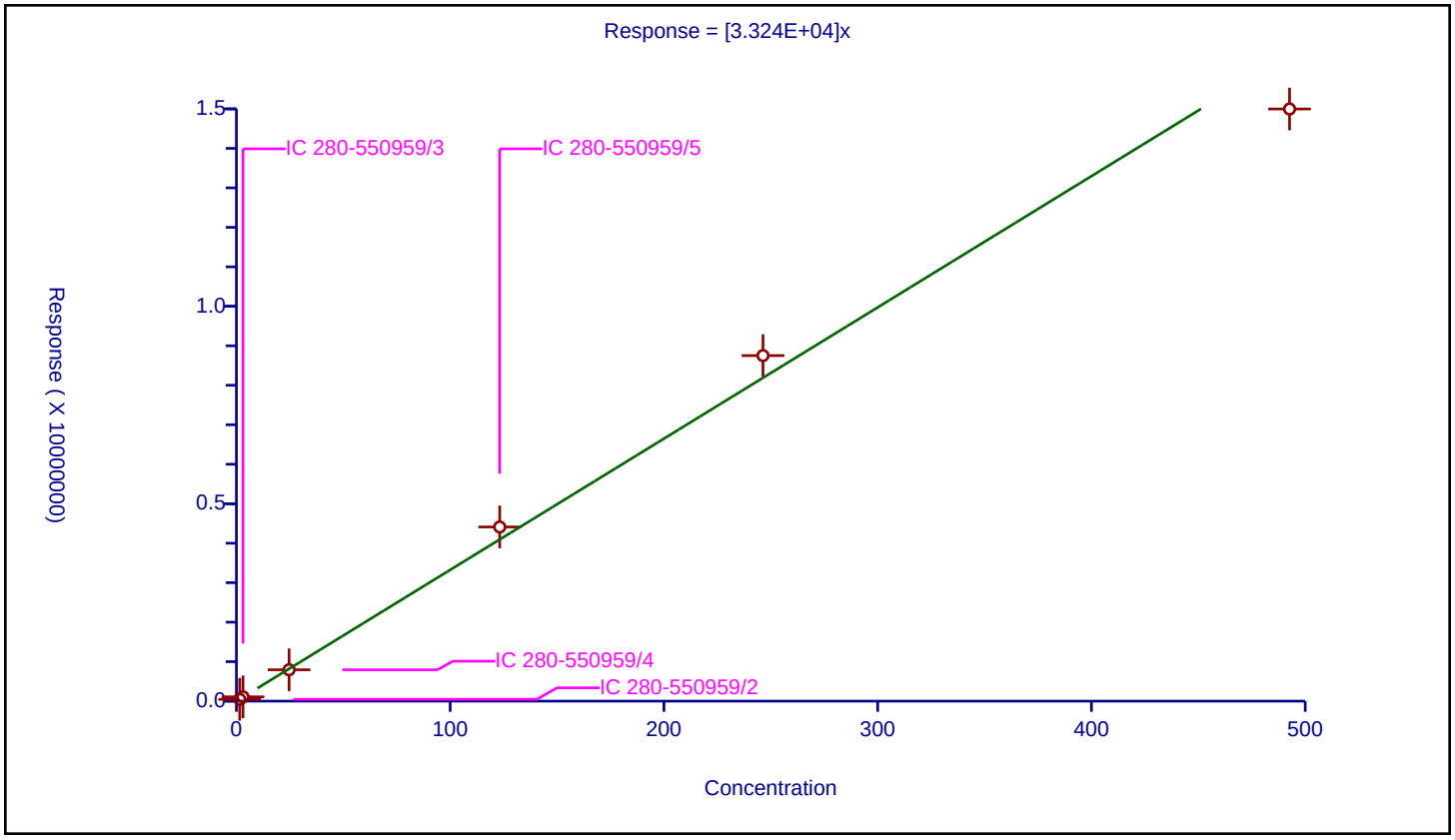
Curve Coefficients

Intercept:	0
Slope:	3.324E+04

Error Coefficients

Standard Error:	681000
Relative Standard Error:	7.9
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.539625	46427.0			30154.745474	Y
2	IC 280-550959/3	3.07925	108631.0			35278.395713	Y
3	IC 280-550959/4	24.634	793971.0			32230.69741	Y
4	IC 280-550959/5	123.17	4411499.0			35816.343265	Y
5	IC 280-550959/6	246.34	8751636.0			35526.654218	Y
6	IC 280-550959/7	492.68	14997572.0			30440.797272	Y



Calibration / Ethylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

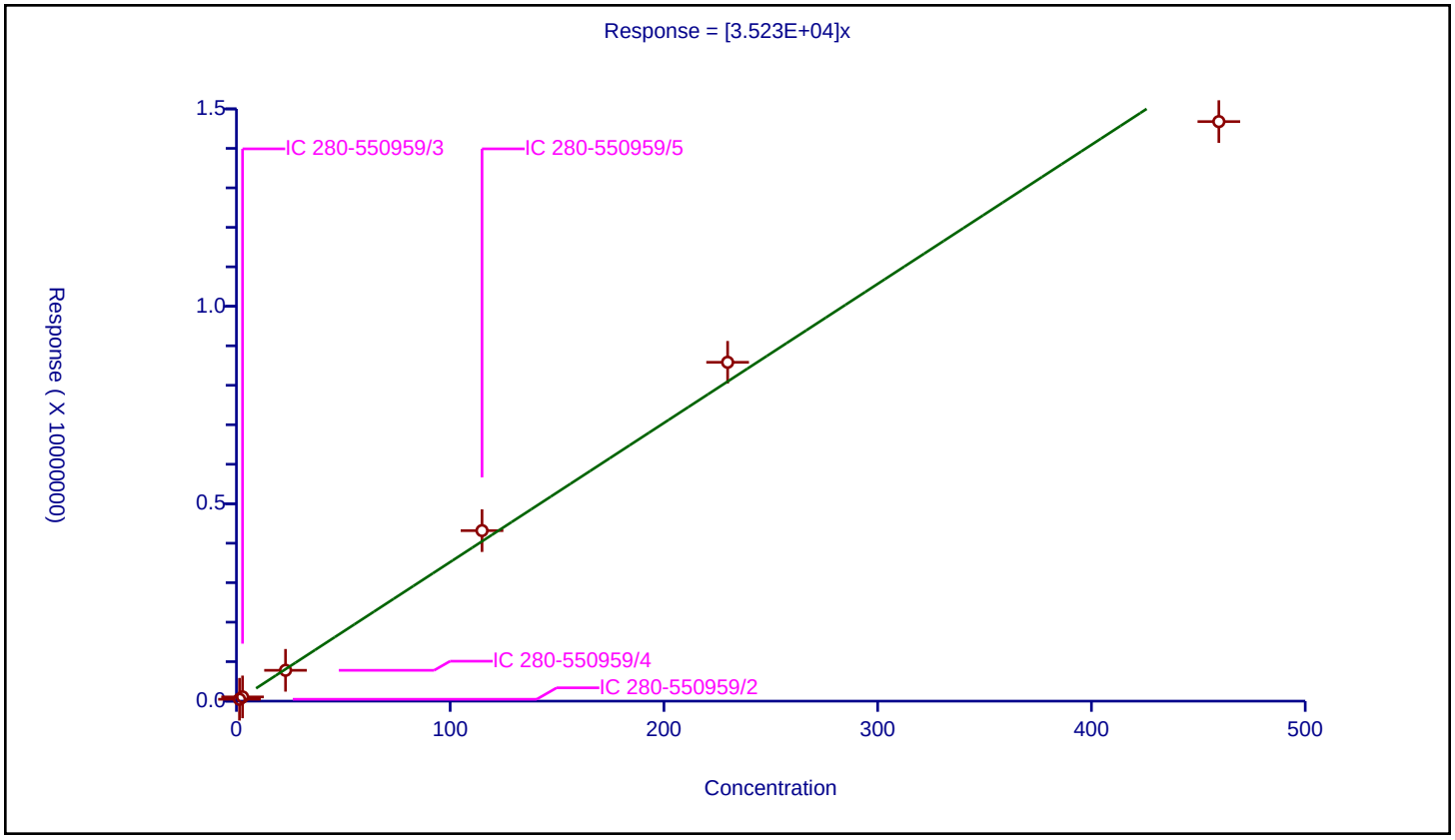
Curve Coefficients

Intercept:	0
Slope:	3.523E+04

Error Coefficients

Standard Error:	721000
Relative Standard Error:	7.1
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.43625	47667.0			33188.511749	Y
2	IC 280-550959/3	2.8725	107197.0			37318.363795	Y
3	IC 280-550959/4	22.98	780792.0			33977.023499	Y
4	IC 280-550959/5	114.9	4318968.0			37588.929504	Y
5	IC 280-550959/6	229.8	8582166.0			37346.240209	Y
6	IC 280-550959/7	459.6	14678124.0			31936.736292	Y



Calibration / Acetylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

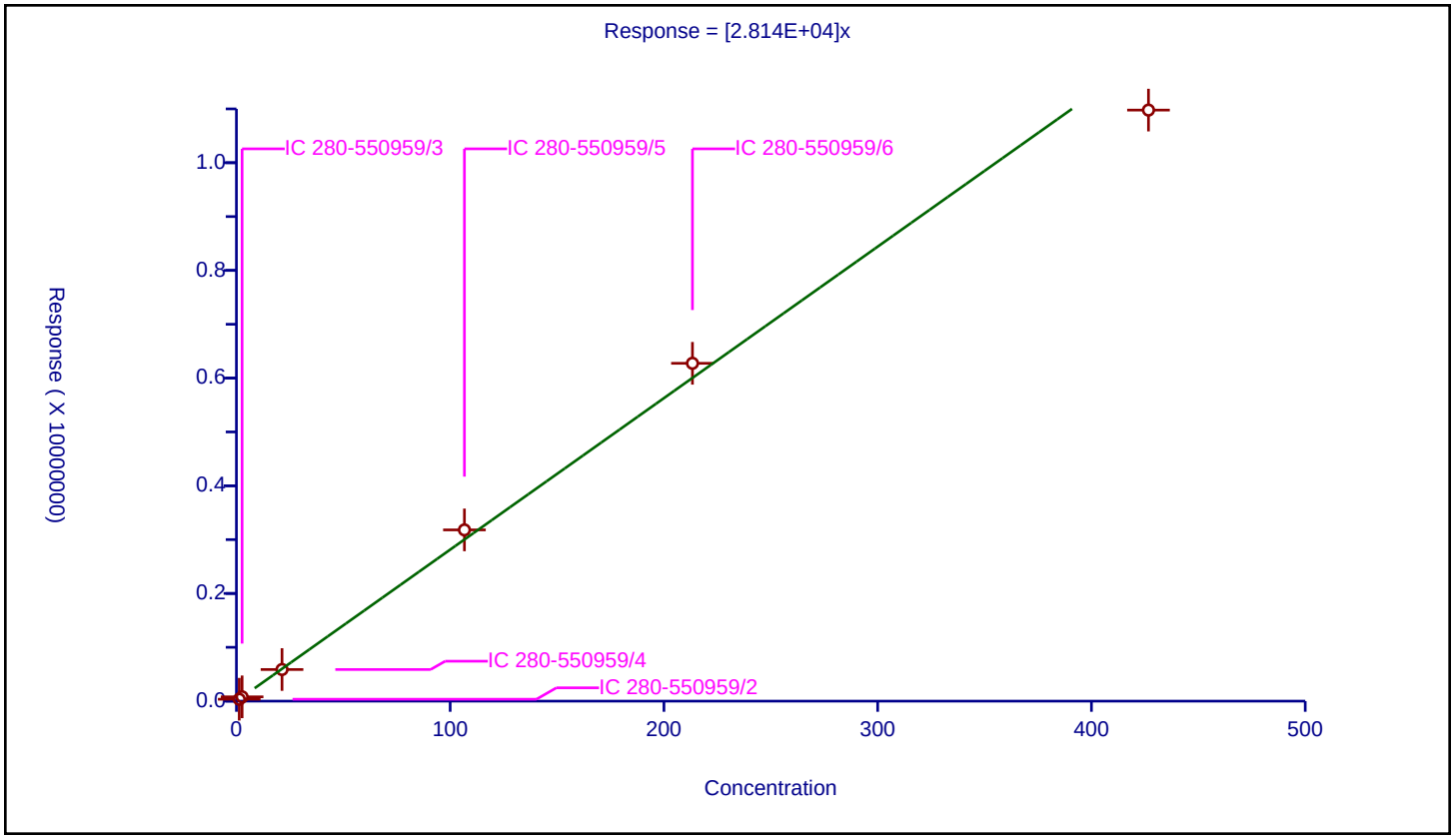
Curve Coefficients

Intercept:	0
Slope:	2.814E+04

Error Coefficients

Standard Error:	482000
Relative Standard Error:	6.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.333375	35261.0			26444.923596	Y
2	IC 280-550959/3	2.66675	79761.0			29909.44033	Y
3	IC 280-550959/4	21.334	587204.0			27524.327365	Y
4	IC 280-550959/5	106.67	3180347.0			29814.821412	Y
5	IC 280-550959/6	213.34	6274725.0			29411.854317	Y
6	IC 280-550959/7	426.68	10977943.0			25728.749883	Y



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58238

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Methane	1.689	1.686	1.684	1.681	1.678	1.678	1.676	1.673	1.669		1.646 - 1.726	1.679
Ethylene	2.612	2.613	2.609	2.608	2.603	2.602					2.559 - 2.659	2.608
Acetylene	2.759	2.756	2.753	2.751	2.746	2.746					2.666 - 2.826	2.752
Ethane	3.032	3.031	3.029	3.026	3.023	3.021					2.978 - 3.078	3.027

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58238

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Methane	111078 38545 34620	77031 32174	38745 36771	38865 37979	Lin2	62633.7795	36102.9355							0.9950		0.9900
Ethylene	28704 32846	33128 28088	29931	33185	Ave		30980.2676				7.6		20.0			
Acetylene	31126 36867	35548 31529	33443	36560	Ave		34178.7944				7.4		20.0			
Ethane	30517 36441	34894 29685	32629	36129	Ave		33382.5817				8.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58238

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Methane	Lin2	91227 8455607	126529 59798125	509129 247051774	2553566 675608539	5065048	0.821 263	1.64 1626	13.1 6505	65.7 19515	131
Ethylene	Ave	41226 12909086	95159	687818	3812973	7548044	1.44 460	2.87	23.0	115	230
Acetylene	Ave	41503 13452620	94797	713476	3899802	7865310	1.33 427	2.67	21.3	107	213
Ethane	Ave	46984 14625440	107446	803791	4450065	8976911	1.54 493	3.08	24.6	123	246

Curve Type Legend

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Sep-2021 13:28:57 ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:57:02

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							a
1	1.292	1.299	-0.007	93424	0.8213	0.7985	a
2	1.689	1.686	0.003	91227	0.8213	0.7920	a
						RPD = 0.81	
3 Ethane							a
1	1.559	1.556	0.003	46427	1.54	1.40	a
2	3.032	3.028	0.004	46984	1.54	1.41	a
						RPD = 0.77	
4 Ethylene							a
1	1.859	1.844	0.015	47667	1.44	1.35	a
2	2.612	2.609	0.003	41226	1.44	1.33	a
						RPD = 1.67	
5 Propane							a
1	2.682	2.721	-0.039	76526	2.26	2.13	a
2	4.937	4.929	0.008	73050	2.26	2.09	a
						RPD = 1.83	
6 Acetylene							a
1	4.184	4.230	-0.046	35261	1.33	1.25	a
2	2.759	2.746	0.013	41503	1.33	1.21	a
						RPD = 3.15	
7 Butane							Ma
1	4.555	4.528	0.027	101912	2.98	2.80	a
2	6.435	6.426	0.009	95155	2.98	2.71	M
						RPD = 3.27	
8 isobutylene							Ma
1	5.437	5.403	0.034	92868	2.87	2.57	M
2	6.277	6.274	0.003	91569	2.87	2.76	a
						RPD = 7.02	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

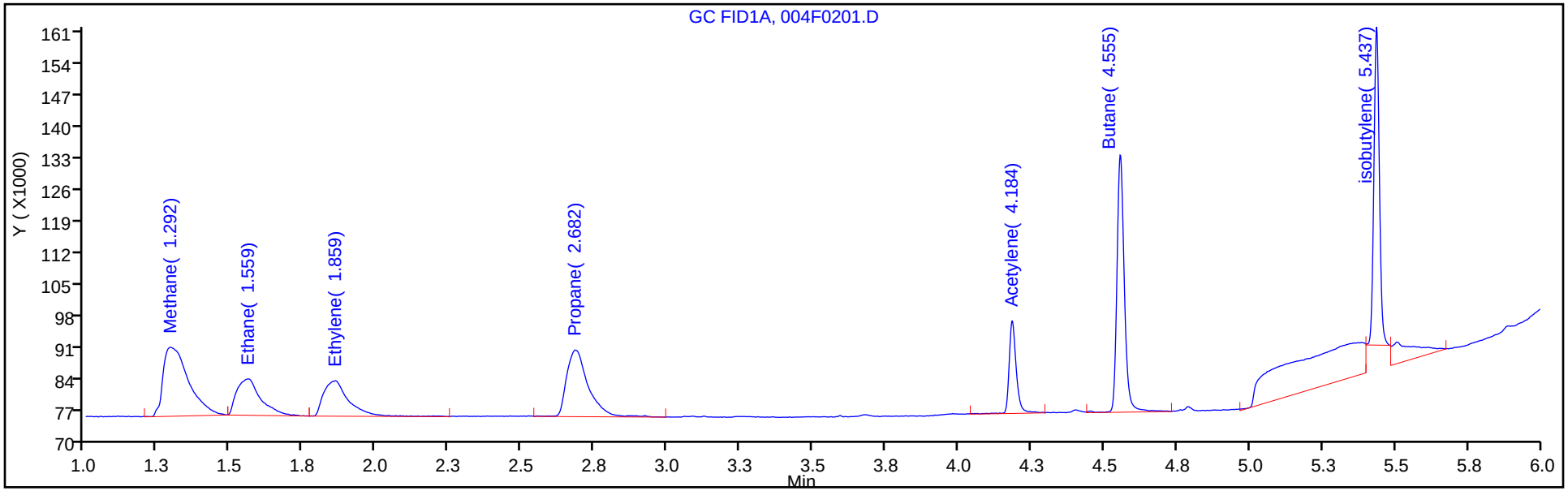
Report Date: 29-Sep-2021 10:55:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

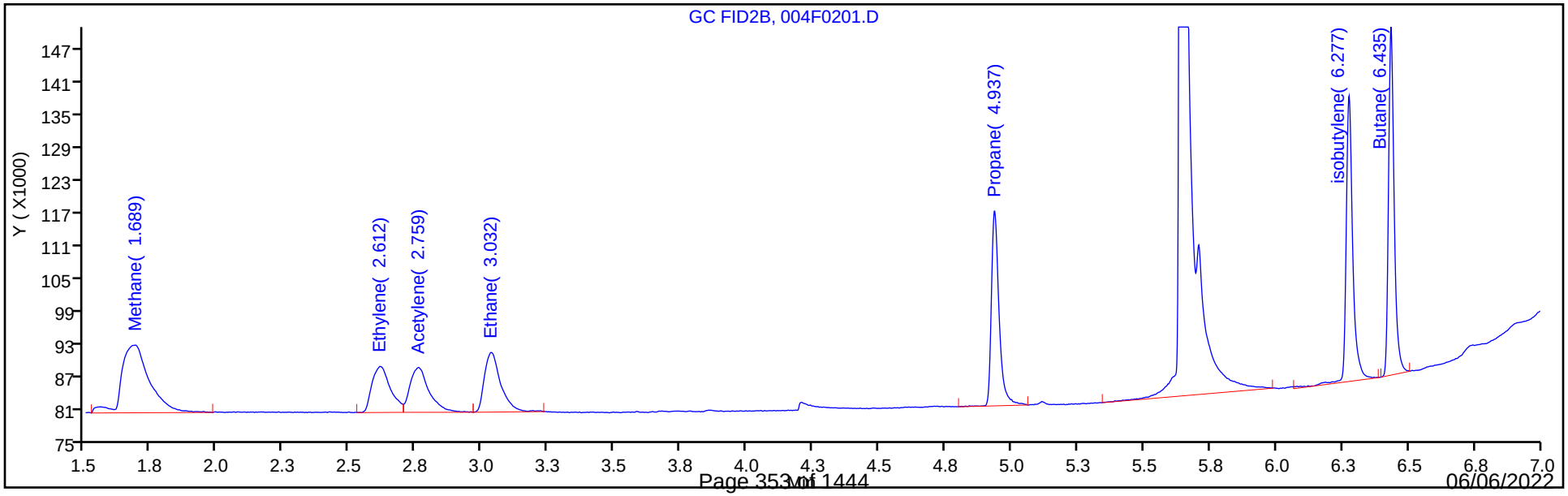
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D

Injection Date:	24-Sep-2021 13:28:57	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	2
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

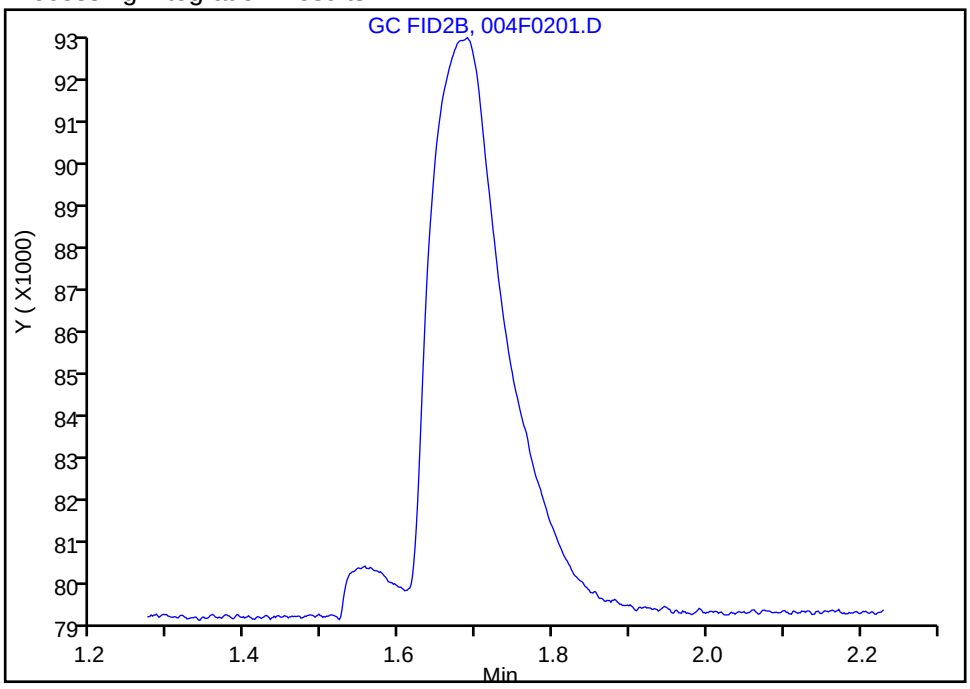
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

2 Methane, CAS: 74-82-8

Signal: 2

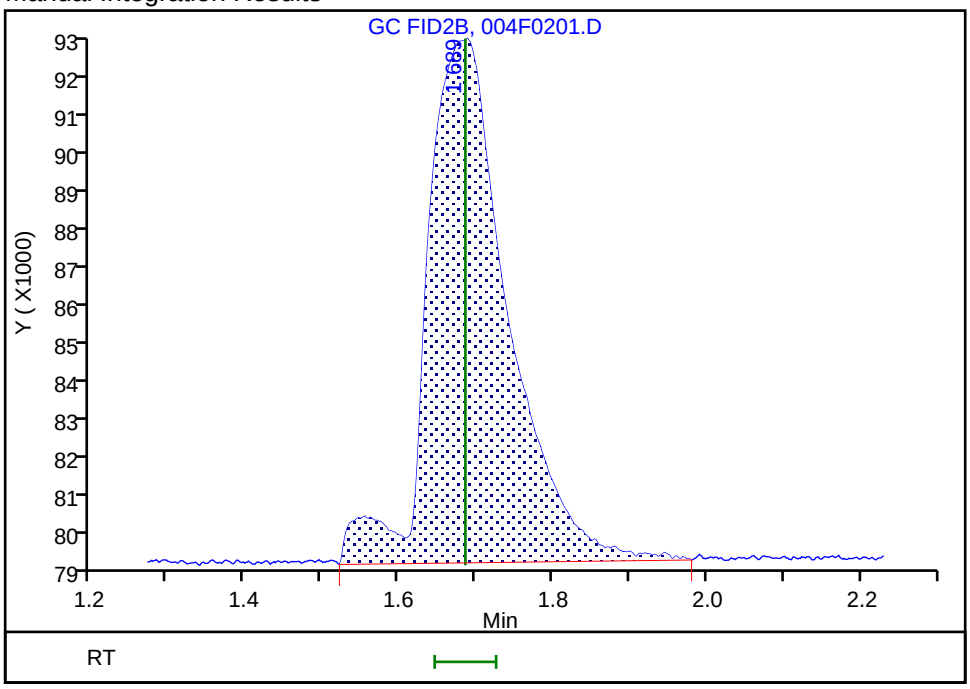
Not Detected
Expected RT: 1.69

Processing Integration Results



Manual Integration Results

RT: 1.69
Area: 91227
Amount: 0.791992
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:25
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

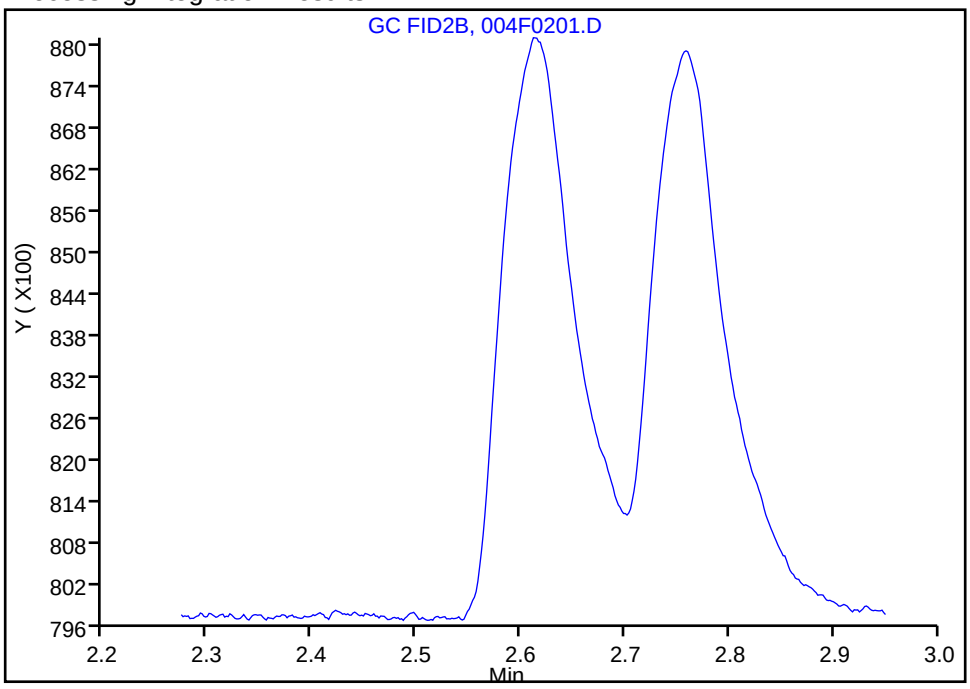
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

4 Ethylene, CAS: 74-85-1

Signal: 2

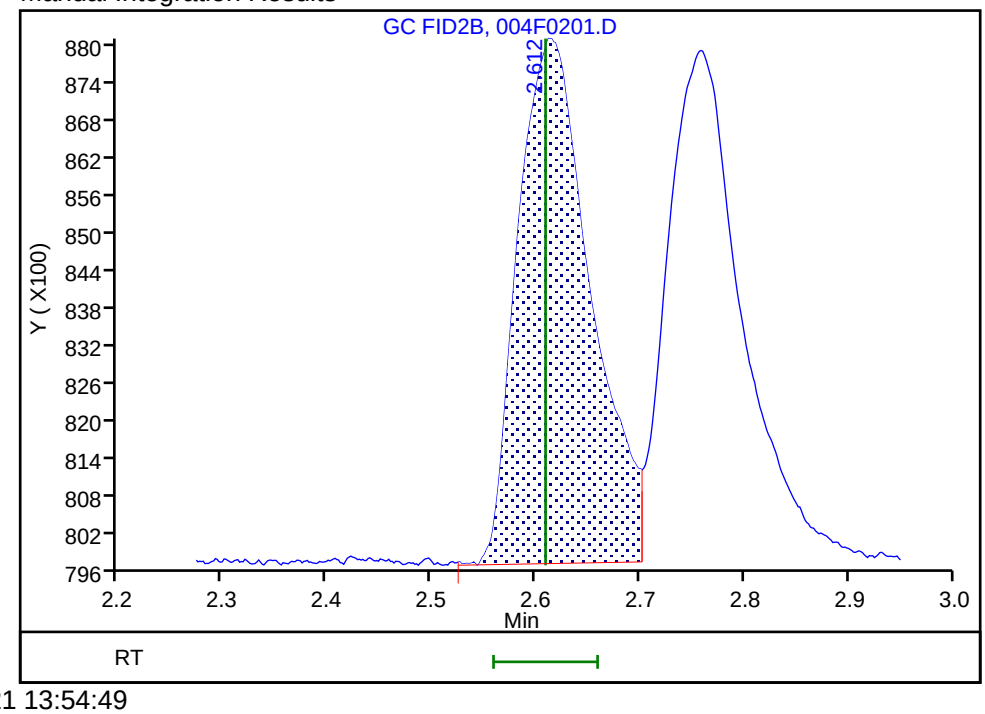
Not Detected
Expected RT: 2.61

Processing Integration Results



Manual Integration Results

RT: 2.61
Area: 41226
Amount: 1.330718
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:49
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

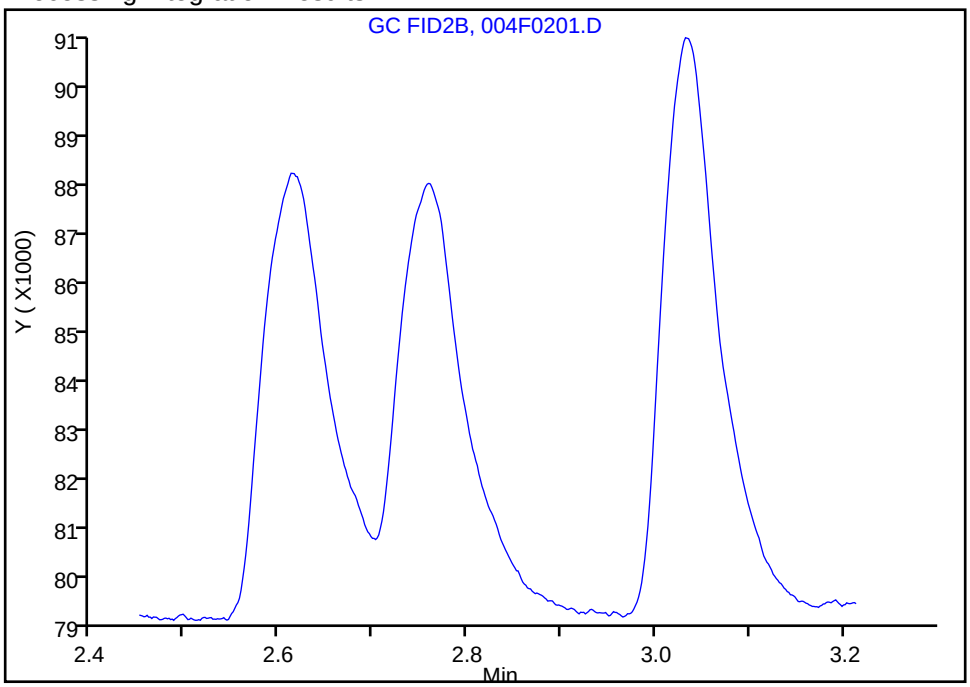
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

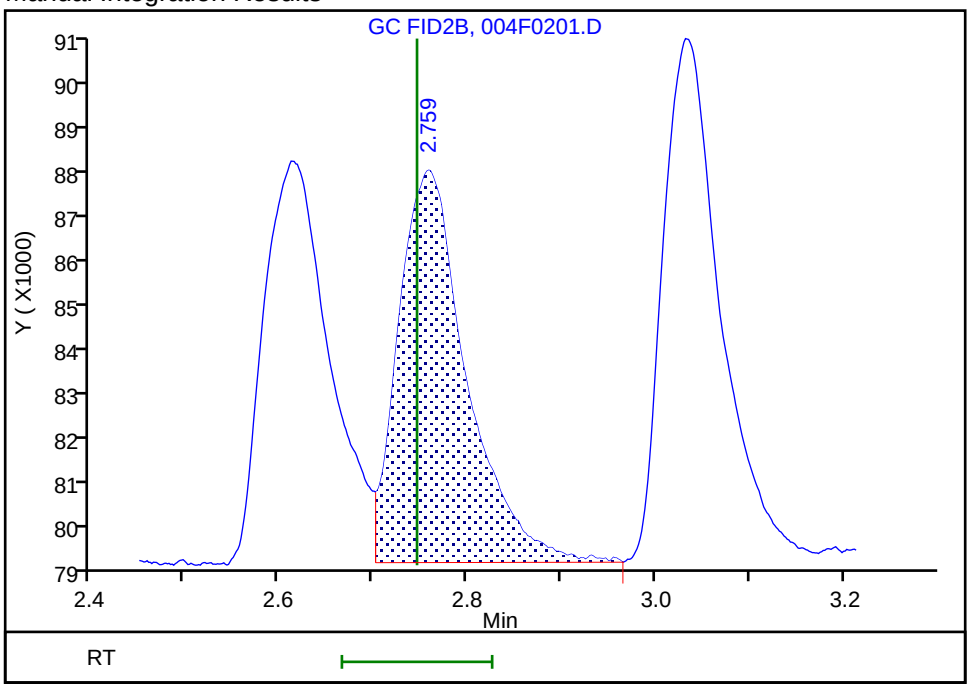
Not Detected
Expected RT: 2.75

Processing Integration Results



Manual Integration Results

RT: 2.76
Area: 41503
Amount: 1.214291
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:55:02
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

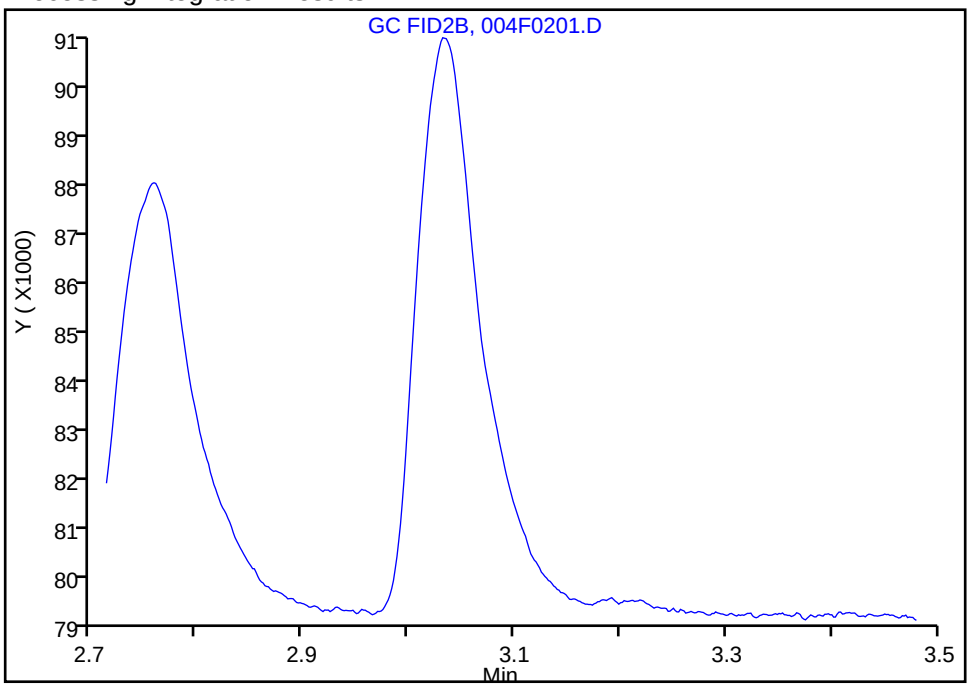
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

3 Ethane, CAS: 74-84-0

Signal: 2

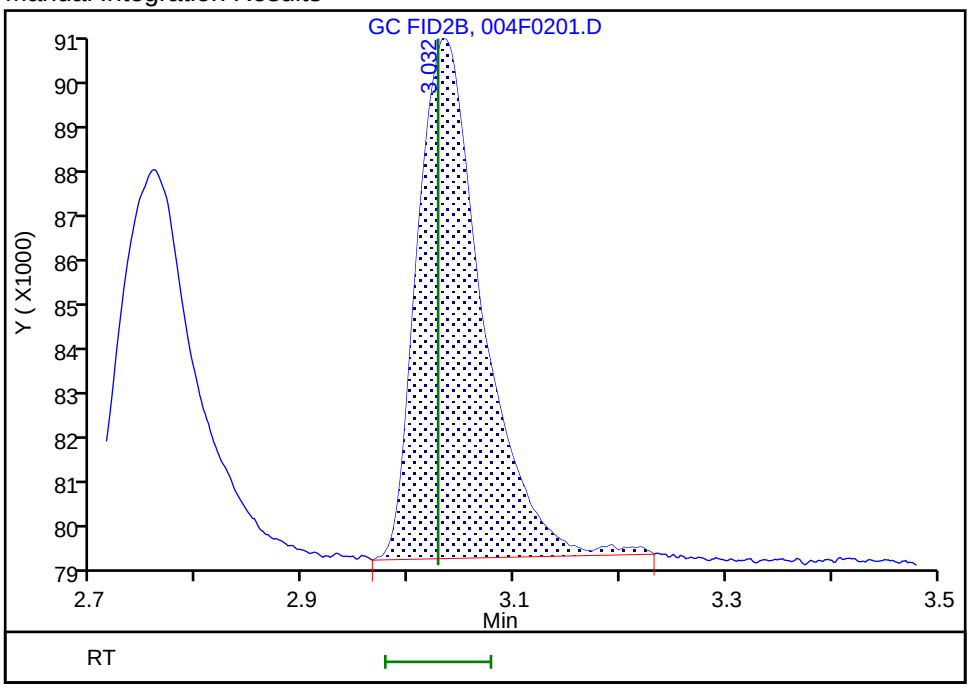
Not Detected
Expected RT: 3.03

Processing Integration Results



Manual Integration Results

RT: 3.03
Area: 46984
Amount: 1.407441
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:34
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Sep-2021 13:41:52 ALS Bottle#: 5 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:13 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:58:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.299	-0.006	126818	1.64	1.75	
2	1.686	1.686	0.000	126529	1.64	1.77	
						RPD = 1.24	
3 Ethane							
1	1.562	1.556	0.006	108631	3.08	3.27	
2	3.031	3.028	0.003	107446	3.08	3.22	
						RPD = 1.52	
4 Ethylene							
1	1.867	1.844	0.023	107197	2.87	3.04	
2	2.613	2.609	0.004	95159	2.87	3.07	
						RPD = 0.93	
5 Propane							
1	2.700	2.721	-0.021	174390	4.52	4.84	
2	4.935	4.929	0.006	170185	4.52	4.86	
						RPD = 0.37	
6 Acetylene							
1	4.213	4.230	-0.017	79761	2.67	2.83	
2	2.756	2.746	0.010	94797	2.67	2.77	
						RPD = 2.17	
7 Butane							Ma
1	4.575	4.528	0.047	232737	5.95	6.39	a
2	6.435	6.426	0.009	221865	5.95	6.31	M
						RPD = 1.20	
8 isobutylene							Ma
1	5.457	5.403	0.054	232885	5.75	6.45	
2	6.276	6.274	0.002	200266	5.75	6.03	M
						RPD = 6.65	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

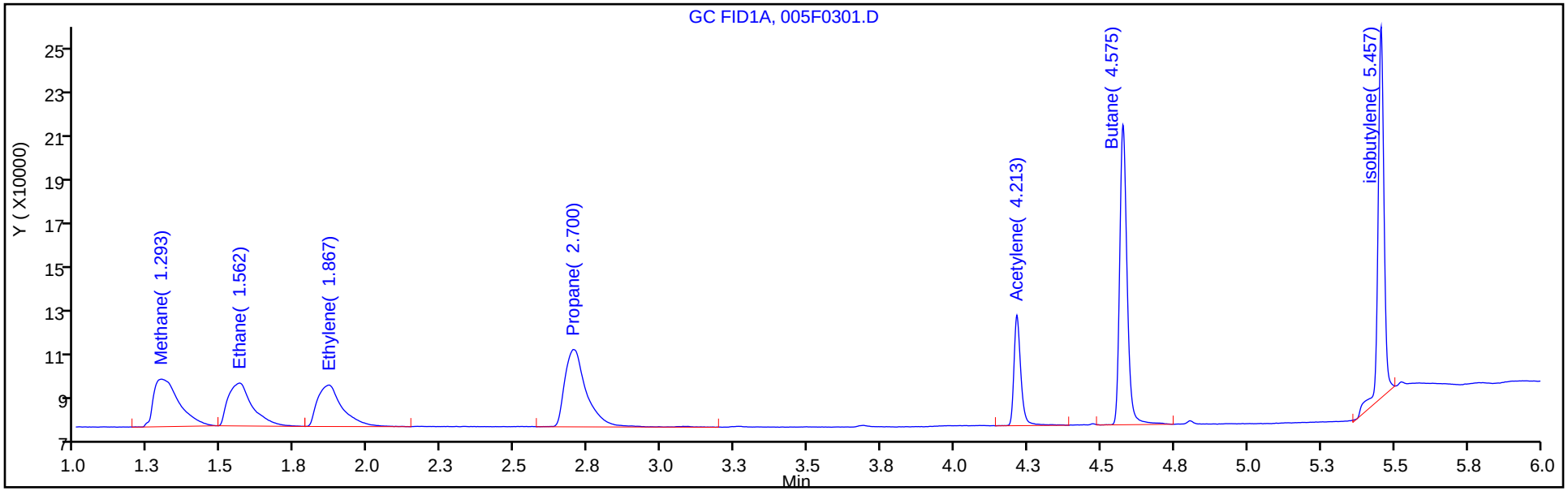
Report Date: 29-Sep-2021 10:55:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

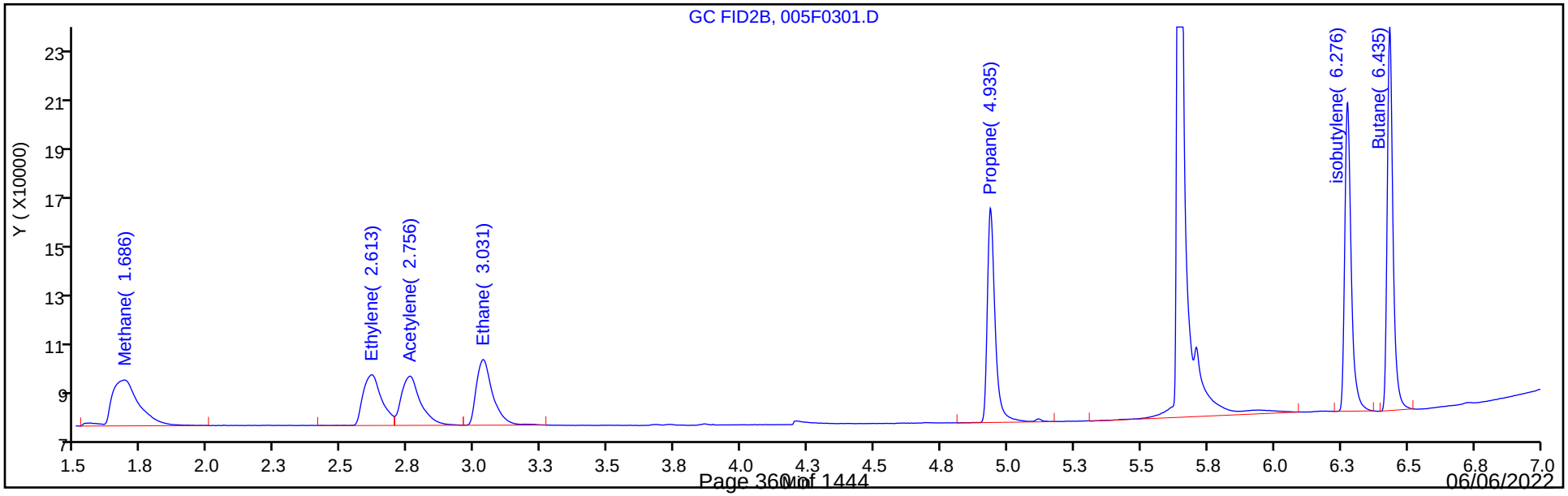
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D

Injection Date:	24-Sep-2021 13:41:52	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Sep-2021 13:54:46 ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:51:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.299	-0.006	494257	13.1	12.2	
2	1.684	1.686	-0.002	509129	13.1	12.4	
						RPD = 1.40	
3 Ethane							
1	1.561	1.556	0.005	793971	24.6	23.9	
2	3.029	3.028	0.001	803791	24.6	24.1	
						RPD = 0.81	
4 Ethylene							
1	1.870	1.844	0.026	780792	23.0	22.2	
2	2.609	2.609	0.000	687818	23.0	22.2	
						RPD = 0.16	
5 Propane							
1	2.711	2.721	-0.010	1259121	36.1	35.0	
2	4.934	4.929	0.005	1221976	36.1	34.9	
						RPD = 0.18	
6 Acetylene							a
1	4.226	4.230	-0.004	587204	21.3	20.9	a
2	2.753	2.746	0.007	713476	21.3	20.9	a
						RPD = 0.03	
7 Butane							Ma
1	4.586	4.528	0.058	1686797	47.6	46.3	a
2	6.433	6.426	0.007	1612366	47.6	45.9	M
						RPD = 0.93	
8 isobutylene							Ma
1	5.465	5.403	0.062	1589725	46.0	44.0	
2	6.274	6.274	0.000	1464027	46.0	44.1	M
						RPD = 0.20	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

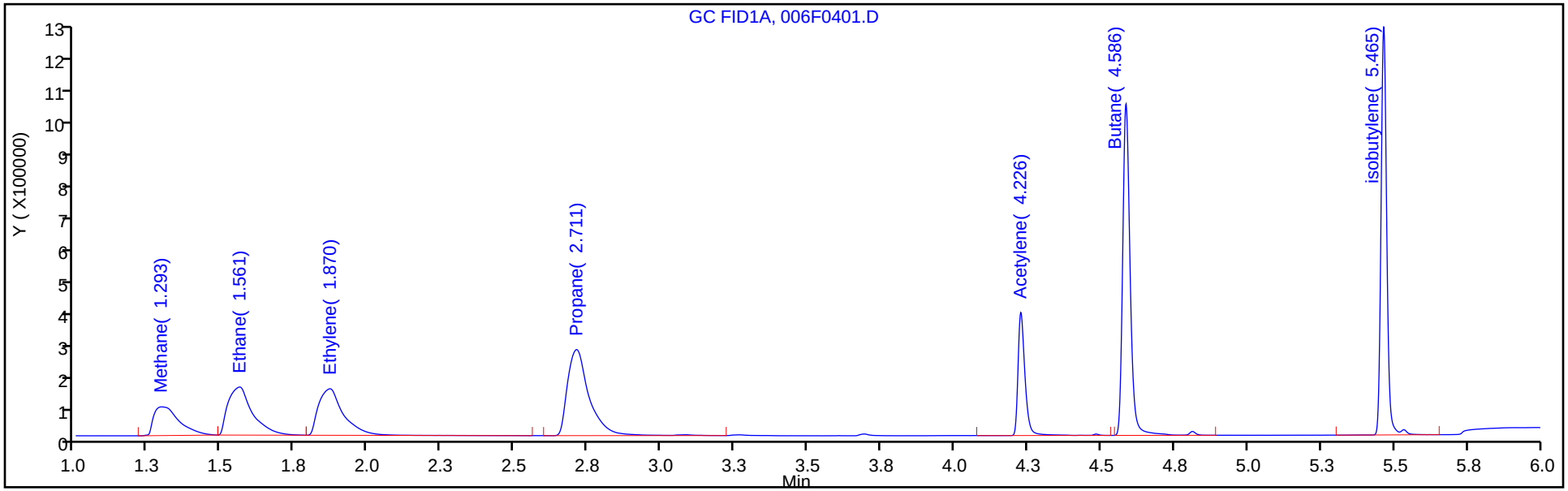
Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

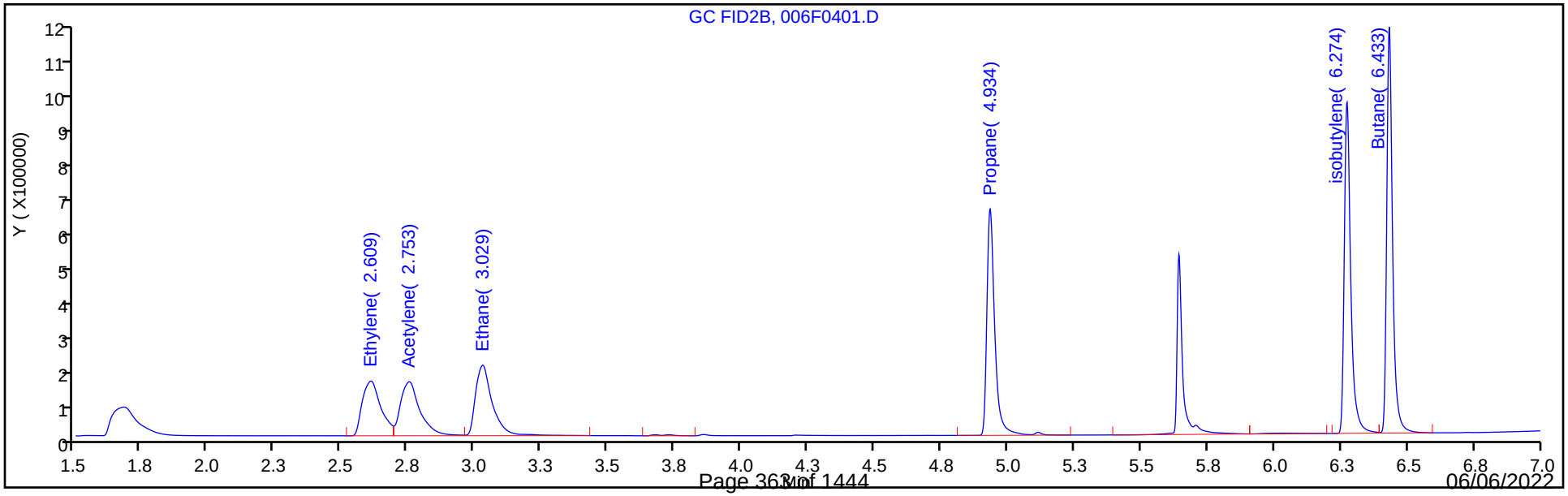
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D

Injection Date:	24-Sep-2021 13:54:46	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

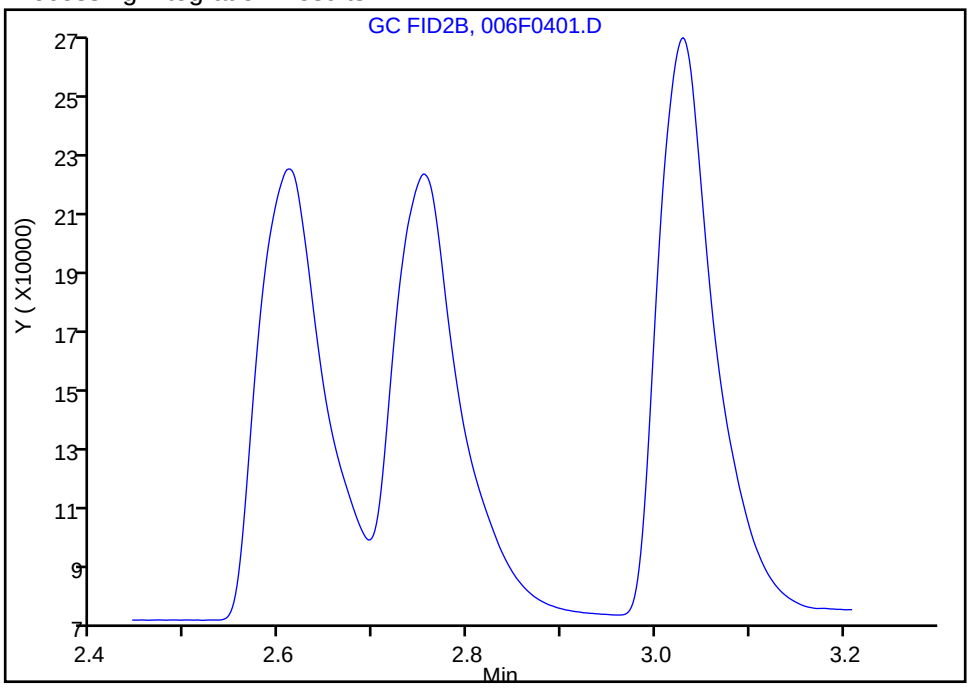
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Injection Date: 24-Sep-2021 13:54:46 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

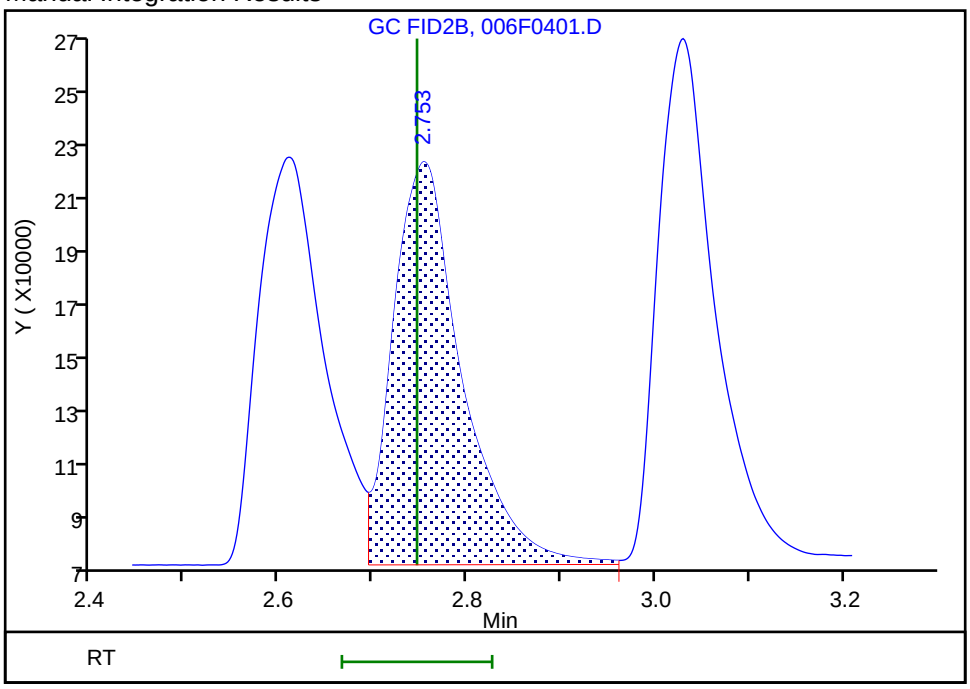
Not Detected
Expected RT: 2.75

Processing Integration Results



Manual Integration Results

RT: 2.75
Area: 713476
Amount: 20.874815
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:50:39
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Sep-2021 14:07:45 ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:50:30

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.295	1.295	0.000	2453548	65.7	67.9	
2	1.681	1.681	0.000	2553566	65.7	69.0	
						RPD = 1.60	
3 Ethane							Ma
1	1.561	1.561	0.000	4411499	123.2	132.7	
2	3.026	3.026	0.000	4450065	123.2	133.3	M
						RPD = 0.45	
4 Ethylene							
1	1.870	1.870	0.000	4318968	114.9	122.6	
2	2.608	2.608	0.000	3812973	114.9	123.1	
						RPD = 0.38	
5 Propane							
1	2.716	2.716	0.000	6962772	180.6	193.4	
2	4.933	4.933	0.000	6754582	180.6	192.9	
						RPD = 0.22	
6 Acetylene							a
1	4.230	4.230	0.000	3180347	106.7	113.0	a
2	2.751	2.751	0.000	3899802	106.7	114.1	a
						RPD = 0.95	
7 Butane							
1	4.590	4.590	0.000	9255328	238.1	254.1	
2	6.430	6.430	0.000	8939530	238.1	254.4	
						RPD = 0.11	
8 isobutylene							
1	5.468	5.468	0.000	8777969	229.8	243.0	
2	6.271	6.271	0.000	8052089	229.8	242.5	
						RPD = 0.20	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

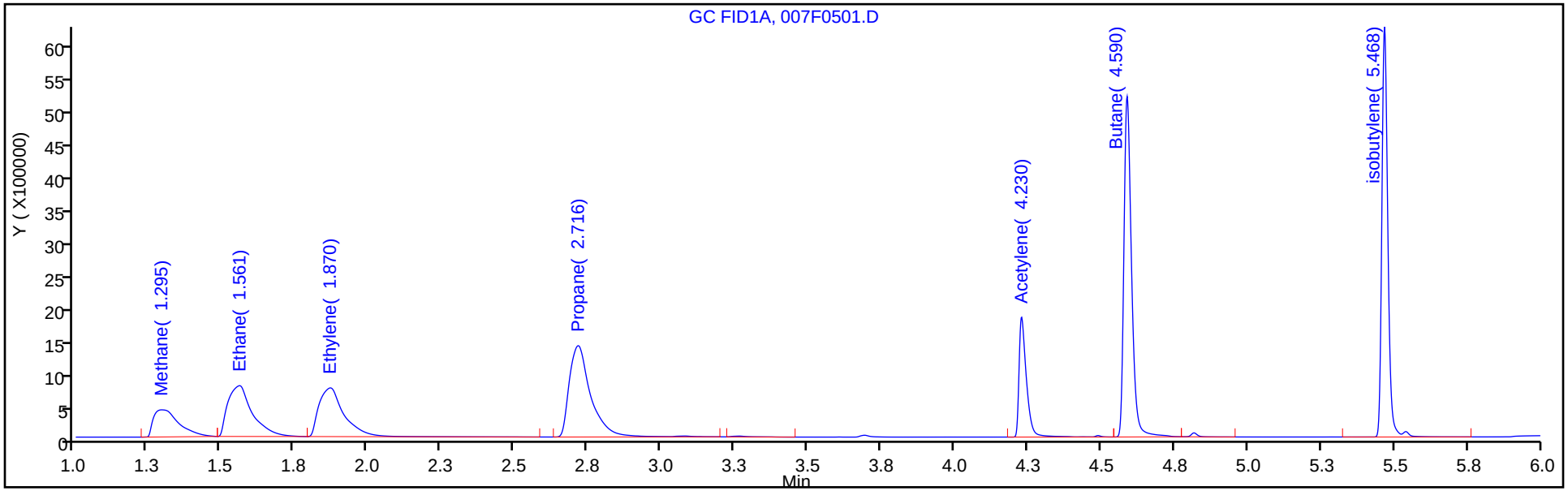
Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

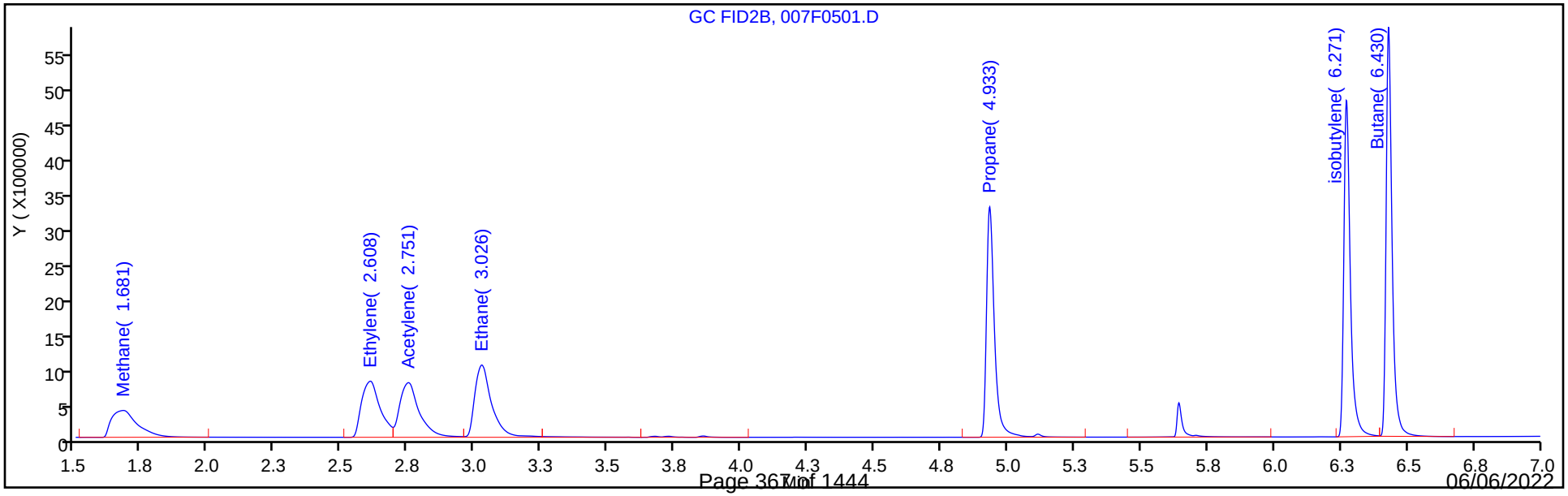
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D

Injection Date:	24-Sep-2021 14:07:45	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

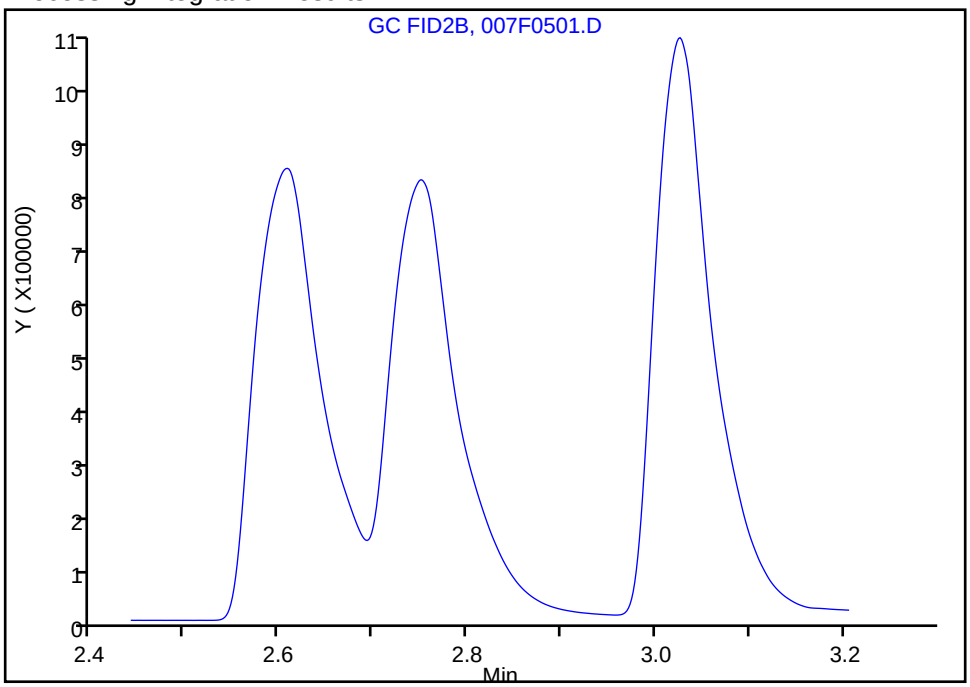
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Injection Date: 24-Sep-2021 14:07:45 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

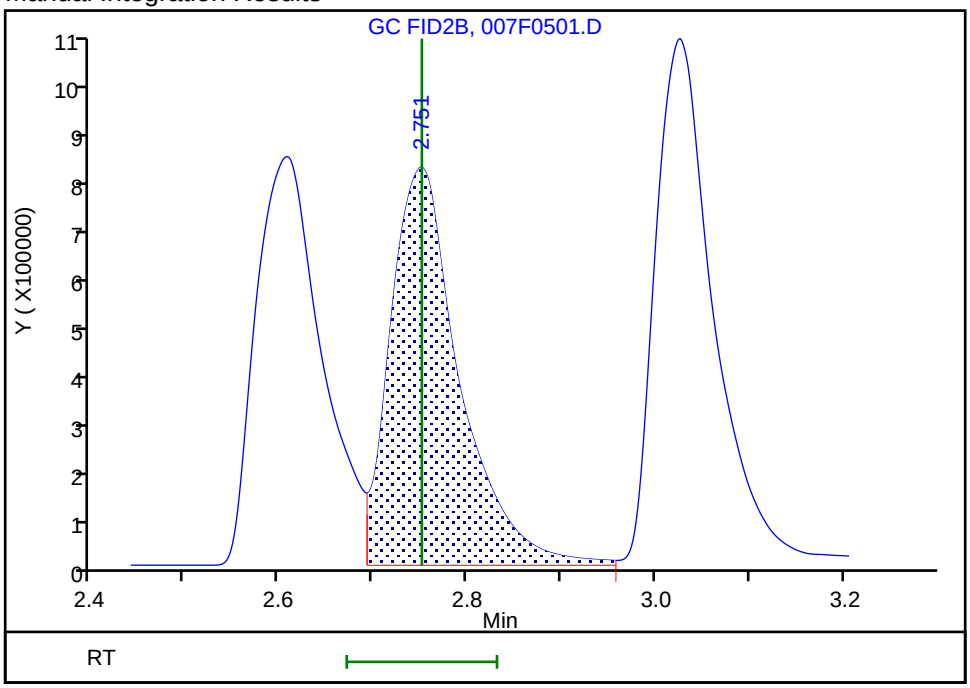
Not Detected
Expected RT: 2.75

Processing Integration Results



Manual Integration Results

RT: 2.75
Area: 3899802
Amount: 114.1000
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:50:19
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

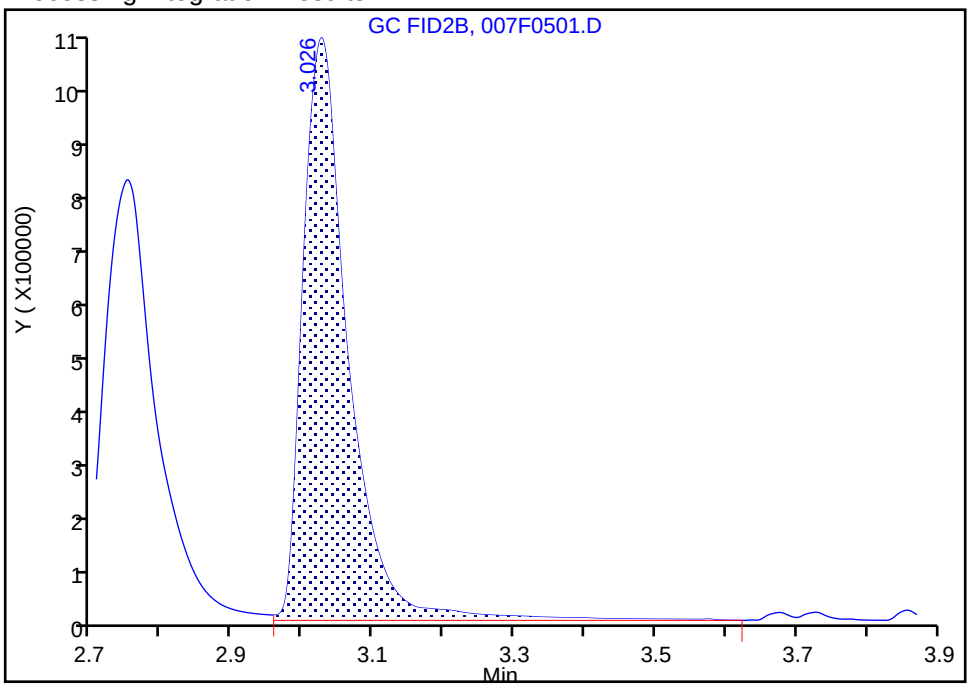
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Injection Date: 24-Sep-2021 14:07:45 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

3 Ethane, CAS: 74-84-0

Signal: 2

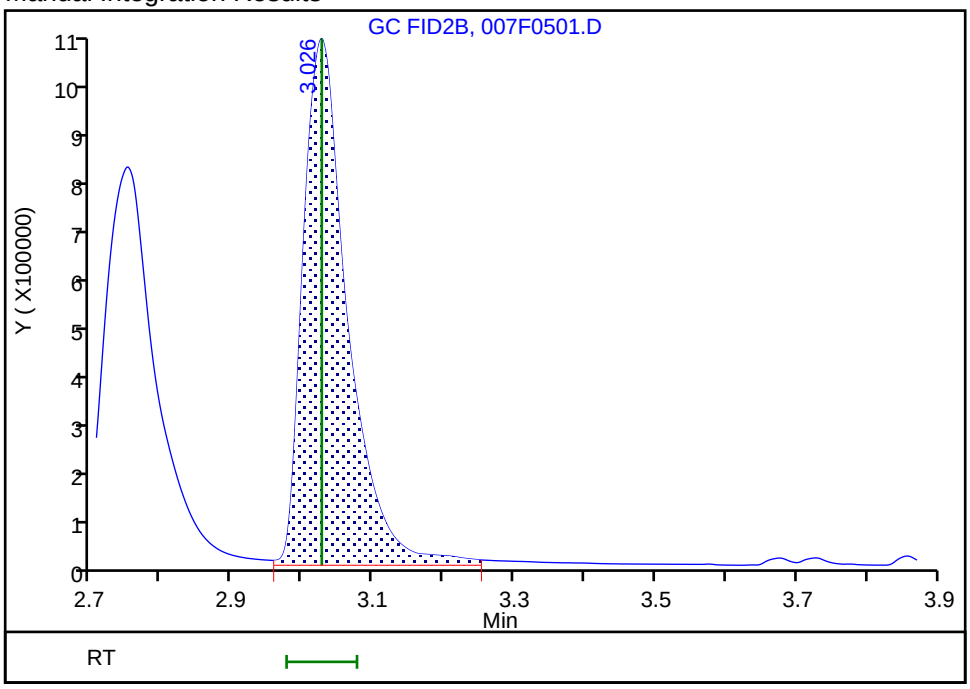
Processing Integration Results

RT: 3.03
Area: 4534073
Amount: 134.6635
Amount Units: ug/l



Manual Integration Results

RT: 3.03
Area: 4450065
Amount: 133.3050
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:50:09
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Sep-2021 14:20:44 ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:15 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:46:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							M
1	1.295	1.295	0.000	4808571	131.4	134.9	
2	1.678	1.678	0.000	5065048	131.4	138.6	M
						RPD = 2.70	
3 Ethane							
1	1.560	1.560	0.000	8751636	246.3	263.3	
2	3.023	3.023	0.000	8976911	246.3	268.9	
						RPD = 2.12	
4 Ethylene							
1	1.873	1.873	0.000	8582166	229.8	243.6	
2	2.603	2.603	0.000	7548044	229.8	243.6	
						RPD = 0.00	
5 Propane							M
1	2.721	2.721	0.000	13578180	361.3	377.1	M
2	4.929	4.929	0.000	13344347	361.3	381.1	
						RPD = 1.08	
6 Acetylene							a
1	4.230	4.230	0.000	6274725	213.3	223.0	a
2	2.746	2.746	0.000	7865310	213.3	230.1	a
						RPD = 3.15	
7 Butane							Ma
1	4.591	4.591	0.000	18468578	476.1	507.1	a
2	6.426	6.426	0.000	17766895	476.1	505.6	M
						RPD = 0.29	
8 isobutylene							Ma
1	5.468	5.468	0.000	17314841	459.7	479.3	
2	6.269	6.269	0.000	15966351	459.7	480.9	M
						RPD = 0.33	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

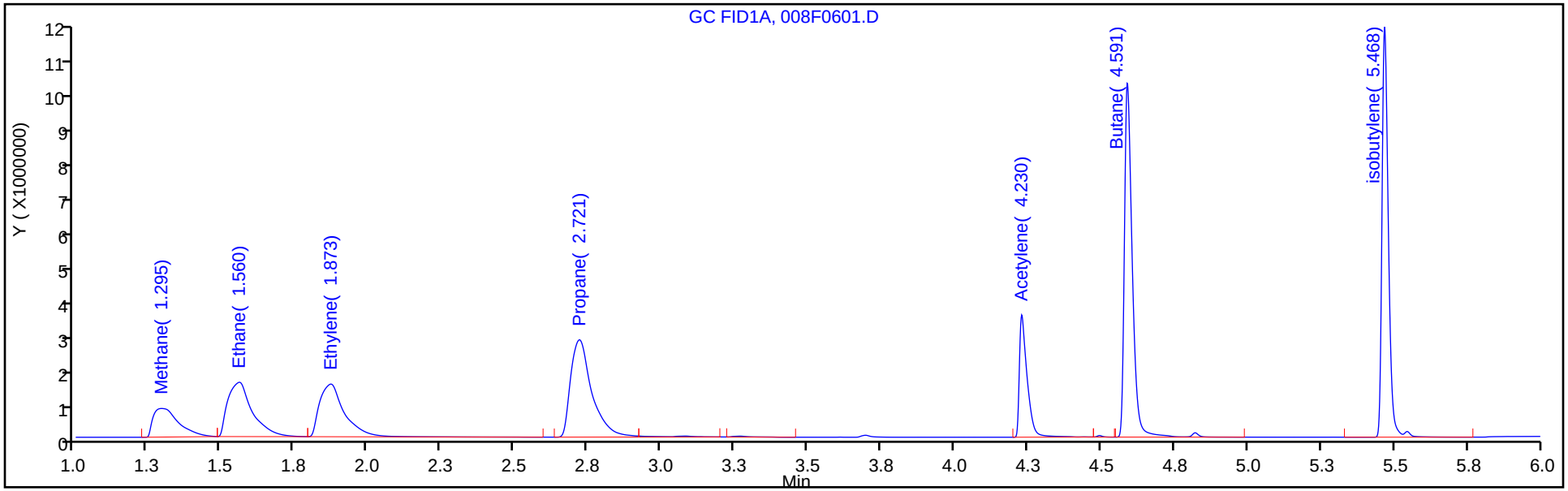
Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

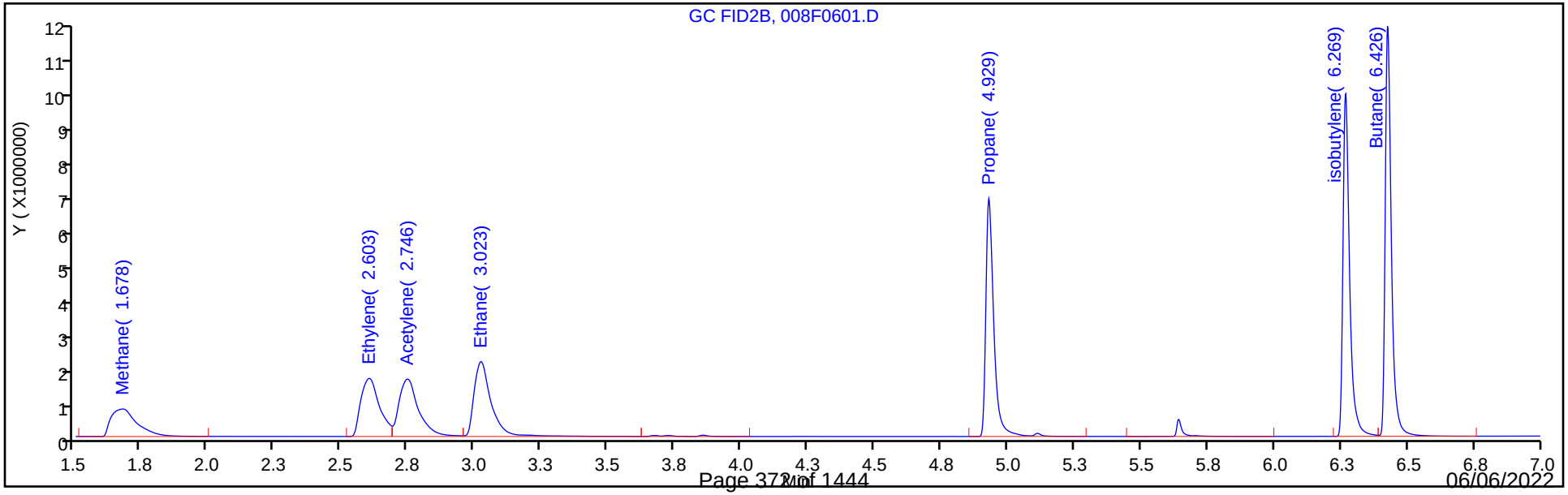
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D

Injection Date:	24-Sep-2021 14:20:44	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

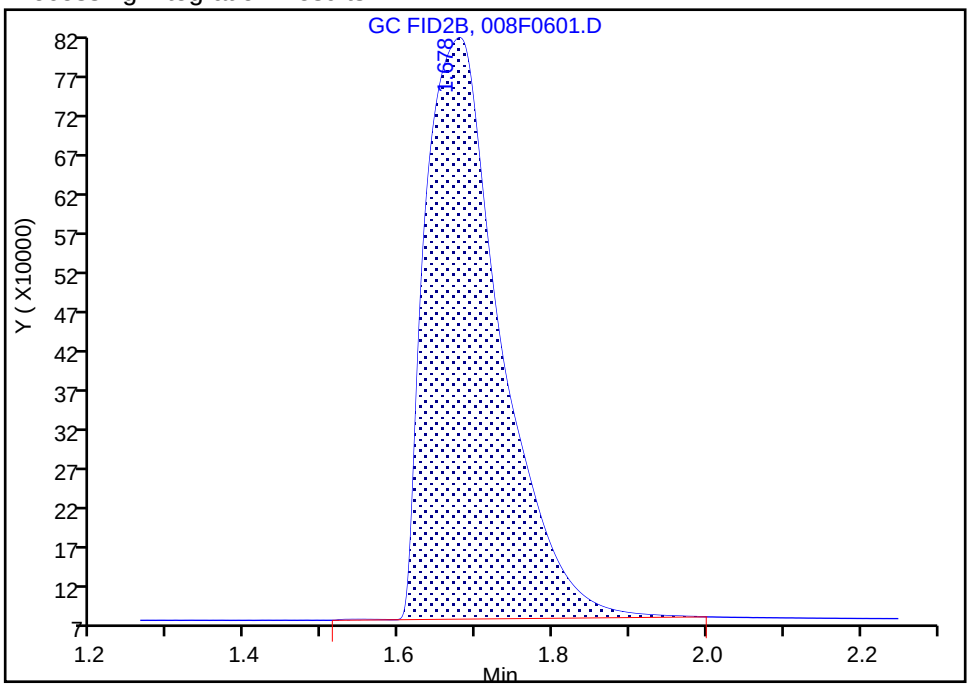
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Injection Date: 24-Sep-2021 14:20:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

2 Methane, CAS: 74-82-8

Signal: 2

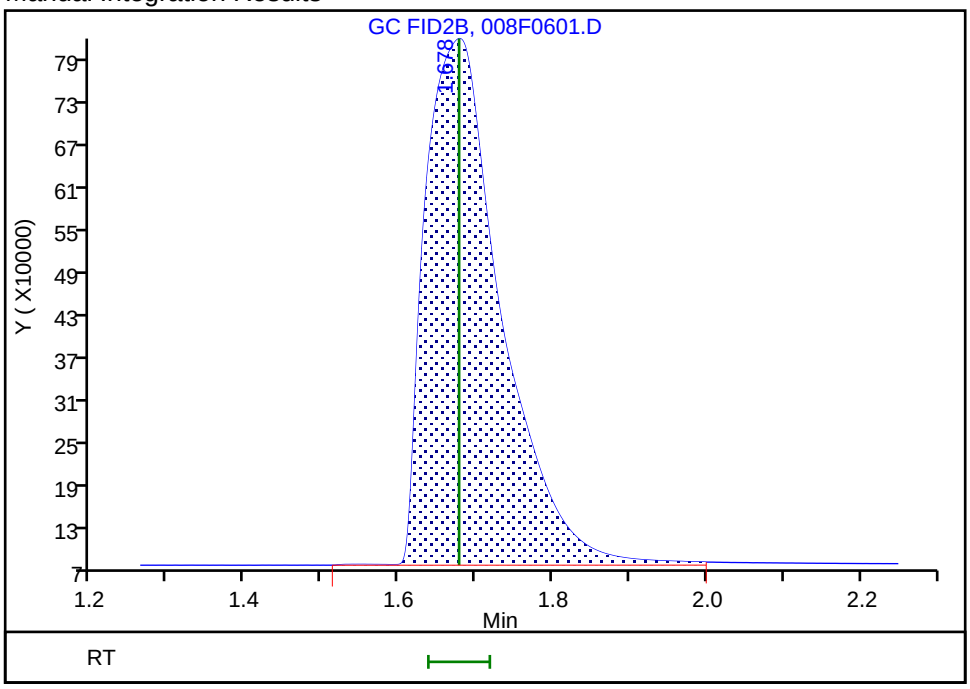
Processing Integration Results

RT: 1.68
Area: 5002633
Amount: 137.0848
Amount Units: ug/l



Manual Integration Results

RT: 1.68
Area: 5065048
Amount: 138.5598
Amount Units: ug/l



Reviewer: sciannac, 29-Sep-2021 09:21:50
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

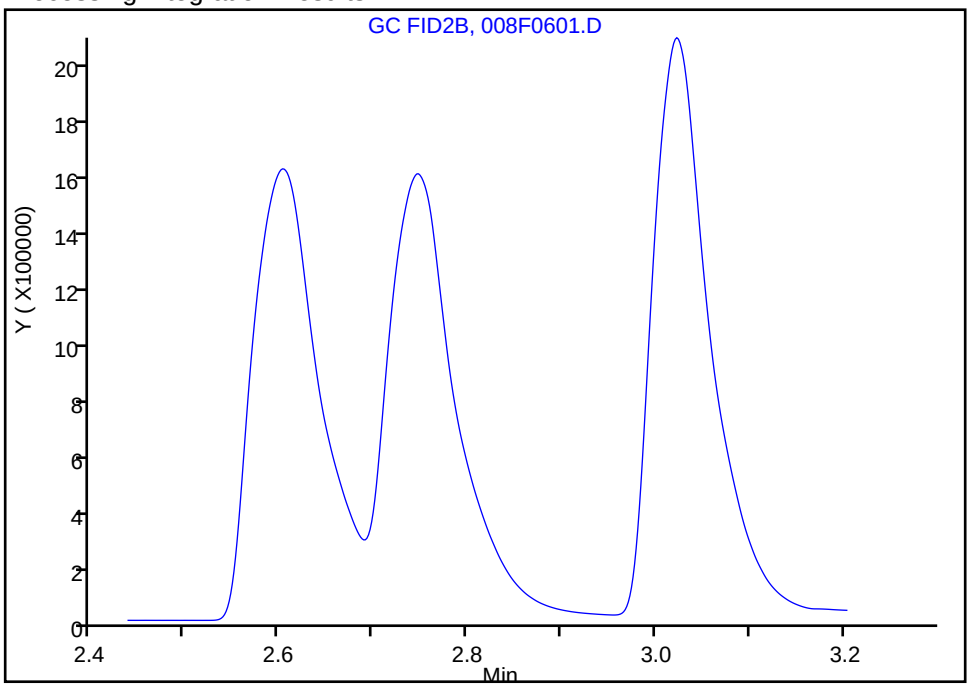
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Injection Date: 24-Sep-2021 14:20:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

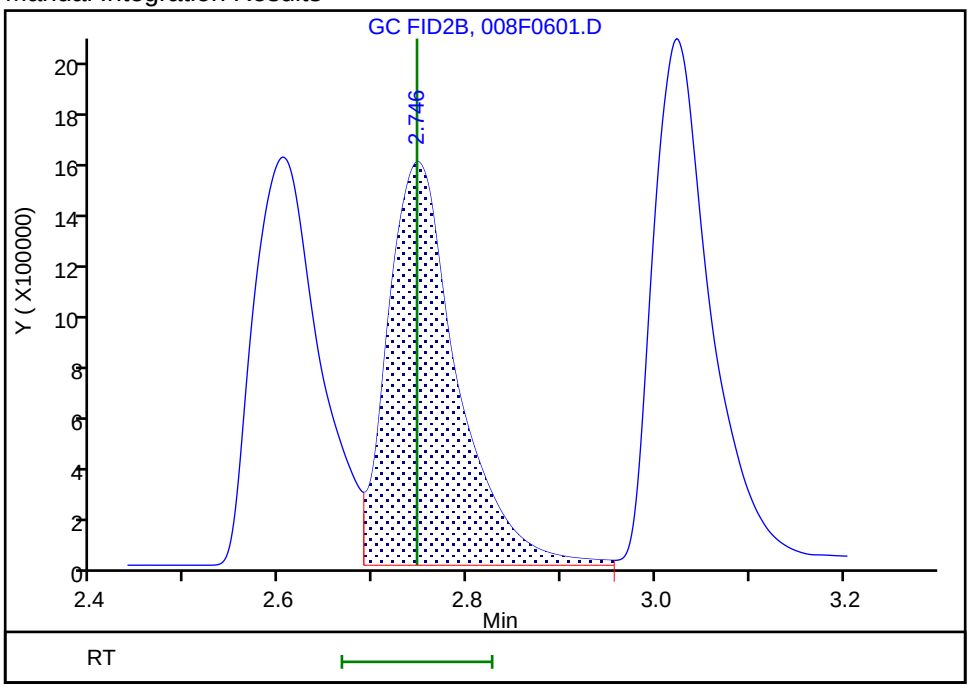
Not Detected
Expected RT: 2.75

Processing Integration Results



Manual Integration Results

RT: 2.75
Area: 7865310
Amount: 230.1225
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:44:53
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Sep-2021 14:33:44 ALS Bottle#: 9 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:16 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:47:03

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.294	1.295	-0.001	8118988	262.8	229.0	
2	1.678	1.678	0.000	8455607	262.8	232.5	
						RPD = 1.51	
3 Ethane							
1	1.561	1.560	0.001	14997572	492.7	451.2	
2	3.021	3.023	-0.002	14625440	492.7	438.1	
						RPD = 2.94	
4 Ethylene							
1	1.873	1.873	0.000	14678124	459.6	416.7	
2	2.602	2.603	-0.001	12909086	459.6	416.7	
						RPD = 0.00	
5 Propane							
1	2.723	2.721	0.002	23539538	722.6	653.7	
2	4.926	4.929	-0.003	23034734	722.6	657.9	
						RPD = 0.65	
6 Acetylene							a
1	4.228	4.230	-0.002	10977943	426.7	390.1	a
2	2.746	2.746	0.000	13452620	426.7	393.6	a
						RPD = 0.88	
7 Butane							Ma
1	4.588	4.591	-0.003	30555104	952.3	838.9	a
2	6.423	6.426	-0.003	31281741	952.3	890.2	M
						RPD = 5.93	
8 isobutylene							Ma
1	5.466	5.468	-0.002	30754275	919.4	851.3	
2	6.266	6.269	-0.003	28385241	919.4	854.9	M
						RPD = 0.42	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

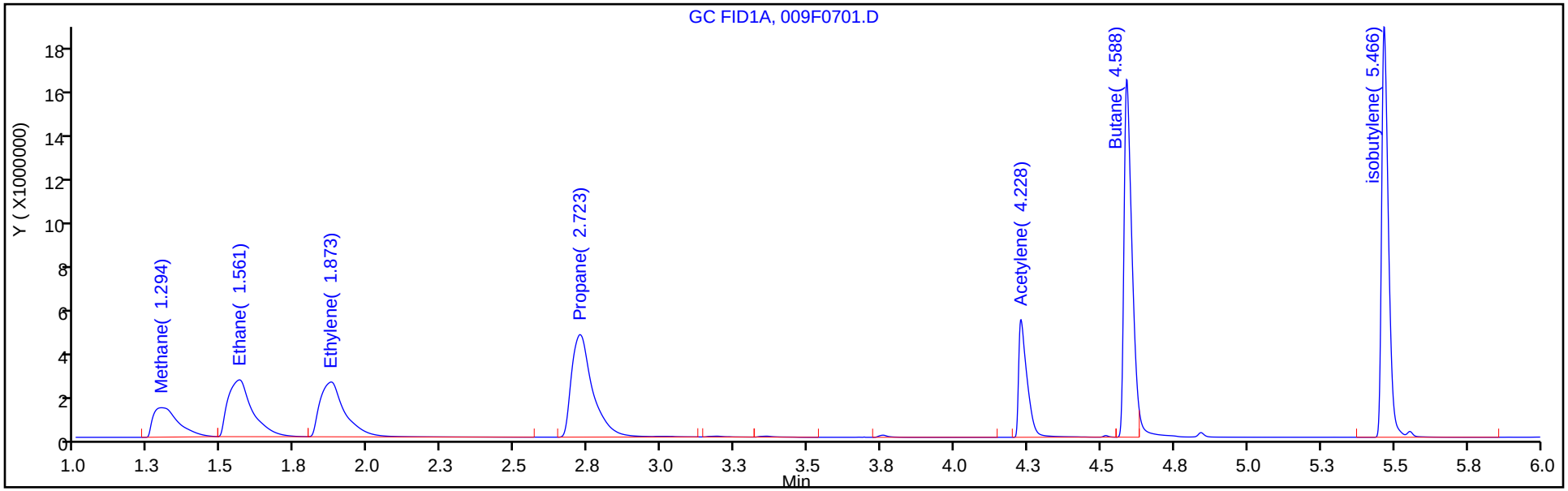
Report Date: 29-Sep-2021 10:55:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

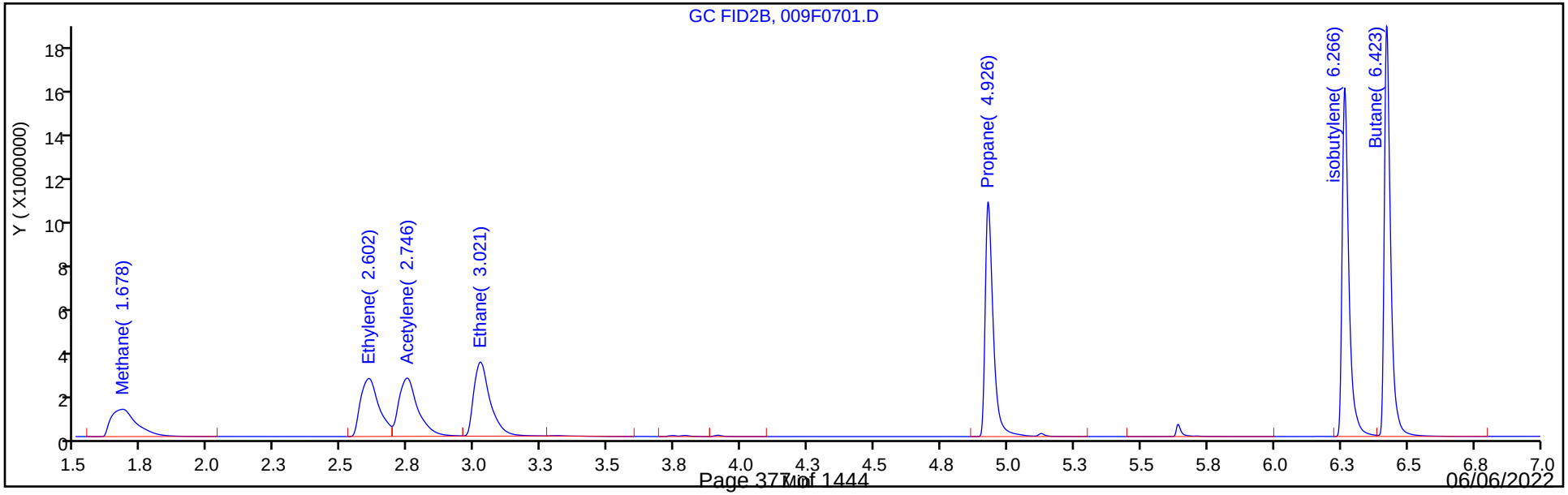
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D

Injection Date:	24-Sep-2021 14:33:44	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

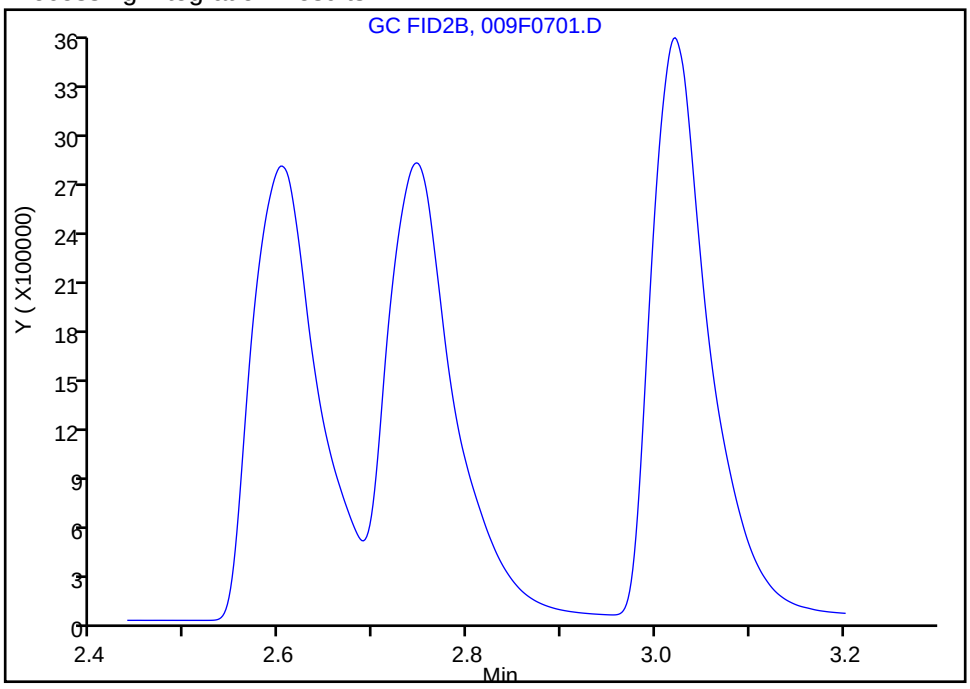
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D
Injection Date: 24-Sep-2021 14:33:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 9 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

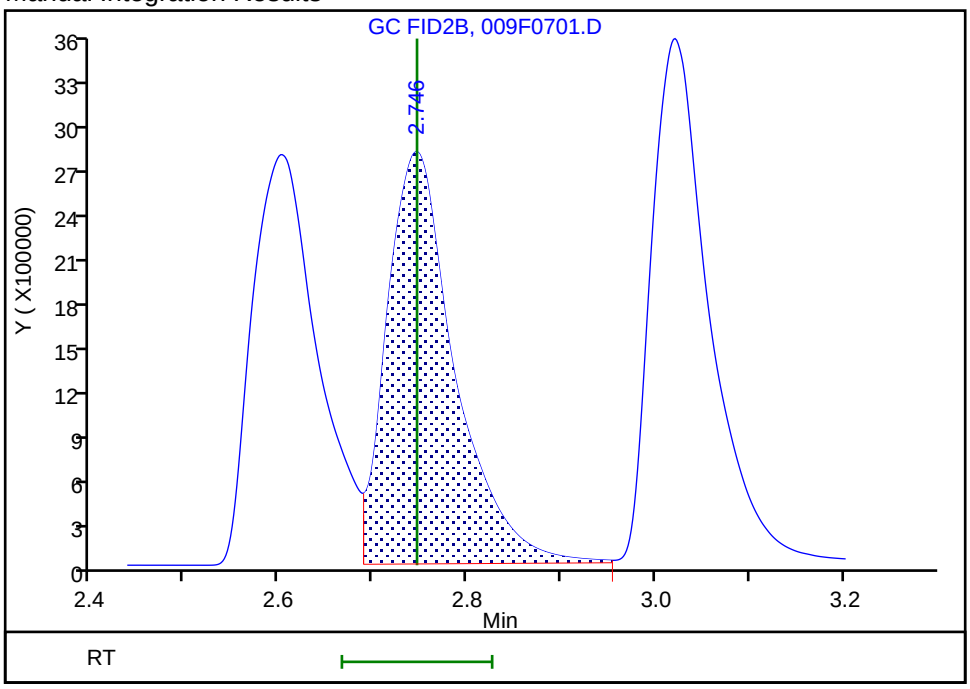
Not Detected
Expected RT: 2.75

Processing Integration Results



Manual Integration Results

RT: 2.75
Area: 13452620
Amount: 393.5955
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:46:30
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Sep-2021 14:46:48 ALS Bottle#: 10 Worklist Smp#: 9
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:17 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:04

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.295	-0.002	60484705	1626.3	1717.9	
2	1.676	1.678	-0.002	59798125	1626.3	1654.6	
						RPD = 3.75	

QC Flag Legend
Processing Flags

Reagents:
RSK175methane_00010 Amount Added: 50.00 Units: uL

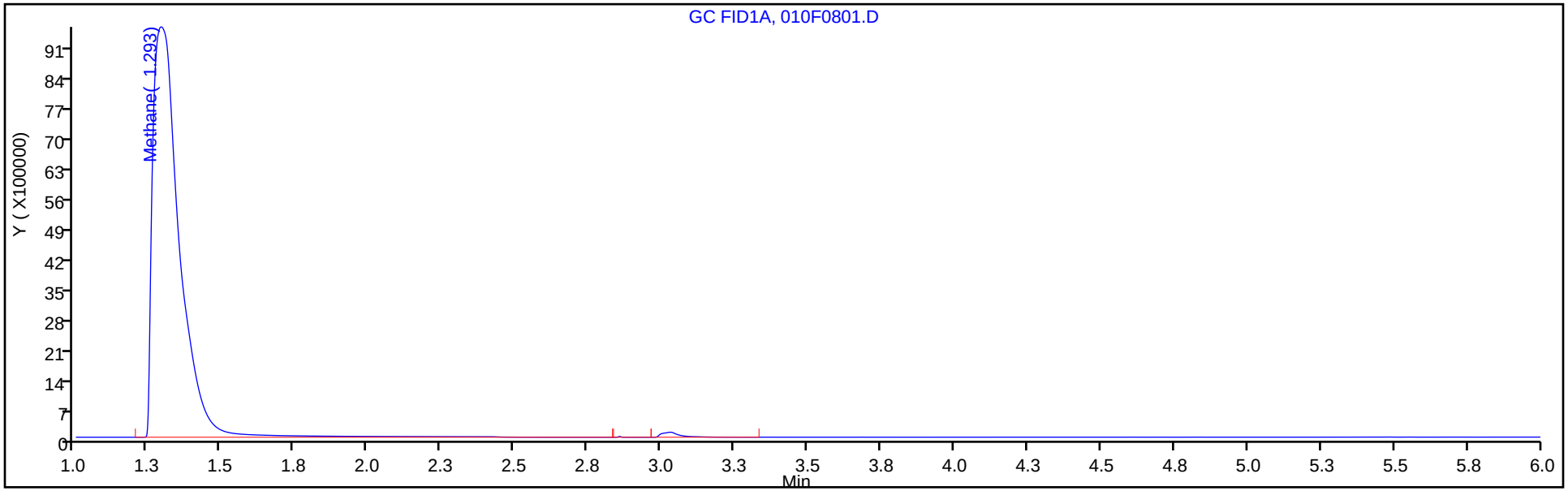
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

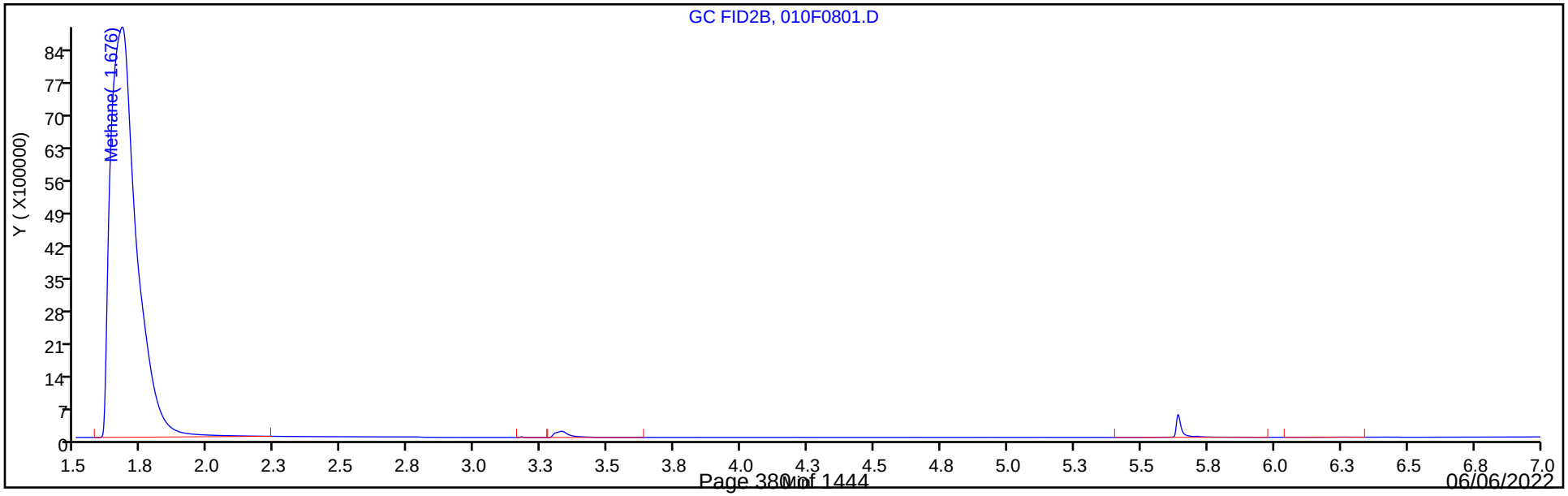
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D

Injection Date:	24-Sep-2021 14:46:48	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	24-Sep-2021 14:59:53	ALS Bottle#:	11	Worklist Smp#:	10
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	ic				
Operator ID:	sciannac	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	29-Sep-2021 10:55:17	Calib Date:	24-Sep-2021 15:12:55		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D				
Column 1 :	Rt-Alumina BOND/KCl (0.53 mm)		Det: GC FID1A		
Column 2 :	HP-PLOT/Q (0.53 mm)		Det: GC FID2B		
Process Host:	CTX1655				

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.292	1.295	-0.003	245647963	6505.0	6982.6	
2	1.673	1.678	-0.005	247051774	6505.0	6841.2	
						RPD = 2.04	

QC Flag Legend

Processing Flags

Reagents:

RSK175methane_00010 Amount Added: 200.00 Units: uL

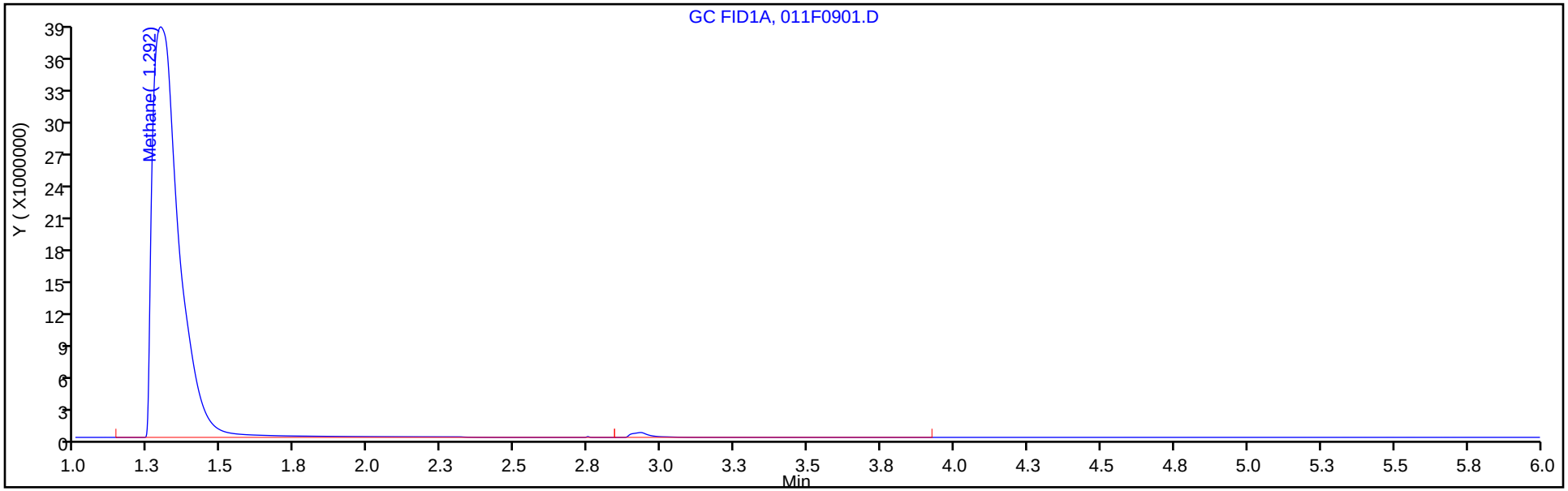
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

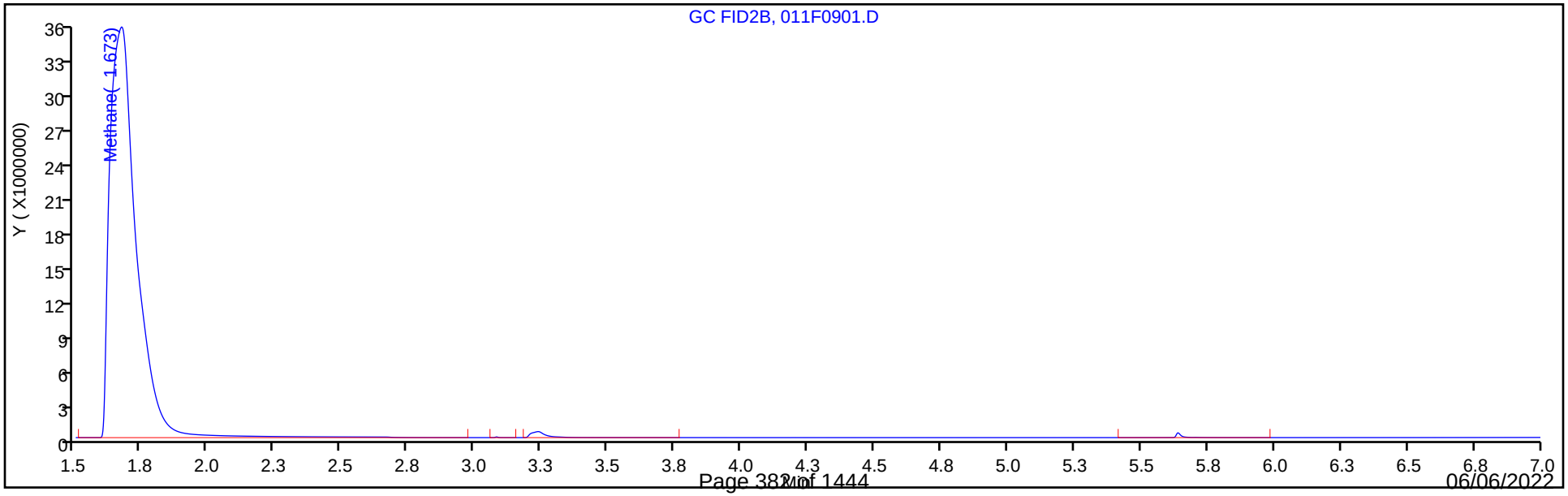
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D

Injection Date:	24-Sep-2021 14:59:53	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 24-Sep-2021 15:12:55 ALS Bottle#: 12 Worklist Smp#: 11
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:18 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.288	1.295	-0.007	669092603	19515	19022	
2	1.669	1.678	-0.009	675608539	19515	18712	
						RPD = 1.65	

QC Flag Legend

Processing Flags

Reagents:

RSK175methane_00010 Amount Added: 600.00 Units: uL

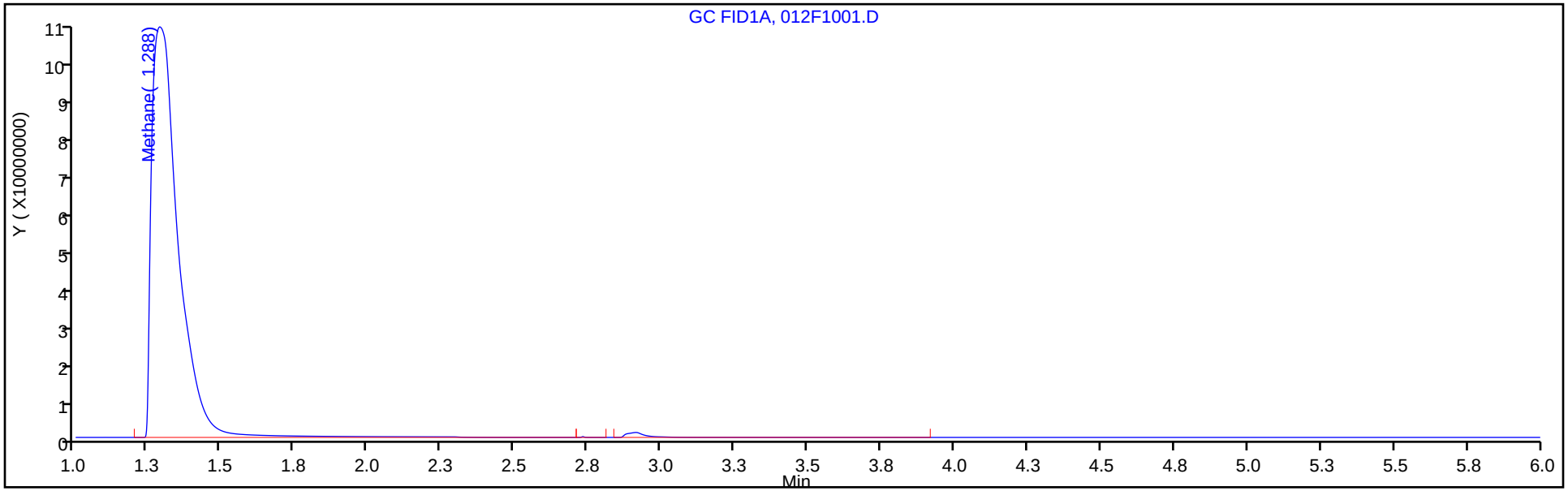
Report Date: 29-Sep-2021 10:55:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

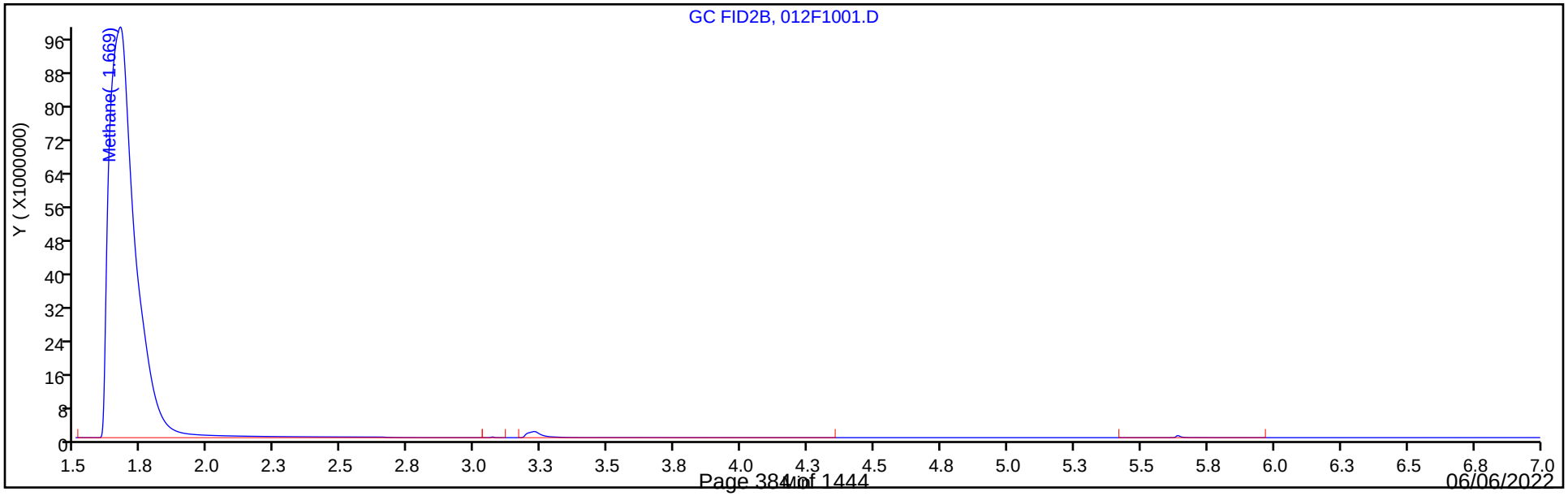
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Injection Date:	24-Sep-2021 15:12:55	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	11
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Calibration / Methane

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

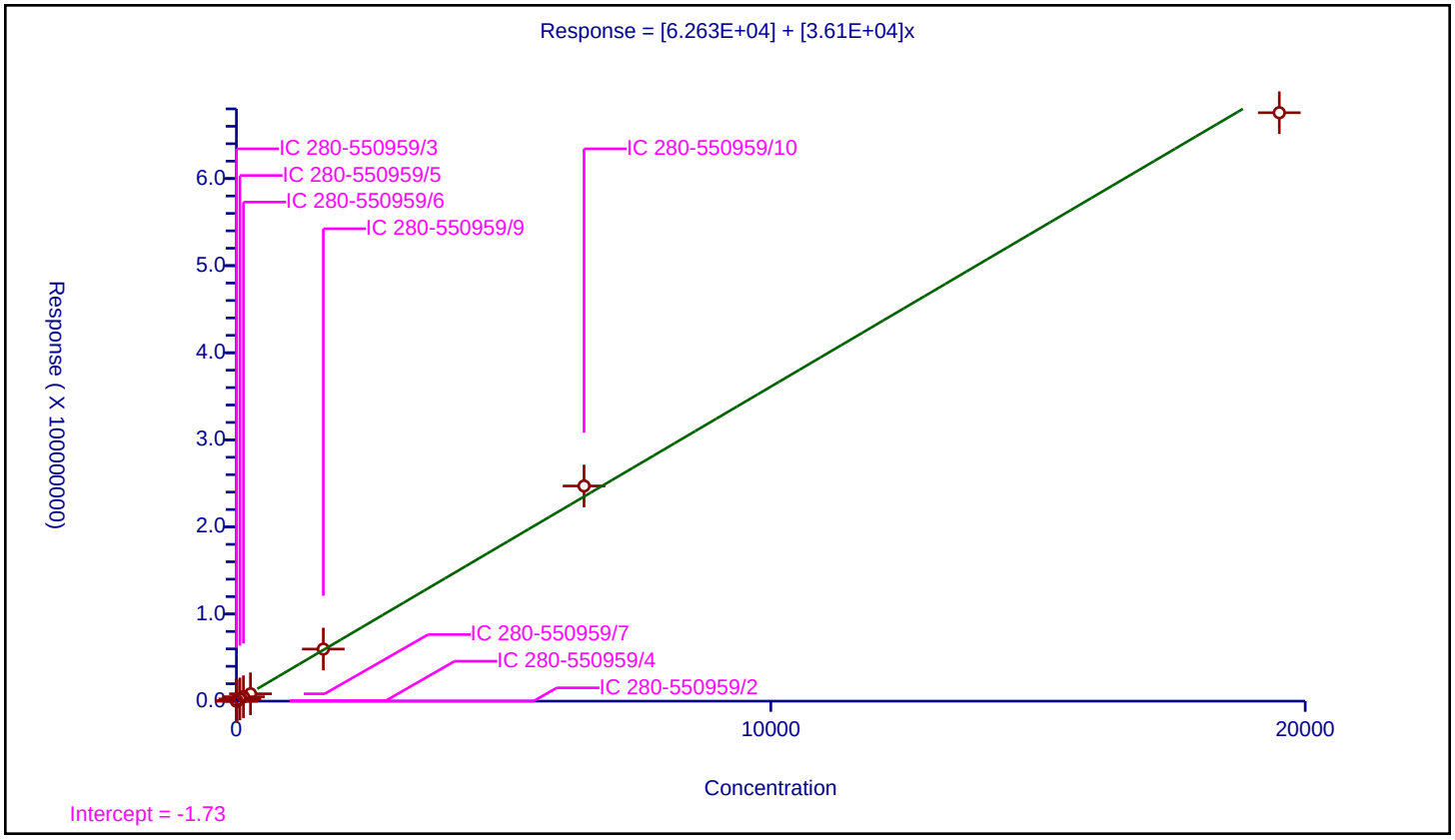
Curve Coefficients

Intercept:	6.263E+04
Slope:	3.61E+04

Error Coefficients

Standard Error:	11900000
Relative Standard Error:	7.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	0.821288	91227.0			111078.032967	Y
2	IC 280-550959/3	1.642575	126529.0			77030.88139	Y
3	IC 280-550959/4	13.1406	509129.0			38744.730073	Y
4	IC 280-550959/5	65.703	2553566.0			38865.287734	Y
5	IC 280-550959/6	131.406	5065048.0			38545.028385	Y
6	IC 280-550959/7	262.812	8455607.0			32173.595574	Y
7	IC 280-550959/9	1626.25	59798125.0			36770.561107	Y
8	IC 280-550959/10	6505.0	247051774.0			37978.750807	Y
9	IC 280-550959/11	19515.0	675608539.0			34619.961004	Y



Calibration / Ethylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

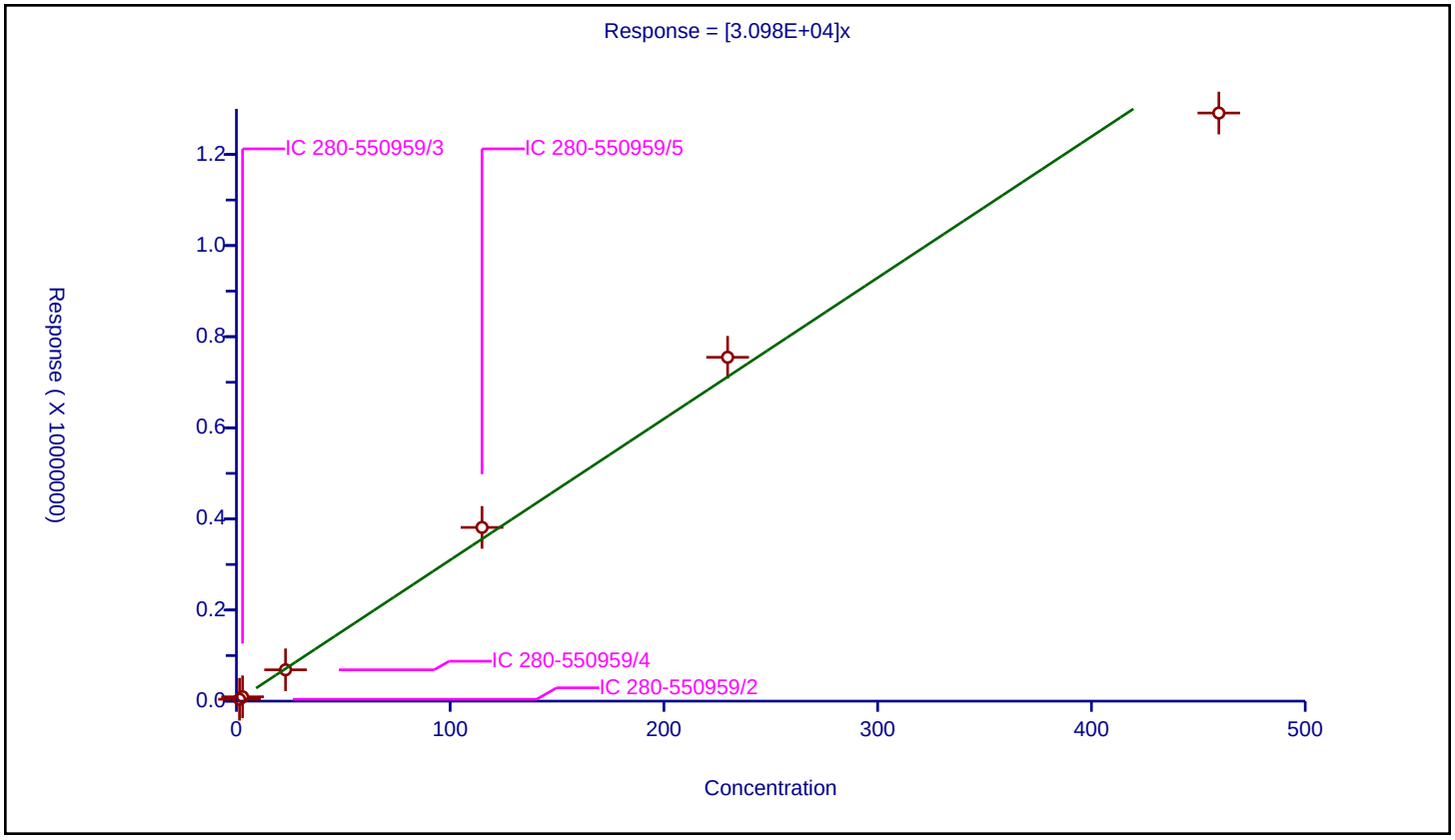
Curve Coefficients

Intercept:	0
Slope:	3.098E+04

Error Coefficients

Standard Error:	635000
Relative Standard Error:	7.6
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.43625	41226.0			28703.916449	Y
2	IC 280-550959/3	2.8725	95159.0			33127.589208	Y
3	IC 280-550959/4	22.98	687818.0			29931.157528	Y
4	IC 280-550959/5	114.9	3812973.0			33185.143603	Y
5	IC 280-550959/6	229.8	7548044.0			32846.144473	Y
6	IC 280-550959/7	459.6	12909086.0			28087.654482	Y



Calibration / Acetylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

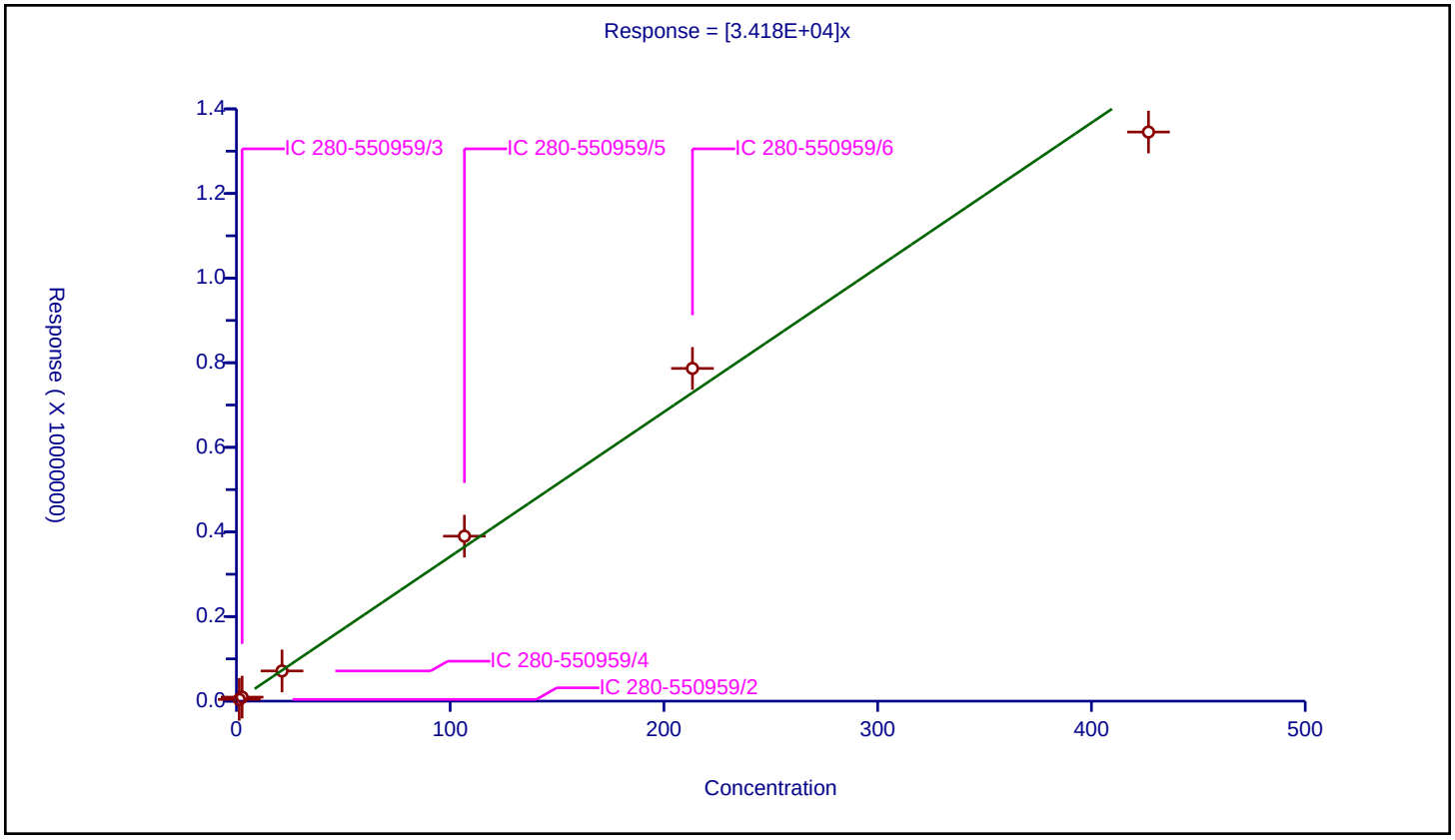
Curve Coefficients

Intercept:	0
Slope:	3.418E+04

Error Coefficients

Standard Error:	578000
Relative Standard Error:	7.4
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.333375	41503.0			31126.277304	Y
2	IC 280-550959/3	2.66675	94797.0			35547.764132	Y
3	IC 280-550959/4	21.334	713476.0			33443.142402	Y
4	IC 280-550959/5	106.67	3899802.0			36559.501266	Y
5	IC 280-550959/6	213.34	7865310.0			36867.488516	Y
6	IC 280-550959/7	426.68	13452620.0			31528.592856	Y



Calibration / Ethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

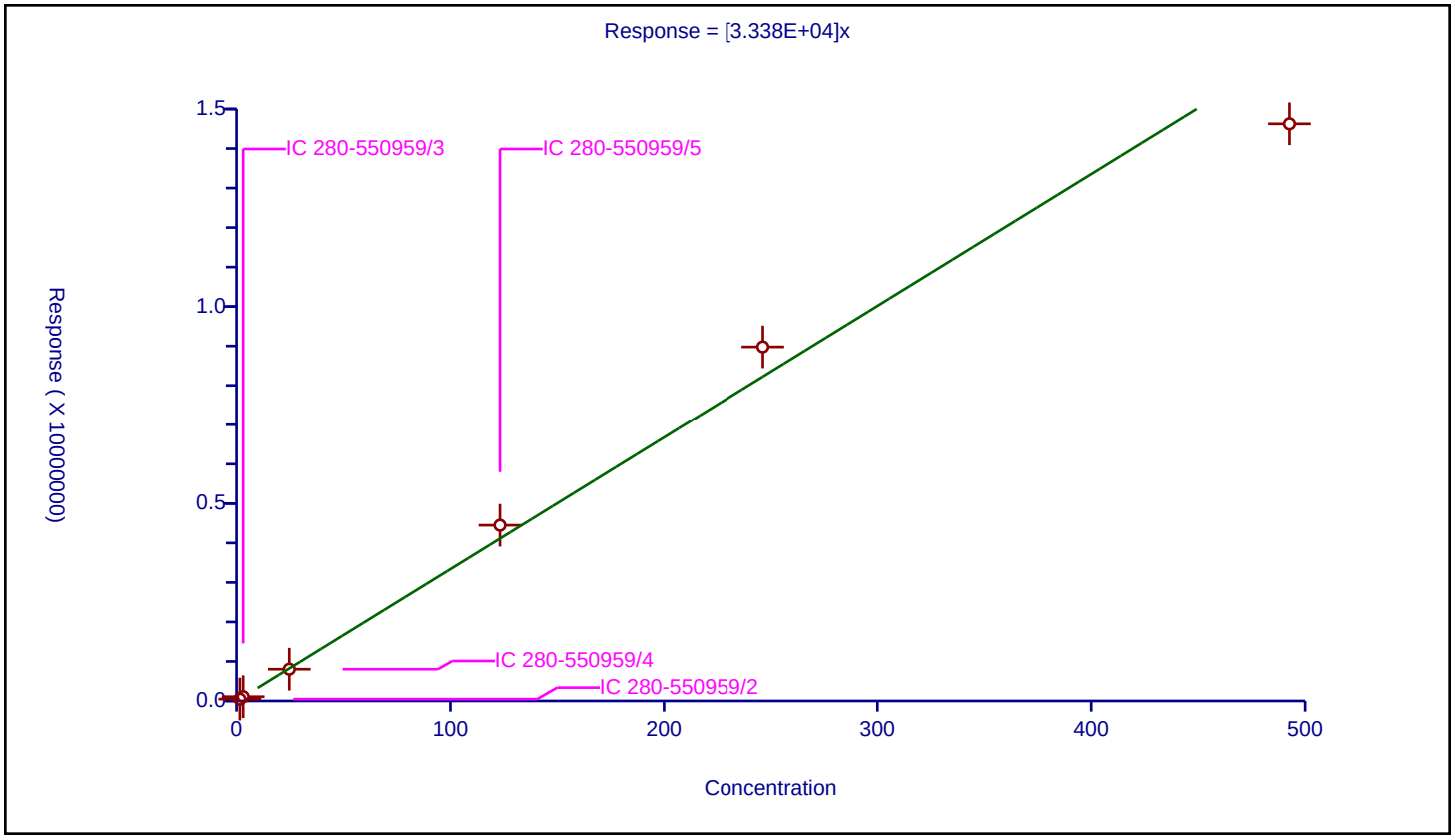
Curve Coefficients

Intercept:	0
Slope:	3.338E+04

Error Coefficients

Standard Error:	894000
Relative Standard Error:	8.6
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.539625	46984.0			30516.52188	Y
2	IC 280-550959/3	3.07925	107446.0			34893.561744	Y
3	IC 280-550959/4	24.634	803791.0			32629.333442	Y
4	IC 280-550959/5	123.17	4450065.0			36129.455224	Y
5	IC 280-550959/6	246.34	8976911.0			36441.142324	Y
6	IC 280-550959/7	492.68	14625440.0			29685.475359	Y



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		37179		67.6	65.7	2.9	20.0
Ethane	Ave	33241	36496		135	123	9.8	20.0
Ethylene	Ave	35226	37757		123	115	7.2	20.0
Acetylene	Ave	28139	30719		116	107	9.2	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.29	1.26	1.34
Ethane	1.56	1.51	1.61
Ethylene	1.87	1.79	1.89
Acetylene	4.24	4.15	4.31

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\014F1201.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Sep-2021 15:38:59 ALS Bottle#: 14 Worklist Smp#: 13
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: sciannac Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:58:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:54:40

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.289	1.299	-0.010	2442793	65.7	67.6	
2	1.676	1.686	-0.010	2535074	65.7	68.5	
						RPD = 1.30	
3 Ethane							
1	1.559	1.556	0.003	4495267	123.2	135.2	
2	3.018	3.028	-0.010	4535642	123.2	135.9	
						RPD = 0.47	
4 Ethylene							
1	1.874	1.844	0.030	4338329	114.9	123.2	
2	2.598	2.609	-0.011	3828020	114.9	123.6	
						RPD = 0.33	
5 Propane							
1	2.726	2.721	0.005	7114360	180.6	197.6	
2	4.928	4.929	-0.001	6799509	180.6	194.2	
						RPD = 1.71	
6 Acetylene							
1	4.243	4.230	0.013	3276773	106.7	116.4	
2	2.741	2.746	-0.005	4007122	106.7	117.2	
						RPD = 0.68	
7 Butane							Ma
1	4.599	4.528	0.071	9349199	238.1	256.7	a
2	6.426	6.426	0.000	8946550	238.1	254.6	M
						RPD = 0.82	
8 isobutylene							Ma
1	5.479	5.403	0.076	8850386	229.8	245.0	
2	6.268	6.274	-0.006	8132396	229.8	244.9	M
						RPD = 0.03	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

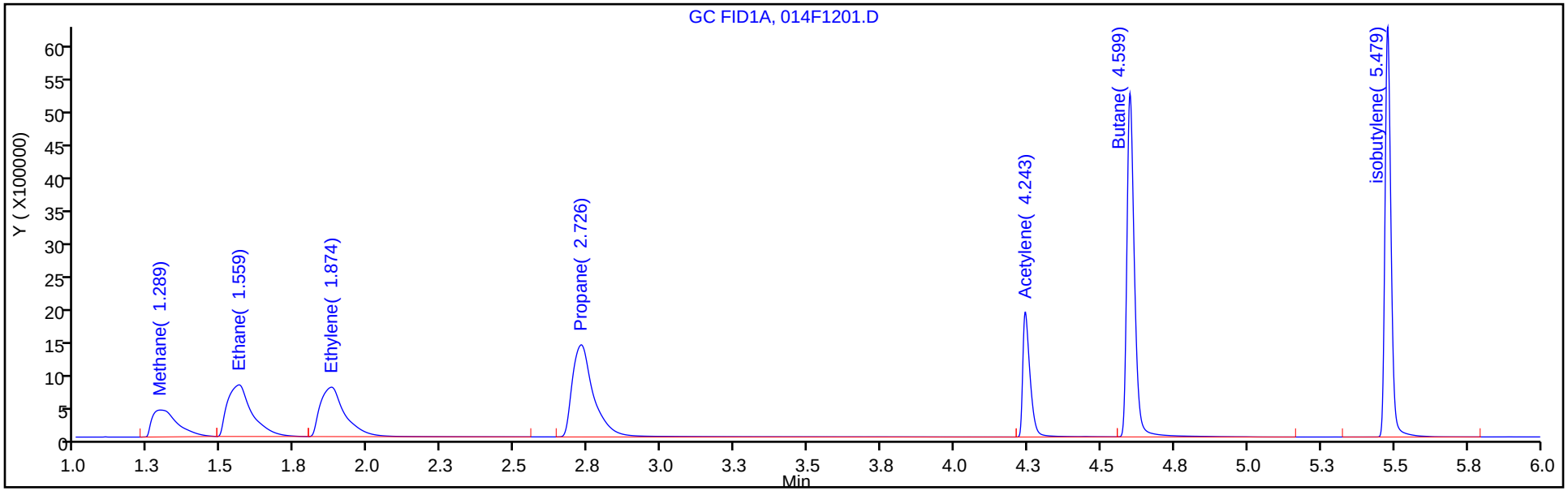
Report Date: 29-Sep-2021 10:58:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

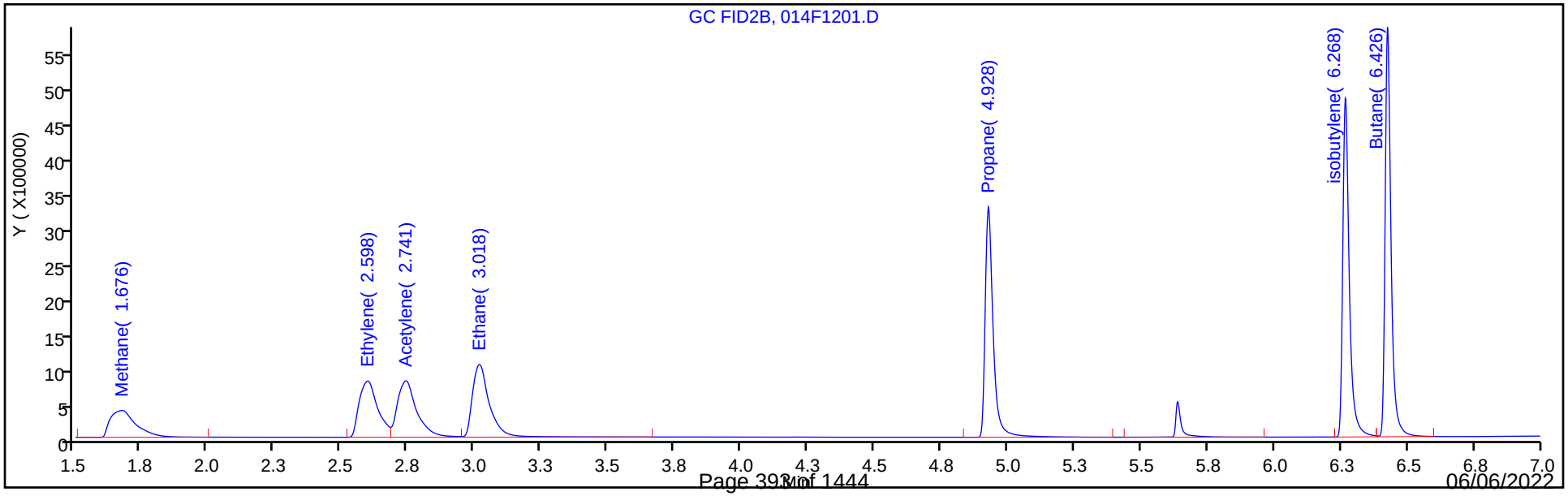
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\014F1201.D

Injection Date:	24-Sep-2021 15:38:59	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ICV			Worklist Smp#:	13
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		38584		68.5	65.7	4.2	20.0
Ethylene	Ave	30980	33316		124	115	7.5	20.0
Acetylene	Ave	34179	37566		117	107	9.9	20.0
Ethane	Ave	33383	36824		136	123	10.3	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.68	1.65	1.73
Ethylene	2.60	2.56	2.66
Acetylene	2.74	2.67	2.83
Ethane	3.02	2.98	3.08

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\014F1201.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Sep-2021 15:38:59 ALS Bottle#: 14 Worklist Smp#: 13
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: sciannac Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:58:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:54:40

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.289	1.299	-0.010	2442793	65.7	67.6	
2	1.676	1.686	-0.010	2535074	65.7	68.5	
						RPD = 1.30	
3 Ethane							
1	1.559	1.556	0.003	4495267	123.2	135.2	
2	3.018	3.028	-0.010	4535642	123.2	135.9	
						RPD = 0.47	
4 Ethylene							
1	1.874	1.844	0.030	4338329	114.9	123.2	
2	2.598	2.609	-0.011	3828020	114.9	123.6	
						RPD = 0.33	
5 Propane							
1	2.726	2.721	0.005	7114360	180.6	197.6	
2	4.928	4.929	-0.001	6799509	180.6	194.2	
						RPD = 1.71	
6 Acetylene							
1	4.243	4.230	0.013	3276773	106.7	116.4	
2	2.741	2.746	-0.005	4007122	106.7	117.2	
						RPD = 0.68	
7 Butane							Ma
1	4.599	4.528	0.071	9349199	238.1	256.7	a
2	6.426	6.426	0.000	8946550	238.1	254.6	M
						RPD = 0.82	
8 isobutylene							Ma
1	5.479	5.403	0.076	8850386	229.8	245.0	
2	6.268	6.274	-0.006	8132396	229.8	244.9	M
						RPD = 0.03	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

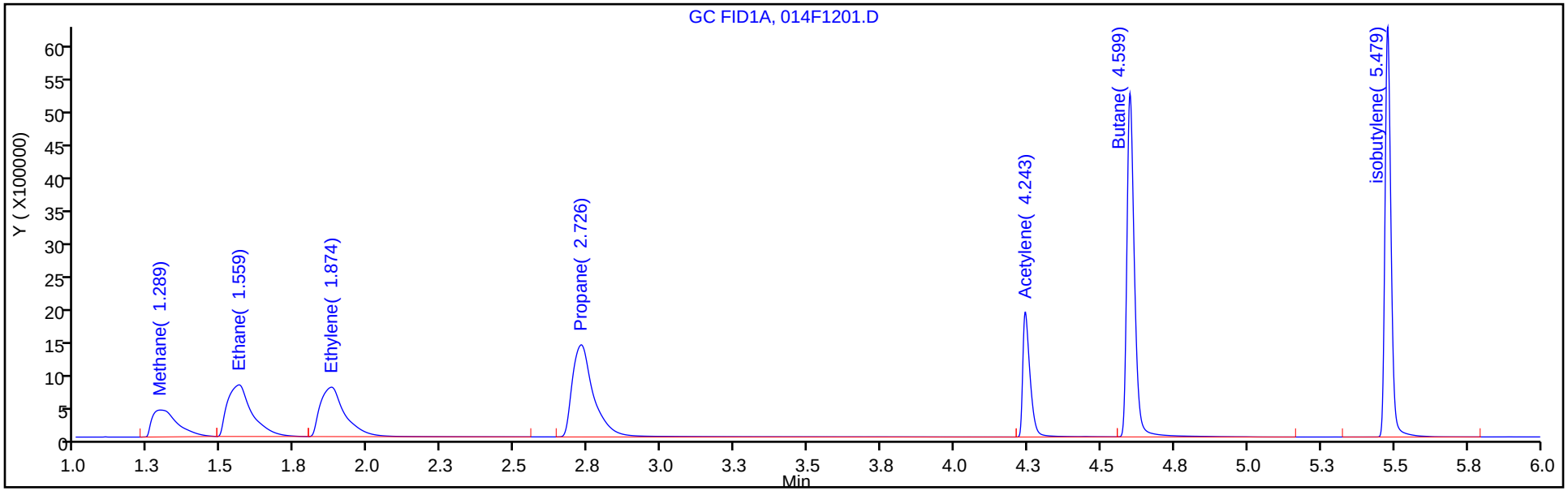
Report Date: 29-Sep-2021 10:58:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

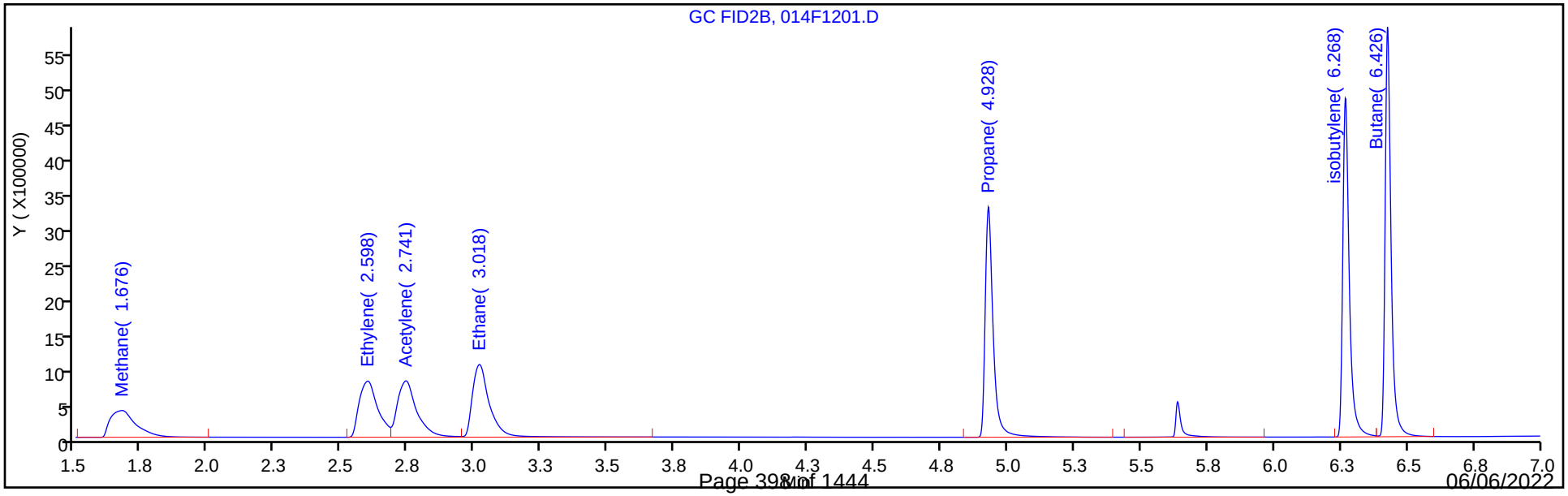
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\014F1201.D

Injection Date:	24-Sep-2021 15:38:59	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ICV			Worklist Smp#:	13
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCVRT 280-576169/2 Calibration Date: 05/25/2022 17:03

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		34873		63.3	65.7	-3.7	20.0
Ethane	Ave	33241	32545		121	123	-2.1	20.0
Ethylene	Ave	35226	33926		111	115	-3.7	20.0
Acetylene	Ave	28139	27398		104	107	-2.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCVRT 280-576170/2 Calibration Date: 05/25/2022 17:03

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		34873		63.3	65.7	-3.7	20.0
Ethane	Ave	33241	32545		121	123	-2.1	20.0
Ethylene	Ave	35226	33926		111	115	-3.7	20.0
Acetylene	Ave	28139	27398		104	107	-2.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCVRT 280-576169/2 Calibration Date: 05/25/2022 17:03

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.27	1.23	1.31
Ethane	1.52	1.47	1.57
Ethylene	1.79	1.74	1.84
Acetylene	4.04	3.96	4.12

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCVRT 280-576170/2 Calibration Date: 05/25/2022 17:03

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.27	1.23	1.31
Ethane	1.52	1.47	1.57
Ethylene	1.79	1.74	1.84
Acetylene	4.04	3.96	4.12

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 25-May-2022 17:03:17 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccvrt
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 26-May-2022 11:09:59 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: sciannac Date: 25-May-2022 18:22:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.269	1.269	0.000	2291256	65.7	63.3	
2	1.679	1.679	0.000	2315117	65.7	62.4	
						RPD = 1.43	
3 Ethane							
1	1.521	1.521	0.000	4008556	123.2	120.6	
2	3.037	3.037	0.000	4117517	123.2	123.3	
						RPD = 2.26	
4 Ethylene							a
1	1.788	1.788	0.000	3898118	114.9	110.7	a
2	2.619	2.619	0.000	3443046	114.9	111.1	a
						RPD = 0.43	
5 Propane							a
1	2.533	2.533	0.000	5839108	180.6	162.1	a
2	0.000	4.933	0.000	0	180.6	0	
						RPD = 200.00	
6 Acetylene							a
1	4.043	4.043	0.000	2922509	106.7	103.9	a
2	2.767	2.767	0.000	3571083	106.7	104.5	a
						RPD = 0.60	
7 Butane							Ma
1	4.394	4.394	0.000	6909387	238.1	189.7	a
2	6.432	6.432	0.000	6546230	238.1	186.3	M
						RPD = 1.81	
8 isobutylene							Ma
1	5.298	5.298	0.000	6509551	229.8	180.2	a
2	6.274	6.274	0.000	5828793	229.8	175.6	M
						RPD = 2.61	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 25-May-2022 17:03:17 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccvrt
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 26-May-2022 11:09:59 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: sciannac Date: 25-May-2022 18:22:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.269	1.269	0.000	2291256	65.7	63.3	
2	1.679	1.679	0.000	2315117	65.7	62.4	
						RPD = 1.43	
3 Ethane							
1	1.521	1.521	0.000	4008556	123.2	120.6	
2	3.037	3.037	0.000	4117517	123.2	123.3	
						RPD = 2.26	
4 Ethylene							a
1	1.788	1.788	0.000	3898118	114.9	110.7	a
2	2.619	2.619	0.000	3443046	114.9	111.1	a
						RPD = 0.43	
5 Propane							a
1	2.533	2.533	0.000	5839108	180.6	162.1	a
2	0.000	4.933	0.000	0	180.6	0	
						RPD = 200.00	
6 Acetylene							a
1	4.043	4.043	0.000	2922509	106.7	103.9	a
2	2.767	2.767	0.000	3571083	106.7	104.5	a
						RPD = 0.60	
7 Butane							Ma
1	4.394	4.394	0.000	6909387	238.1	189.7	a
2	6.432	6.432	0.000	6546230	238.1	186.3	M
						RPD = 1.81	
8 isobutylene							Ma
1	5.298	5.298	0.000	6509551	229.8	180.2	a
2	6.274	6.274	0.000	5828793	229.8	175.6	M
						RPD = 2.61	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

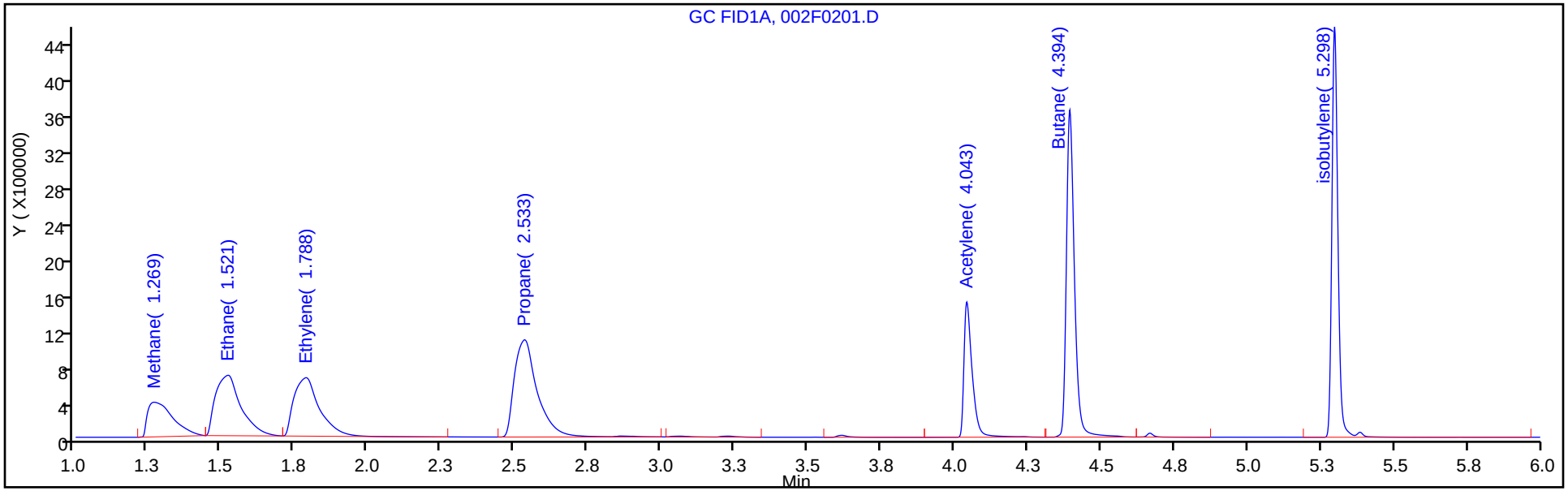
Report Date: 26-May-2022 11:10:00 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

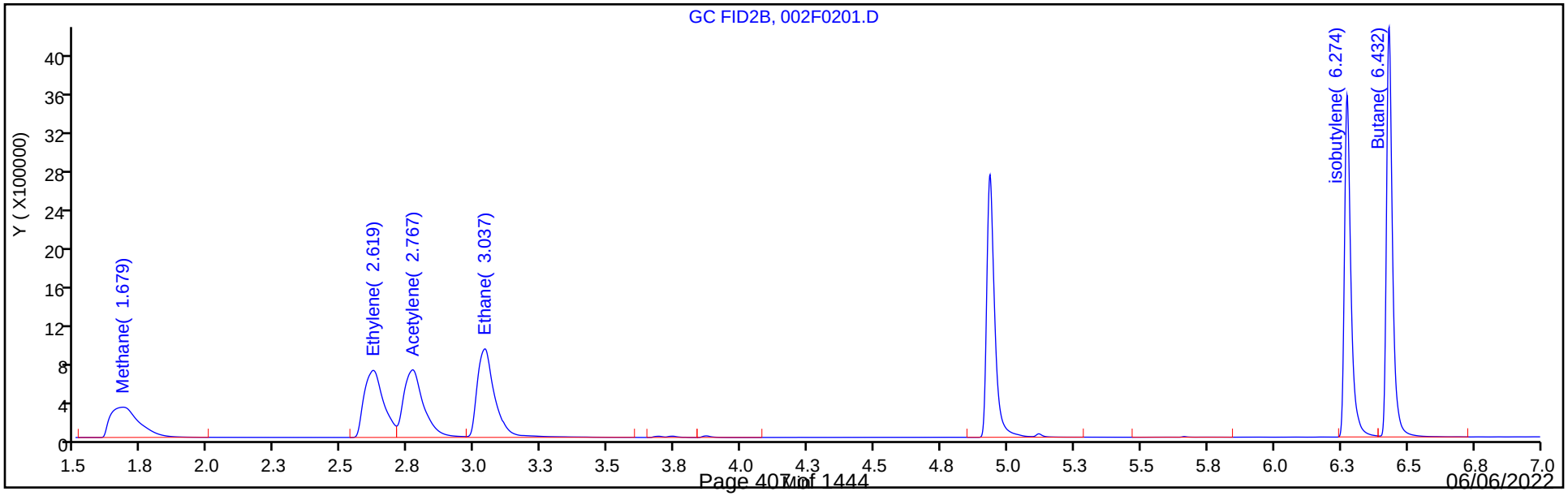
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D

Injection Date:	25-May-2022 17:03:17	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccvrt			Worklist Smp#:	2
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



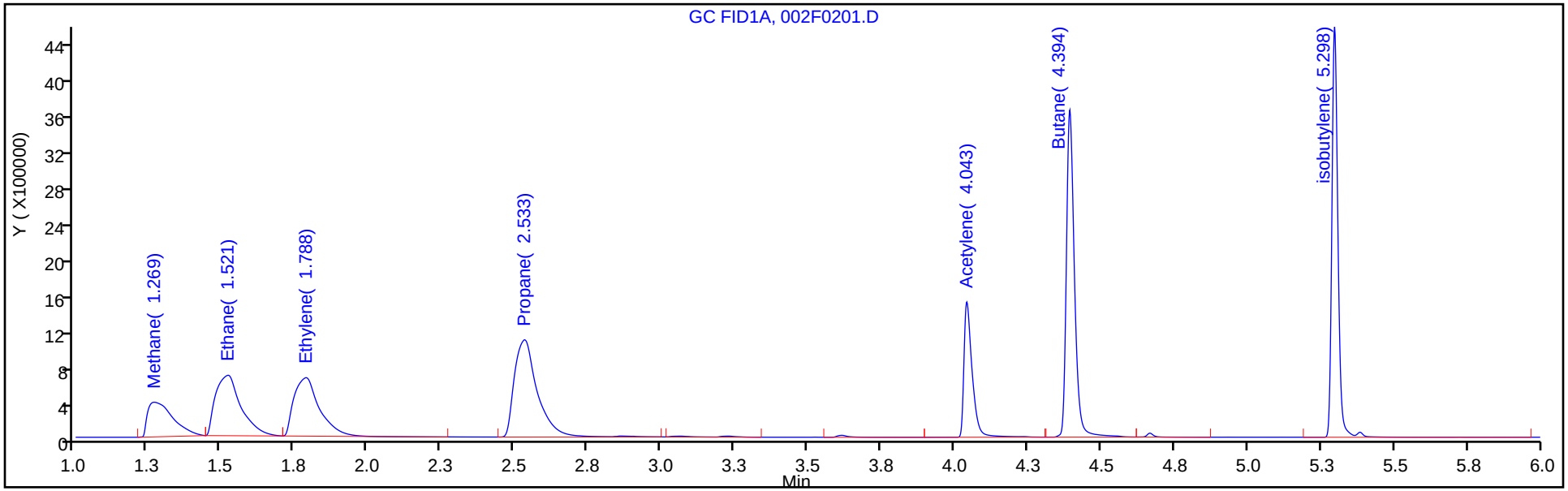
Report Date: 26-May-2022 11:10:00 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

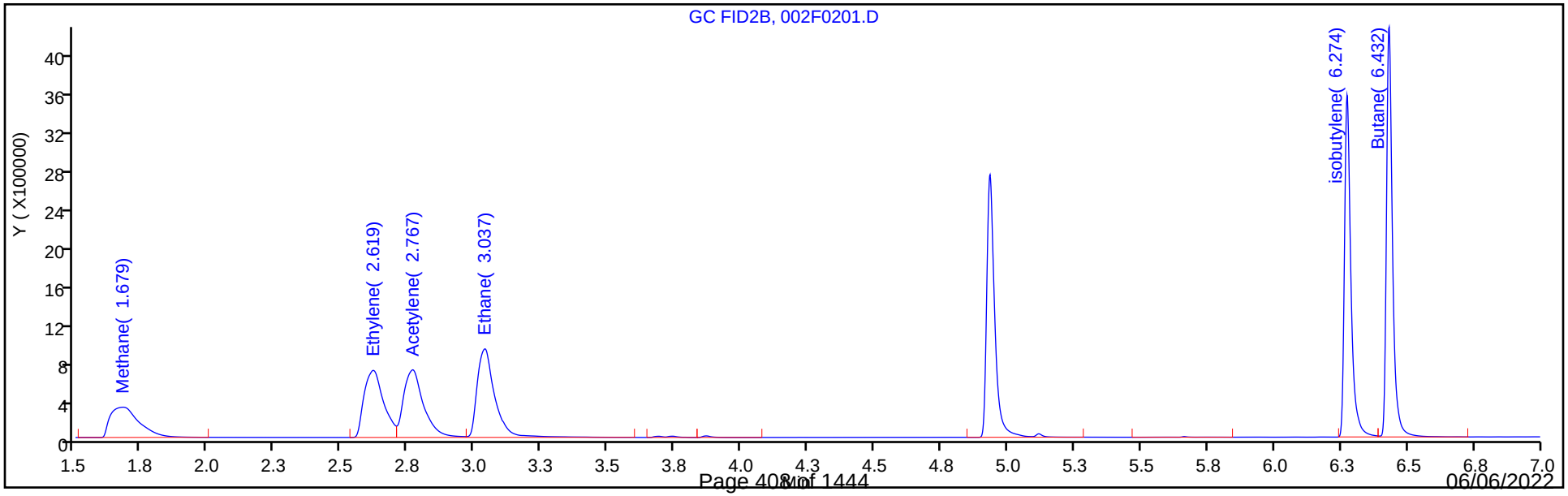
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D

Injection Date:	25-May-2022 17:03:17	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccvrt			Worklist Smp#:	2
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

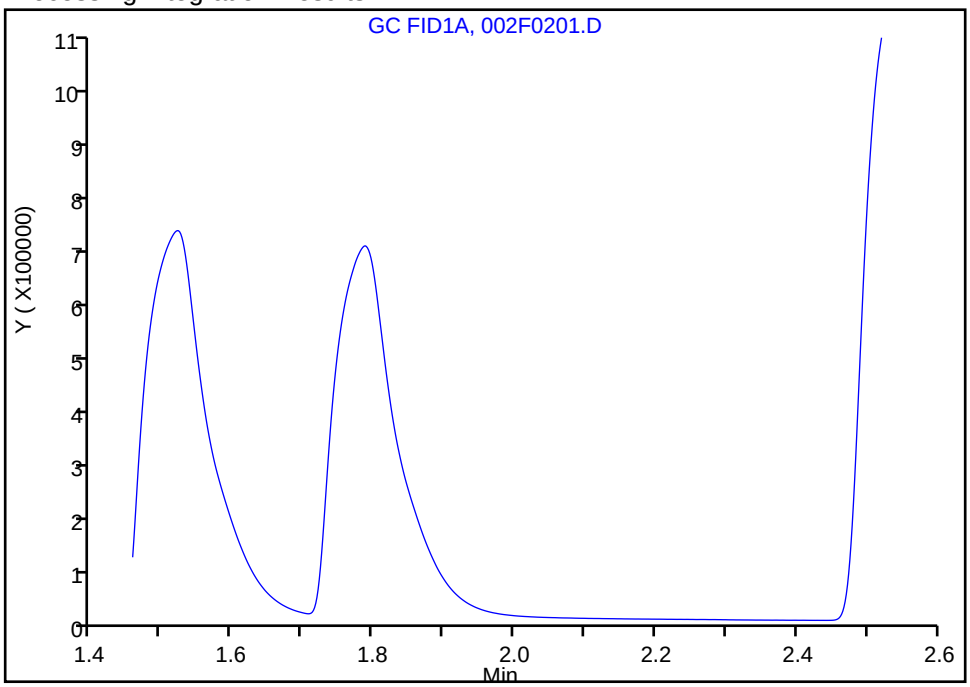
Data File:	\\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D				
Injection Date:	25-May-2022 17:03:17	Instrument ID:	VGC_J		
Lims ID:	ccvrt				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

4 Ethylene, CAS: 74-85-1

Signal: 1

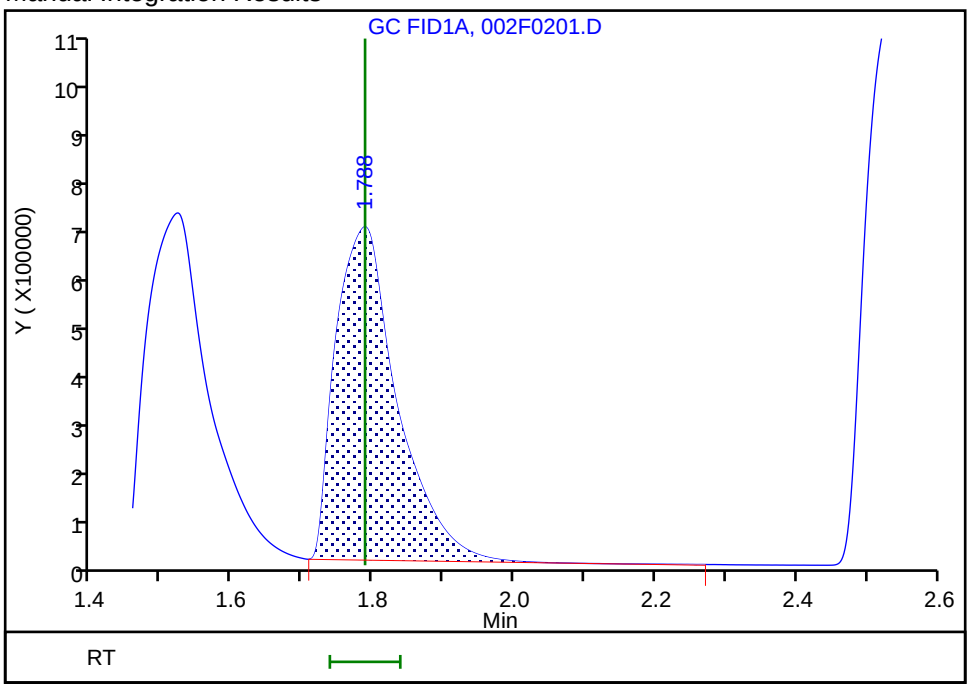
Not Detected
Expected RT: 1.79

Processing Integration Results



Manual Integration Results

RT: 1.79
Area: 3898118
Amount: 110.6604
Amount Units: ug/l



Reviewer: sciannac, 25-May-2022 18:01:28
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

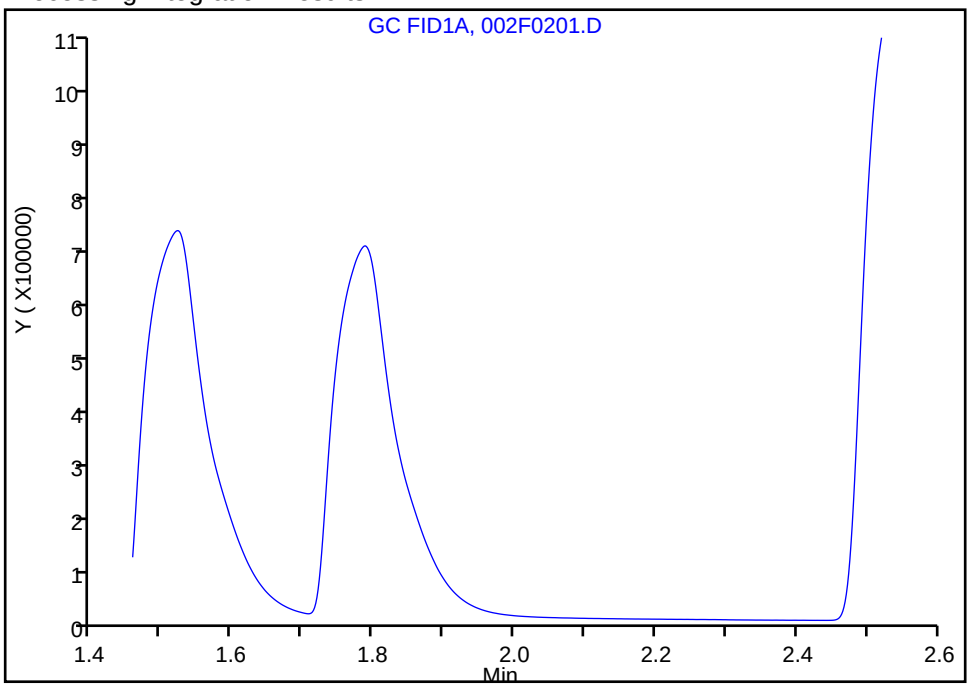
Data File:	\\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D				
Injection Date:	25-May-2022 17:03:17	Instrument ID:	VGC_J		
Lims ID:	ccvrt				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

4 Ethylene, CAS: 74-85-1

Signal: 1

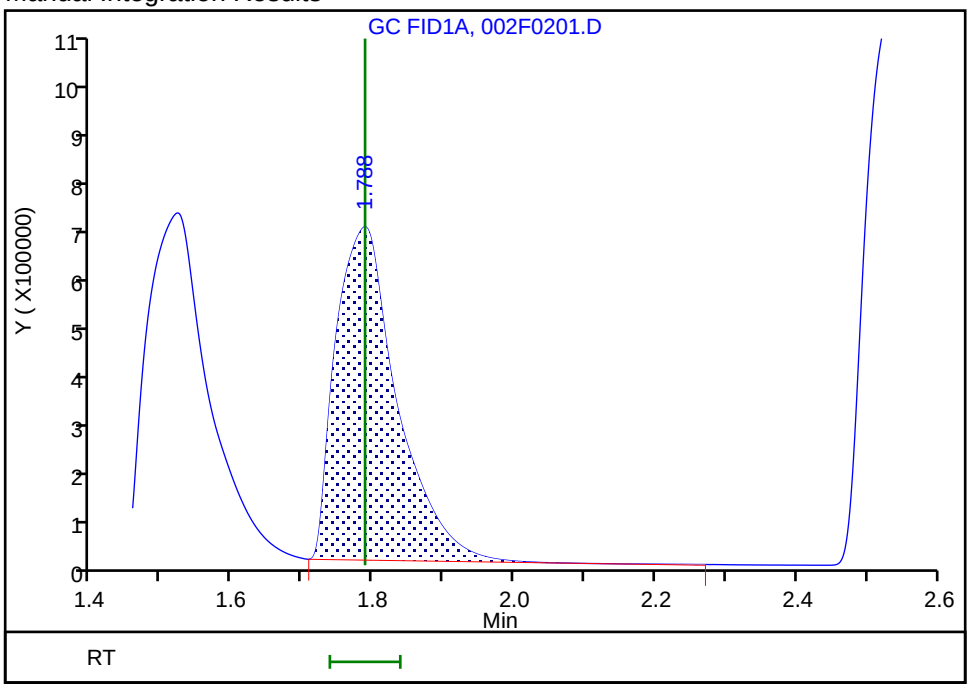
Not Detected
Expected RT: 1.79

Processing Integration Results



Manual Integration Results

RT: 1.79
Area: 3898118
Amount: 110.6604
Amount Units: ug/l



Reviewer: sciannac, 25-May-2022 18:01:28
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

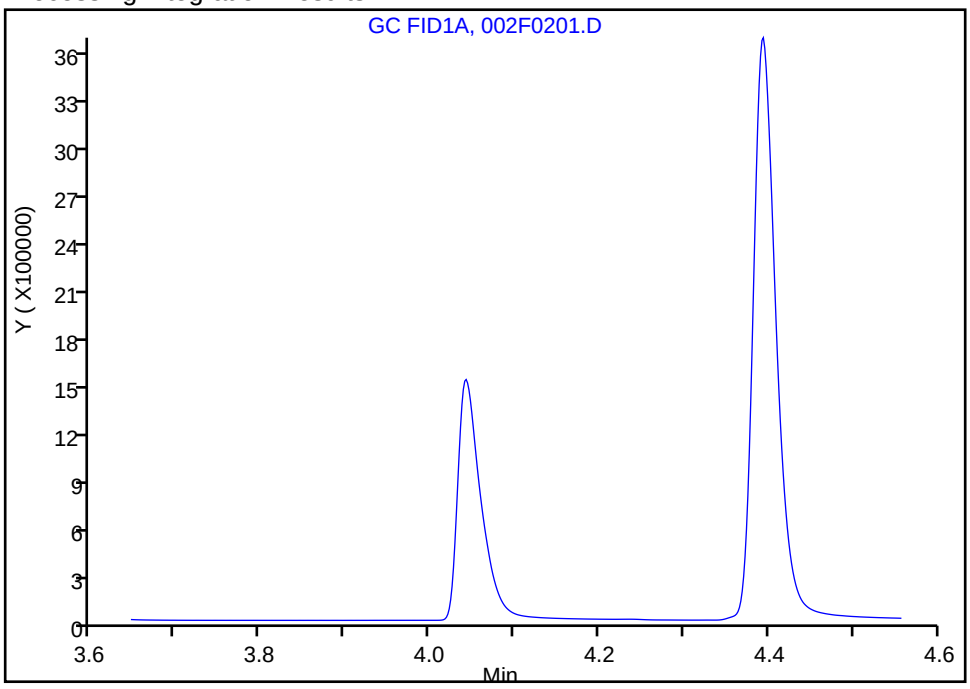
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D
Injection Date: 25-May-2022 17:03:17 Instrument ID: VGC_J
Lims ID: ccvrt
Client ID:
Operator ID: sciannac ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

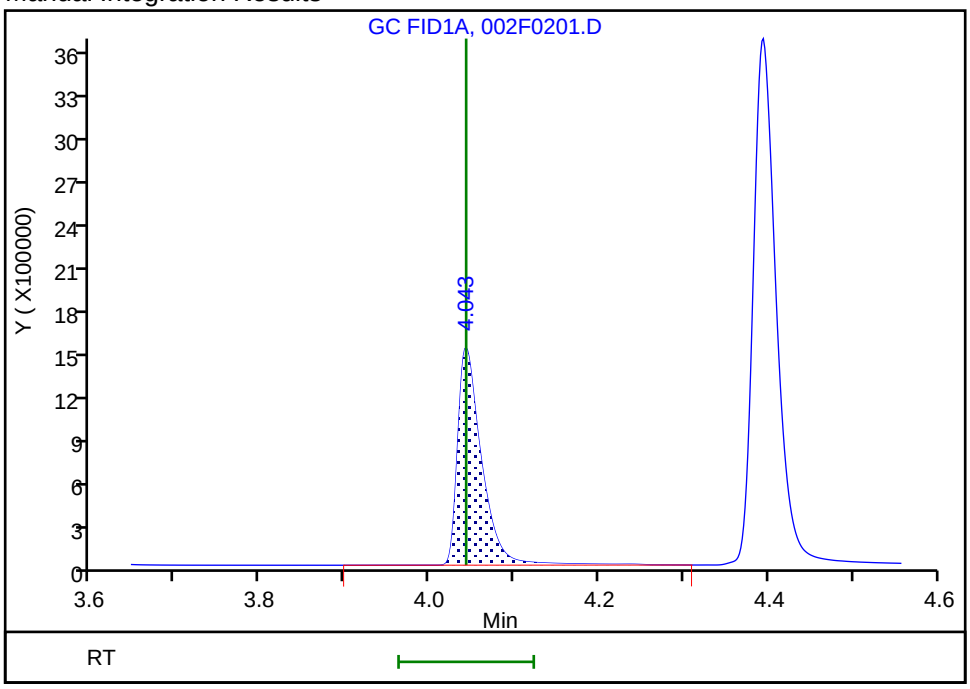
Not Detected
Expected RT: 4.04

Processing Integration Results



Manual Integration Results

RT: 4.04
Area: 2922509
Amount: 103.8597
Amount Units: ug/l



Reviewer: sciannac, 25-May-2022 18:02:02
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

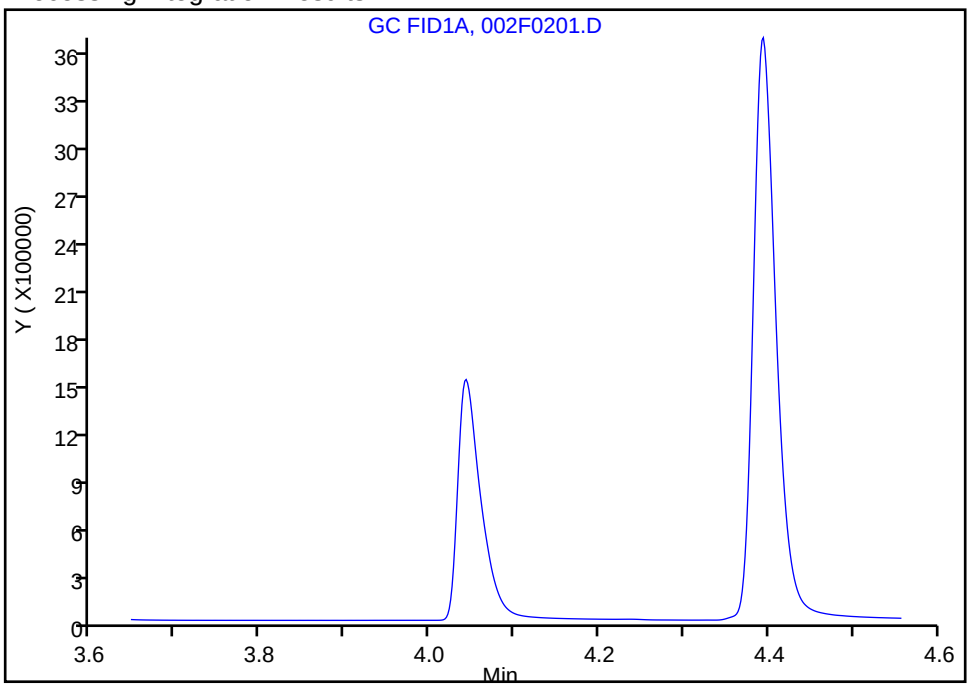
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D
Injection Date: 25-May-2022 17:03:17 Instrument ID: VGC_J
Lims ID: ccvrt
Client ID:
Operator ID: sciannac ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

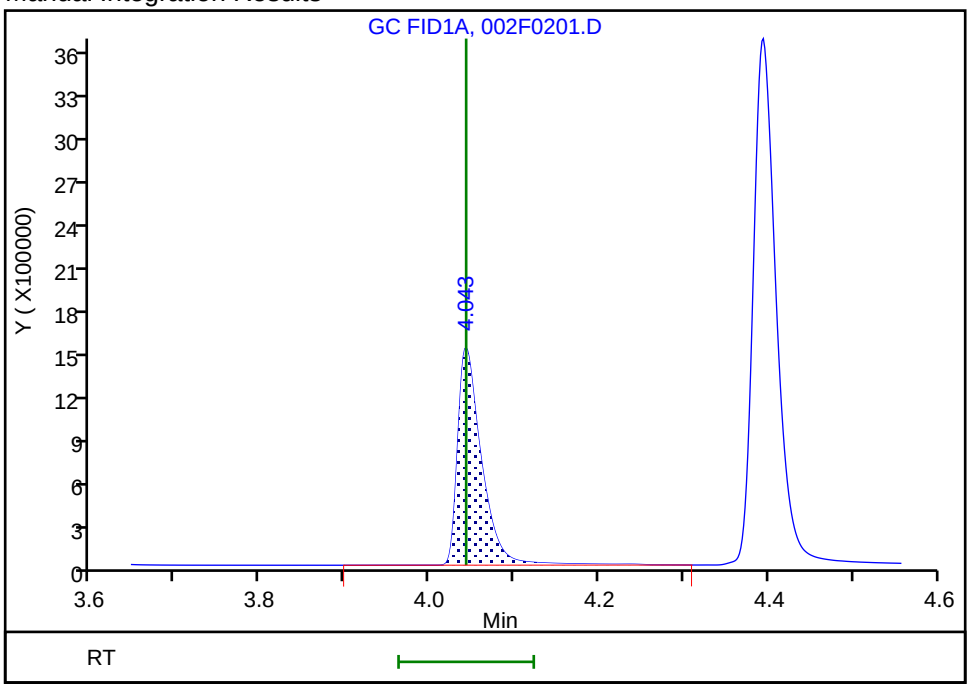
Not Detected
Expected RT: 4.04

Processing Integration Results



Manual Integration Results

RT: 4.04
Area: 2922509
Amount: 103.8597
Amount Units: ug/l



Reviewer: sciannac, 25-May-2022 18:02:02
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCVRT 280-576169/2 Calibration Date: 05/25/2022 17:03

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		35236		62.4	65.7	-5.0	20.0
Ethylene	Ave	30980	29966		111	115	-3.3	20.0
Acetylene	Ave	34179	33478		104	107	-2.1	20.0
Ethane	Ave	33383	33430		123	123	0.1	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCVRT 280-576169/2 Calibration Date: 05/25/2022 17:03

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 002F0201.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.68	1.64	1.72
Ethylene	2.62	2.57	2.67
Acetylene	2.77	2.69	2.85
Ethane	3.04	2.99	3.09

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 25-May-2022 17:03:17 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccvrt
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 26-May-2022 11:09:59 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: sciannac Date: 25-May-2022 18:22:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
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2	1.679	1.679	0.000	2315117	65.7	62.4	
						RPD = 1.43	
3 Ethane							
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2	3.037	3.037	0.000	4117517	123.2	123.3	
						RPD = 2.26	
4 Ethylene							a
1	1.788	1.788	0.000	3898118	114.9	110.7	a
2	2.619	2.619	0.000	3443046	114.9	111.1	a
						RPD = 0.43	
5 Propane							a
1	2.533	2.533	0.000	5839108	180.6	162.1	a
2	0.000	4.933	0.000	0	180.6	0	
						RPD = 200.00	
6 Acetylene							a
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2	2.767	2.767	0.000	3571083	106.7	104.5	a
						RPD = 0.60	
7 Butane							Ma
1	4.394	4.394	0.000	6909387	238.1	189.7	a
2	6.432	6.432	0.000	6546230	238.1	186.3	M
						RPD = 1.81	
8 isobutylene							Ma
1	5.298	5.298	0.000	6509551	229.8	180.2	a
2	6.274	6.274	0.000	5828793	229.8	175.6	M
						RPD = 2.61	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

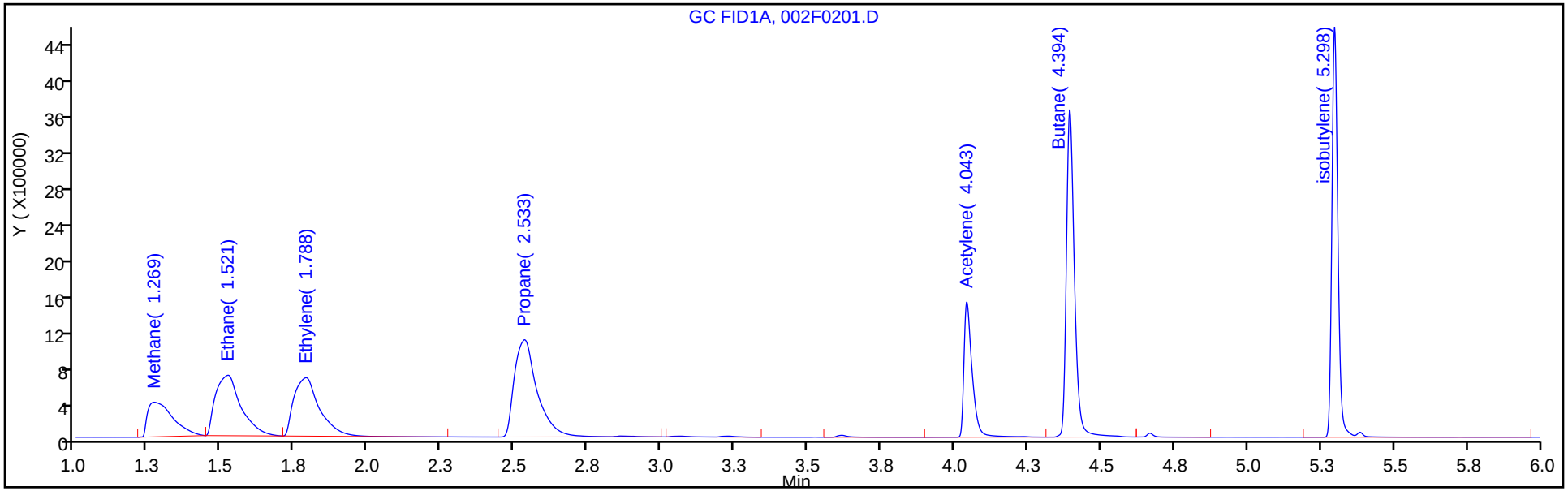
Report Date: 26-May-2022 11:10:00 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

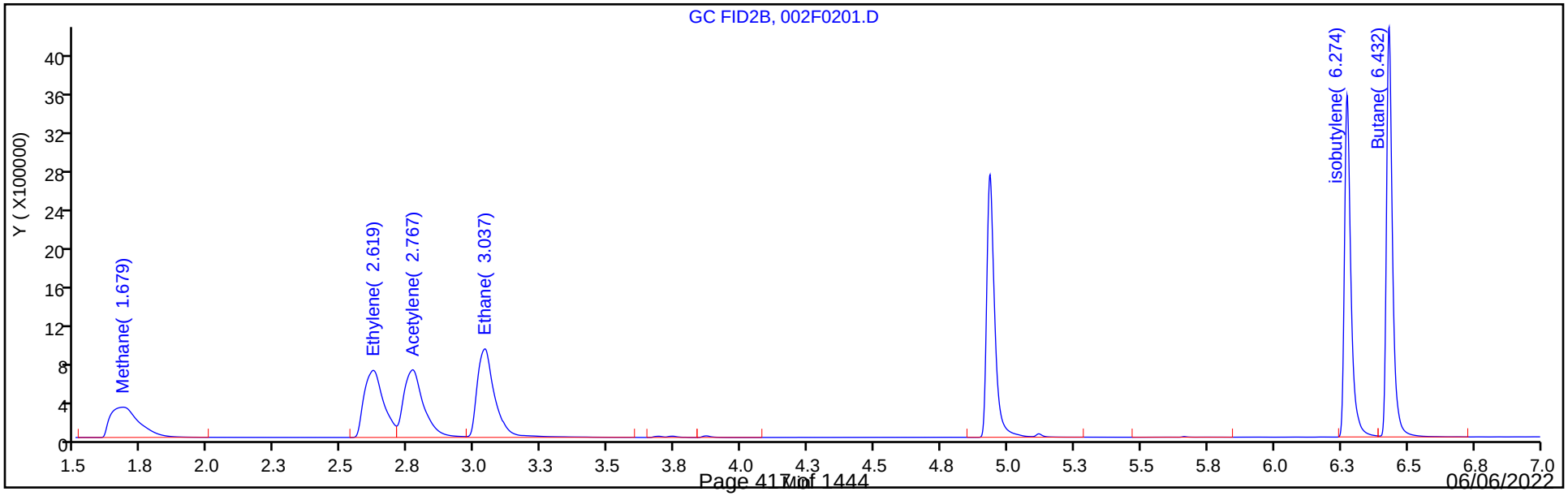
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D

Injection Date:	25-May-2022 17:03:17	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccvrt			Worklist Smp#:	2
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

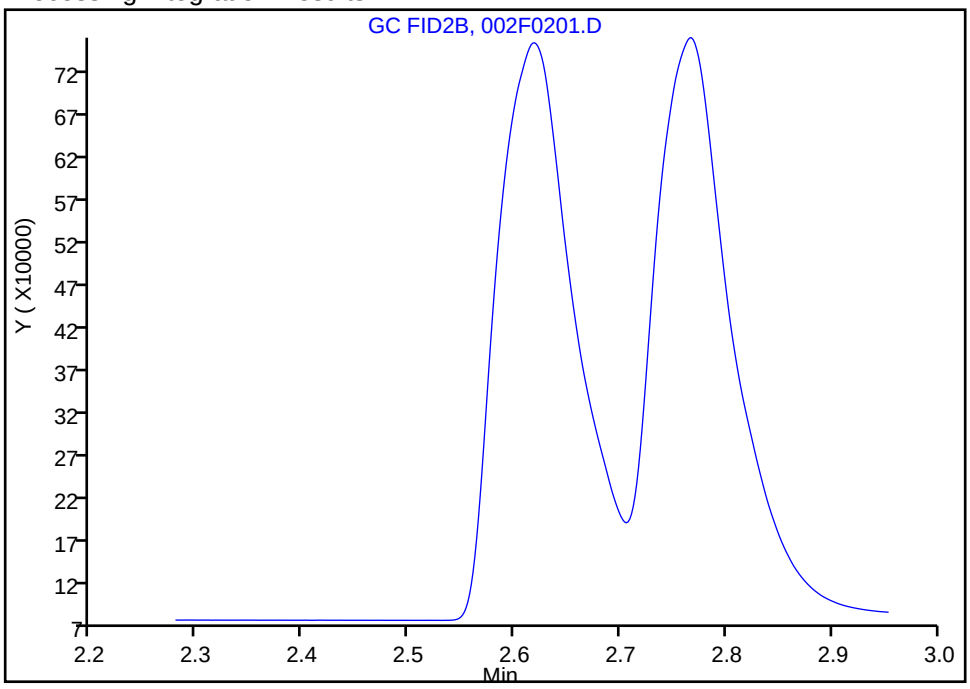
Data File:	\\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D				
Injection Date:	25-May-2022 17:03:17	Instrument ID:	VGC_J		
Lims ID:	ccvrt				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

4 Ethylene, CAS: 74-85-1

Signal: 2

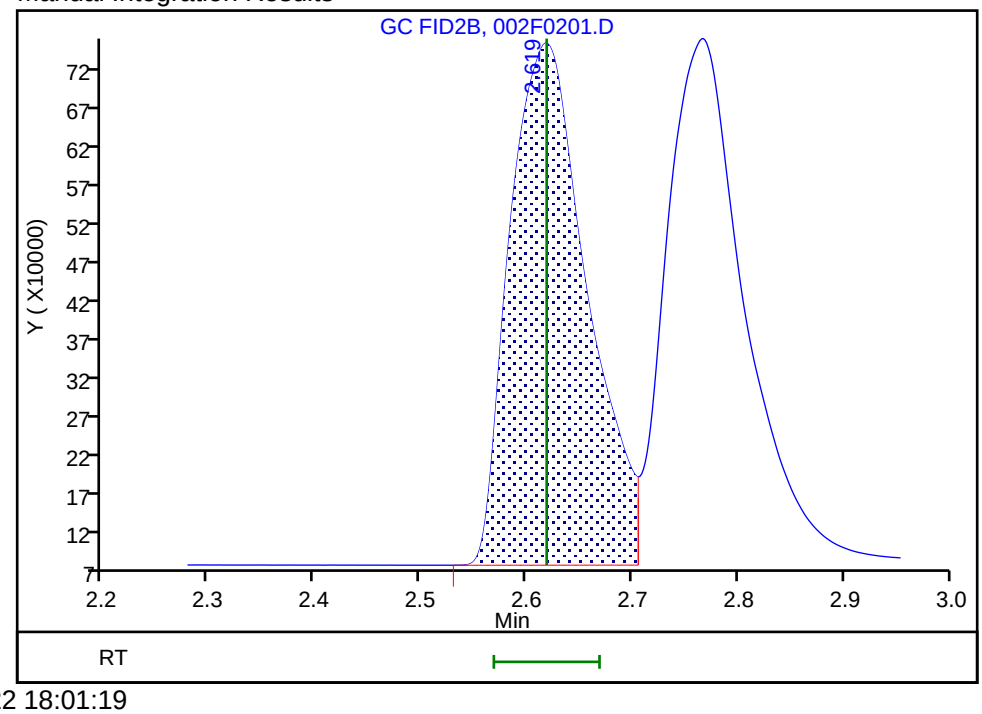
Not Detected
Expected RT: 2.62

Processing Integration Results



Manual Integration Results

RT: 2.62
Area: 3443046
Amount: 111.1367
Amount Units: ug/l



Reviewer: sciannac, 25-May-2022 18:01:19
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

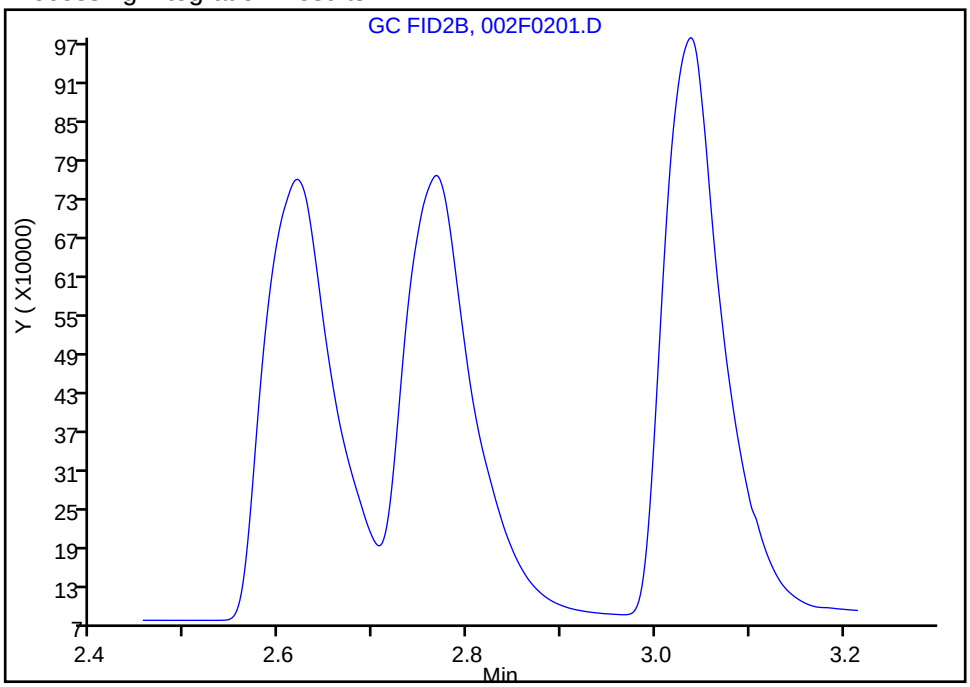
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\002F0201.D
Injection Date: 25-May-2022 17:03:17 Instrument ID: VGC_J
Lims ID: ccvrt
Client ID:
Operator ID: sciannac ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

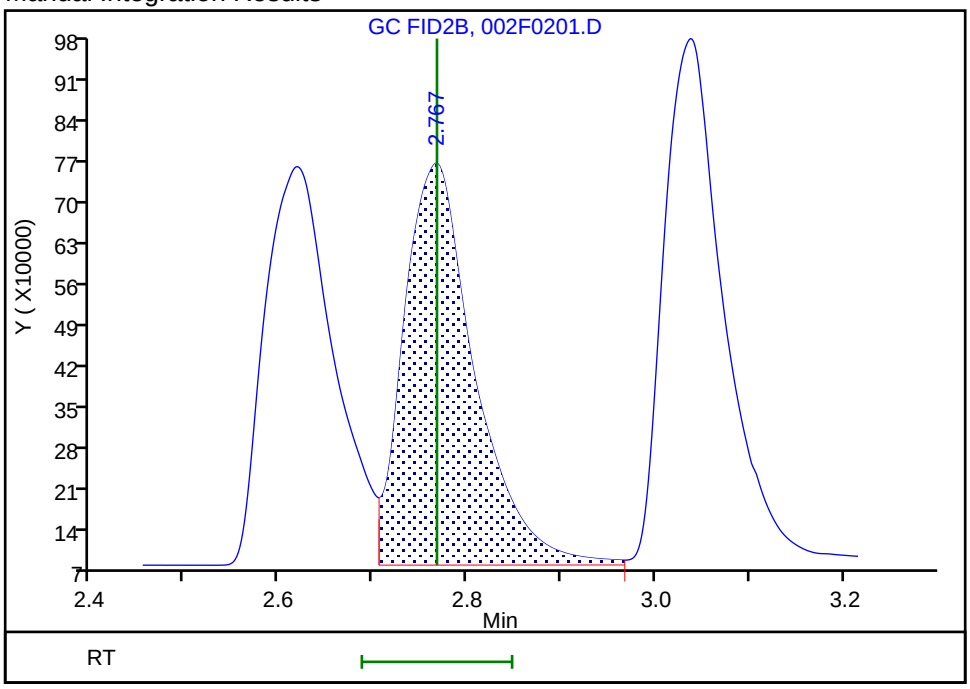
Not Detected
Expected RT: 2.77

Processing Integration Results



Manual Integration Results

RT: 2.77
Area: 3571083
Amount: 104.4824
Amount Units: ug/l



Reviewer: sciannac, 25-May-2022 18:01:56
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576169/75 Calibration Date: 05/25/2022 20:43

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1901.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		36148		65.7	65.7	-0.0	20.0
Ethane	Ave	33241	34860		129	123	4.9	20.0
Ethylene	Ave	35226	35683		116	115	1.3	20.0
Acetylene	Ave	28139	27449		104	107	-2.5	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576169/75 Calibration Date: 05/25/2022 20:43

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1901.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.26	1.23	1.31
Ethane	1.53	1.47	1.57
Ethylene	1.83	1.74	1.84
Acetylene	4.21	3.96	4.12

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\019F1901.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 25-May-2022 20:43:17 ALS Bottle#: 19 Worklist Smp#: 75
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 26-May-2022 12:12:33 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: sciannac Date: 26-May-2022 11:04:50

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.260	1.269	-0.009	2375058	65.7	65.7	
2	1.667	1.679	-0.012	2348694	65.7	63.3	
						RPD = 3.64	
3 Ethane							
1	1.529	1.521	0.008	4293707	123.2	129.2	
2	3.020	3.037	-0.017	4375675	123.2	131.1	
						RPD = 1.47	
4 Ethylene							
1	1.834	1.788	0.046	4099995	114.9	116.4	
2	2.602	2.619	-0.017	3564990	114.9	115.1	
						RPD = 1.14	
5 Propane							a
1	2.635	2.533	0.102	6454074	180.6	179.2	a
2	4.927	4.933	-0.006	6084116	180.6	173.8	a
						RPD = 3.09	
6 Acetylene							a
1	4.210	4.043	0.167	2928029	106.7	104.1	a
2	2.750	2.767	-0.017	3621101	106.7	105.9	a
						RPD = 1.80	
7 Butane							
1	4.509	4.394	0.115	8304265	238.1	228.0	
2	6.427	6.432	-0.005	7781026	238.1	221.4	
						RPD = 2.92	
8 isobutylene							
1	5.409	5.298	0.111	7564069	229.8	209.4	
2	6.270	6.274	-0.004	6795186	229.8	204.7	
						RPD = 2.28	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

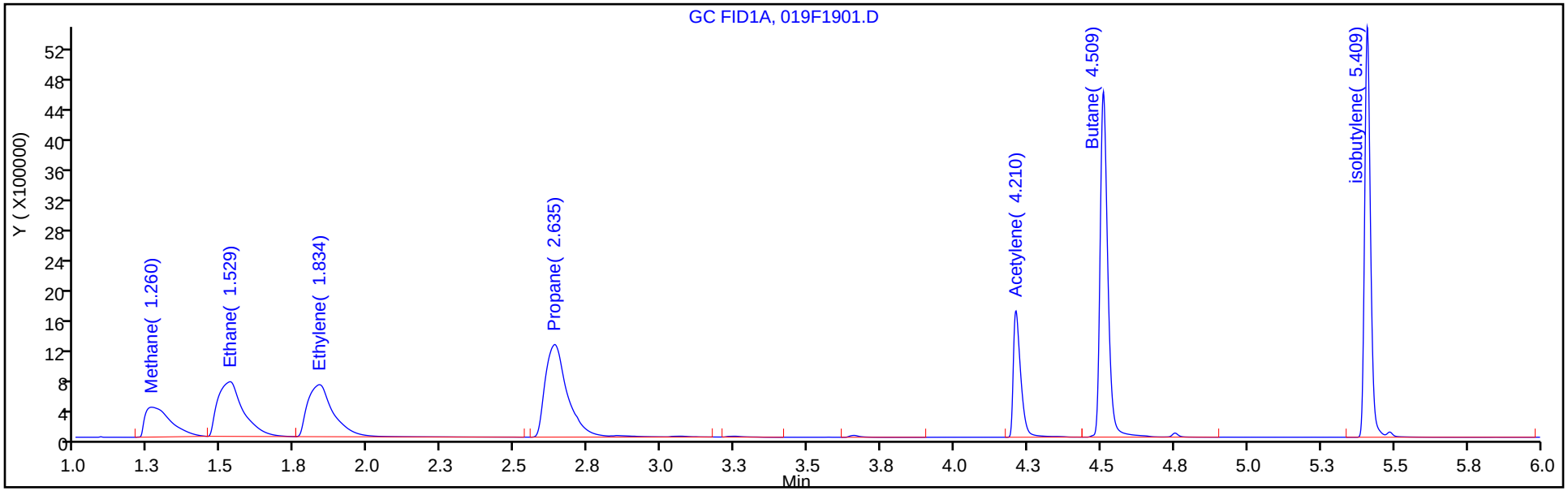
Report Date: 26-May-2022 12:12:33 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

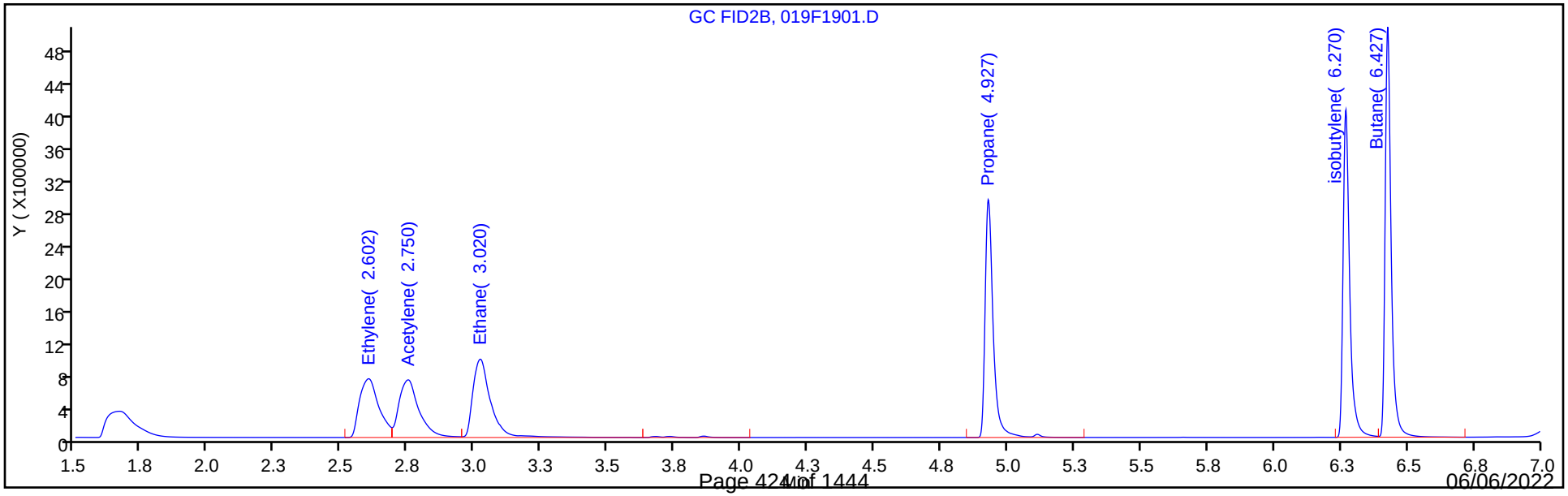
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\019F1901.D

Injection Date:	25-May-2022 20:43:17	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	75
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

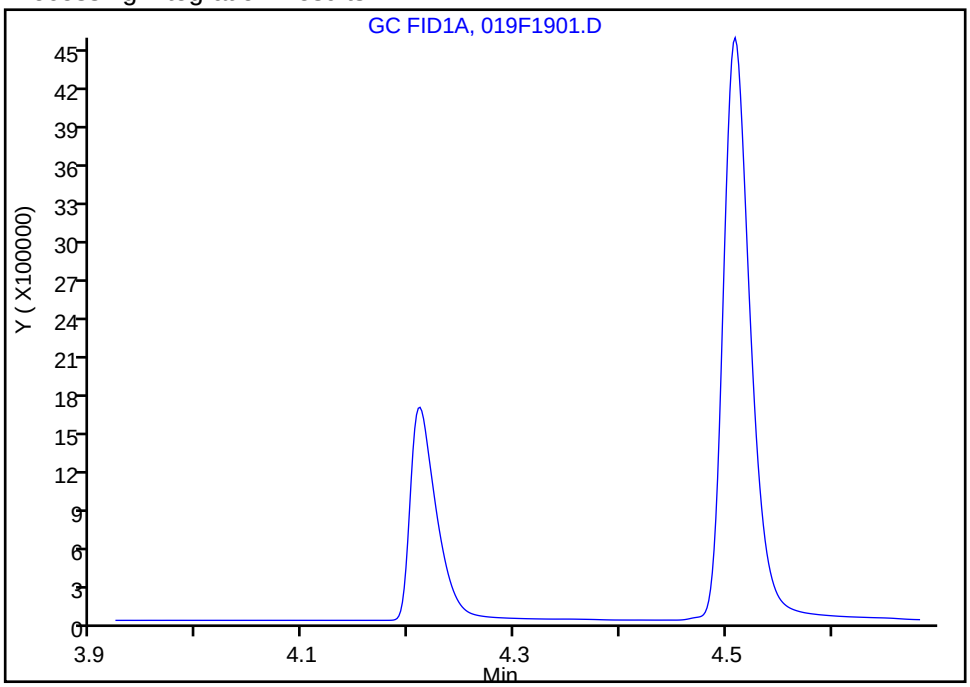
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\019F1901.D
Injection Date: 25-May-2022 20:43:17 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 19 Worklist Smp#: 75
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

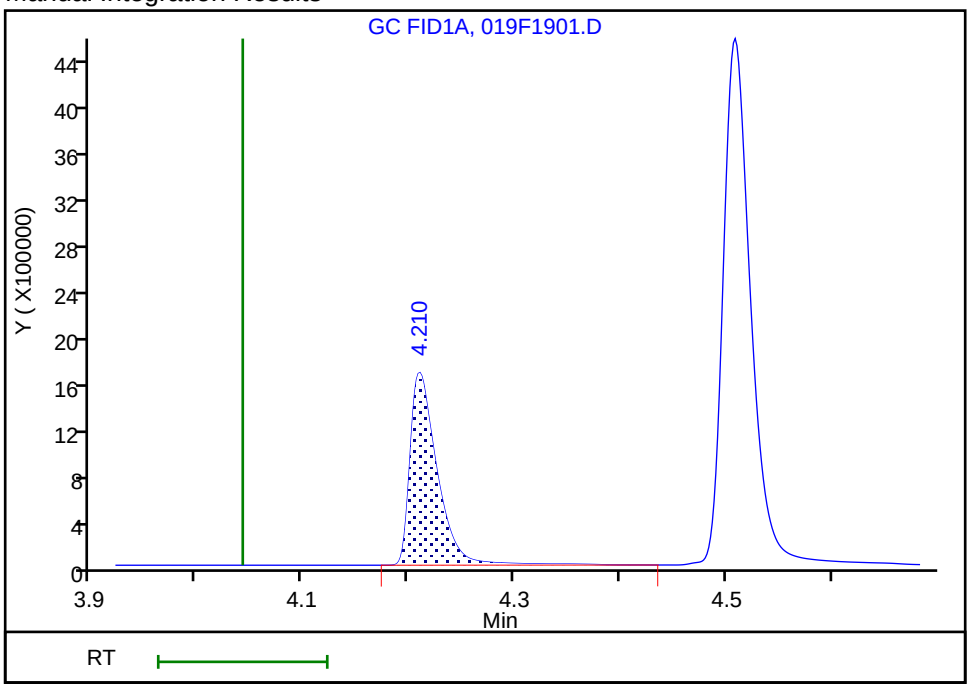
Not Detected
Expected RT: 4.04

Processing Integration Results



Manual Integration Results

RT: 4.21
Area: 2928029
Amount: 104.0558
Amount Units: ug/l



Reviewer: sciannac, 26-May-2022 11:04:33
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576169/75 Calibration Date: 05/25/2022 20:43

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1901.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		35747		63.3	65.7	-3.6	20.0
Ethylene	Ave	30980	31027		115	115	0.2	20.0
Acetylene	Ave	34179	33947		106	107	-0.7	20.0
Ethane	Ave	33383	35525		131	123	6.4	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576169/75 Calibration Date: 05/25/2022 20:43

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1901.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.67	1.64	1.72
Ethylene	2.60	2.57	2.67
Acetylene	2.75	2.69	2.85
Ethane	3.02	2.99	3.09

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\019F1901.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 25-May-2022 20:43:17 ALS Bottle#: 19 Worklist Smp#: 75
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 26-May-2022 12:12:33 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: sciannac Date: 26-May-2022 11:04:50

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.260	1.269	-0.009	2375058	65.7	65.7	
2	1.667	1.679	-0.012	2348694	65.7	63.3	
						RPD = 3.64	
3 Ethane							
1	1.529	1.521	0.008	4293707	123.2	129.2	
2	3.020	3.037	-0.017	4375675	123.2	131.1	
						RPD = 1.47	
4 Ethylene							
1	1.834	1.788	0.046	4099995	114.9	116.4	
2	2.602	2.619	-0.017	3564990	114.9	115.1	
						RPD = 1.14	
5 Propane							a
1	2.635	2.533	0.102	6454074	180.6	179.2	a
2	4.927	4.933	-0.006	6084116	180.6	173.8	a
						RPD = 3.09	
6 Acetylene							a
1	4.210	4.043	0.167	2928029	106.7	104.1	a
2	2.750	2.767	-0.017	3621101	106.7	105.9	a
						RPD = 1.80	
7 Butane							
1	4.509	4.394	0.115	8304265	238.1	228.0	
2	6.427	6.432	-0.005	7781026	238.1	221.4	
						RPD = 2.92	
8 isobutylene							
1	5.409	5.298	0.111	7564069	229.8	209.4	
2	6.270	6.274	-0.004	6795186	229.8	204.7	
						RPD = 2.28	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

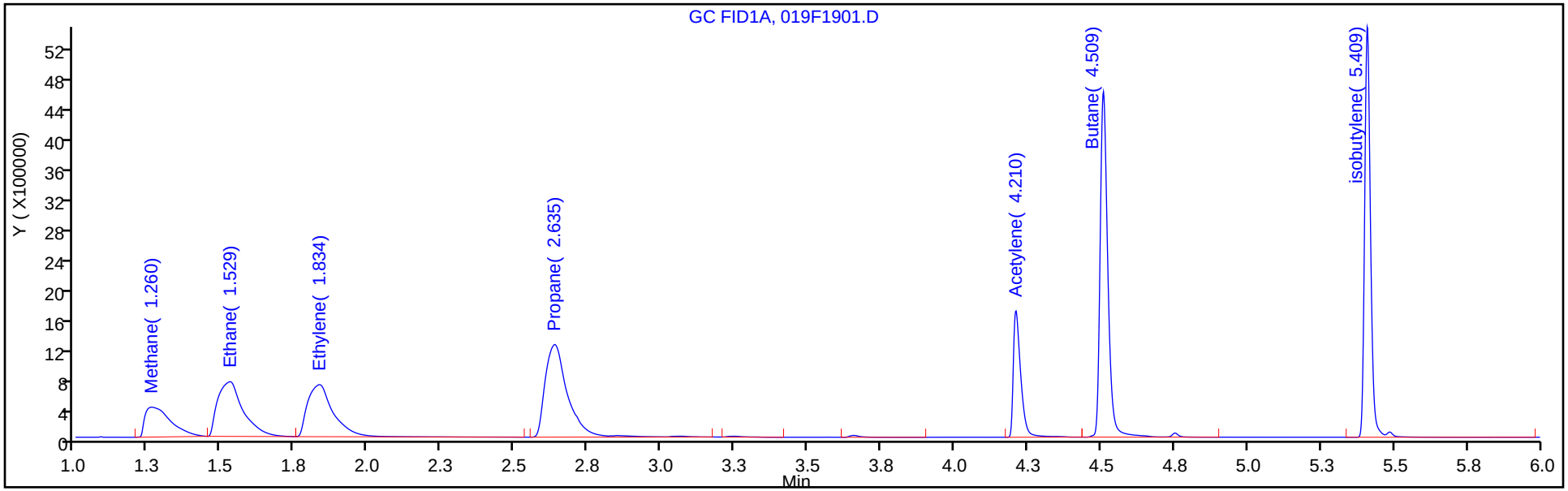
Report Date: 26-May-2022 12:12:33 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

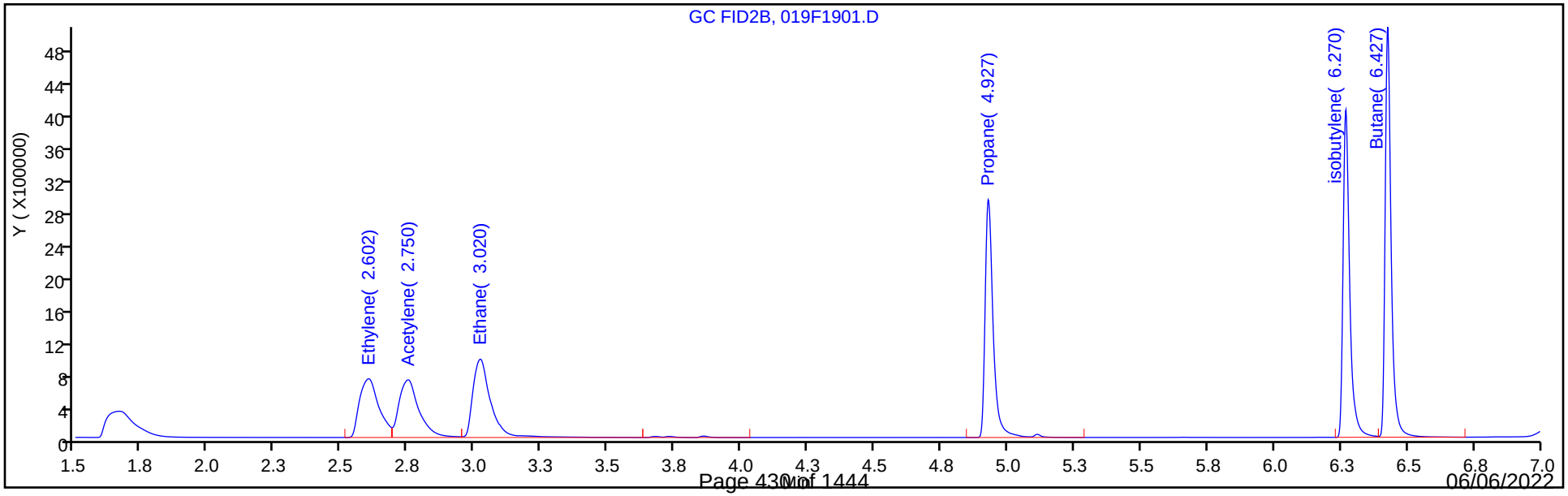
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\019F1901.D

Injection Date:	25-May-2022 20:43:17	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	75
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

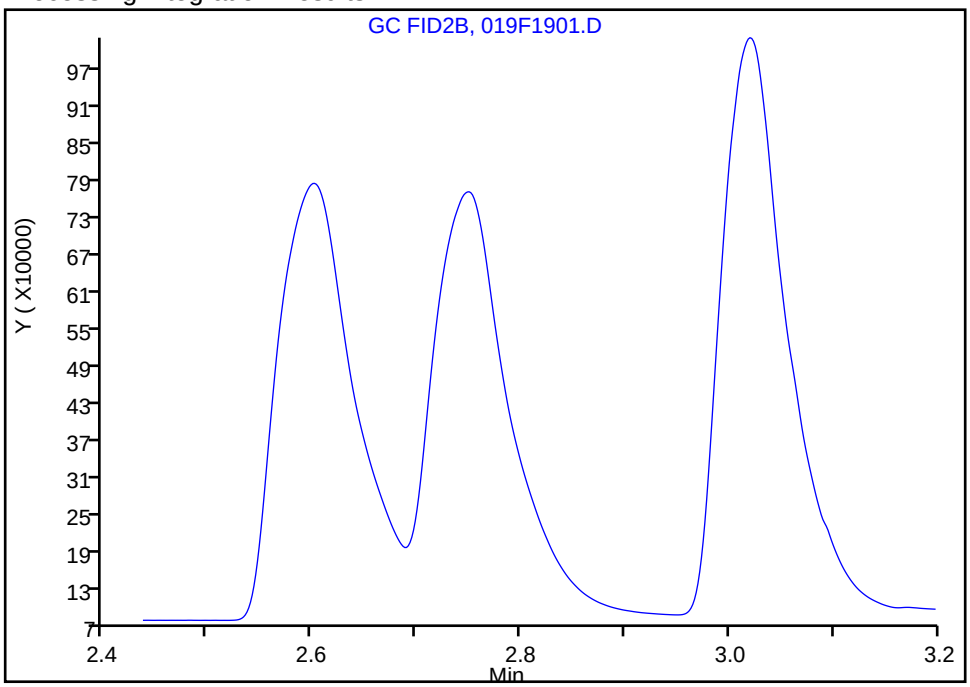
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\019F1901.D
Injection Date: 25-May-2022 20:43:17 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 19 Worklist Smp#: 75
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

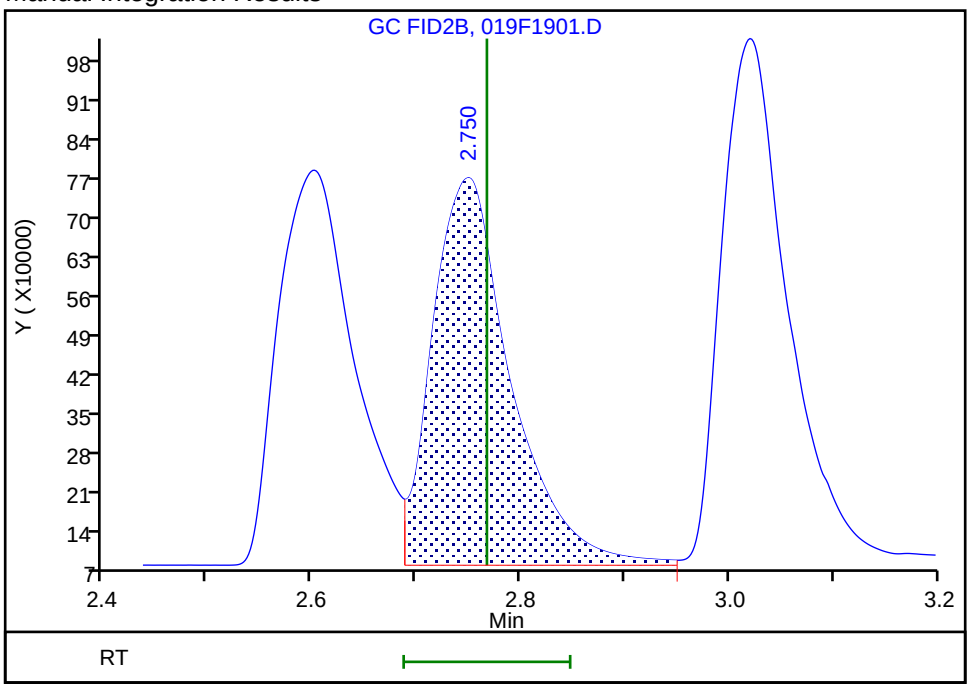
Not Detected
Expected RT: 2.77

Processing Integration Results



Manual Integration Results

RT: 2.75
Area: 3621101
Amount: 105.9458
Amount Units: ug/l



Reviewer: sciannac, 26-May-2022 11:04:31
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/89 Calibration Date: 05/25/2022 23:44

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 033F3301.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		36433		66.2	65.7	0.8	20.0
Ethane	Ave	33241	35368		131	123	6.4	20.0
Ethylene	Ave	35226	36092		118	115	2.5	20.0
Acetylene	Ave	28139	28133		107	107	-0.0	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/89 Calibration Date: 05/25/2022 23:44

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 033F3301.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.26	1.23	1.31
Ethane	1.53	1.47	1.57
Ethylene	1.83	1.74	1.84
Acetylene	4.21	3.96	4.12

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\033F3301.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 25-May-2022 23:44:41 ALS Bottle#: 33 Worklist Smp#: 89
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 27-May-2022 16:14:48 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1650

First Level Reviewer: sciannac Date: 27-May-2022 16:01:23

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.260	1.269	-0.009	2393789	65.7	66.2	
2	1.667	1.679	-0.012	2373888	65.7	64.0	
						RPD = 3.36	
3 Ethane							
1	1.529	1.521	0.008	4356309	123.2	131.1	
2	3.020	3.037	-0.017	4385618	123.2	131.4	
						RPD = 0.25	
4 Ethylene							
1	1.834	1.788	0.046	4146992	114.9	117.7	
2	2.602	2.619	-0.017	3612864	114.9	116.6	
						RPD = 0.94	
5 Propane							a
1	2.637	2.533	0.104	6493373	180.6	180.3	a
2	4.927	4.933	-0.006	6229947	180.6	177.9	a
						RPD = 1.33	
6 Acetylene							a
1	4.209	4.043	0.166	3000927	106.7	106.6	a
2	2.748	2.767	-0.019	3702513	106.7	108.3	a
						RPD = 1.56	
7 Butane							Ma
1	4.509	4.394	0.115	8592981	238.1	235.9	a
2	6.427	6.432	-0.005	8158564	238.1	232.2	M
						RPD = 1.60	
8 isobutylene							Ma
1	5.410	5.298	0.112	7884440	229.8	218.3	
2	6.270	6.274	-0.004	7088683	229.8	213.5	M
						RPD = 2.20	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

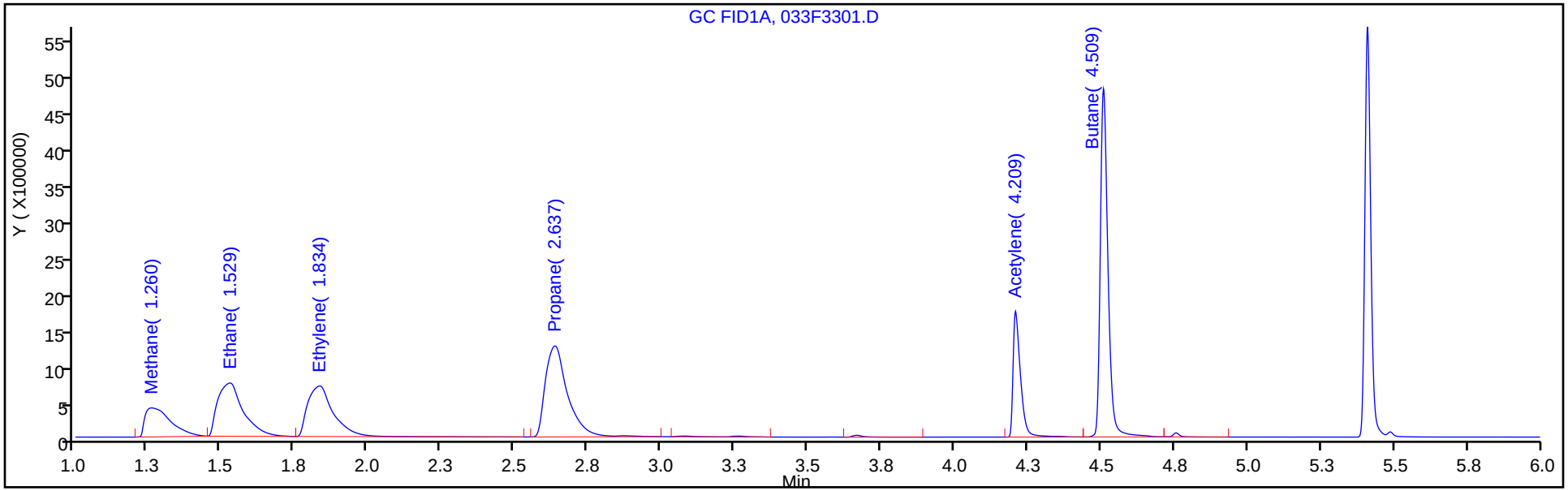
Report Date: 27-May-2022 16:14:48 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

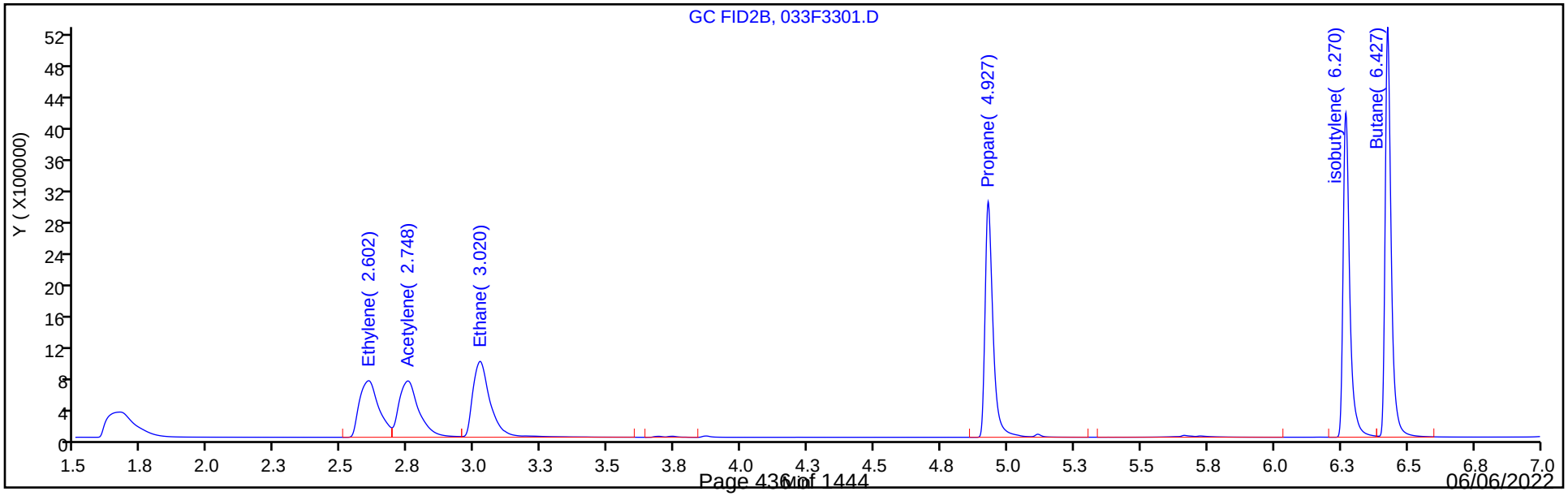
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\033F3301.D

Injection Date:	25-May-2022 23:44:41	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	89
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	33
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

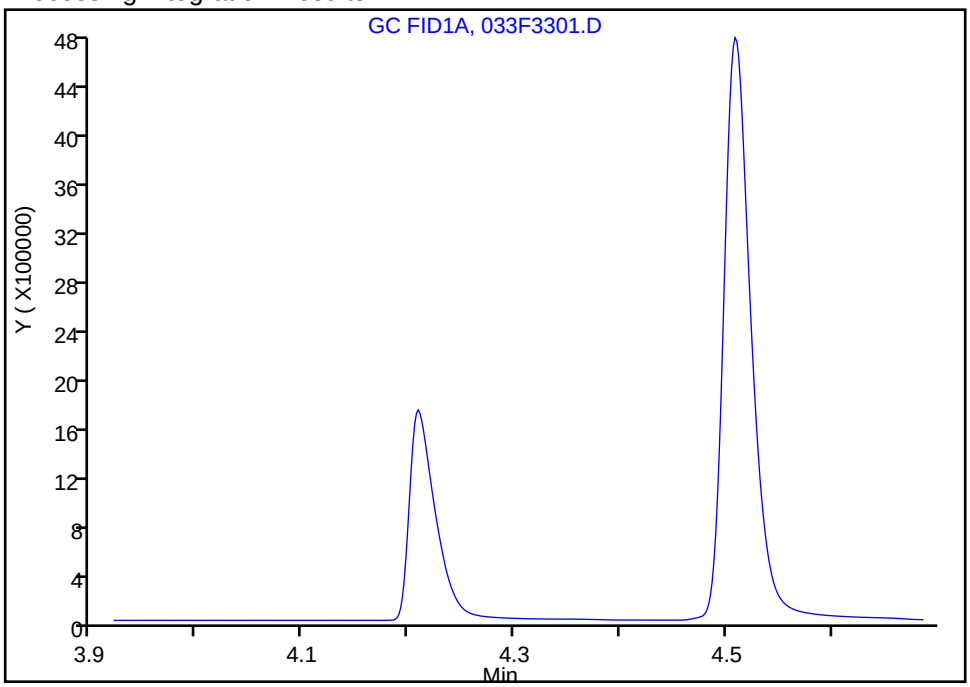
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\033F3301.D
Injection Date: 25-May-2022 23:44:41 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 33 Worklist Smp#: 89
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

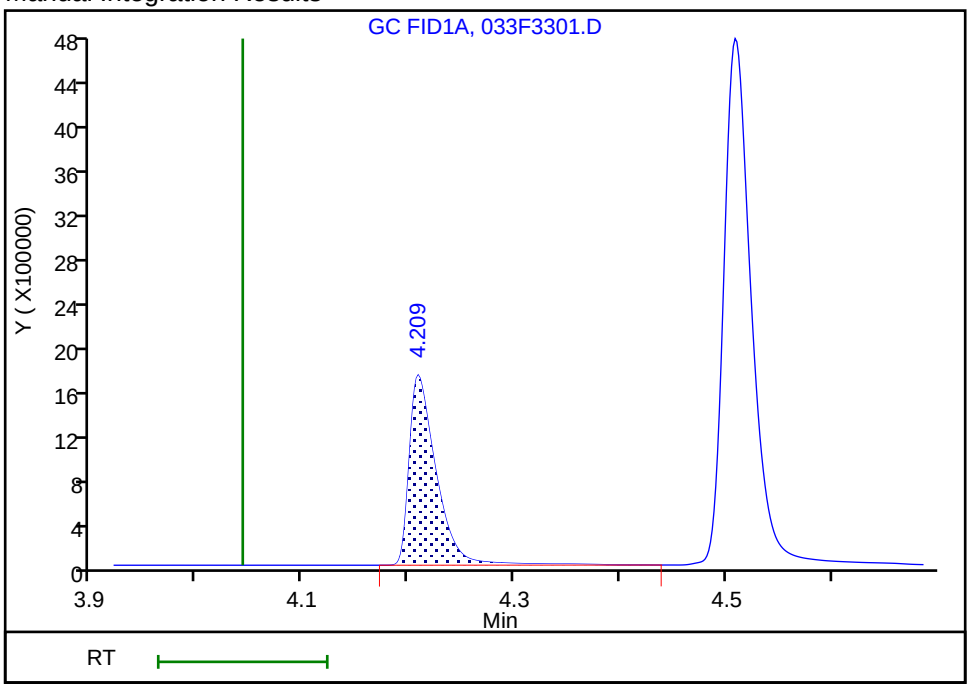
Not Detected
Expected RT: 4.04

Processing Integration Results



Manual Integration Results

RT: 4.21
Area: 3000927
Amount: 106.6465
Amount Units: ug/l



Reviewer: sciannac, 27-May-2022 16:01:03
Audit Action: Assigned Compound ID Audit Reason: Split Peak

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/89 Calibration Date: 05/25/2022 23:44

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 033F3301.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		36131		64.0	65.7	-2.6	20.0
Ethylene	Ave	30980	31444		117	115	1.5	20.0
Acetylene	Ave	34179	34710		108	107	1.6	20.0
Ethane	Ave	33383	35606		131	123	6.7	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/89 Calibration Date: 05/25/2022 23:44

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 033F3301.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.67	1.64	1.72
Ethylene	2.60	2.57	2.67
Acetylene	2.75	2.69	2.85
Ethane	3.02	2.99	3.09

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\033F3301.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 25-May-2022 23:44:41 ALS Bottle#: 33 Worklist Smp#: 89
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 27-May-2022 16:14:48 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1650

First Level Reviewer: sciannac Date: 27-May-2022 16:01:23

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.260	1.269	-0.009	2393789	65.7	66.2	
2	1.667	1.679	-0.012	2373888	65.7	64.0	
						RPD = 3.36	
3 Ethane							
1	1.529	1.521	0.008	4356309	123.2	131.1	
2	3.020	3.037	-0.017	4385618	123.2	131.4	
						RPD = 0.25	
4 Ethylene							
1	1.834	1.788	0.046	4146992	114.9	117.7	
2	2.602	2.619	-0.017	3612864	114.9	116.6	
						RPD = 0.94	
5 Propane							a
1	2.637	2.533	0.104	6493373	180.6	180.3	a
2	4.927	4.933	-0.006	6229947	180.6	177.9	a
						RPD = 1.33	
6 Acetylene							a
1	4.209	4.043	0.166	3000927	106.7	106.6	a
2	2.748	2.767	-0.019	3702513	106.7	108.3	a
						RPD = 1.56	
7 Butane							Ma
1	4.509	4.394	0.115	8592981	238.1	235.9	a
2	6.427	6.432	-0.005	8158564	238.1	232.2	M
						RPD = 1.60	
8 isobutylene							Ma
1	5.410	5.298	0.112	7884440	229.8	218.3	
2	6.270	6.274	-0.004	7088683	229.8	213.5	M
						RPD = 2.20	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

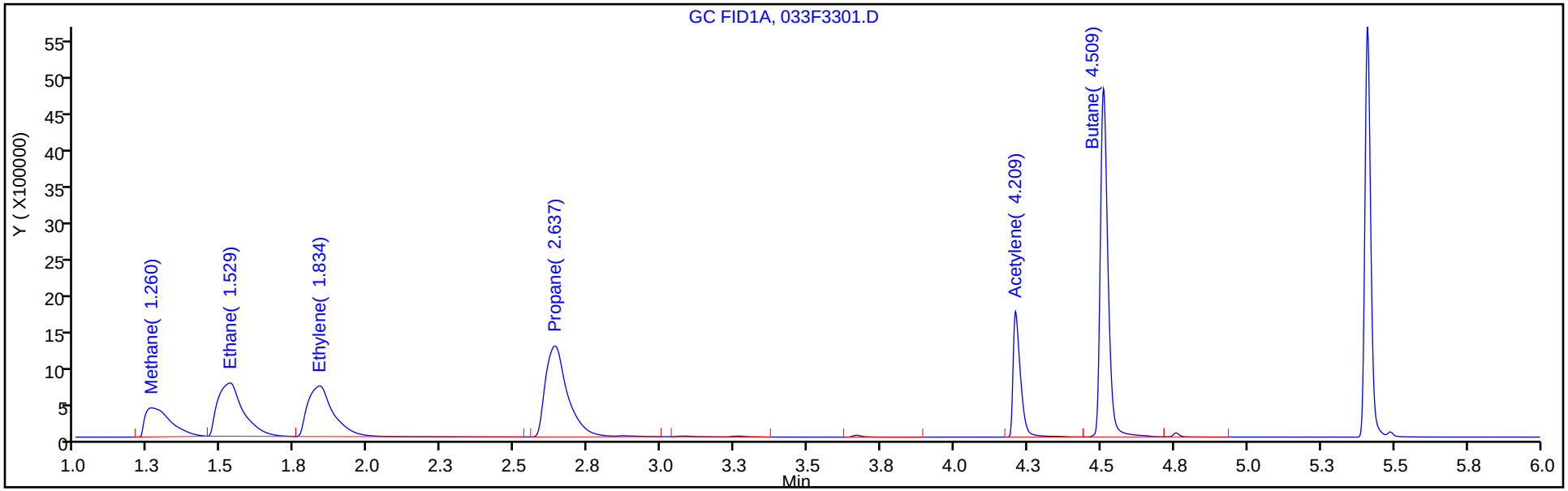
Report Date: 27-May-2022 16:14:48 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

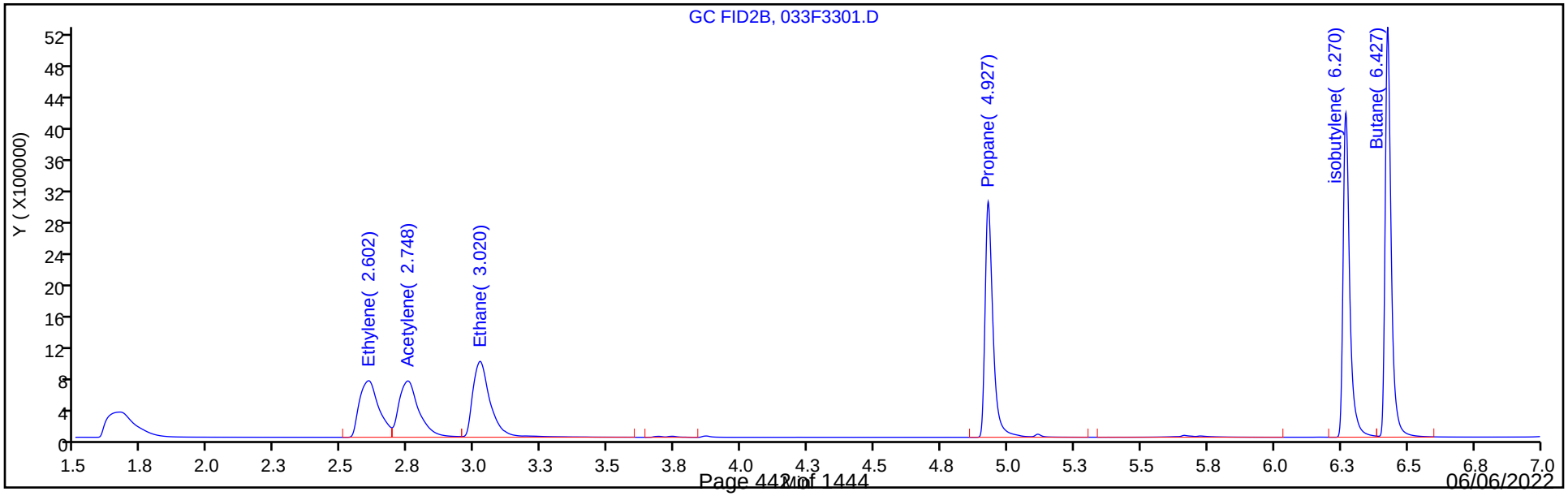
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\033F3301.D

Injection Date:	25-May-2022 23:44:41	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	89
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	33
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

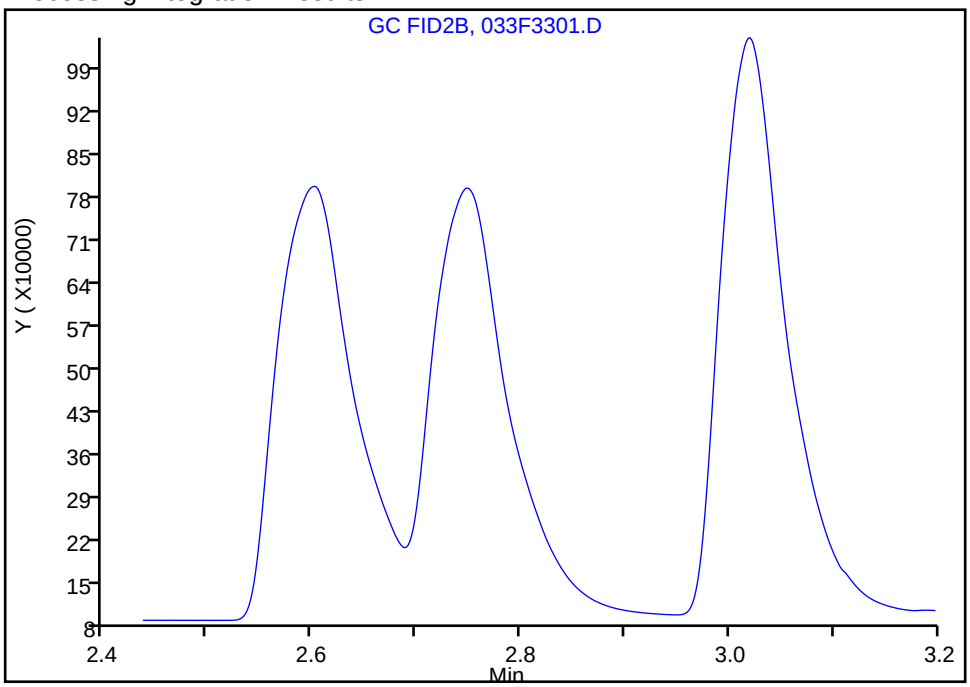
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\033F3301.D
Injection Date: 25-May-2022 23:44:41 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 33 Worklist Smp#: 89
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

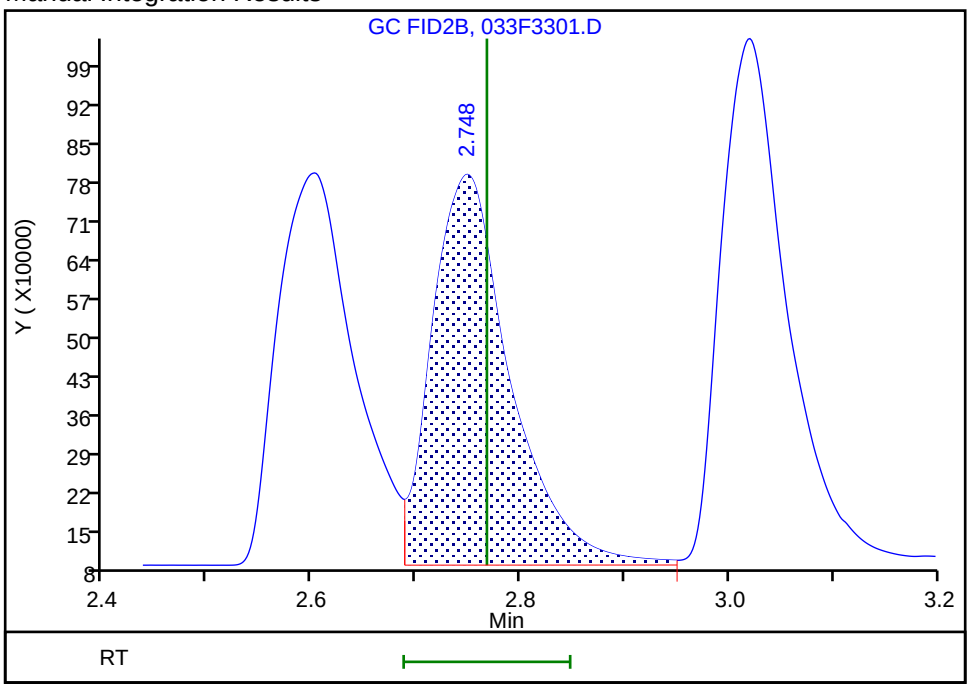
Not Detected
Expected RT: 2.77

Processing Integration Results



Manual Integration Results

RT: 2.75
Area: 3702513
Amount: 108.3278
Amount Units: ug/l



Reviewer: sciannac, 27-May-2022 16:00:59
Audit Action: Assigned Compound ID Audit Reason: Split Peak

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/106 Calibration Date: 05/26/2022 03:25

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 050F5001.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		36770		66.8	65.7	1.7	20.0
Ethane	Ave	33241	35937		133	123	8.1	20.0
Ethylene	Ave	35226	36475		119	115	3.5	20.0
Acetylene	Ave	28139	27894		106	107	-0.9	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/106 Calibration Date: 05/26/2022 03:25

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 050F5001.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.26	1.23	1.31
Ethane	1.53	1.47	1.57
Ethylene	1.84	1.74	1.84
Acetylene	4.21	3.96	4.12

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\050F5001.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 26-May-2022 03:25:11 ALS Bottle#: 50 Worklist Smp#: 106
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 09:32:39 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 09:31:53

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.263	1.269	-0.006	2415925	65.7	66.8	
2	1.673	1.679	-0.006	2400507	65.7	64.8	
						RPD = 3.16	
3 Ethane							
1	1.533	1.521	0.012	4426392	123.2	133.2	
2	3.026	3.037	-0.011	4454096	123.2	133.4	
						RPD = 0.20	
4 Ethylene							a
1	1.840	1.788	0.052	4190988	114.9	119.0	a
2	2.608	2.619	-0.011	3658647	114.9	118.1	a
						RPD = 0.74	
5 Propane							a
1	2.643	2.533	0.110	6651228	180.6	184.7	a
2	4.931	4.933	-0.002	6387740	180.6	182.4	a
						RPD = 1.23	
6 Acetylene							a
1	4.211	4.043	0.168	2975400	106.7	105.7	a
2	2.758	2.767	-0.009	3695209	106.7	108.1	a
						RPD = 2.22	
7 Butane							
1	4.513	4.394	0.119	8940030	238.1	245.5	
2	6.429	6.432	-0.003	8501999	238.1	242.0	
						RPD = 1.44	
8 isobutylene							
1	5.413	5.298	0.115	8114260	229.8	224.6	
2	6.273	6.274	-0.001	7309432	229.8	220.1	
						RPD = 2.01	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

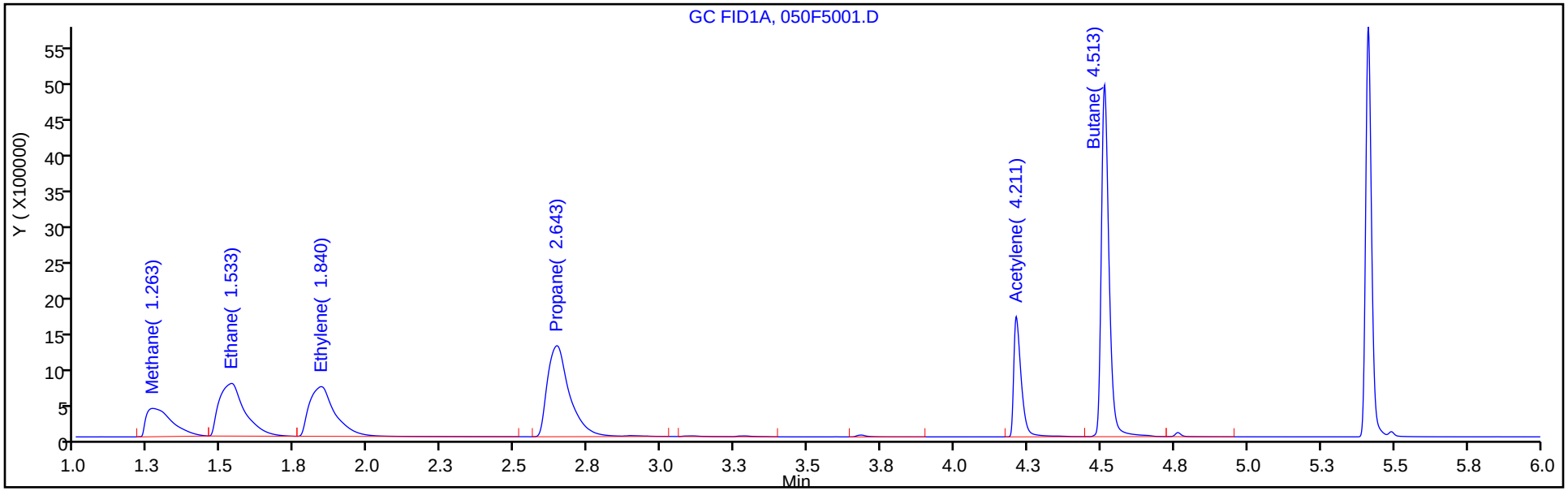
Report Date: 31-May-2022 09:32:40 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

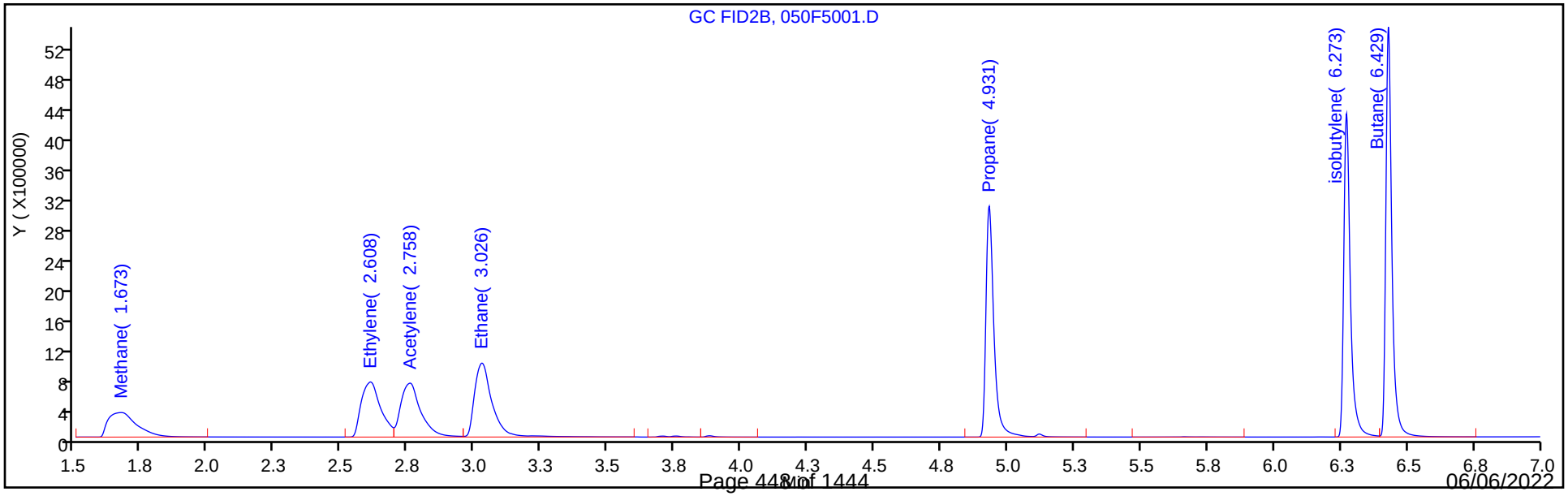
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\050F5001.D

Injection Date:	26-May-2022 03:25:11	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	106
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	50
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

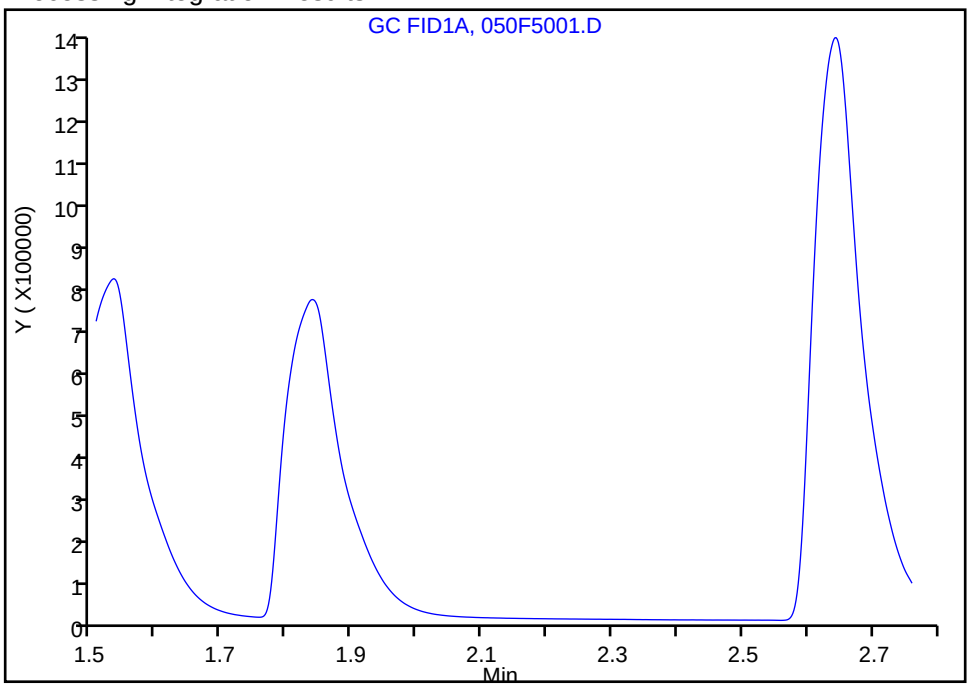
Data File:	\\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\050F5001.D				
Injection Date:	26-May-2022 03:25:11	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	50	Worklist Smp#:	106
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

4 Ethylene, CAS: 74-85-1

Signal: 1

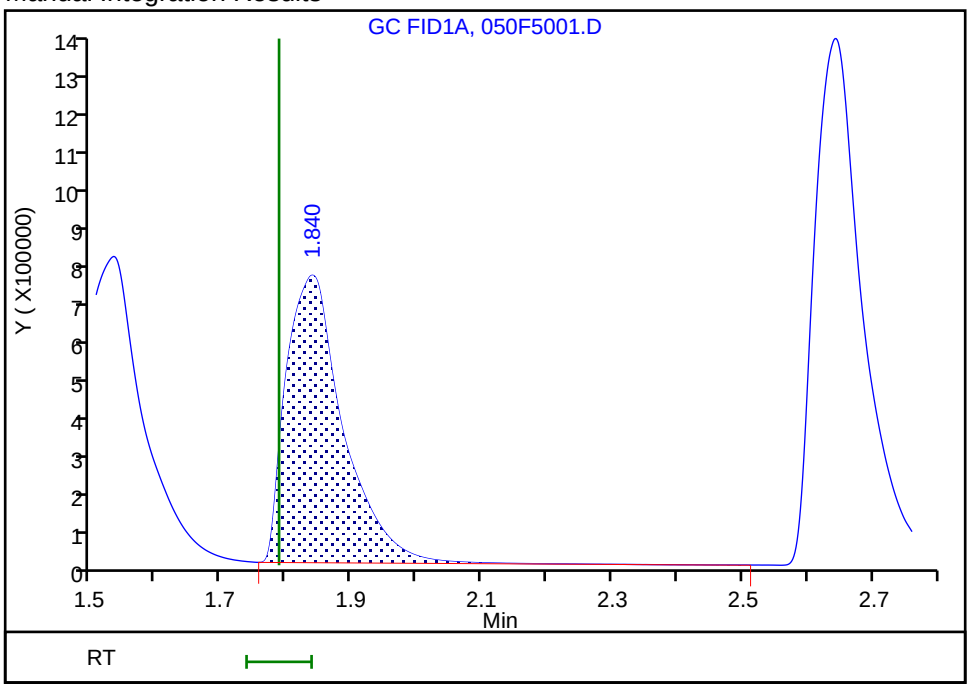
Not Detected
Expected RT: 1.79

Processing Integration Results



Manual Integration Results

RT: 1.84
Area: 4190988
Amount: 118.9744
Amount Units: ug/l



Reviewer: sciannac, 31-May-2022 09:31:36
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

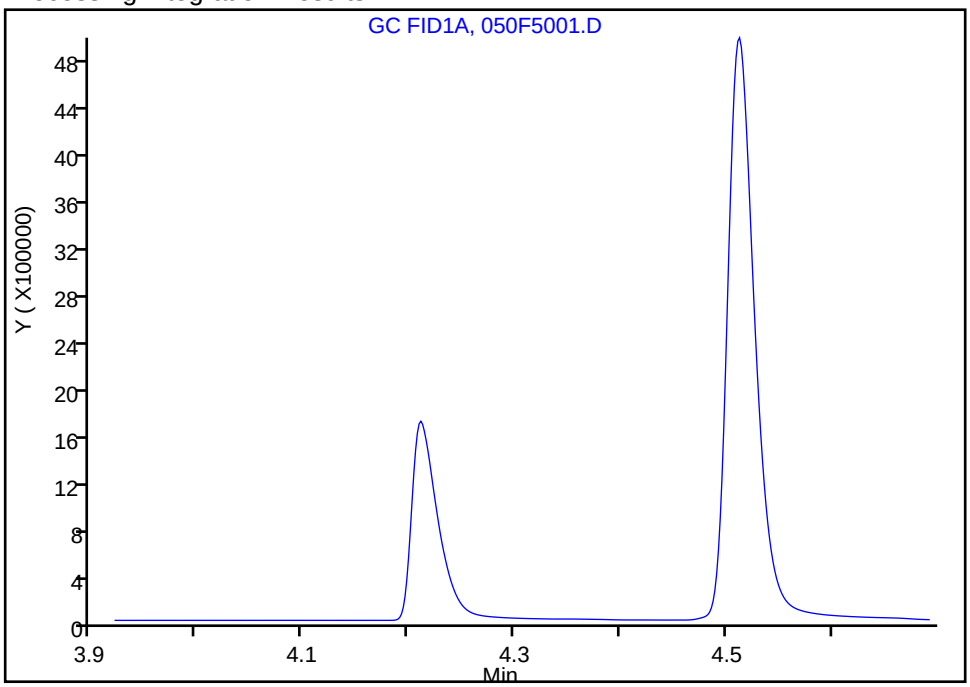
Data File:	\\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\050F5001.D				
Injection Date:	26-May-2022 03:25:11	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	50	Worklist Smp#:	106
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

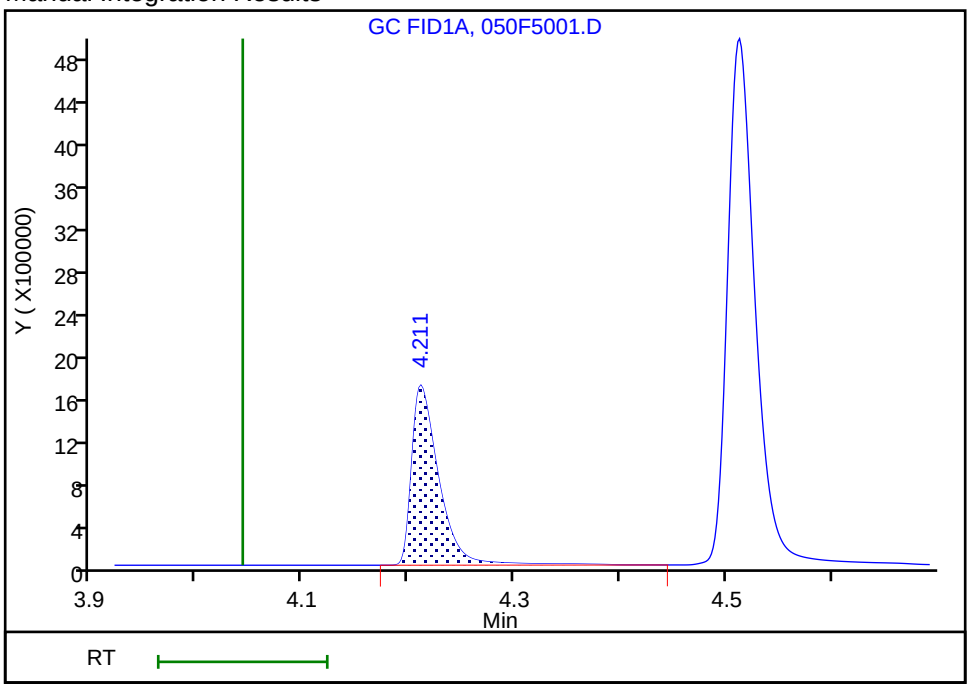
Not Detected
Expected RT: 4.04

Processing Integration Results



Manual Integration Results

RT: 4.21
Area: 2975400
Amount: 105.7393
Amount Units: ug/l



Reviewer: sciannac, 31-May-2022 09:31:45
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/106 Calibration Date: 05/26/2022 03:25

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 050F5001.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		36536		64.8	65.7	-1.4	20.0
Ethylene	Ave	30980	31842		118	115	2.8	20.0
Acetylene	Ave	34179	34642		108	107	1.4	20.0
Ethane	Ave	33383	36162		133	123	8.3	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/106 Calibration Date: 05/26/2022 03:25

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 050F5001.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.67	1.64	1.72
Ethylene	2.61	2.57	2.67
Acetylene	2.76	2.69	2.85
Ethane	3.03	2.99	3.09

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\050F5001.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 26-May-2022 03:25:11 ALS Bottle#: 50 Worklist Smp#: 106
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 09:32:39 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 09:31:53

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.263	1.269	-0.006	2415925	65.7	66.8	
2	1.673	1.679	-0.006	2400507	65.7	64.8	
						RPD = 3.16	
3 Ethane							
1	1.533	1.521	0.012	4426392	123.2	133.2	
2	3.026	3.037	-0.011	4454096	123.2	133.4	
						RPD = 0.20	
4 Ethylene							a
1	1.840	1.788	0.052	4190988	114.9	119.0	a
2	2.608	2.619	-0.011	3658647	114.9	118.1	a
						RPD = 0.74	
5 Propane							a
1	2.643	2.533	0.110	6651228	180.6	184.7	a
2	4.931	4.933	-0.002	6387740	180.6	182.4	a
						RPD = 1.23	
6 Acetylene							a
1	4.211	4.043	0.168	2975400	106.7	105.7	a
2	2.758	2.767	-0.009	3695209	106.7	108.1	a
						RPD = 2.22	
7 Butane							
1	4.513	4.394	0.119	8940030	238.1	245.5	
2	6.429	6.432	-0.003	8501999	238.1	242.0	
						RPD = 1.44	
8 isobutylene							
1	5.413	5.298	0.115	8114260	229.8	224.6	
2	6.273	6.274	-0.001	7309432	229.8	220.1	
						RPD = 2.01	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

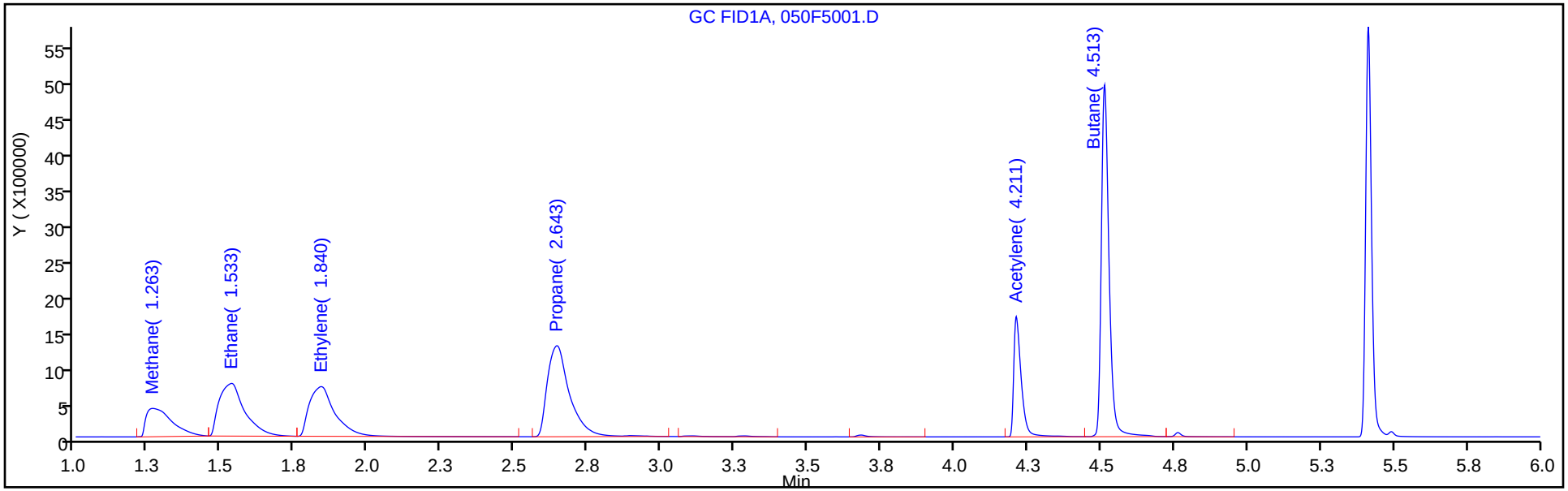
Report Date: 31-May-2022 09:32:40 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

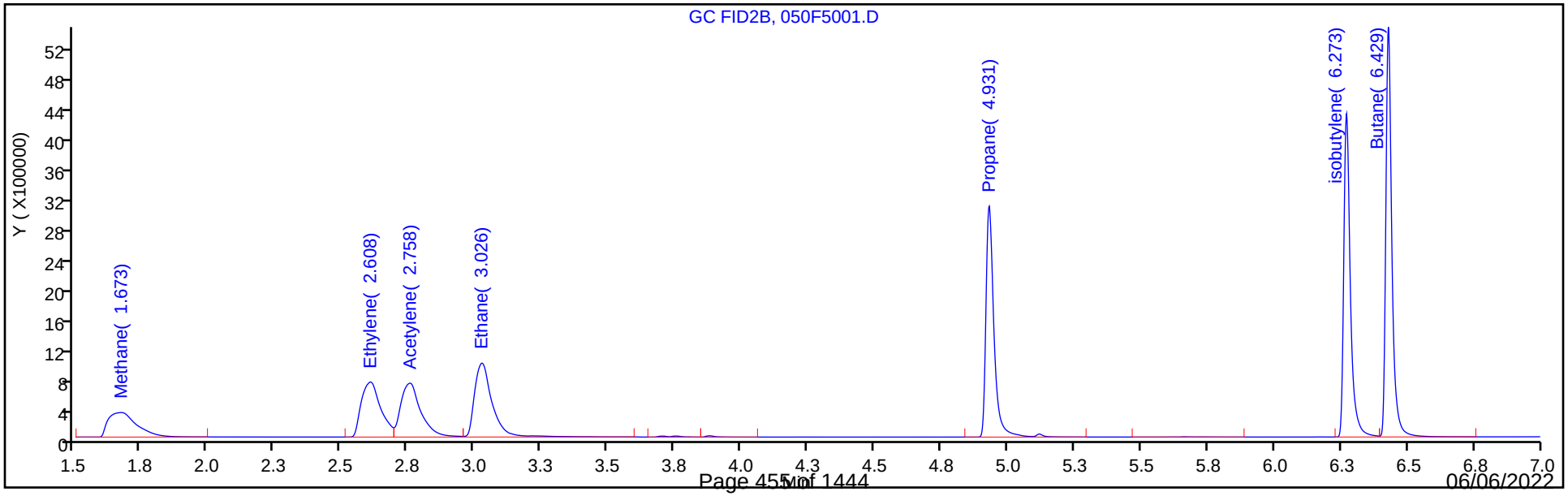
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\050F5001.D

Injection Date:	26-May-2022 03:25:11	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	106
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	50
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

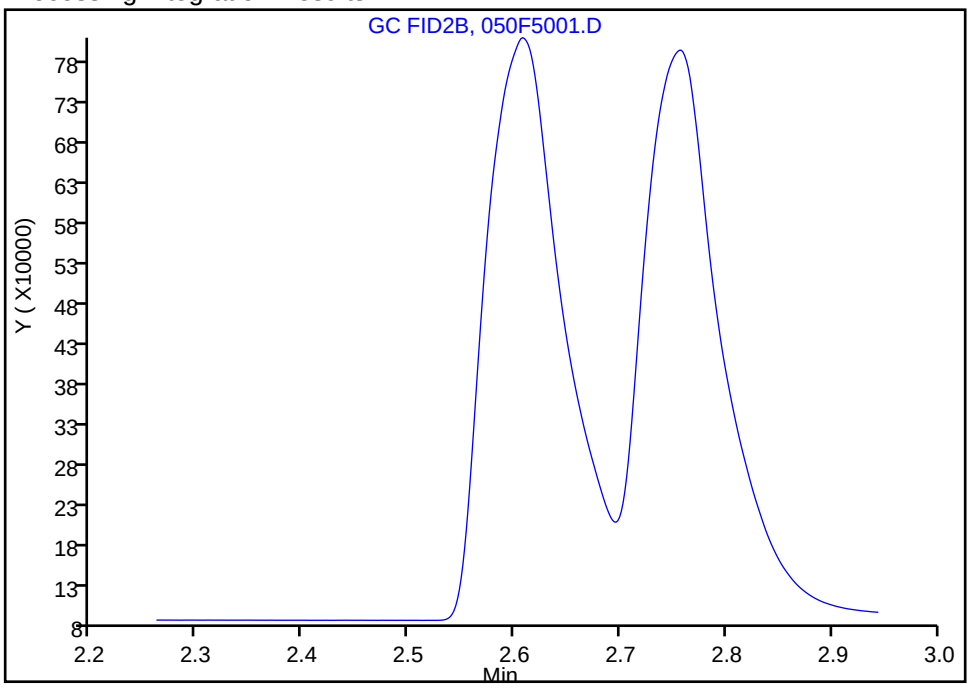
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\050F5001.D
Injection Date: 26-May-2022 03:25:11 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 50 Worklist Smp#: 106
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

4 Ethylene, CAS: 74-85-1

Signal: 2

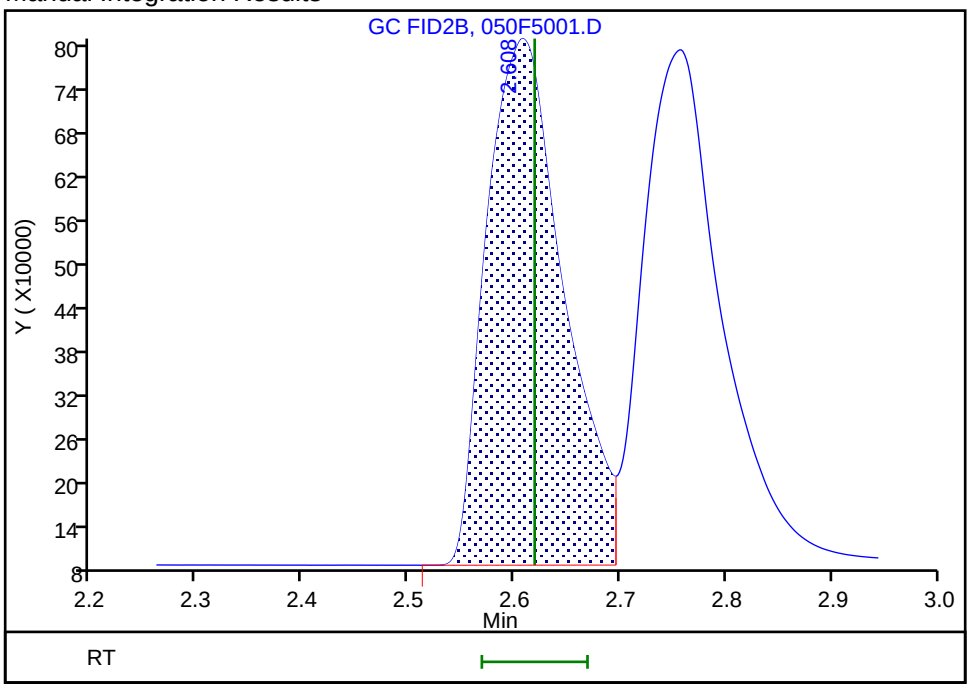
Not Detected
Expected RT: 2.62

Processing Integration Results



Manual Integration Results

RT: 2.61
Area: 3658647
Amount: 118.0960
Amount Units: ug/l



Reviewer: sciannac, 31-May-2022 09:31:38
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

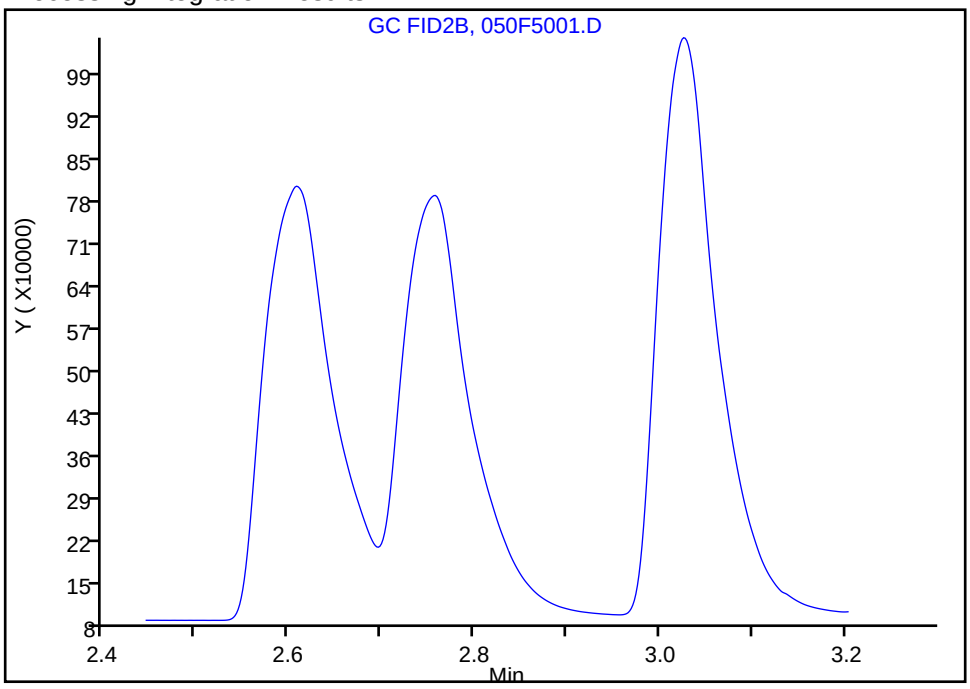
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\050F5001.D
Injection Date: 26-May-2022 03:25:11 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 50 Worklist Smp#: 106
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

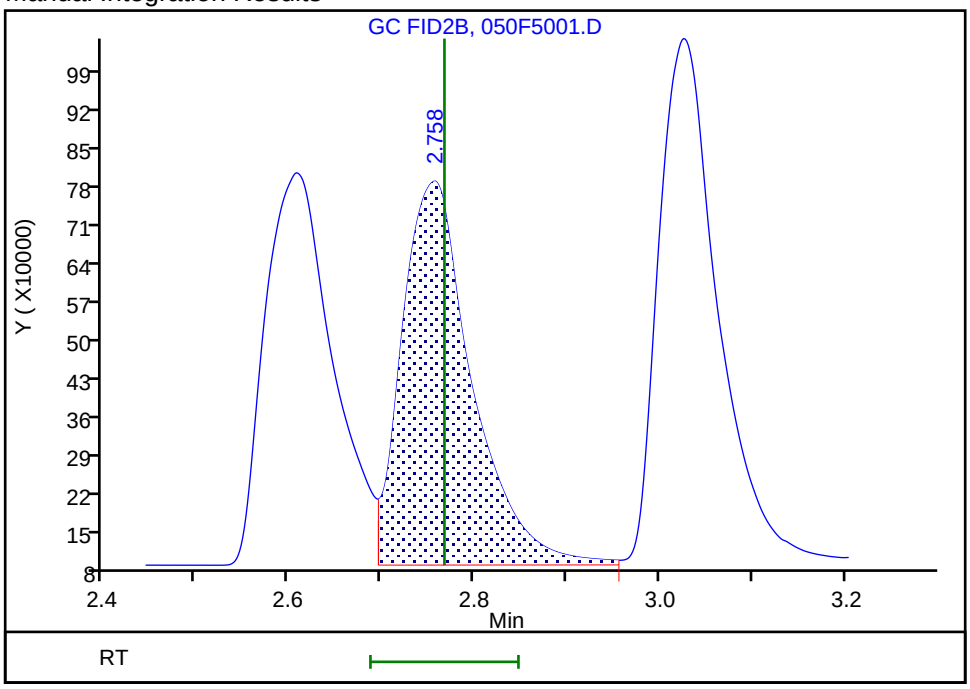
Not Detected
Expected RT: 2.77

Processing Integration Results



Manual Integration Results

RT: 2.76
Area: 3695209
Amount: 108.1141
Amount Units: ug/l



Reviewer: sciannac, 31-May-2022 09:31:48
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/120 Calibration Date: 05/26/2022 06:27

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 064F6401.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		33354		60.5	65.7	-8.0	20.0
Ethane	Ave	33241	33157		123	123	-0.3	20.0
Ethylene	Ave	35226	33575		110	115	-4.7	20.0
Acetylene	Ave	28139	26587		101	107	-5.5	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/120 Calibration Date: 05/26/2022 06:27

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 064F6401.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.26	1.23	1.31
Ethane	1.53	1.47	1.57
Ethylene	1.84	1.74	1.84
Acetylene	4.21	3.96	4.12

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\064F6401.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 26-May-2022 06:27:35 ALS Bottle#: 64 Worklist Smp#: 120
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:55 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 26-May-2022 10:47:53

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.260	1.269	-0.009	2191435	65.7	60.5	
2	1.668	1.679	-0.011	2175961	65.7	58.5	
						RPD = 3.22	
3 Ethane							
1	1.530	1.521	0.009	4083940	123.2	122.9	
2	3.022	3.037	-0.015	4050429	123.2	121.3	
						RPD = 1.25	
4 Ethylene							
1	1.835	1.788	0.047	3857773	114.9	109.5	
2	2.603	2.619	-0.016	3363160	114.9	108.6	
						RPD = 0.88	
5 Propane							a
1	2.639	2.533	0.106	6293352	180.6	174.8	a
2	4.928	4.933	-0.005	5897360	180.6	168.4	a
						RPD = 3.68	
6 Acetylene							a
1	4.207	4.043	0.164	2836027	106.7	100.8	a
2	2.750	2.767	-0.017	3461533	106.7	101.3	a
						RPD = 0.49	
7 Butane							Ma
1	4.510	4.394	0.116	8048454	238.1	221.0	a
2	6.427	6.432	-0.005	7603552	238.1	216.4	M
						RPD = 2.10	
8 isobutylene							Ma
1	5.410	5.298	0.112	7282901	229.8	201.6	
2	6.270	6.274	-0.004	6561790	229.8	197.6	M
						RPD = 1.99	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

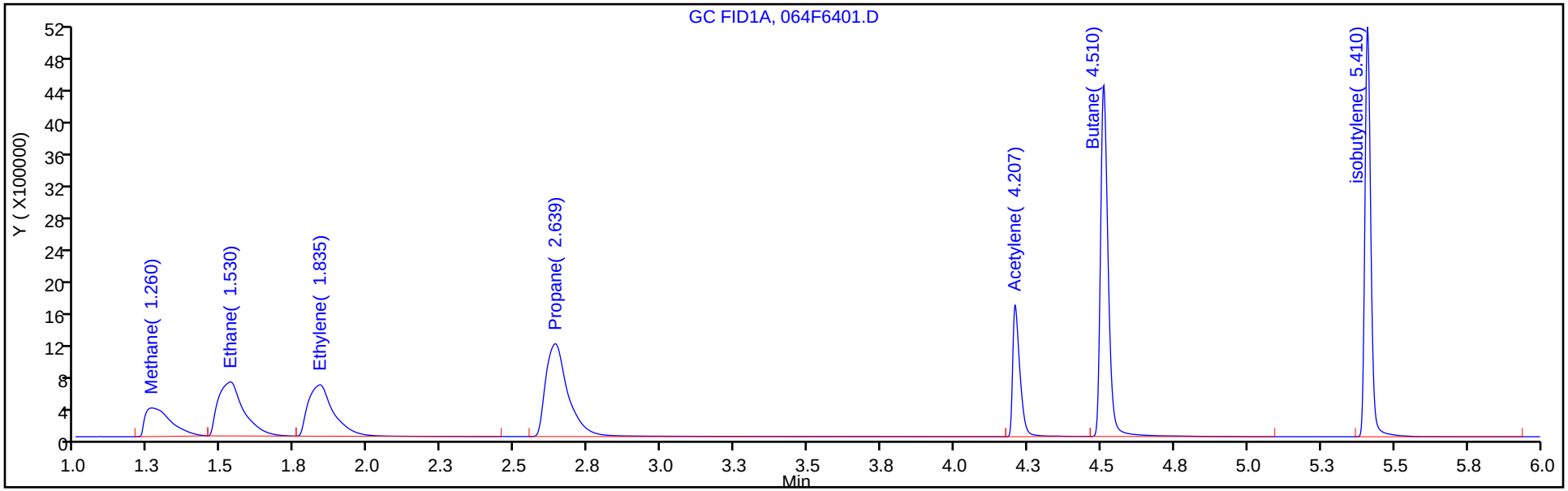
Report Date: 31-May-2022 14:05:55 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

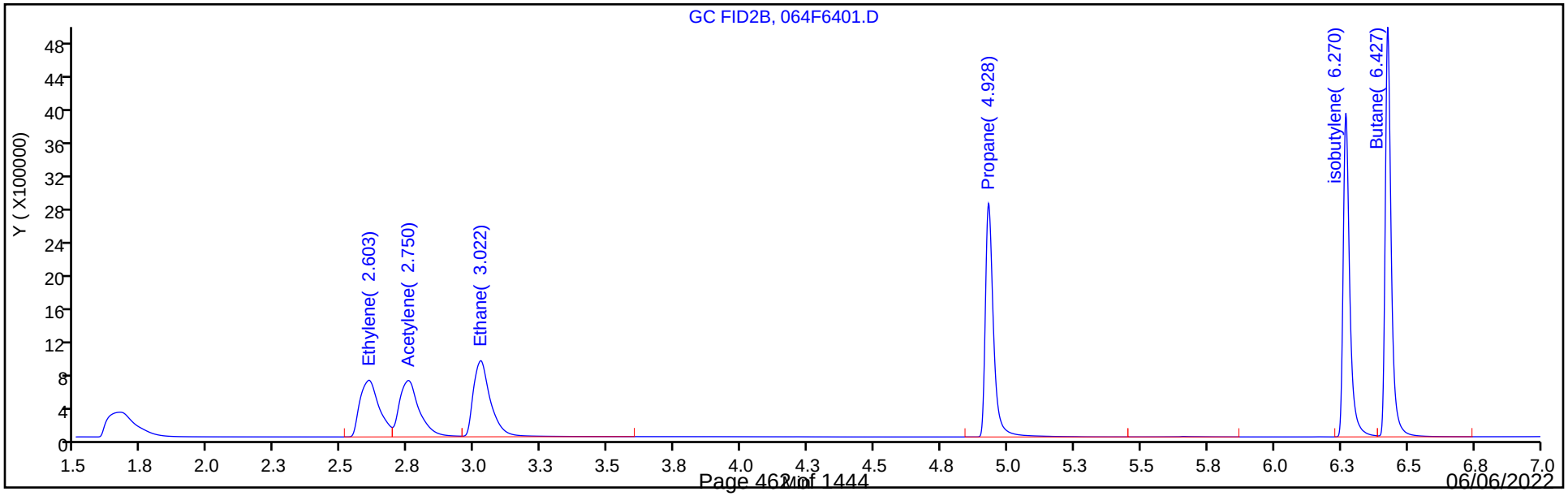
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\064F6401.D

Injection Date:	26-May-2022 06:27:35	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	120
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	64
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

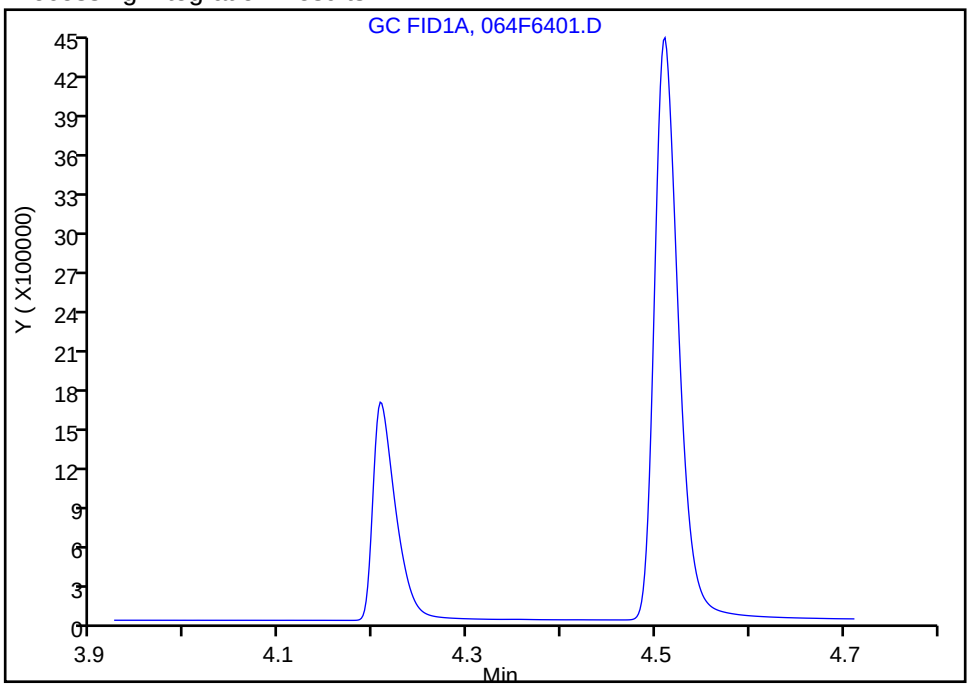
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\064F6401.D
Injection Date: 26-May-2022 06:27:35 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 64 Worklist Smp#: 120
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

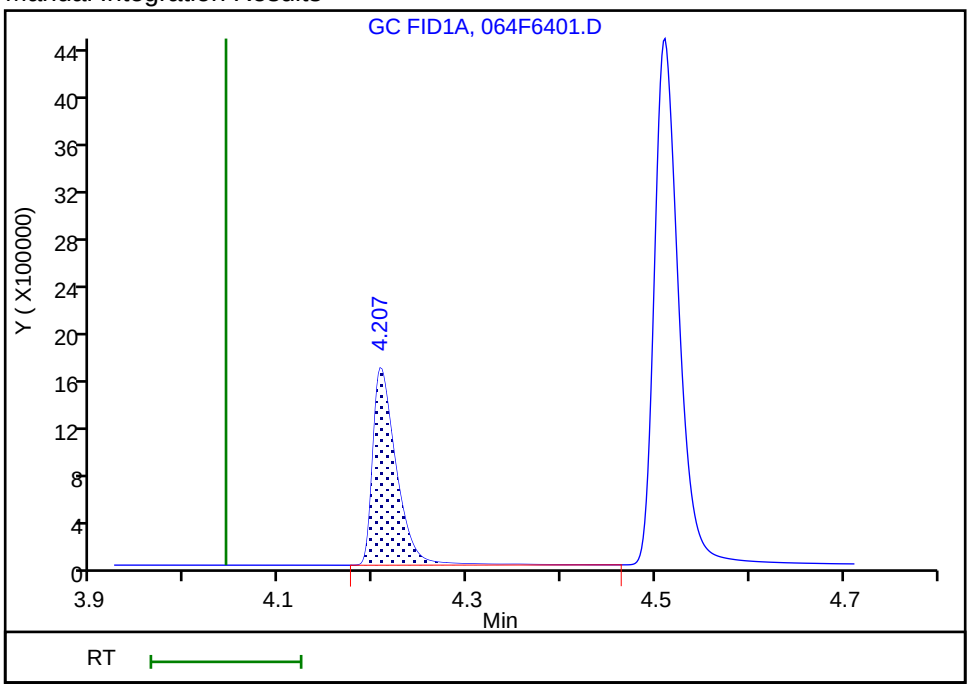
Not Detected
Expected RT: 4.04

Processing Integration Results



Manual Integration Results

RT: 4.21
Area: 2836027
Amount: 100.7863
Amount Units: ug/l



Reviewer: sciannac, 26-May-2022 10:47:16
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/120 Calibration Date: 05/26/2022 06:27

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 064F6401.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		33118		58.5	65.7	-10.9	20.0
Ethylene	Ave	30980	29270		109	115	-5.5	20.0
Acetylene	Ave	34179	32451		101	107	-5.1	20.0
Ethane	Ave	33383	32885		121	123	-1.5	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-576170/120 Calibration Date: 05/26/2022 06:27

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 064F6401.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.67	1.64	1.72
Ethylene	2.60	2.57	2.67
Acetylene	2.75	2.69	2.85
Ethane	3.02	2.99	3.09

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\064F6401.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 26-May-2022 06:27:35 ALS Bottle#: 64 Worklist Smp#: 120
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:55 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 26-May-2022 10:47:53

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.260	1.269	-0.009	2191435	65.7	60.5	
2	1.668	1.679	-0.011	2175961	65.7	58.5	
						RPD = 3.22	
3 Ethane							
1	1.530	1.521	0.009	4083940	123.2	122.9	
2	3.022	3.037	-0.015	4050429	123.2	121.3	
						RPD = 1.25	
4 Ethylene							
1	1.835	1.788	0.047	3857773	114.9	109.5	
2	2.603	2.619	-0.016	3363160	114.9	108.6	
						RPD = 0.88	
5 Propane							a
1	2.639	2.533	0.106	6293352	180.6	174.8	a
2	4.928	4.933	-0.005	5897360	180.6	168.4	a
						RPD = 3.68	
6 Acetylene							a
1	4.207	4.043	0.164	2836027	106.7	100.8	a
2	2.750	2.767	-0.017	3461533	106.7	101.3	a
						RPD = 0.49	
7 Butane							Ma
1	4.510	4.394	0.116	8048454	238.1	221.0	a
2	6.427	6.432	-0.005	7603552	238.1	216.4	M
						RPD = 2.10	
8 isobutylene							Ma
1	5.410	5.298	0.112	7282901	229.8	201.6	
2	6.270	6.274	-0.004	6561790	229.8	197.6	M
						RPD = 1.99	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

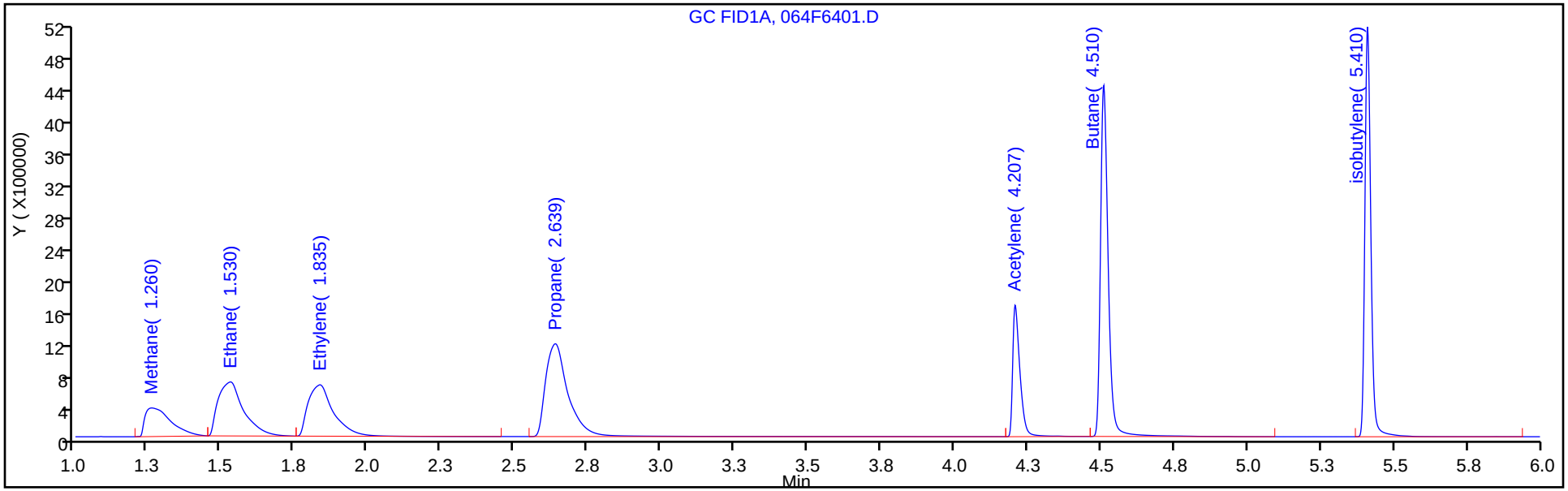
Report Date: 31-May-2022 14:05:55 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

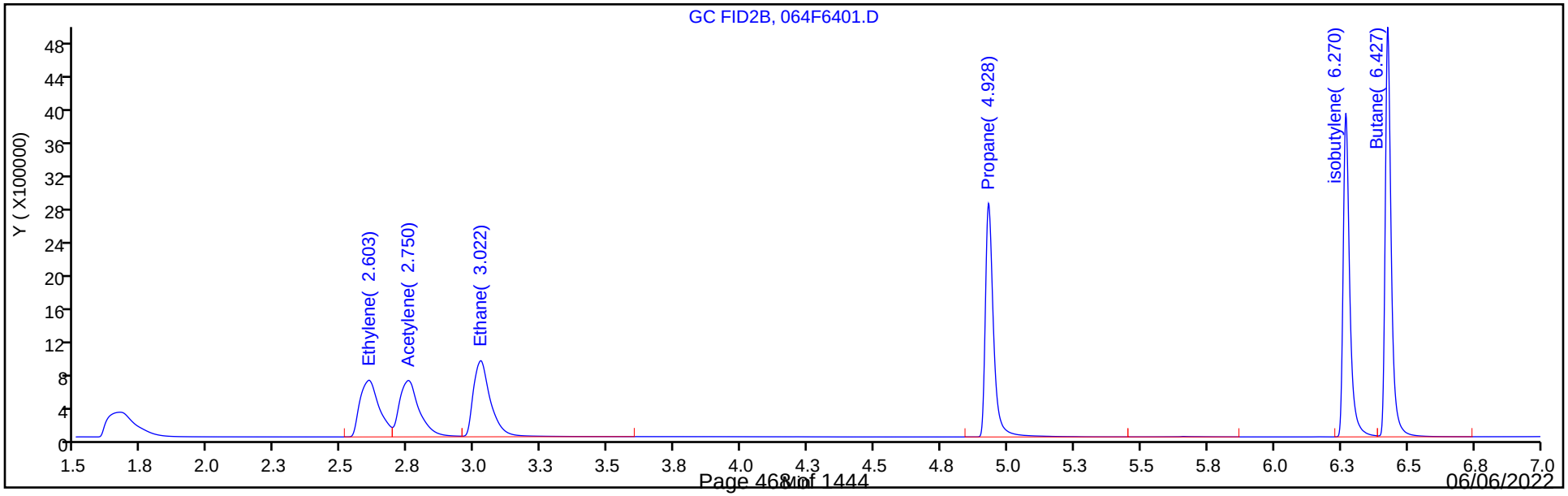
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\064F6401.D

Injection Date:	26-May-2022 06:27:35	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	120
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	64
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

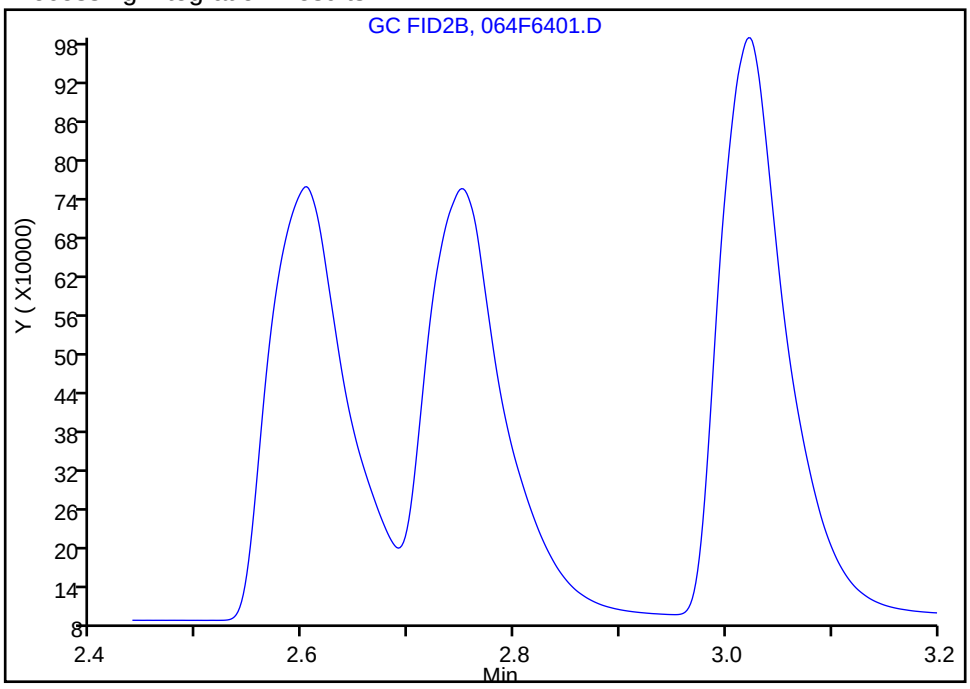
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\064F6401.D
Injection Date: 26-May-2022 06:27:35 Instrument ID: VGC_J
Lims ID: ccv
Client ID:
Operator ID: sciannac ALS Bottle#: 64 Worklist Smp#: 120
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

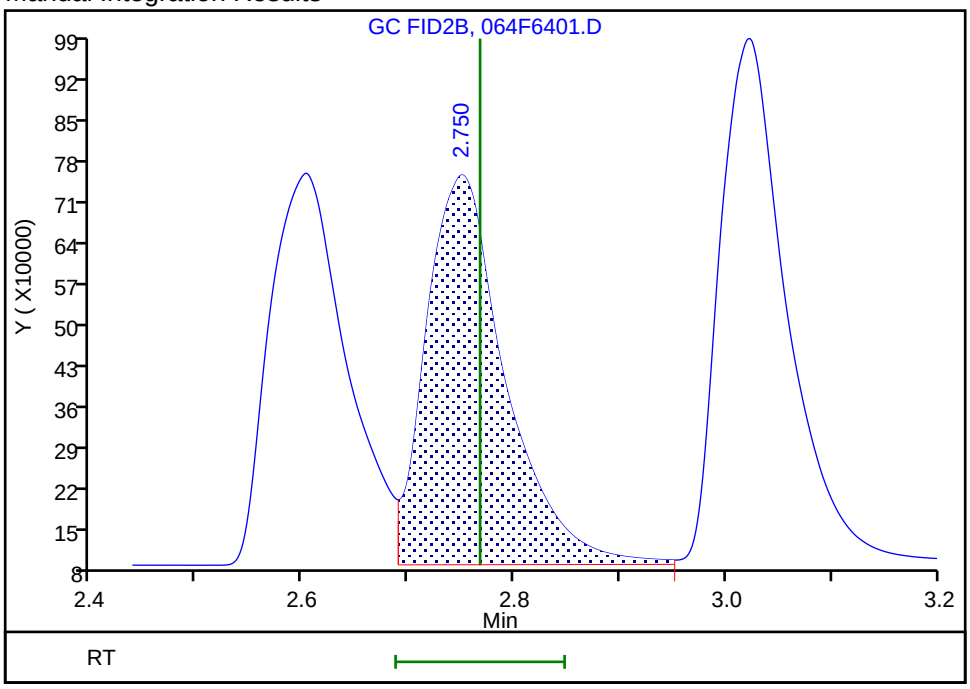
Not Detected
Expected RT: 2.77

Processing Integration Results



Manual Integration Results

RT: 2.75
Area: 3461533
Amount: 101.2772
Amount Units: ug/l



Reviewer: sciannac, 26-May-2022 10:47:18
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-576169/5

Matrix: Water | Lab File ID: 005F0501.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/25/2022 17:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH: 5.0

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576169 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0013	U	0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\005F0501.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 25-May-2022 17:42:02 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: mb
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 26-May-2022 11:09:49 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: sciannac Date: 26-May-2022 10:54:04

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane							
1		4.362				ND	
2		5.458					
2 Methane							7
1		1.269				ND	
2		1.679					
3 Ethane							
1		1.521				ND	
2		3.037					
4 Ethylene							
1		1.788				ND	
2		2.619					
5 Propane							
1		2.533				ND	
2		4.933					
6 Acetylene							
1		4.043				ND	
2		2.767					
7 Butane							
1		4.394				ND	
2		6.432					
8 isobutylene							
1		5.298				ND	
2		6.274					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

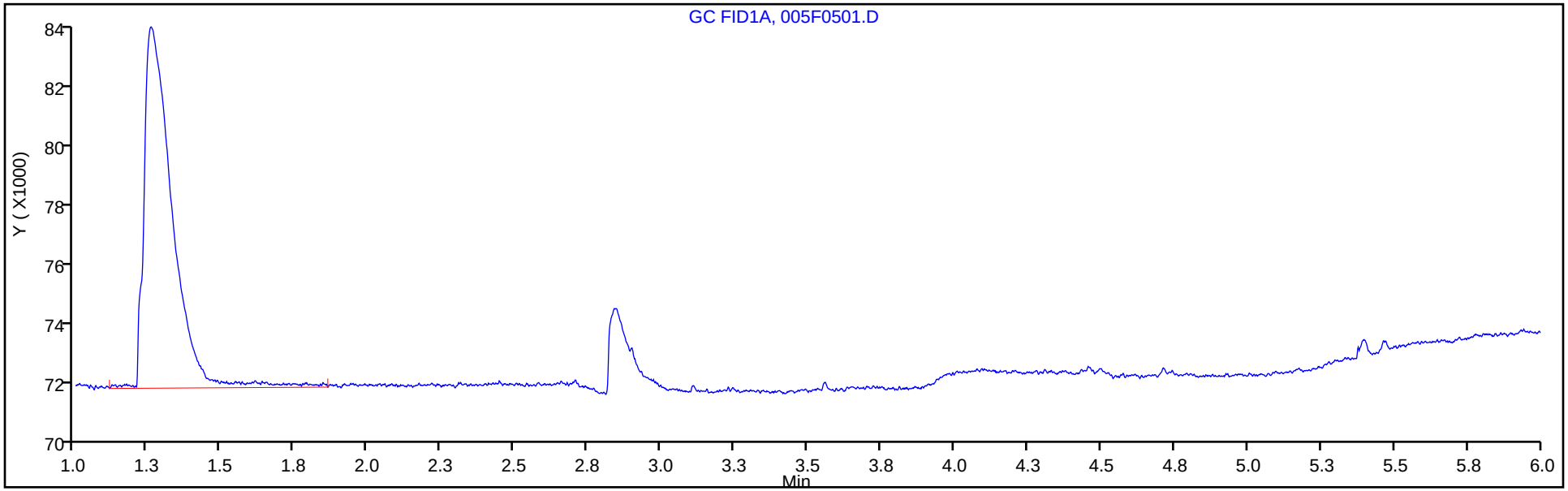
Report Date: 26-May-2022 11:09:58 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

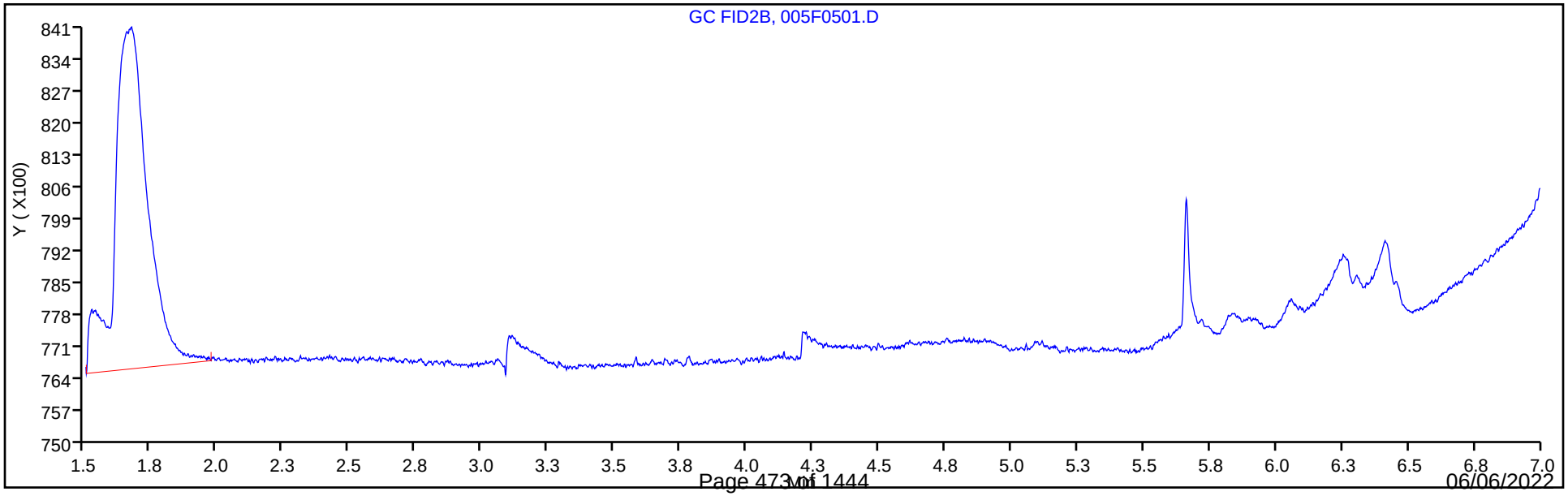
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\005F0501.D

Injection Date:	25-May-2022 17:42:02	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	mb			Worklist Smp#:	5
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-576170/92

Matrix: Water | Lab File ID: 036F3601.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 00:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH: 5.0

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0013	U M	0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\036F3601.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 26-May-2022 00:23:30 ALS Bottle#: 36 Worklist Smp#: 92
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: mb
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 27-May-2022 16:14:48 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1650

First Level Reviewer: sciannac Date: 27-May-2022 16:05:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane							
1		4.362				ND	
2		5.458					
2 Methane							7a
1	1.255	1.269	-0.014	78413		0.3717	a
2	1.598	1.679	-0.081	53678		-0.2481	a
						RPD = 1002.82	
LOD = 0.6300							
3 Ethane							
1		1.521				ND	
2		3.037					
4 Ethylene							
1		1.788				ND	
2		2.619					
5 Propane							
1		2.533				ND	
2		4.933					
6 Acetylene							
1		4.043				ND	
2		2.767					
7 Butane							
1		4.394				ND	
2		6.432					
8 isobutylene							
1		5.298				ND	
2		6.274					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

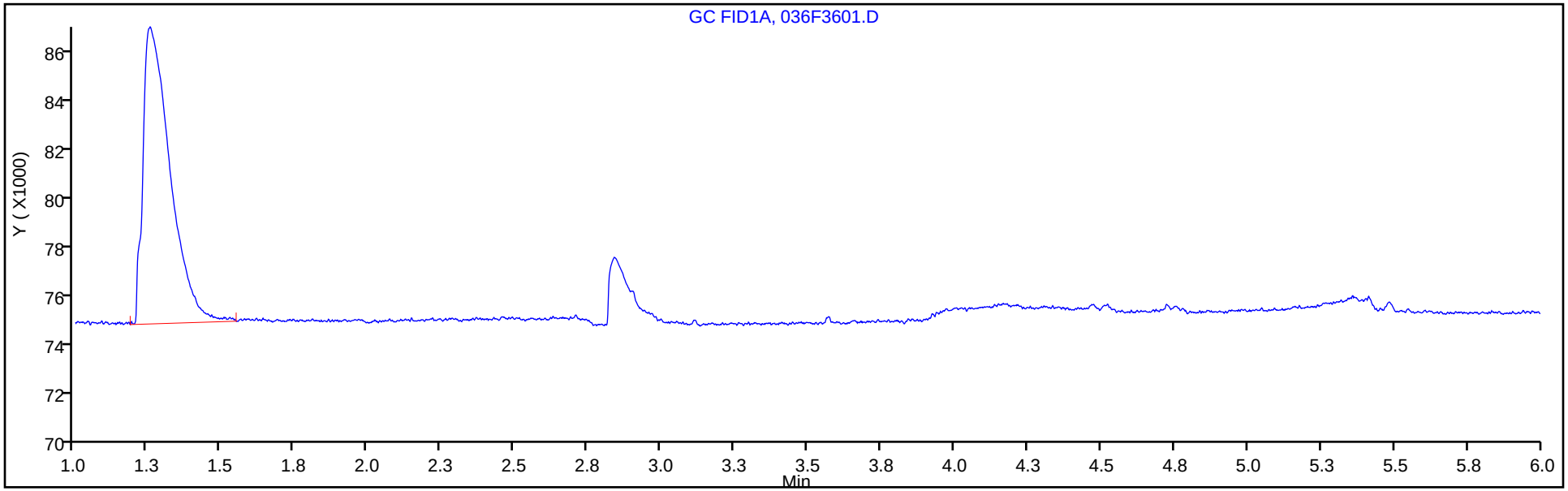
Report Date: 27-May-2022 16:14:50 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

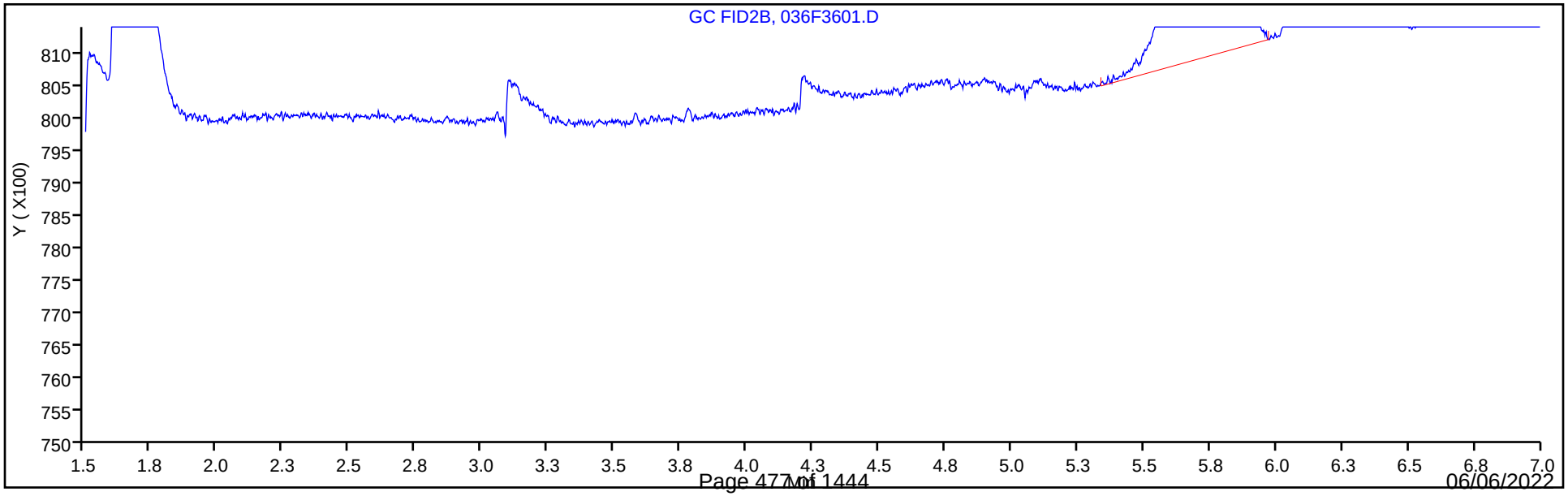
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\036F3601.D

Injection Date:	26-May-2022 00:23:30	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	mb			Worklist Smp#:	92
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	36
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

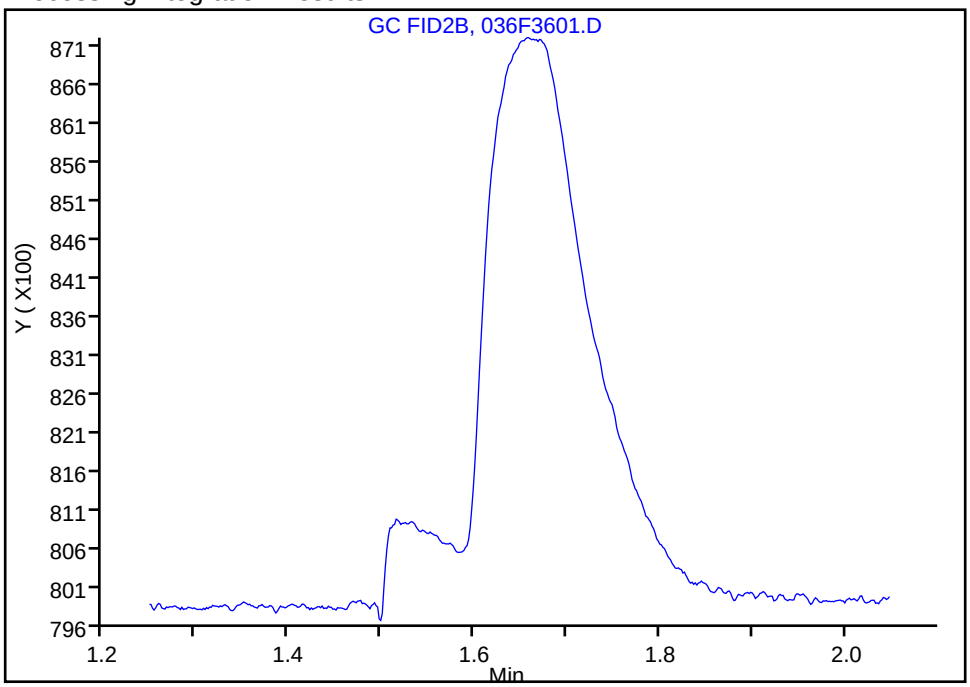
Data File:	\\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\036F3601.D				
Injection Date:	26-May-2022 00:23:30	Instrument ID:	VGC_J		
Lims ID:	mb				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	36	Worklist Smp#:	92
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

2 Methane, CAS: 74-82-8

Signal: 2

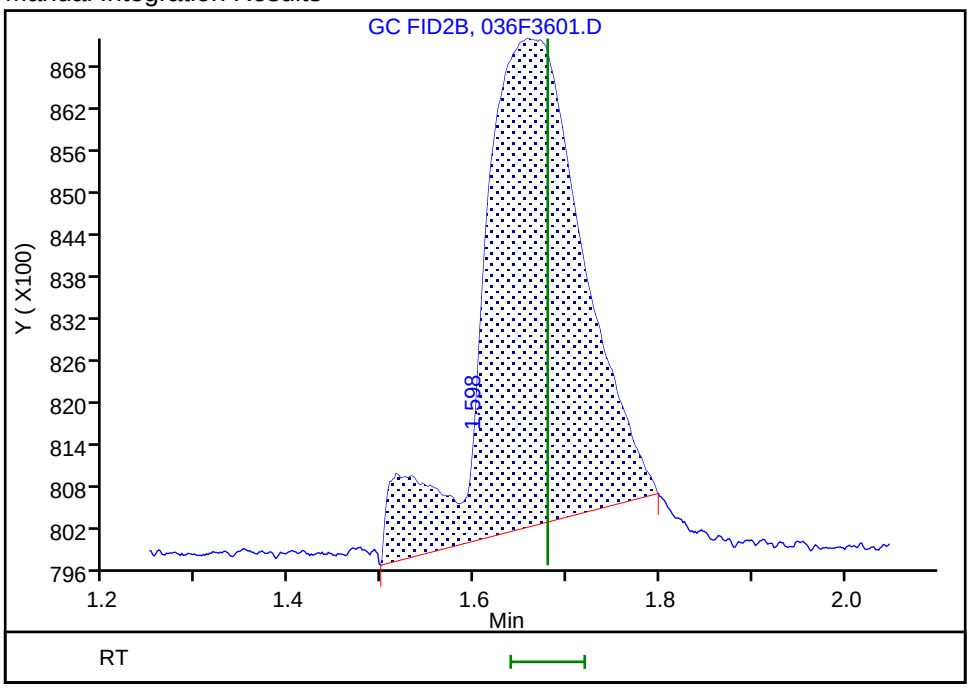
Not Detected
Expected RT: 1.68

Processing Integration Results



Manual Integration Results

RT: 1.60
Area: 53678
Amount: -0.248062
Amount Units: ug/l



Reviewer: sciannac, 27-May-2022 16:05:06
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-576169/3

Matrix: Water | Lab File ID: 003F0301.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/25/2022 17:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH: 5.0

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576169 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0634		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\003F0301.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 25-May-2022 17:16:13 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 26-May-2022 11:09:49 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: sciannac Date: 26-May-2022 10:53:45

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.268	1.269	-0.001	2343537	65.7	64.8	
2	1.677	1.679	-0.002	2352342	65.7	63.4	
						RPD = 2.11	
3 Ethane							
1	1.526	1.521	0.005	4284544	123.2	128.9	
2	3.034	3.037	-0.003	4401687	123.2	131.9	
						RPD = 2.27	
4 Ethylene							
1	1.808	1.788	0.020	4092737	114.9	116.2	
2	2.616	2.619	-0.003	3592704	114.9	116.0	
						RPD = 0.19	
5 Propane							
1	2.578	2.533	0.045	6480771	180.6	180.0	
2	4.932	4.933	-0.001	6201756	180.6	177.1	
						RPD = 1.59	
6 Acetylene							
1	4.133	4.043	0.090	3020949	106.7	107.4	
2	2.762	2.767	-0.005	3721066	106.7	108.9	
						RPD = 1.40	
7 Butane							Ma
1	4.451	4.394	0.057	8735560	238.1	239.8	a
2	6.431	6.432	-0.001	8188940	238.1	233.0	M
						RPD = 2.88	
8 isobutylene							Ma
1	5.353	5.298	0.055	7938996	229.8	219.8	
2	6.272	6.274	-0.002	7145693	229.8	215.2	M
						RPD = 2.09	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

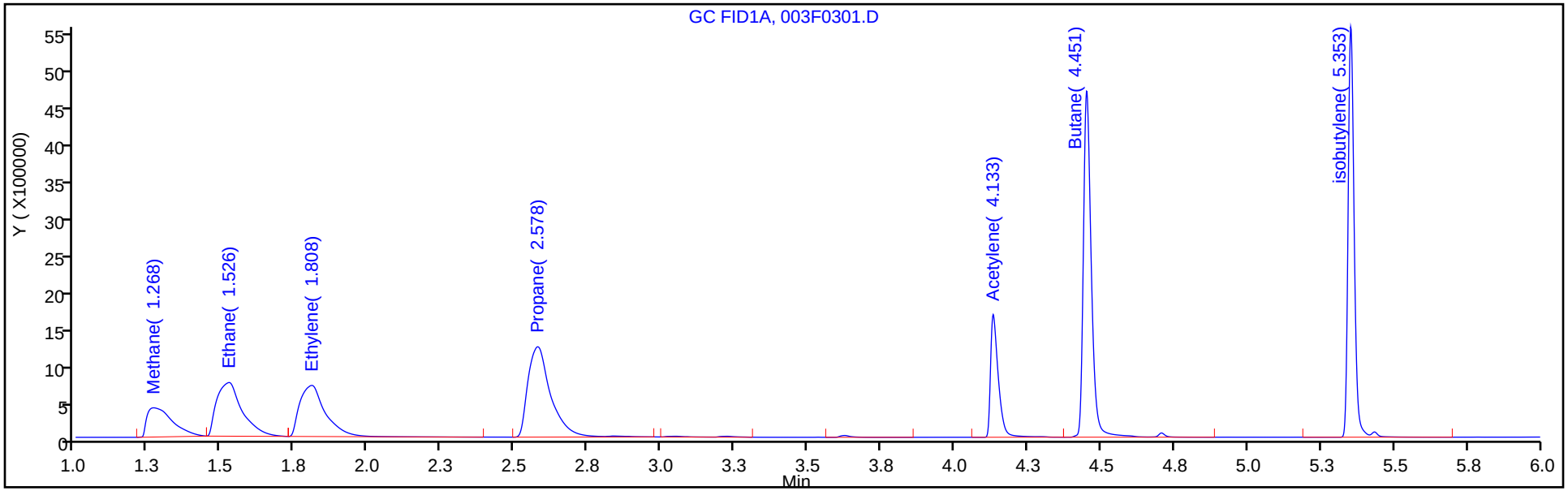
Report Date: 26-May-2022 11:09:59 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

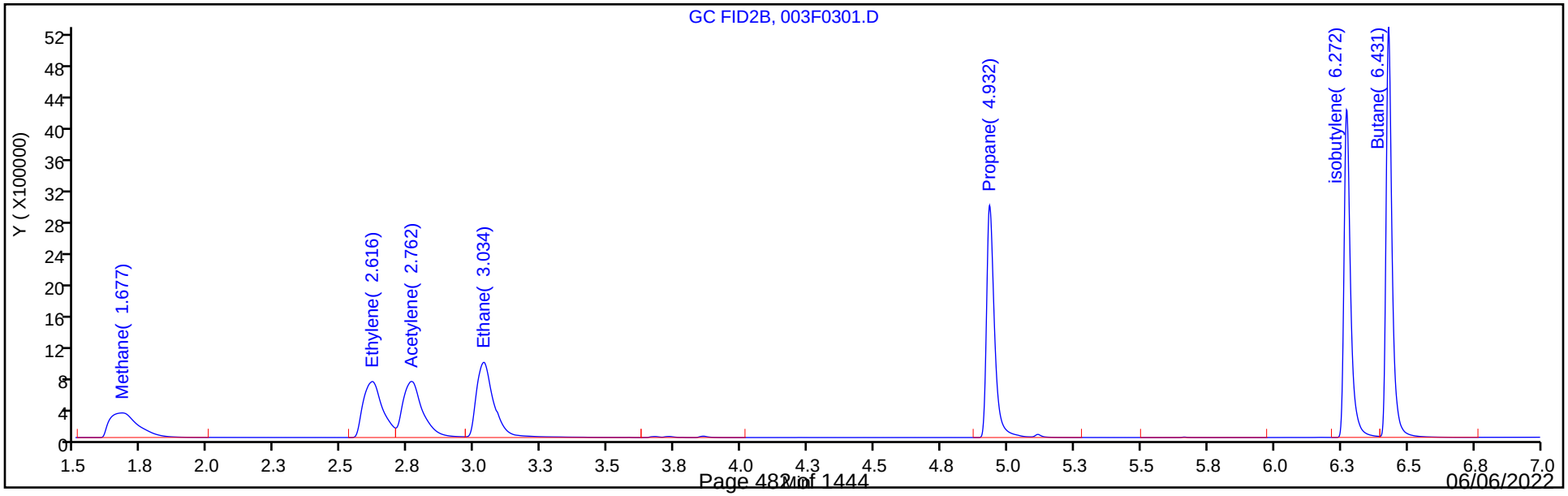
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\003F0301.D

Injection Date:	25-May-2022 17:16:13	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	lcs			Worklist Smp#:	3
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-576170/90

Matrix: Water Lab File ID: 034F3401.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/25/2022 23:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH: 5.0

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 576170 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0651		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\034F3401.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 25-May-2022 23:57:38 ALS Bottle#: 34 Worklist Smp#: 90
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 27-May-2022 16:14:48 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1650

First Level Reviewer: sciannac Date: 27-May-2022 16:02:37

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.260	1.269	-0.009	2434034	65.7	67.3	
2	1.667	1.679	-0.012	2411825	65.7	65.1	
						RPD = 3.44	
3 Ethane							
1	1.529	1.521	0.008	4476393	123.2	134.7	
2	3.022	3.037	-0.015	4520873	123.2	135.4	
						RPD = 0.56	
4 Ethylene							
1	1.835	1.788	0.047	4250196	114.9	120.7	
2	2.602	2.619	-0.017	3699782	114.9	119.4	
						RPD = 1.03	
5 Propane							a
1	2.639	2.533	0.106	6735883	180.6	187.1	a
2	4.927	4.933	-0.006	6452725	180.6	184.3	a
						RPD = 1.48	
6 Acetylene							a
1	4.209	4.043	0.166	3028375	106.7	107.6	a
2	2.750	2.767	-0.017	3747946	106.7	109.7	a
						RPD = 1.87	
7 Butane							Ma
1	4.509	4.394	0.115	9163304	238.1	251.6	a
2	6.425	6.432	-0.007	8593408	238.1	244.6	M
						RPD = 2.83	
8 isobutylene							Ma
1	5.410	5.298	0.112	8284428	229.8	229.3	
2	6.268	6.274	-0.006	7451152	229.8	224.4	M
						RPD = 2.17	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

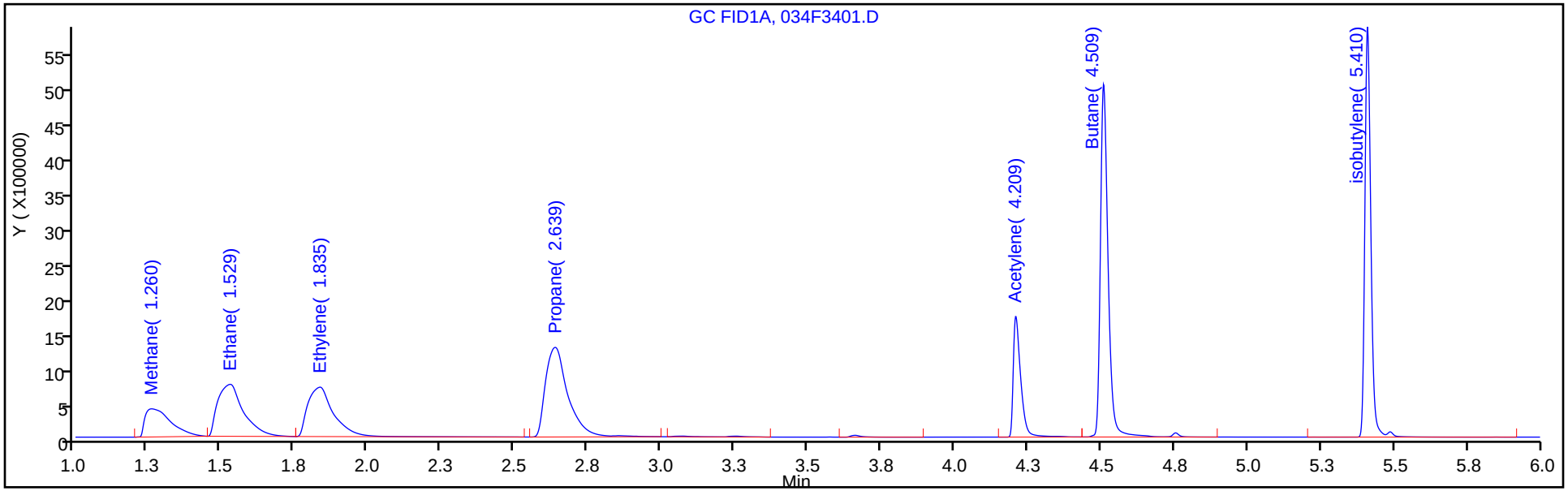
Report Date: 27-May-2022 16:14:49 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

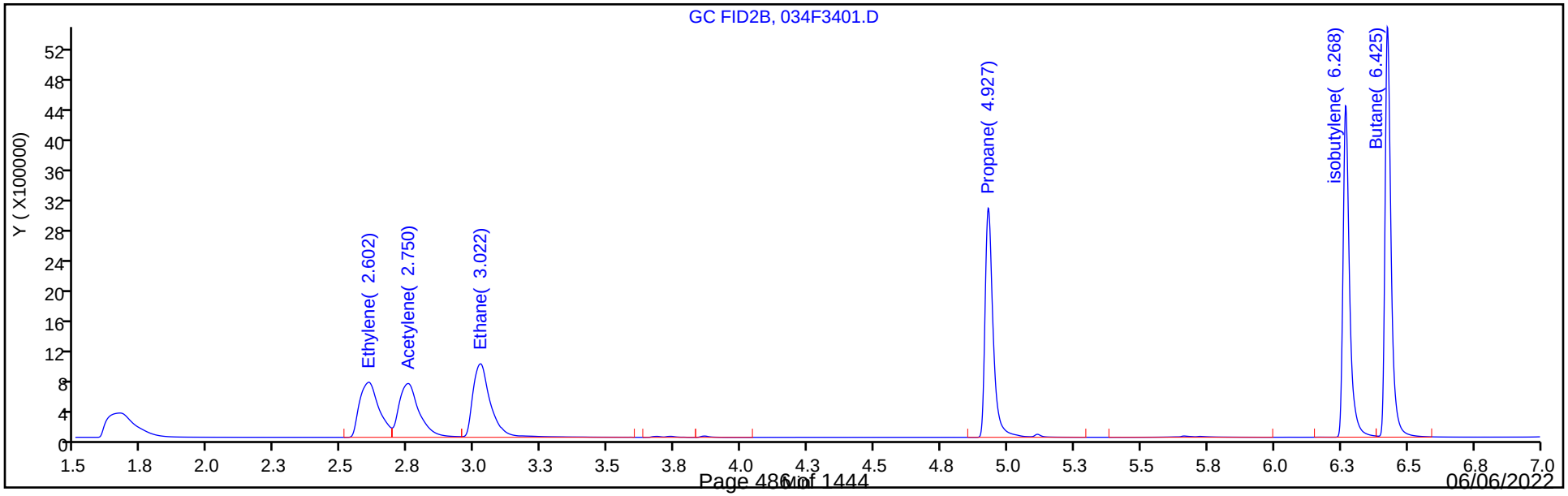
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\034F3401.D

Injection Date:	25-May-2022 23:57:38	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	lcs			Worklist Smp#:	90
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	34
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-576169/4

Matrix: Water Lab File ID: 004F0401.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/25/2022 17:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH: 5.0

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 576169 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0639		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\004F0401.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 25-May-2022 17:29:07 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcsd
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 26-May-2022 11:09:49 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: sciannac Date: 26-May-2022 10:53:54

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.265	1.269	-0.004	2375260	65.7	65.7	
2	1.670	1.679	-0.009	2370238	65.7	63.9	
						RPD = 2.72	
3 Ethane							
1	1.528	1.521	0.007	4367281	123.2	131.4	
2	3.031	3.037	-0.006	4457725	123.2	133.5	
						RPD = 1.63	
4 Ethylene							
1	1.822	1.788	0.034	4178456	114.9	118.6	
2	2.610	2.619	-0.009	3651986	114.9	117.9	
						RPD = 0.62	
5 Propane							
1	2.607	2.533	0.074	6587854	180.6	182.9	
2	4.931	4.933	-0.002	6309258	180.6	180.2	
						RPD = 1.51	
6 Acetylene							
1	4.175	4.043	0.132	3068249	106.7	109.0	
2	2.760	2.767	-0.007	3757931	106.7	109.9	
						RPD = 0.83	
7 Butane							
1	4.482	4.394	0.088	8846115	238.1	242.9	
2	6.430	6.432	-0.002	8320541	238.1	236.8	
						RPD = 2.54	
8 isobutylene							
1	5.382	5.298	0.084	8170009	229.8	226.2	
2	6.273	6.274	-0.001	7304801	229.8	220.0	
						RPD = 2.76	

QC Flag Legend

Processing Flags

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

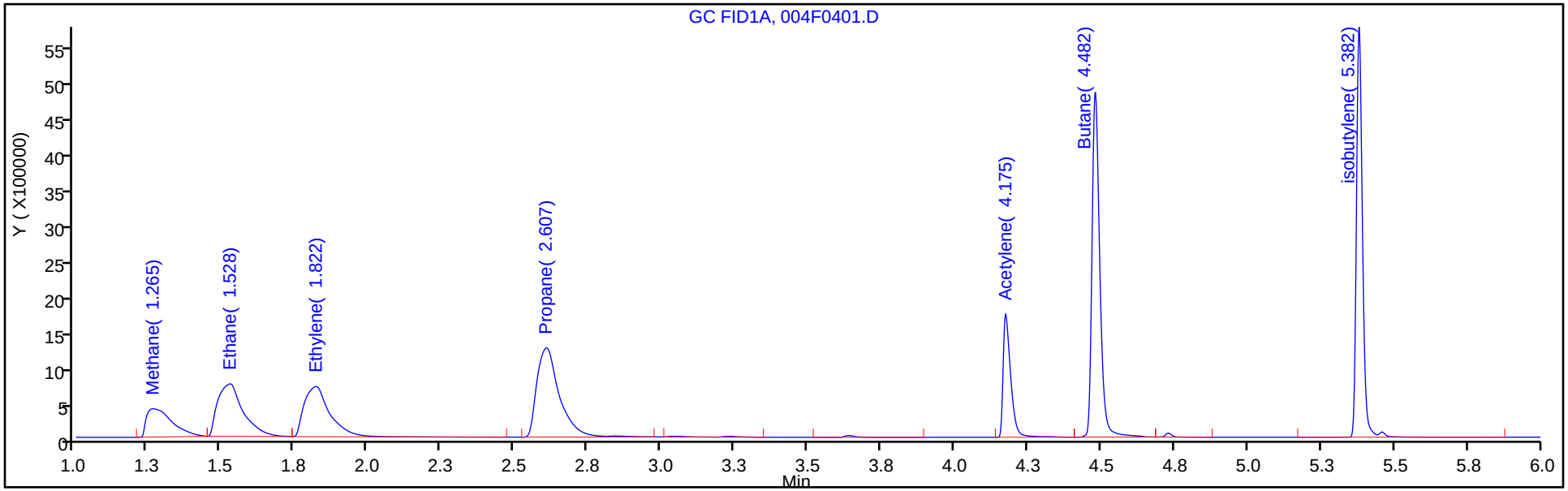
Report Date: 26-May-2022 11:09:58 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

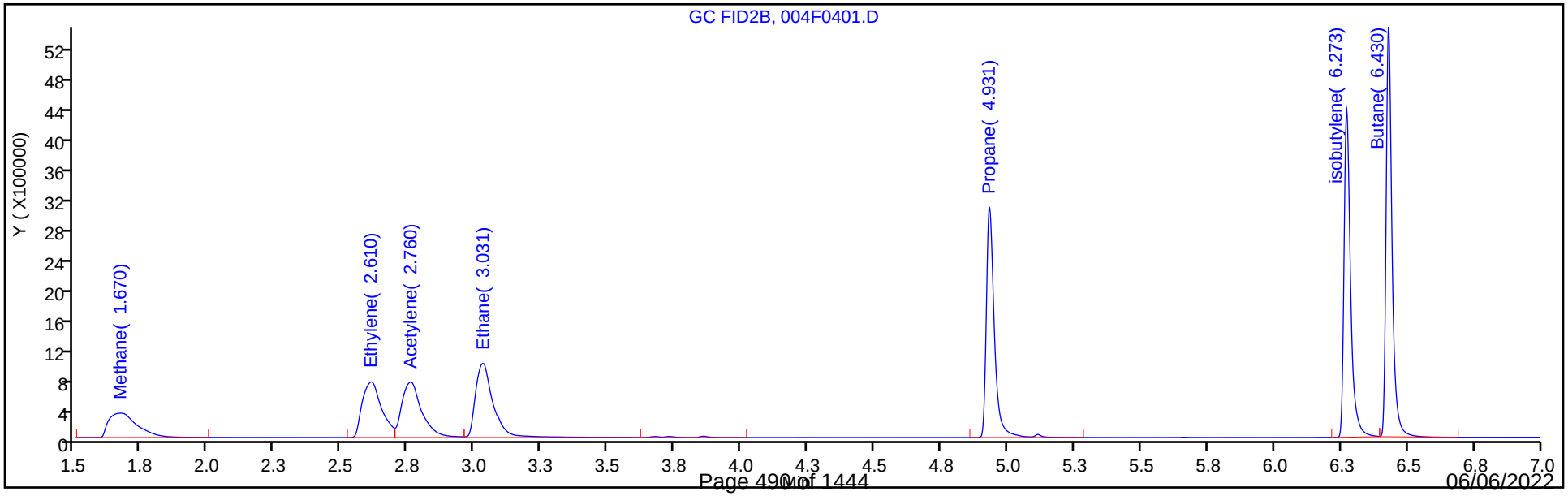
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\004F0401.D

Injection Date:	25-May-2022 17:29:07	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	lcsd			Worklist Smp#:	4
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-576170/91

Matrix: Water | Lab File ID: 035F3501.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 00:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH: 5.0

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0601		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\035F3501.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 26-May-2022 00:10:34 ALS Bottle#: 35 Worklist Smp#: 91
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcsd
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 27-May-2022 16:14:48 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1650

First Level Reviewer: sciannac Date: 27-May-2022 16:05:00

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.261	1.269	-0.008	2252556	65.7	62.2	
2	1.667	1.679	-0.012	2233995	65.7	60.1	
						RPD = 3.34	
3 Ethane							
1	1.529	1.521	0.008	4234338	123.2	127.4	
2	3.021	3.037	-0.016	4278703	123.2	128.2	
						RPD = 0.62	
4 Ethylene							
1	1.836	1.788	0.048	4011067	114.9	113.9	
2	2.602	2.619	-0.017	3491437	114.9	112.7	
						RPD = 1.03	
5 Propane							a
1	2.638	2.533	0.105	6508630	180.6	180.7	a
2	4.927	4.933	-0.006	6159907	180.6	175.9	a
						RPD = 2.69	
6 Acetylene							a
1	4.209	4.043	0.166	2912731	106.7	103.5	a
2	2.751	2.767	-0.016	3597343	106.7	105.3	a
						RPD = 1.67	
7 Butane							Ma
1	4.509	4.394	0.115	8769960	238.1	240.8	a
2	6.427	6.432	-0.005	8224119	238.1	234.1	M
						RPD = 2.84	
8 isobutylene							Ma
1	5.409	5.298	0.111	7929739	229.8	219.5	
2	6.269	6.274	-0.005	7139540	229.8	215.0	M
						RPD = 2.06	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

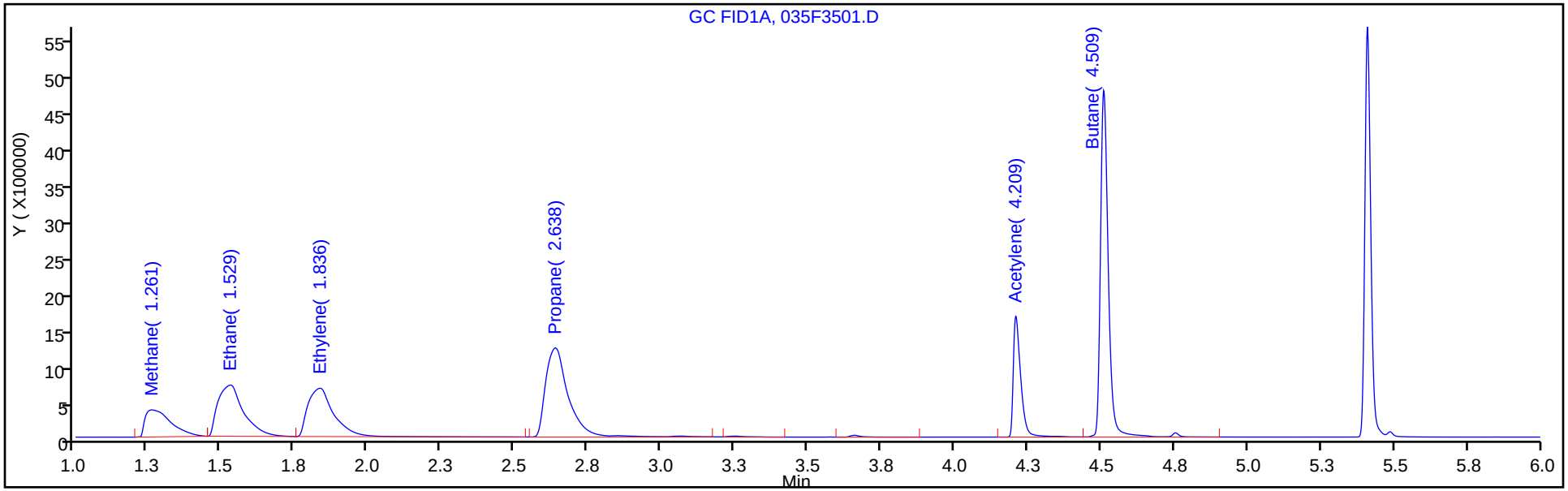
Report Date: 27-May-2022 16:14:49 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

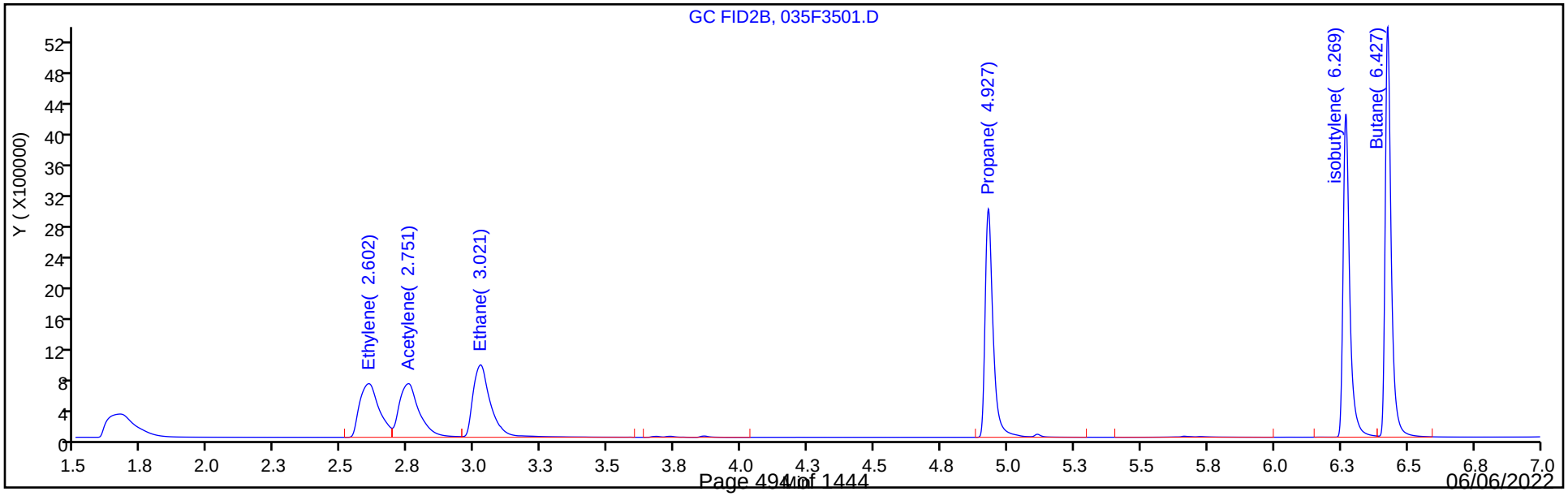
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\035F3501.D

Injection Date:	26-May-2022 00:10:34	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	lcsd			Worklist Smp#:	91
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	35
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ007-22A MS | Lab Sample ID: 280-162386-1 MS

Matrix: Water | Lab File ID: 053F5301.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 09:15

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 04:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0601		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\053F5301.D
Lims ID: 280-162386-G-1 MS
Client ID: PZ007-22A
Sample Type: MS
Inject. Date: 26-May-2022 04:04:18 ALS Bottle#: 53 Worklist Smp#: 109
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-G-1 M
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 09:32:16

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane							
1		4.362				ND	
2		5.458					
2 Methane							
1	1.266	1.269	-0.003	2302168	65.7	63.6	
2	1.674	1.679	-0.005	2233957	65.7	60.1	
						RPD = 5.59	
3 Ethane							
1	1.532	1.521	0.011	4256501	123.2	128.0	
2	3.025	3.037	-0.012	4185661	123.2	125.4	
						RPD = 2.10	
4 Ethylene							
1	1.831	1.788	0.043	4036069	114.9	114.6	
2	2.605	2.619	-0.014	3412172	114.9	110.1	
						RPD = 3.95	
5 Propane							a
1	2.622	2.533	0.089	6390417	180.6	177.5	a
2	4.930	4.933	-0.003	6030387	180.6	172.2	a
						RPD = 2.98	
6 Acetylene							a
1	4.196	4.043	0.153	2951952	106.7	104.9	a
2	2.754	2.767	-0.013	3630526	106.7	106.2	a
						RPD = 1.25	
7 Butane							
1	4.509	4.394	0.115	8599415	238.1	236.1	
2	6.429	6.432	-0.003	8025805	238.1	228.4	
						RPD = 3.32	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
8 isobutylene							
1	5.414	5.298	0.116	7846185	229.8	217.2	
2	6.272	6.274	-0.002	6943456	229.8	209.1	
						RPD = 3.79	

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

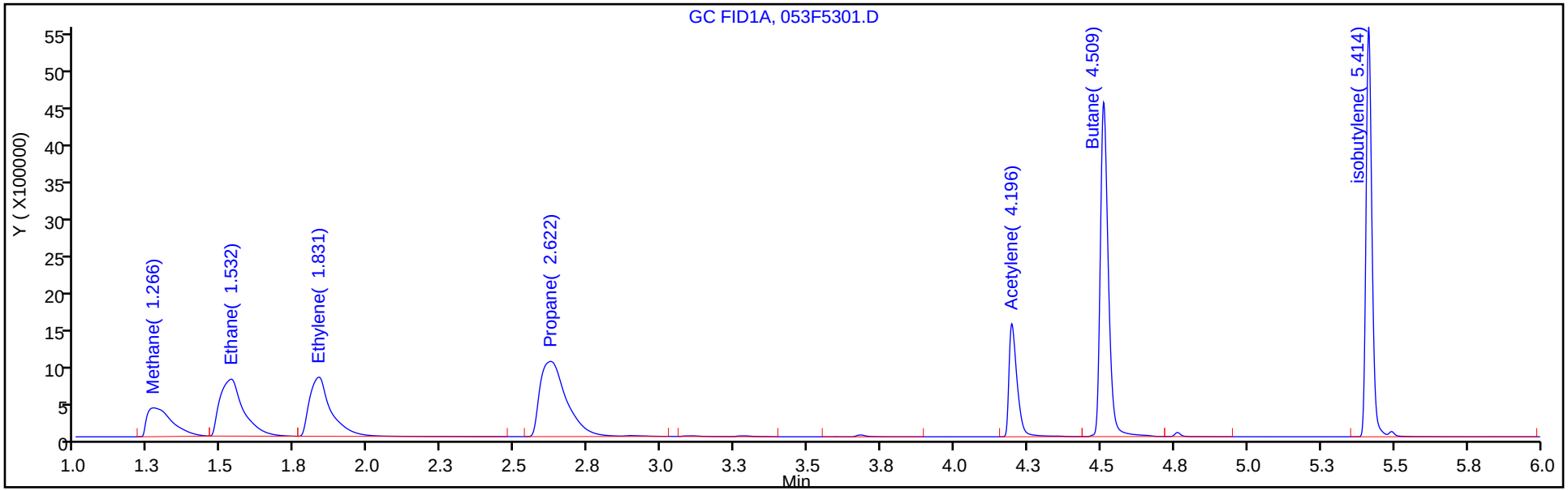
Report Date: 31-May-2022 14:05:48 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

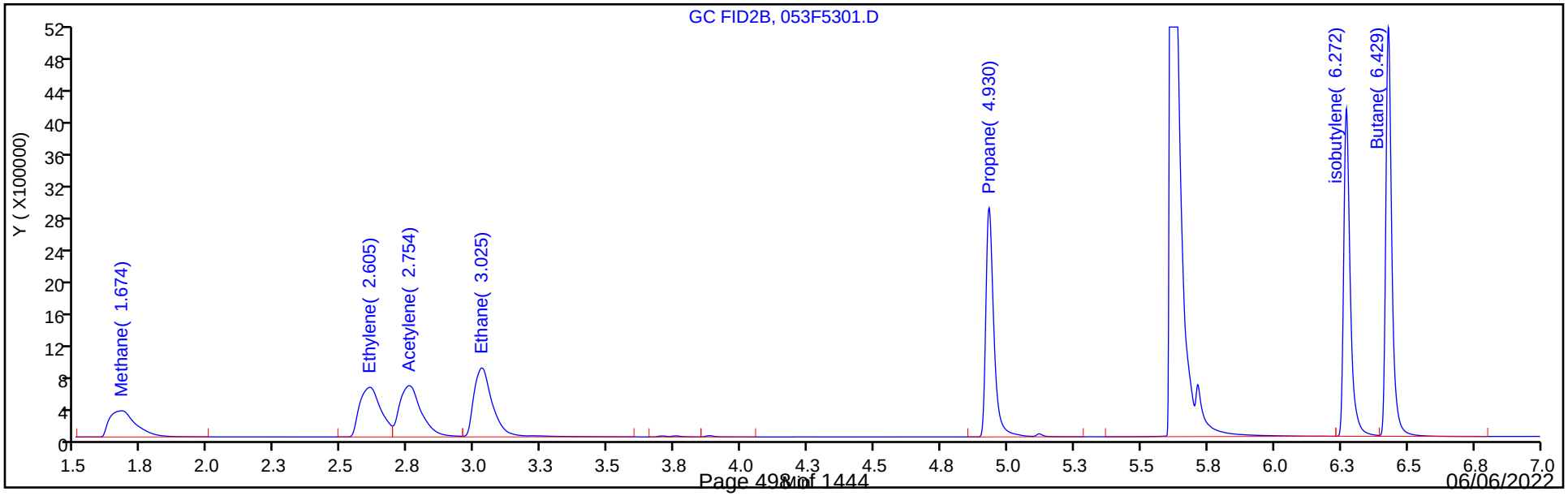
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\053F5301.D

Injection Date:	26-May-2022 04:04:18	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-G-1 MS			Worklist Smp#:	109
Client ID:	PZ007-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	53
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ007-22A MSD | Lab Sample ID: 280-162386-1 MSD

Matrix: Water | Lab File ID: 054F5401.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 09:15

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 04:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0640		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\054F5401.D
Lims ID: 280-162386-H-1 MSD
Client ID: PZ007-22A
Sample Type: MSD
Inject. Date: 26-May-2022 04:17:18 ALS Bottle#: 54 Worklist Smp#: 110
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-H-1 M
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 09:33:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane							
1		4.362				ND	
2		5.458					
2 Methane							
1	1.266	1.269	-0.003	2446093	65.7	67.7	
2	1.674	1.679	-0.005	2373807	65.7	64.0	
						RPD = 5.58	
3 Ethane							
1	1.531	1.521	0.010	4468742	123.2	134.4	
2	3.024	3.037	-0.013	4443096	123.2	133.1	
						RPD = 1.00	
4 Ethylene							
1	1.830	1.788	0.042	4228236	114.9	120.0	
2	2.606	2.619	-0.013	3587041	114.9	115.8	
						RPD = 3.60	
5 Propane							a
1	2.619	2.533	0.086	6686556	180.6	185.7	a
2	4.929	4.933	-0.004	6306852	180.6	180.1	a
						RPD = 3.03	
6 Acetylene							a
1	4.194	4.043	0.151	3008042	106.7	106.9	a
2	2.754	2.767	-0.013	3705873	106.7	108.4	a
						RPD = 1.42	
7 Butane							
1	4.508	4.394	0.114	9000869	238.1	247.1	
2	6.429	6.432	-0.003	8394831	238.1	238.9	
						RPD = 3.38	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
8 isobutylene							M
1	5.413	5.298	0.115	8152486	229.8	225.7	
2	6.271	6.274	-0.003	7009543	229.8	211.1	M
						RPD = 6.67	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

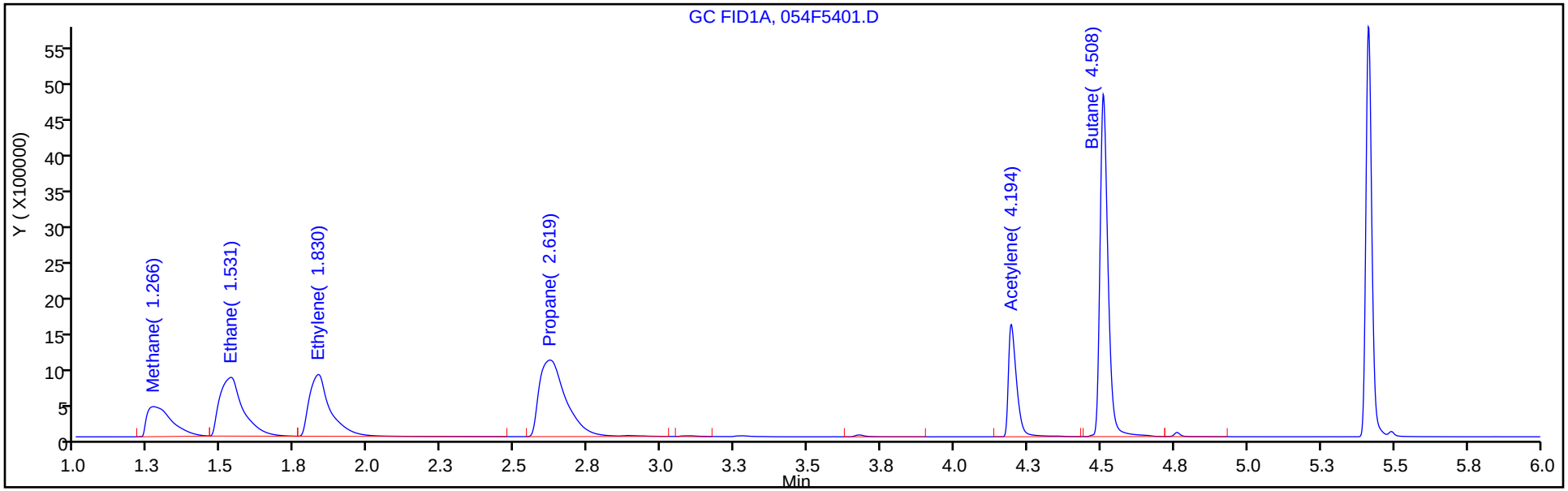
Report Date: 31-May-2022 14:05:49 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

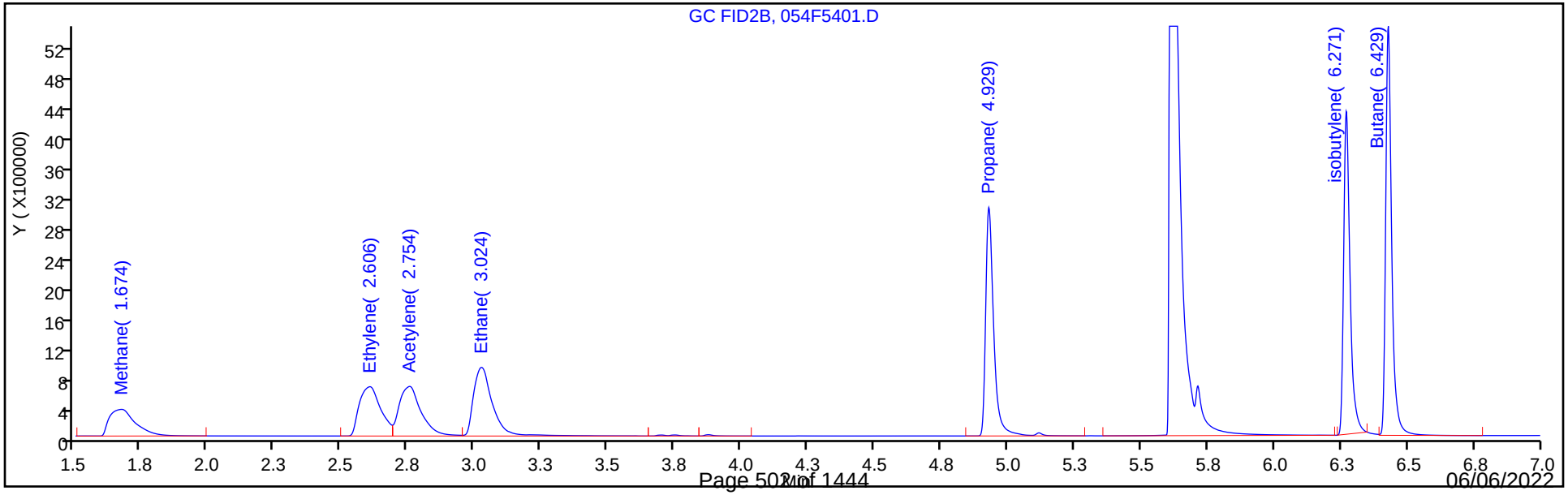
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\054F5401.D

Injection Date:	26-May-2022 04:17:18	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-H-1 MSD			Worklist Smp#:	110
Client ID:	PZ007-22A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	54
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ007-22A DU | Lab Sample ID: 280-162386-1 DU

Matrix: Water | Lab File ID: 052F5201.D

Analysis Method: RSK-175 | Date Collected: 05/13/2022 09:15

Sample wt/vol: 20(mL) | Date Analyzed: 05/26/2022 03:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

Purge Volume: | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 576170 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0013	U	0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\052F5201.D
Lims ID: 280-162386-H-1 DU
Client ID:
Sample Type: DU
Inject. Date: 26-May-2022 03:51:17 ALS Bottle#: 52 Worklist Smp#: 108
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-162386-H-1
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 31-May-2022 14:05:21 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1636

First Level Reviewer: sciannac Date: 31-May-2022 09:32:00

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane							
1		4.362				ND	
2		5.458					
2 Methane							7
1		1.269				ND	
2		1.679					
3 Ethane							
1		1.521				ND	
2		3.037					
4 Ethylene							
1		1.788				ND	
2		2.619					
5 Propane							
1		2.533				ND	
2		4.933					
6 Acetylene							
1		4.043				ND	
2		2.767					
7 Butane							
1		4.394				ND	
2		6.432					
8 isobutylene							
1		5.298				ND	
2		6.274					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

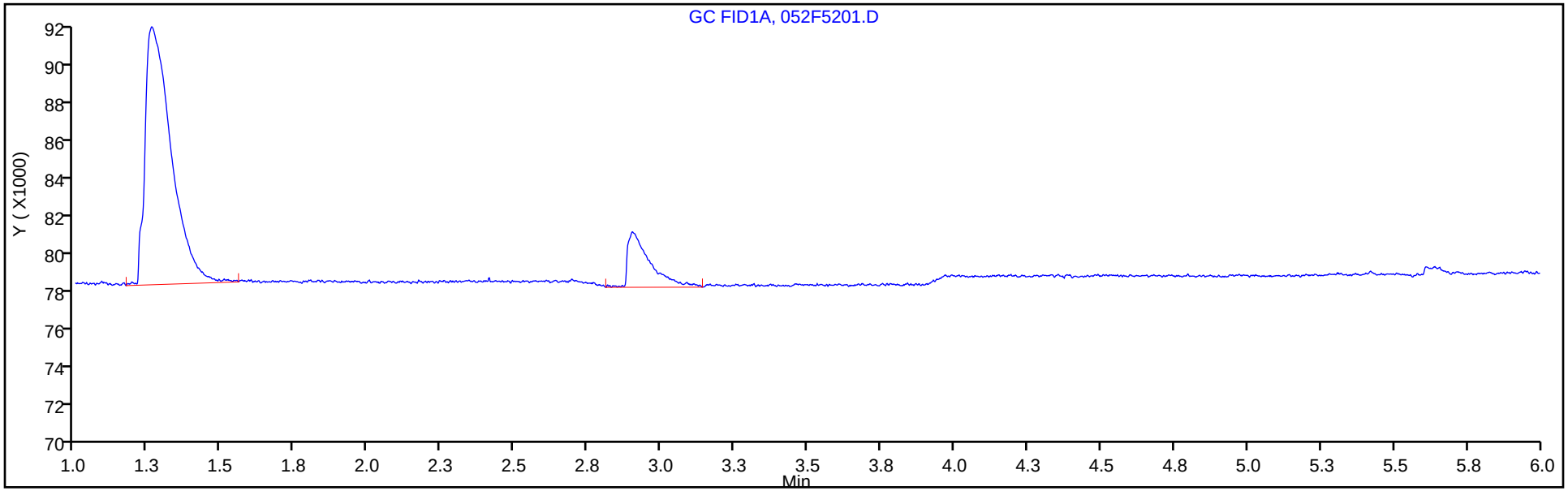
Report Date: 31-May-2022 14:05:47 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

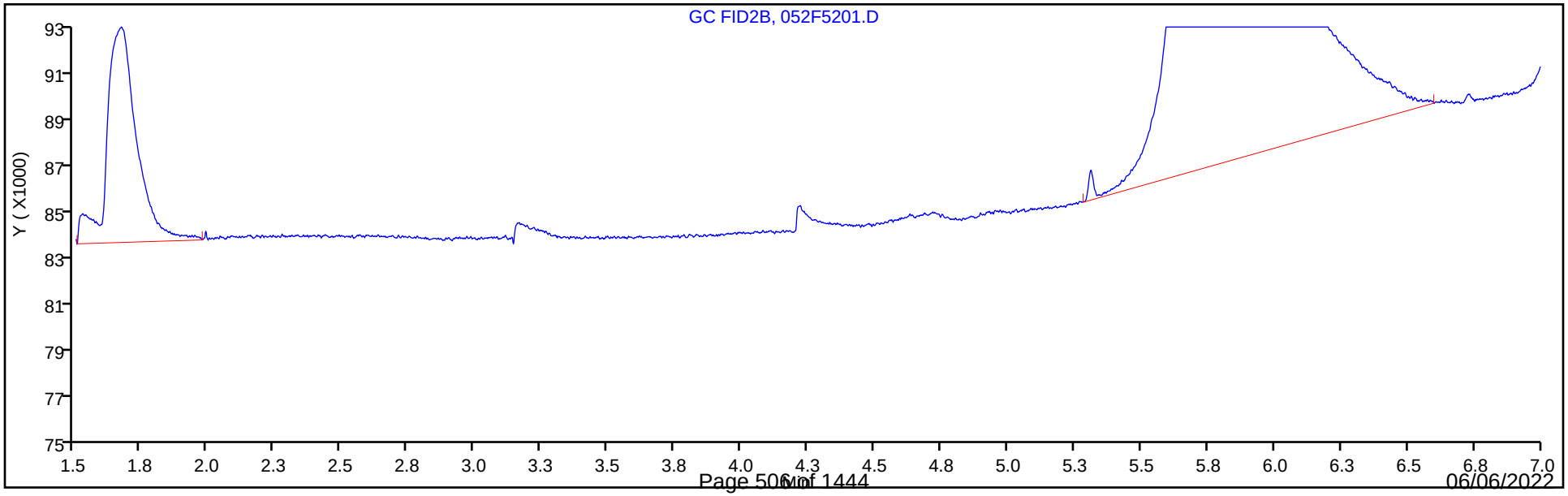
Data File: \\chromfs\Denver\ChromData\VGC_J\20220525-111345.b\052F5201.D

Injection Date:	26-May-2022 03:51:17	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-162386-H-1 DU			Worklist Smp#:	108
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	52
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: VGC_J Start Date: 09/24/2021 13:16

Analysis Batch Number: 550959 End Date: 09/24/2021 15:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 280-550959/1		09/24/2021 13:16	1		Rt-Alumina KCl 0.53(mm)
RTC 280-550959/1		09/24/2021 13:16	1		HP-Plot Q 0.53(mm)
IC 280-550959/2		09/24/2021 13:28	1	004F0201.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/2		09/24/2021 13:28	1	004F0201.D	HP-Plot Q 0.53(mm)
IC 280-550959/3		09/24/2021 13:41	1	005F0301.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/3		09/24/2021 13:41	1	005F0301.D	HP-Plot Q 0.53(mm)
IC 280-550959/4		09/24/2021 13:54	1	006F0401.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/4		09/24/2021 13:54	1	006F0401.D	HP-Plot Q 0.53(mm)
IC 280-550959/5		09/24/2021 14:07	1	007F0501.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/5		09/24/2021 14:07	1	007F0501.D	HP-Plot Q 0.53(mm)
IC 280-550959/6		09/24/2021 14:20	1	008F0601.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/6		09/24/2021 14:20	1	008F0601.D	HP-Plot Q 0.53(mm)
IC 280-550959/7		09/24/2021 14:33	1	009F0701.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/7		09/24/2021 14:33	1	009F0701.D	HP-Plot Q 0.53(mm)
IC 280-550959/9		09/24/2021 14:46	1	010F0801.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/9		09/24/2021 14:46	1	010F0801.D	HP-Plot Q 0.53(mm)
IC 280-550959/10		09/24/2021 14:59	1	011F0901.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/10		09/24/2021 14:59	1	011F0901.D	HP-Plot Q 0.53(mm)
IC 280-550959/11		09/24/2021 15:12	1	012F1001.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/11		09/24/2021 15:12	1	012F1001.D	HP-Plot Q 0.53(mm)
ZZZZZ		09/24/2021 15:25	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		09/24/2021 15:25	1		HP-Plot Q 0.53(mm)
ICV 280-550959/13		09/24/2021 15:38	1	014F1201.D	Rt-Alumina KCl 0.53(mm)
ICV 280-550959/13		09/24/2021 15:38	1	014F1201.D	HP-Plot Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: VGC_J Start Date: 05/25/2022 16:50

Analysis Batch Number: 576169 End Date: 05/25/2022 23:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/25/2022 16:50	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 16:50	1		HP-Plot Q 0.53(mm)
CCVRT 280-576169/2		05/25/2022 17:03	1	002F0201.D	Rt-Alumina KCl 0.53(mm)
CCVRT 280-576169/2		05/25/2022 17:03	1	002F0201.D	HP-Plot Q 0.53(mm)
LCS 280-576169/3		05/25/2022 17:16	1	003F0301.D	Rt-Alumina KCl 0.53(mm)
LCS 280-576169/3		05/25/2022 17:16	1	003F0301.D	HP-Plot Q 0.53(mm)
LCSD 280-576169/4		05/25/2022 17:29	1	004F0401.D	Rt-Alumina KCl 0.53(mm)
LCSD 280-576169/4		05/25/2022 17:29	1	004F0401.D	HP-Plot Q 0.53(mm)
MB 280-576169/5		05/25/2022 17:42	1	005F0501.D	Rt-Alumina KCl 0.53(mm)
MB 280-576169/5		05/25/2022 17:42	1	005F0501.D	HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 17:54	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 17:54	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 18:07	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 18:07	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 18:20	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 18:20	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 18:33	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 18:33	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 18:46	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 18:46	1		HP-Plot Q 0.53(mm)
280-162386-8	G0092-22A	05/25/2022 18:59	1	011F1101.D	Rt-Alumina KCl 0.53(mm)
280-162386-8	G0092-22A	05/25/2022 18:59	1	011F1101.D	HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 19:12	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 19:12	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 19:25	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 19:25	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 19:38	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 19:38	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 19:51	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 19:51	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 20:04	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 20:04	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 20:17	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 20:17	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 20:30	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 20:30	1		HP-Plot Q 0.53(mm)
CCV 280-576169/75		05/25/2022 20:43	1	019F1901.D	Rt-Alumina KCl 0.53(mm)
CCV 280-576169/75		05/25/2022 20:43	1	019F1901.D	HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 20:56	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 20:56	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 21:09	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 21:09	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 21:22	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 21:22	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 21:35	1		Rt-Alumina KCl 0.53(mm)

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: VGC_J Start Date: 05/25/2022 16:50

Analysis Batch Number: 576169 End Date: 05/25/2022 23:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/25/2022 21:35	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 21:48	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 21:48	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 22:01	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 22:01	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 22:13	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 22:13	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 22:26	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 22:26	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 22:39	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 22:39	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 22:52	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 22:52	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 23:05	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 23:05	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 23:18	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 23:18	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/25/2022 23:31	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/25/2022 23:31	1		HP-Plot Q 0.53(mm)
CCV 280-576169/89		05/25/2022 23:44	1		Rt-Alumina KCl 0.53(mm)
CCV 280-576169/89		05/25/2022 23:44	1		HP-Plot Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: VGC_J Start Date: 05/25/2022 17:03

Analysis Batch Number: 576170 End Date: 05/26/2022 06:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 280-576170/2		05/25/2022 17:03	1	002F0201.D	Rt-Alumina KCl 0.53(mm)
CCV 280-576170/89		05/25/2022 23:44	1	033F3301.D	Rt-Alumina KCl 0.53(mm)
CCV 280-576170/89		05/25/2022 23:44	1	033F3301.D	HP-Plot Q 0.53(mm)
LCS 280-576170/90		05/25/2022 23:57	1	034F3401.D	Rt-Alumina KCl 0.53(mm)
LCS 280-576170/90		05/25/2022 23:57	1	034F3401.D	HP-Plot Q 0.53(mm)
LCSD 280-576170/91		05/26/2022 00:10	1	035F3501.D	Rt-Alumina KCl 0.53(mm)
LCSD 280-576170/91		05/26/2022 00:10	1	035F3501.D	HP-Plot Q 0.53(mm)
MB 280-576170/92		05/26/2022 00:23	1	036F3601.D	Rt-Alumina KCl 0.53(mm)
MB 280-576170/92		05/26/2022 00:23	1	036F3601.D	HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 00:36	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 00:36	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 00:49	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 00:49	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 01:02	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 01:02	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 01:15	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 01:15	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 01:28	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 01:28	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 01:41	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 01:41	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 01:54	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 01:54	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 02:07	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 02:07	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 02:20	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 02:20	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 02:33	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 02:33	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 02:46	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 02:46	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 02:59	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 02:59	1		HP-Plot Q 0.53(mm)
ZZZZZ		05/26/2022 03:12	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		05/26/2022 03:12	1		HP-Plot Q 0.53(mm)
CCV 280-576170/106		05/26/2022 03:25	1	050F5001.D	Rt-Alumina KCl 0.53(mm)
CCV 280-576170/106		05/26/2022 03:25	1	050F5001.D	HP-Plot Q 0.53(mm)
280-162386-1	PZ007-22A	05/26/2022 03:38	1	051F5101.D	Rt-Alumina KCl 0.53(mm)
280-162386-1	PZ007-22A	05/26/2022 03:38	1	051F5101.D	HP-Plot Q 0.53(mm)
280-162386-1 DU	PZ007-22A DU	05/26/2022 03:51	1	052F5201.D	Rt-Alumina KCl 0.53(mm)
280-162386-1 DU	PZ007-22A DU	05/26/2022 03:51	1	052F5201.D	HP-Plot Q 0.53(mm)
280-162386-1 MS	PZ007-22A MS	05/26/2022 04:04	1	053F5301.D	Rt-Alumina KCl 0.53(mm)
280-162386-1 MS	PZ007-22A MS	05/26/2022 04:04	1	053F5301.D	HP-Plot Q 0.53(mm)
280-162386-1 MSD	PZ007-22A MSD	05/26/2022 04:17	1	054F5401.D	Rt-Alumina KCl 0.53(mm)
280-162386-1 MSD	PZ007-22A MSD	05/26/2022 04:17	1	054F5401.D	HP-Plot Q 0.53(mm)

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: VGC_J Start Date: 05/25/2022 17:03

Analysis Batch Number: 576170 End Date: 05/26/2022 06:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
280-162386-2	G0087-22A	05/26/2022 04:30	1	055F5501.D	Rt-Alumina KCl 0.53(mm)
280-162386-2	G0087-22A	05/26/2022 04:30	1	055F5501.D	HP-Plot Q 0.53(mm)
280-162386-3	G0117-22A	05/26/2022 04:43	1	056F5601.D	Rt-Alumina KCl 0.53(mm)
280-162386-3	G0117-22A	05/26/2022 04:43	1	056F5601.D	HP-Plot Q 0.53(mm)
280-162386-4	G0022-22A	05/26/2022 04:56	1	057F5701.D	Rt-Alumina KCl 0.53(mm)
280-162386-4	G0022-22A	05/26/2022 04:56	1	057F5701.D	HP-Plot Q 0.53(mm)
280-162386-5	G0088-22A	05/26/2022 05:09	1	058F5801.D	Rt-Alumina KCl 0.53(mm)
280-162386-5	G0088-22A	05/26/2022 05:09	1	058F5801.D	HP-Plot Q 0.53(mm)
280-162386-6	G0116-22A	05/26/2022 05:22	1	059F5901.D	Rt-Alumina KCl 0.53(mm)
280-162386-6	G0116-22A	05/26/2022 05:22	1	059F5901.D	HP-Plot Q 0.53(mm)
280-162386-7	PZ014-22A	05/26/2022 05:35	1	060F6001.D	Rt-Alumina KCl 0.53(mm)
280-162386-7	PZ014-22A	05/26/2022 05:35	1	060F6001.D	HP-Plot Q 0.53(mm)
280-162386-8	G0092-22A	05/26/2022 05:48	1	061F6101.D	Rt-Alumina KCl 0.53(mm)
280-162386-8	G0092-22A	05/26/2022 05:48	1	061F6101.D	HP-Plot Q 0.53(mm)
280-162386-9	PZ013-22A	05/26/2022 06:01	1	062F6201.D	Rt-Alumina KCl 0.53(mm)
280-162386-9	PZ013-22A	05/26/2022 06:01	1	062F6201.D	HP-Plot Q 0.53(mm)
280-162386-10	G0081-22A	05/26/2022 06:14	1	063F6301.D	Rt-Alumina KCl 0.53(mm)
280-162386-10	G0081-22A	05/26/2022 06:14	1	063F6301.D	HP-Plot Q 0.53(mm)
CCV 280-576170/120		05/26/2022 06:27	1	064F6401.D	Rt-Alumina KCl 0.53(mm)
CCV 280-576170/120		05/26/2022 06:27	1	064F6401.D	HP-Plot Q 0.53(mm)

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 550959 Batch Start Date: 09/24/21 13:16 Batch Analyst: Scianna, Charles A

Batch Method: RSK-175 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	RSK175methane 00010	RSK7gasMathes 00031	RSK7gasMathes 00034
IC 280-550959/2		RSK-175		18 mL	18 mL	5 SU		2.5 uL	
IC 280-550959/3		RSK-175		18 mL	18 mL	5 SU		5 uL	
IC 280-550959/4		RSK-175		18 mL	18 mL	5 SU		40 uL	
IC 280-550959/5		RSK-175		18 mL	18 mL	5 SU		200 uL	
IC 280-550959/6		RSK-175		18 mL	18 mL	5 SU		400 uL	
IC 280-550959/7		RSK-175		18 mL	18 mL	5 SU		800 uL	
IC 280-550959/9		RSK-175		18 mL	18 mL	5 SU	50 uL		
IC 280-550959/10		RSK-175		18 mL	18 mL	5 SU	200 uL		
IC 280-550959/11		RSK-175		18 mL	18 mL	5 SU	600 uL		
ICV 280-550959/13		RSK-175		18 mL	18 mL	5 SU			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 VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576169 Batch Start Date: 05/25/22 16:50 Batch Analyst: Scianna, Charles A

Batch Method: RSK-175 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	RSK7gasMathes 00034		
CCVRT 280-576169/2		RSK-175		20 mL	20 mL	5 SU	200 uL		
LCS 280-576169/3		RSK-175		20 mL	20 mL	5 SU	200 uL		
LCSD 280-576169/4		RSK-175		20 mL	20 mL	5 SU	200 uL		
MB 280-576169/5		RSK-175		20 mL	20 mL	5 SU			
280-162386-H-8	G0092-22A	RSK-175	T	20 mL	20 mL	< 2 SU			
CCV 280-576169/75		RSK-175		20 mL	20 mL	5 SU	200 uL		

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576170 Batch Start Date: 05/25/22 17:03 Batch Analyst: Scianna, Charles A

Batch Method: RSK-175 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	RSK7gasMathes 00034		
CCVRT 280-576170/2		RSK-175		20 mL	20 mL	5 SU	200 uL		
CCV 280-576170/89		RSK-175		20 mL	20 mL	5 SU	200 uL		
LCS 280-576170/90		RSK-175		20 mL	20 mL	5 SU	200 uL		
LCSD 280-576170/91		RSK-175		20 mL	20 mL	5 SU	200 uL		
MB 280-576170/92		RSK-175		20 mL	20 mL	5 SU			
CCV 280-576170/106		RSK-175		20 mL	20 mL	5 SU	200 uL		
280-162386-H-1	PZ007-22A	RSK-175	T	20 mL	20 mL	< 2 SU			
280-162386-H-1 DU	PZ007-22A	RSK-175	T	20 mL	20 mL	< 2 SU			
280-162386-G-1 MS	PZ007-22A	RSK-175	T	20 mL	20 mL	< 2 SU	200 uL		
280-162386-H-1 MSD	PZ007-22A	RSK-175	T	20 mL	20 mL	< 2 SU	200 uL		
280-162386-G-2	G0087-22A	RSK-175	T	20 mL	20 mL	< 2 SU			
280-162386-H-3	G0117-22A	RSK-175	T	20 mL	20 mL	< 2 SU			
280-162386-G-4	G0022-22A	RSK-175	T	20 mL	20 mL	< 2 SU			
280-162386-H-5	G0088-22A	RSK-175	T	20 mL	20 mL	< 2 SU			
280-162386-G-6	G0116-22A	RSK-175	T	20 mL	20 mL	7 SU			
280-162386-G-7	PZ014-22A	RSK-175	T	20 mL	20 mL	< 2 SU			
280-162386-I-8	G0092-22A	RSK-175	T	20 mL	20 mL	< 2 SU			
280-162386-G-9	PZ013-22A	RSK-175	T	20 mL	20 mL	< 2 SU			
280-162386-G-10	G0081-22A	RSK-175	T	20 mL	20 mL	< 2 SU			
CCV 280-576170/120		RSK-175		20 mL	20 mL	5 SU	200 uL		

Batch Notes	

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 VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576170 Batch Start Date: 05/25/22 17:03 Batch Analyst: Scianna, Charles A

Batch Method: RSK-175 Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8330A_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	12DNB1 #	12DNB2 #
PZ007-22A	280-162386-1	108 M	
G0087-22A	280-162386-2	103 M	
G0087-22A	280-162386-2		102
G0117-22A	280-162386-3	100 M	
G0117-22A	280-162386-3		106 M
G0022-22A	280-162386-4	106 M	
G0022-22A	280-162386-4		108
G0088-22A	280-162386-5	107	
G0088-22A	280-162386-5		103
G0116-22A	280-162386-6	119 M	
G0116-22A	280-162386-6		81 M Q
PZ014-22A	280-162386-7	108 M	
G0092-22A	280-162386-8	105 M	
PZ013-22A	280-162386-9	105	
PZ013-22A	280-162386-9		92 M
G0081-22A	280-162386-10	108 M	
G0081-22A	280-162386-10		105 M
	MB 280-575516/1-A	106 M	
	LCS 280-575516/2-A	105	
	LCS 280-575516/3-A	104 M	
PZ007-22A MS	280-162386-1 MS	109	
PZ007-22A MS	280-162386-1 MS	107 M	
PZ007-22A MSD	280-162386-1 MSD	108	
PZ007-22A MSD	280-162386-1 MSD	106 M	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	83-119

Column to be used to flag recovery values

FORM II 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05190012.D

Lab ID: LCS 280-575516/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.06	103	73-125	
1,3-Dinitrobenzene	2.00	2.09	105	78-120	
2,4,6-Trinitrotoluene	2.00	2.07	104	71-123	
2,4-Dinitrotoluene	2.00	1.96	98	78-120	
2,6-Dinitrotoluene	2.00	2.05	102	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.98	99	79-120	
2-Nitrotoluene	2.00	1.98	99	70-127	
3-Nitrotoluene	2.00	1.62	81	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.96	98	76-125	
4-Nitrotoluene	2.00	1.90	95	71-127	
HMX	2.00	2.00	100	65-135	M
Nitrobenzene	2.00	1.92	96	65-134	
RDX	2.00	1.96	98	68-130	
Tetryl	2.00	2.06	103	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05190013.D

Lab ID: LCS 280-575516/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
MNX	2.34	2.41	103	57-132	M

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05190015.D

Lab ID: 280-162386-1 MS Client ID: PZ007-22A MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	1.97	0.20 U	2.06	104	73-125	M
1,3-Dinitrobenzene	1.97	0.099 U	2.10	107	78-120	
2,4,6-Trinitrotoluene	1.97	0.099 U	2.05	104	71-123	
2,4-Dinitrotoluene	1.97	0.080 U	1.89	96	78-120	
2,6-Dinitrotoluene	1.97	0.080 U	1.99	101	77-127	
2-Amino-4,6-dinitrotoluene	1.97	0.099 U	1.94	98	79-120	
2-Nitrotoluene	1.97	0.20 U	1.92	97	70-127	
3-Nitrotoluene	1.97	0.40 U	1.51	77	73-125	
4-Amino-2,6-dinitrotoluene	1.97	0.12 U	1.89	96	76-125	
4-Nitrotoluene	1.97	0.40 U	1.85	93	71-127	
HMX	1.97	0.20 U	2.01	102	65-135	M
Nitrobenzene	1.97	0.20 U	1.98	100	65-134	
RDX	1.97	0.20 U	1.82	92	68-130	M
Tetryl	1.97	0.099 U	2.03	103	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05190017.D

Lab ID: 280-162386-1 MS Client ID: PZ007-22A MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
MNX	2.35	0.40 U	2.33	99	57-132	M

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05190016.D

Lab ID: 280-162386-1 MSD Client ID: PZ007-22A MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	1.94	2.02	105	2	30	73-125	M
1,3-Dinitrobenzene	1.94	2.05	106	3	30	78-120	
2,4,6-Trinitrotoluene	1.94	1.99	103	3	30	71-123	
2,4-Dinitrotoluene	1.94	1.86	96	1	30	78-120	
2,6-Dinitrotoluene	1.94	1.96	101	2	30	77-127	
2-Amino-4,6-dinitrotoluene	1.94	1.89	98	3	30	79-120	
2-Nitrotoluene	1.94	1.95	100	1	30	70-127	
3-Nitrotoluene	1.94	1.50	78	1	30	73-125	
4-Amino-2,6-dinitrotoluene	1.94	1.85	96	2	30	76-125	
4-Nitrotoluene	1.94	1.87	97	2	30	71-127	
HMX	1.94	1.96	101	2	30	65-135	M
Nitrobenzene	1.94	1.96	101	1	30	65-134	
RDX	1.94	1.80	93	1	30	68-130	M
Tetryl	1.94	1.99	103	2	30	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05190018.D

Lab ID: 280-162386-1 MSD Client ID: PZ007-22A MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
MNX	2.46	2.39	97	3	30	57-132	M

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: MB 280-575516/1-A

Matrix: Water Date Extracted: 05/19/2022 14:06

Lab File ID:(1) 05190011.D Lab File ID:(2)

Date Analyzed:(1) 05/19/2022 20:51 Date Analyzed:(2)

Instrument ID:(1) CHHPLC_X3 Instrument ID:(2) CHHPLC_X5

GC Column:(1) UltraCarb5uO ID: 4.6(mm) GC Column:(2) Luna-phenylh ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-575516/2-A	05/19/2022 21:14	
	LCS 280-575516/3-A	05/19/2022 21:37	
PZ007-22A	280-162386-1	05/19/2022 22:00	
PZ007-22A MS	280-162386-1 MS	05/19/2022 22:23	
PZ007-22A MSD	280-162386-1 MSD	05/19/2022 22:46	
PZ007-22A MS	280-162386-1 MS	05/19/2022 23:08	
PZ007-22A MSD	280-162386-1 MSD	05/19/2022 23:31	
G0087-22A	280-162386-2	05/19/2022 23:54	05/20/2022 19:46
G0117-22A	280-162386-3	05/20/2022 00:17	05/20/2022 20:21
G0022-22A	280-162386-4	05/20/2022 01:49	05/20/2022 20:57
G0088-22A	280-162386-5	05/20/2022 02:12	05/20/2022 21:32
G0116-22A	280-162386-6	05/20/2022 02:35	05/20/2022 22:07
PZ014-22A	280-162386-7	05/20/2022 02:58	
G0092-22A	280-162386-8	05/20/2022 03:21	
PZ013-22A	280-162386-9	05/20/2022 03:43	05/20/2022 22:42
G0081-22A	280-162386-10	05/20/2022 04:06	05/20/2022 23:17

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0087-22A Lab Sample ID: 280-162386-2

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/19/2022 23:54 Date Analyzed (2): 05/20/2022 19:46

GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.60	6.46	6.76	0.59		3.4
	2		6.77	6.66	6.96	0.61		
RDX	1		7.60	7.45	7.75	0.19		18.0
	2		8.94	8.84	9.14	0.23		
4-Amino-2,6-dinitrotoluene	1		11.13	11.03	11.23	0.73		12.3
	2		17.61	17.50	17.80	0.83		
2-Amino-4,6-dinitrotoluene	1		11.38	11.29	11.49	0.42		30.8
	2		18.58	18.52	18.82	0.57		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0022-22A Lab Sample ID: 280-162386-4

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/20/2022 01:49 Date Analyzed (2): 05/20/2022 20:57

GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4-Amino-2,6-dinitrotoluene	1		11.13	11.03	11.23	0.49		7.4
	2		17.57	17.50	17.80	0.52		
2-Amino-4,6-dinitrotoluene	1		11.38	11.29	11.49	0.33		33.4
	2		18.55	18.52	18.82	0.47		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0088-22A Lab Sample ID: 280-162386-5

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/20/2022 02:12 Date Analyzed (2): 05/20/2022 21:32

GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		8.68	8.53	8.83	4.1		8.9
	2		18.75	18.66	18.96	4.5		
4-Amino-2,6-dinitrotoluene	1		11.12	11.03	11.23	0.38		21.4
	2		17.56	17.50	17.80	0.47		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ013-22A Lab Sample ID: 280-162386-9

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/20/2022 03:43 Date Analyzed (2): 05/20/2022 22:42

GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4,6-Trinitrotoluene	1		10.94	10.83	11.03	0.98		30.4
	2		25.09	25.04	25.34	0.72		
4-Amino-2,6-dinitrotoluene	1		11.13	11.03	11.23	4.3		7.5
	2		17.59	17.50	17.80	4.6		
2-Amino-4,6-dinitrotoluene	1		11.38	11.29	11.49	3.3		11.1
	2		18.57	18.52	18.82	3.7		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0081-22A Lab Sample ID: 280-162386-10

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/20/2022 04:06 Date Analyzed (2): 05/20/2022 23:17

GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		8.69	8.53	8.83	0.36		11.0
	2		18.75	18.66	18.96	0.40		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ007-22A | Lab Sample ID: 280-162386-1

Matrix: Water | Lab File ID: 05190014.D

Analysis Method: 8330A | Date Collected: 05/13/2022 09:15

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 502.8(mL) | Date Analyzed: 05/19/2022 22:00

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.099	U	0.11	0.099	0.037
118-96-7	2,4,6-Trinitrotoluene	0.099	U	0.11	0.099	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.099	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.099	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.099	U	0.11	0.099	0.050
88-72-2	2-Nitrotoluene	0.20	U M	0.21	0.20	0.085
99-08-1	3-Nitrotoluene	0.40	U	0.40	0.40	0.19
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.057
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.099
2691-41-0	HMX	0.20	U	0.21	0.20	0.087
5755-27-1	MNX	0.40	U	2.0	0.40	0.15
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.090
121-82-4	RDX	0.20	U	0.21	0.20	0.051
479-45-8	Tetryl	0.099	U	0.11	0.099	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	108	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190014.D
Lims ID: 280-162386-A-1-A
Client ID: PZ007-22A
Sample Type: Client
Inject. Date: 19-May-2022 22:00:15 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-1-A
Misc. Info.: 280-0111180-014
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:40:07 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 11:59:39

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	1 Triamine Trinitrobenzene	1		2.454			ND	
	2 2,6-diamino-4-nitrotoluene	1		6.479			ND	U
	3 TNX	1		6.486			ND	
	4 HMX	1		6.606			ND	
	5 2,4-diamino-6-nitrotoluene	1		6.659			ND	
	6 DNX	1		6.799			ND	
	7 MNX	1		7.219			ND	
	8 RDX	1		7.599			ND	
	9 2,4,6-Trinitrophenol	1		7.946			ND	U
$	10 1,2-Dinitrobenzene	1	8.559	8.552	0.007	26944	0.2161	M
	11 1,3,5-Trinitrobenzene	1		8.679			ND	
	12 1,3-Dinitrobenzene	1		9.306			ND	
	13 Nitrobenzene	1		9.699			ND	
	14 3,5-Dinitroaniline	1		9.905			ND	
	15 Tetryl	1		10.026			ND	
	16 Nitroglycerin	2		10.472			ND	
	17 2,4,6-Trinitrotoluene	1		10.932			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.132			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.386			ND	
	20 2,6-Dinitrotoluene	1		11.546			ND	
	21 2,4-Dinitrotoluene	1		11.719			ND	
	22 o-Nitrotoluene	1		12.572			ND	U
	23 p-Nitrotoluene	1		12.999			ND	
	24 m-Nitrotoluene	1		13.572			ND	
	25 PETN	2		14.639			ND	
	26 Ammonium Picrate	1		0.000			ND	

QC Flag Legend
Processing Flags

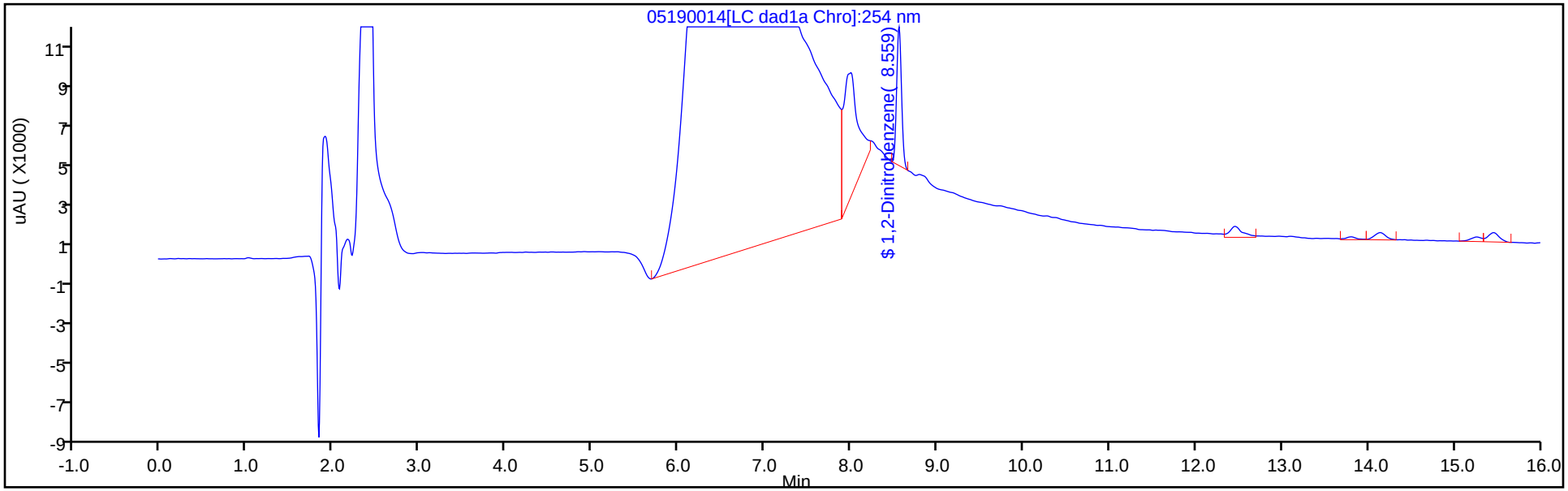
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 20-May-2022 13:40:12 Chrom Revision: 2.3 12-Apr-2022 20:29:44

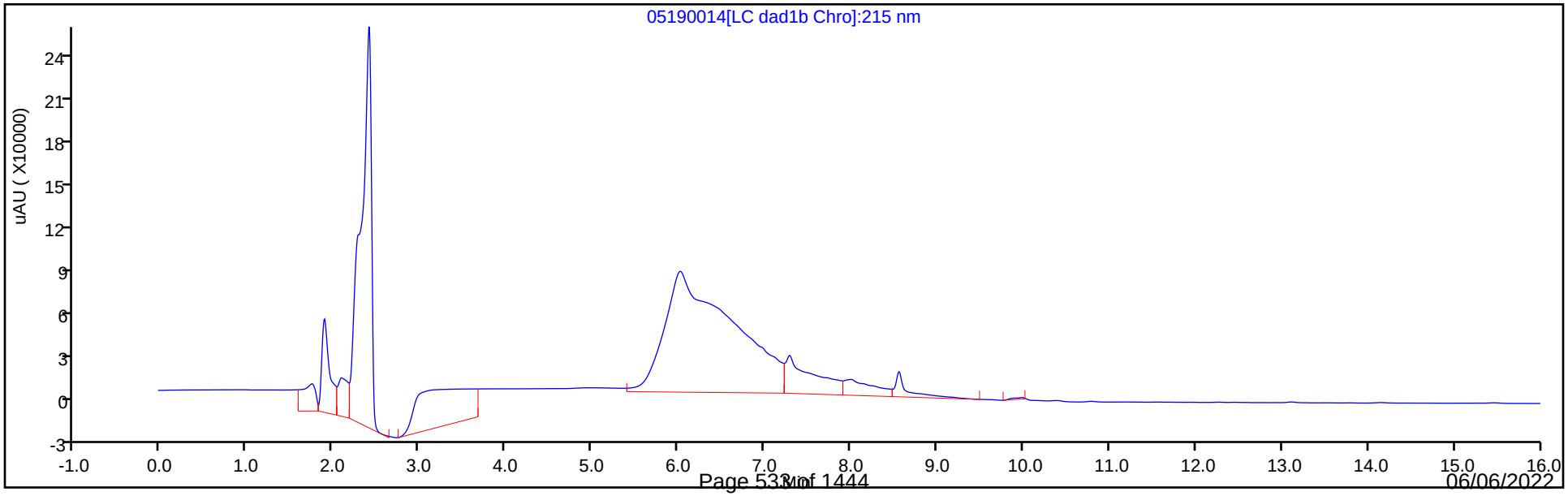
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190014.d				
Injection Date:	19-May-2022 22:00:15	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-A-1-A	Lab Sample ID:	280-162386-1	Worklist Smp#:	14
Client ID:	PZ007-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190014.D				
Lims ID:	280-162386-A-1-A				
Client ID:	PZ007-22A				
Sample Type:	Client				
Inject. Date:	19-May-2022 22:00:15	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-1-A				
Misc. Info.:	280-0111180-014				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 11:59:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2161	108.04

Manual Integration/User Assign Peak Report

Eurofins Denver

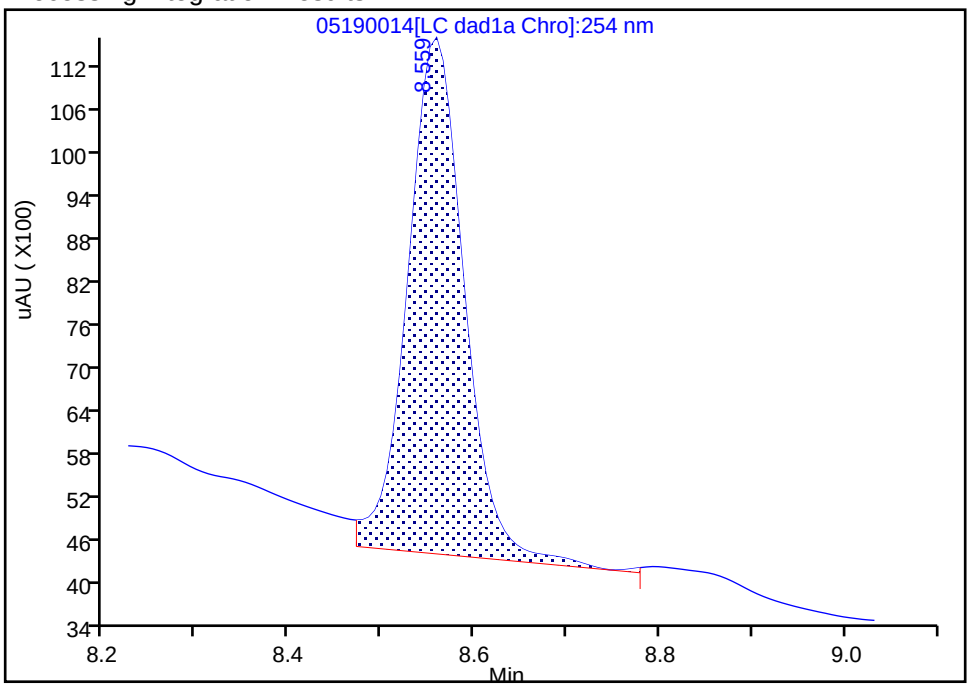
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190014.d				
Injection Date:	19-May-2022 22:00:15	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-1-A	Lab Sample ID:	280-162386-1		
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

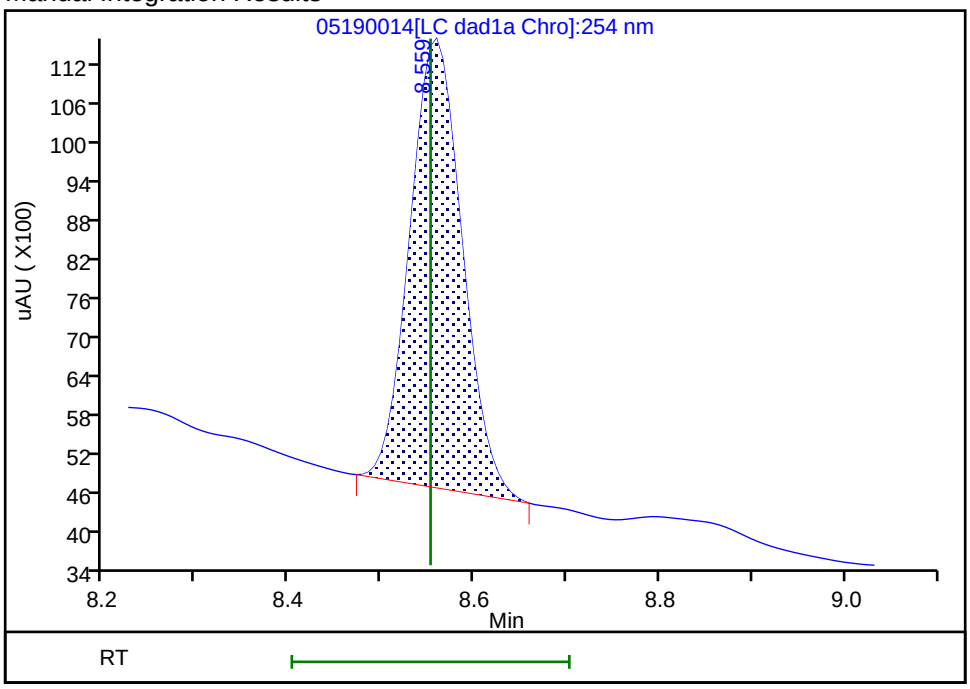
Processing Integration Results

RT: 8.56
Area: 30295
Amount: 0.242948
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 26944
Amount: 0.216075
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 11:59:37

Audit Action: Manually Integrated Audit Reason: Baseline

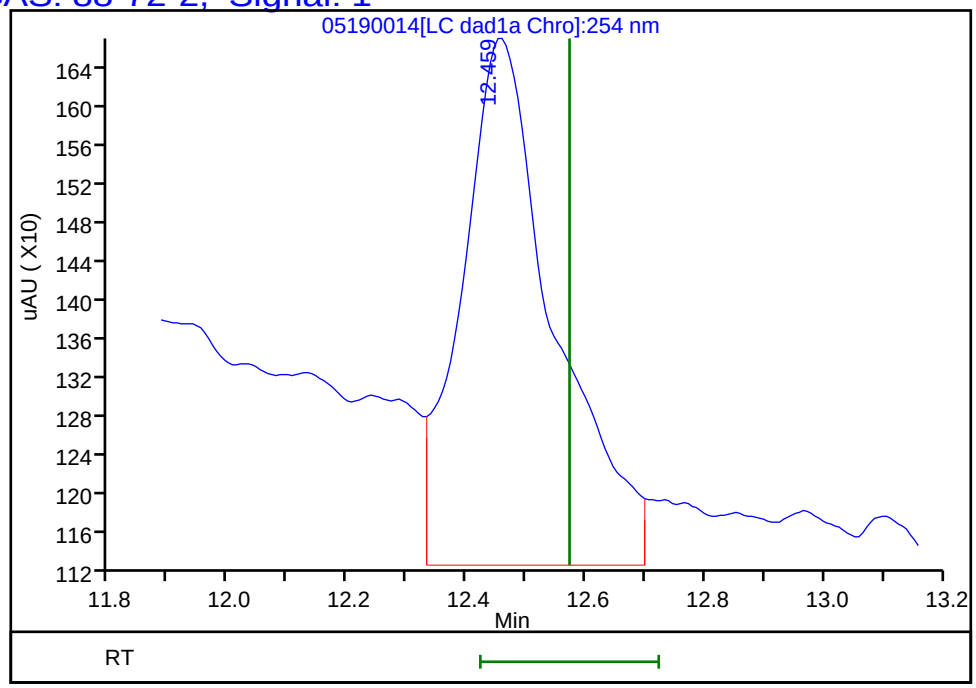
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190014.d				
Injection Date:	19-May-2022 22:00:15	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-1-A	Lab Sample ID:	280-162386-1		
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.46
Response: 5817
Amount: 0.045583



Reviewer: zhangji, 20-May-2022 11:59:39
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0087-22A | Lab Sample ID: 280-162386-2

Matrix: Water | Lab File ID: 05190019.D

Analysis Method: 8330A | Date Collected: 05/13/2022 13:15

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 501.7(mL) | Date Analyzed: 05/19/2022 23:54

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.42		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U M	0.21	0.20	0.085
99-08-1	3-Nitrotoluene	0.40	U	0.40	0.40	0.19
19406-51-0	4-Amino-2,6-dinitrotoluene	0.73		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.59	M	0.21	0.20	0.087
5755-27-1	MNX	0.40	U	2.0	0.40	0.15
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
121-82-4	RDX	0.19	J M	0.21	0.20	0.051
479-45-8	Tetryl	0.10	U M	0.11	0.10	0.032

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190019.D
Lims ID: 280-162386-A-2-A
Client ID: G0087-22A
Sample Type: Client
Inject. Date: 19-May-2022 23:54:44 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-2-A
Misc. Info.: 280-0111180-019
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:40:07 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:11:35

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.599	6.606	-0.007	4981	0.0594	M
7 MNX	1		7.219			ND	
8 RDX	1	7.599	7.599	0.000	1955	0.0189	M
$ 10 1,2-Dinitrobenzene	1	8.553	8.552	0.001	25703	0.2061	M
11 1,3,5-Trinitrobenzene	1		8.679			ND	
12 1,3-Dinitrobenzene	1	9.306	9.306	0.000	900	0.003121	7M
13 Nitrobenzene	1		9.699			ND	
15 Tetryl	1		10.026			ND	U
17 2,4,6-Trinitrotoluene	1		10.932			ND	
18 4-Amino-2,6-dinitrotoluene	1	11.132	11.132	0.000	11078	0.0734	
19 2-Amino-4,6-dinitrotoluene	1	11.379	11.386	-0.007	8434	0.0417	
20 2,6-Dinitrotoluene	1		11.546			ND	
21 2,4-Dinitrotoluene	1		11.719			ND	
22 o-Nitrotoluene	1		12.572			ND	U
23 p-Nitrotoluene	1		12.999			ND	
24 m-Nitrotoluene	1		13.572			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

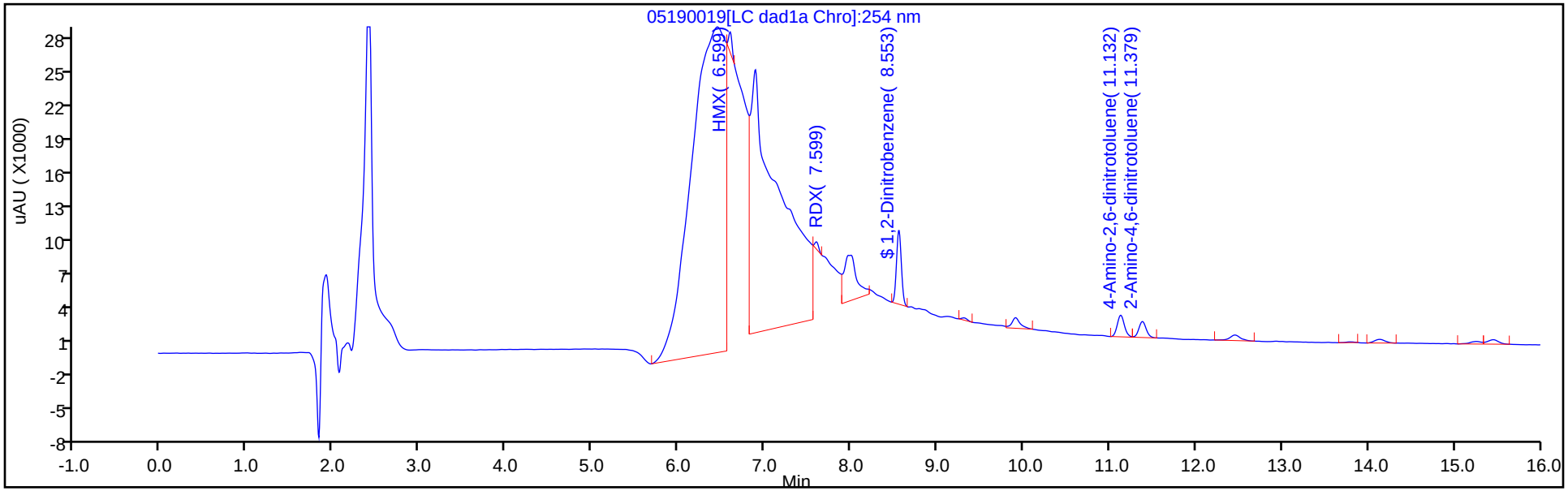
Report Date: 20-May-2022 13:40:08 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

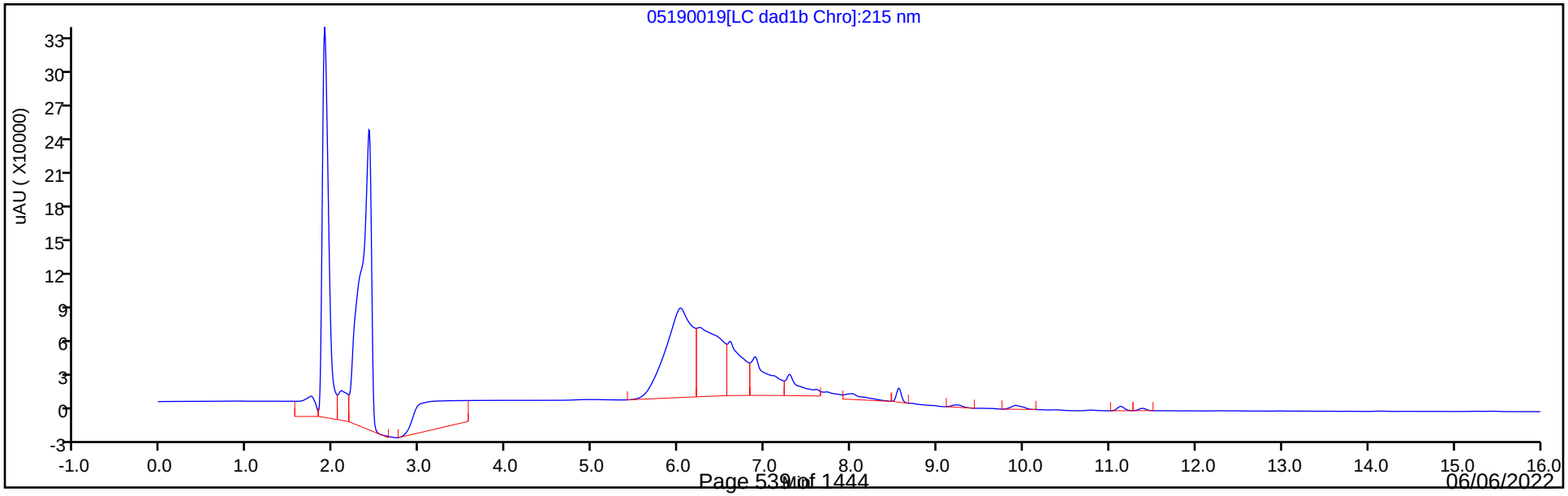
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190019.d

Injection Date:	19-May-2022 23:54:44	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2	Worklist Smp#:	19
Client ID:	G0087-22A				
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



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190019.D				
Lims ID:	280-162386-A-2-A				
Client ID:	G0087-22A				
Sample Type:	Client				
Inject. Date:	19-May-2022 23:54:44	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-2-A				
Misc. Info.:	280-0111180-019				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:11:35

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2061	103.06

Manual Integration/User Assign Peak Report

Eurofins Denver

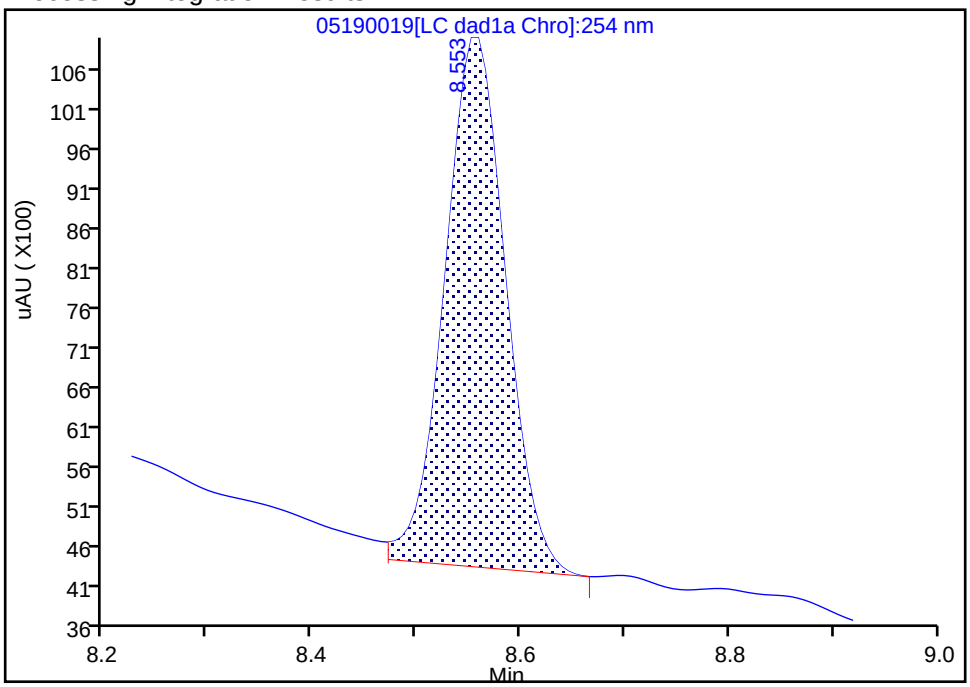
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190019.d				
Injection Date:	19-May-2022 23:54:44	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2		
Client ID:	G0087-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

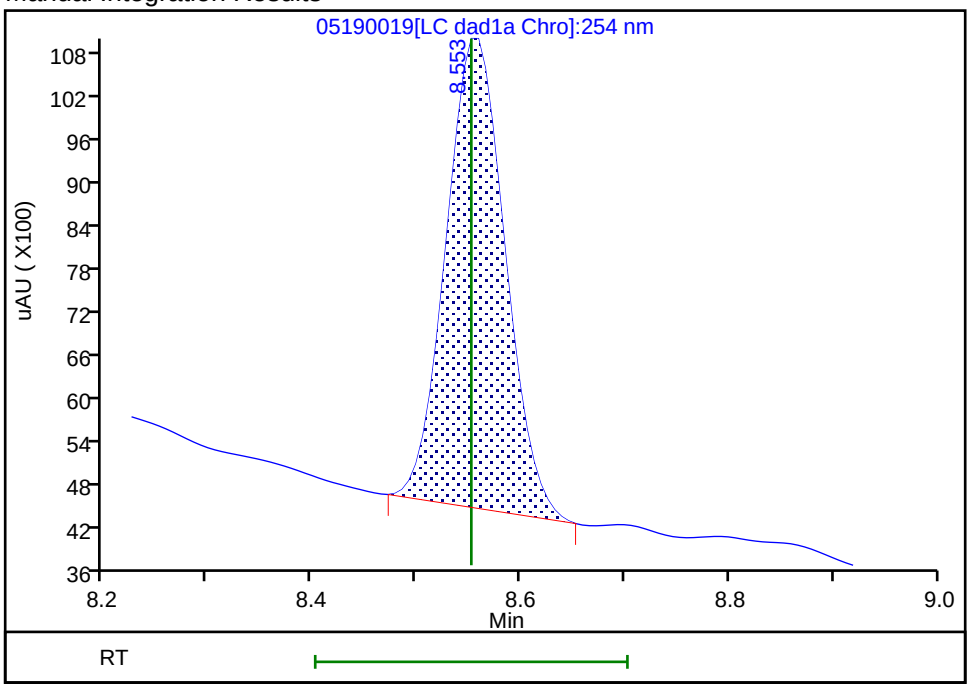
Processing Integration Results

RT: 8.55
Area: 26966
Amount: 0.216251
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 25703
Amount: 0.206123
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:11:25

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

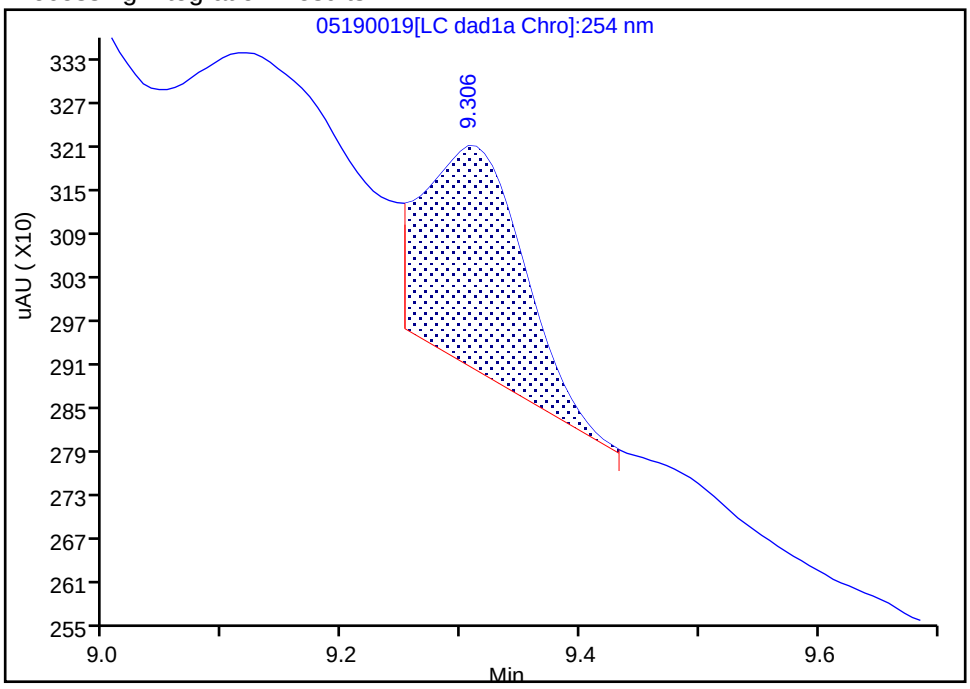
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190019.d				
Injection Date:	19-May-2022 23:54:44	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2		
Client ID:	G0087-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

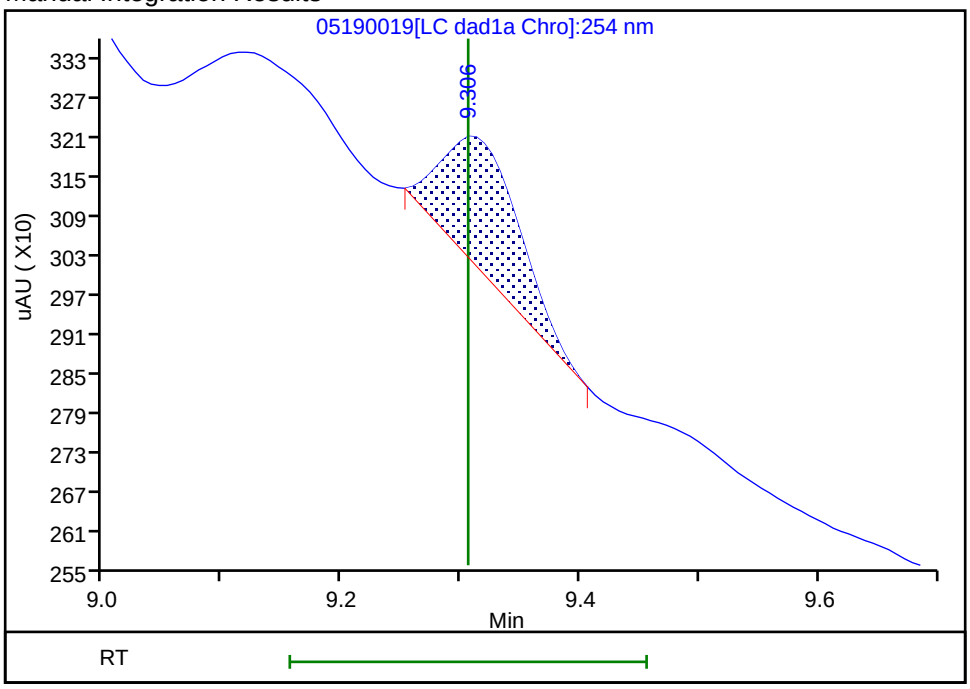
Processing Integration Results

RT: 9.31
Area: 1789
Amount: 0.006203
Amount Units: ug/mL



Manual Integration Results

RT: 9.31
Area: 900
Amount: 0.003121
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:11:29

Audit Action: Manually Integrated Audit Reason: Baseline

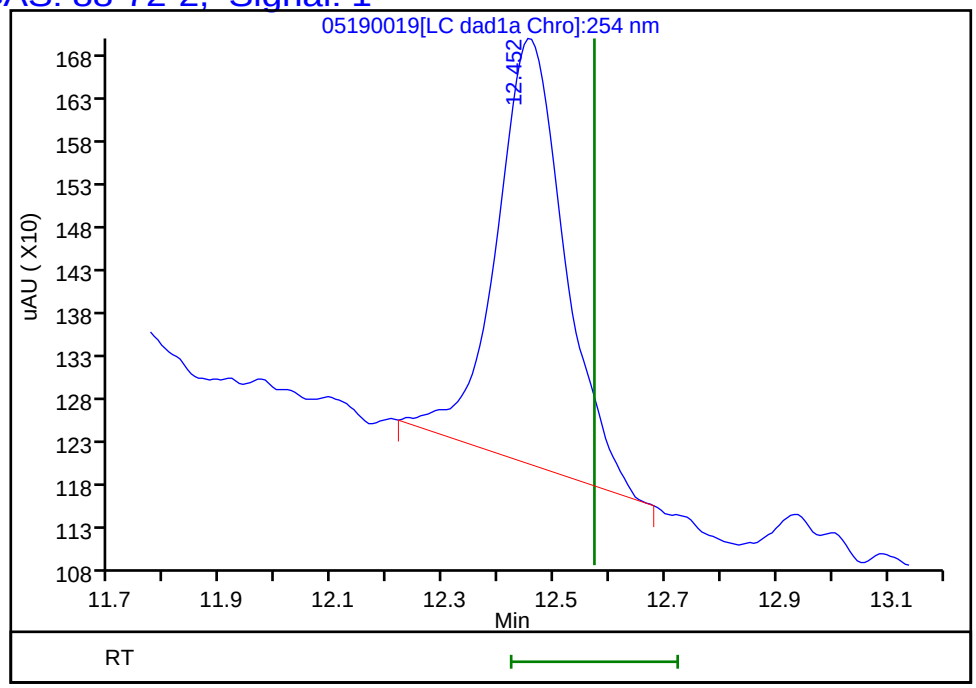
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190019.d				
Injection Date:	19-May-2022 23:54:44	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2		
Client ID:	G0087-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.45
Response: 4220
Amount: 0.033069



Reviewer: zhangji, 20-May-2022 12:11:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

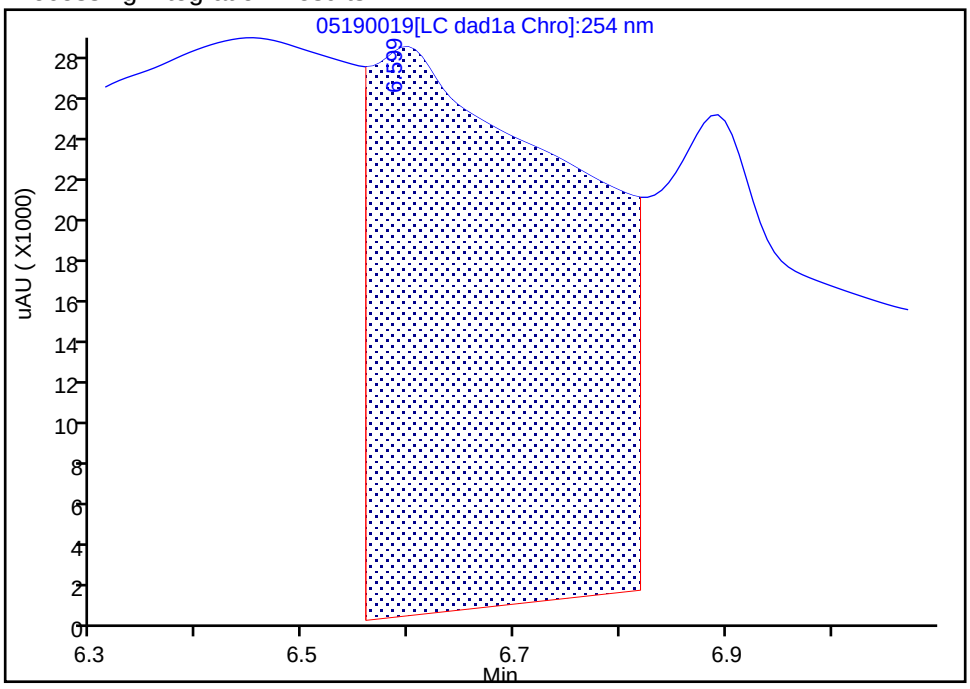
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190019.d				
Injection Date:	19-May-2022 23:54:44	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2		
Client ID:	G0087-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

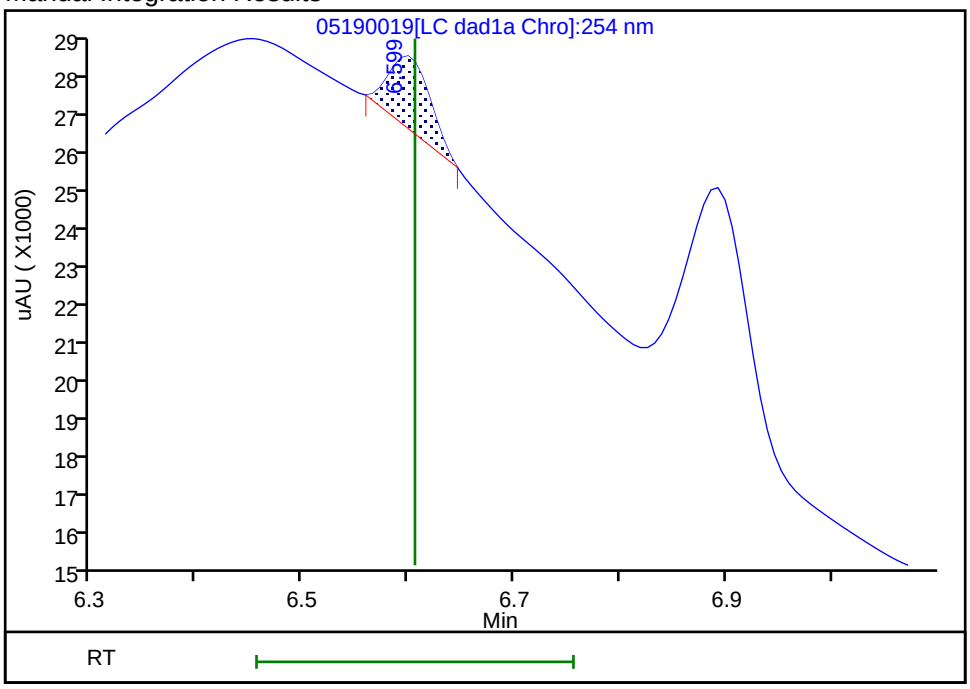
Processing Integration Results

RT: 6.60
Area: 368471
Amount: 4.395602
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 4981
Amount: 0.059420
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:11:17

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

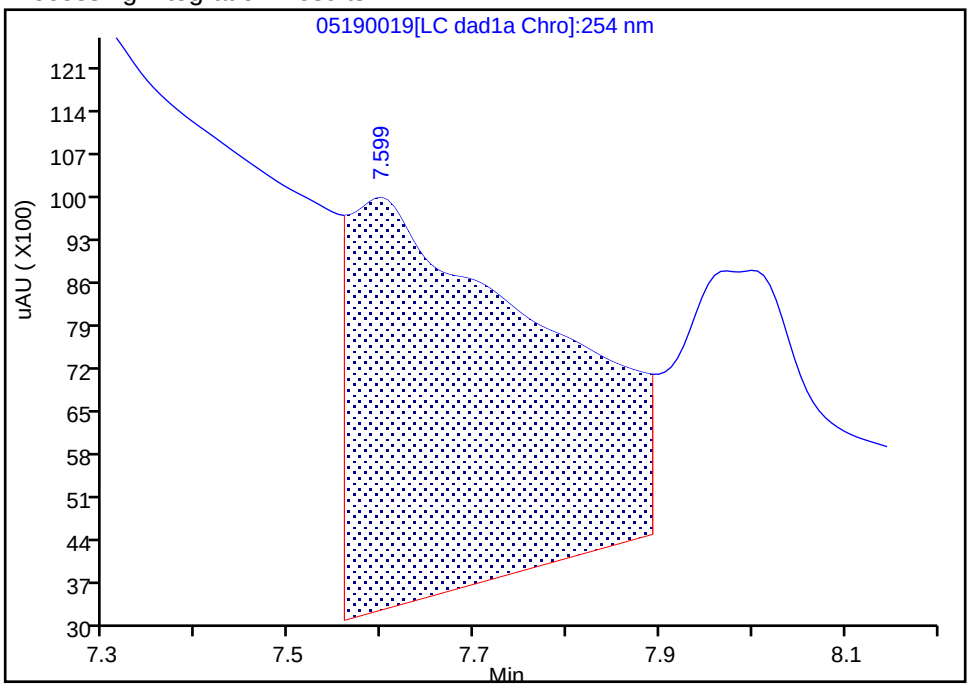
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190019.d				
Injection Date:	19-May-2022 23:54:44	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2		
Client ID:	G0087-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

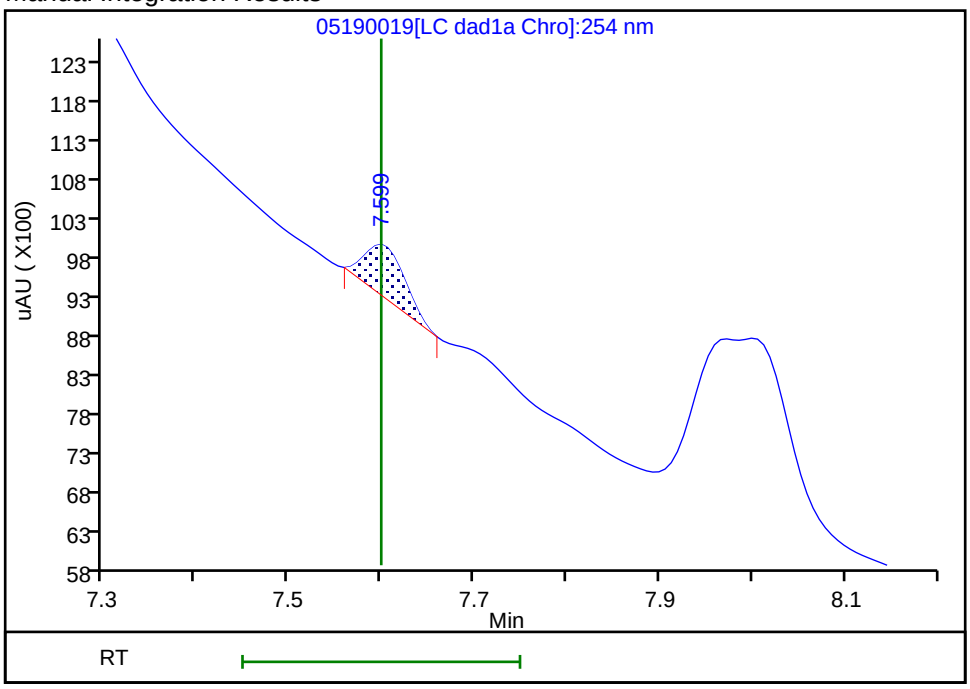
Processing Integration Results

RT: 7.60
Area: 92150
Amount: 0.889400
Amount Units: ug/mL



Manual Integration Results

RT: 7.60
Area: 1955
Amount: 0.018869
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:11:21

Audit Action: Manually Integrated Audit Reason: Baseline

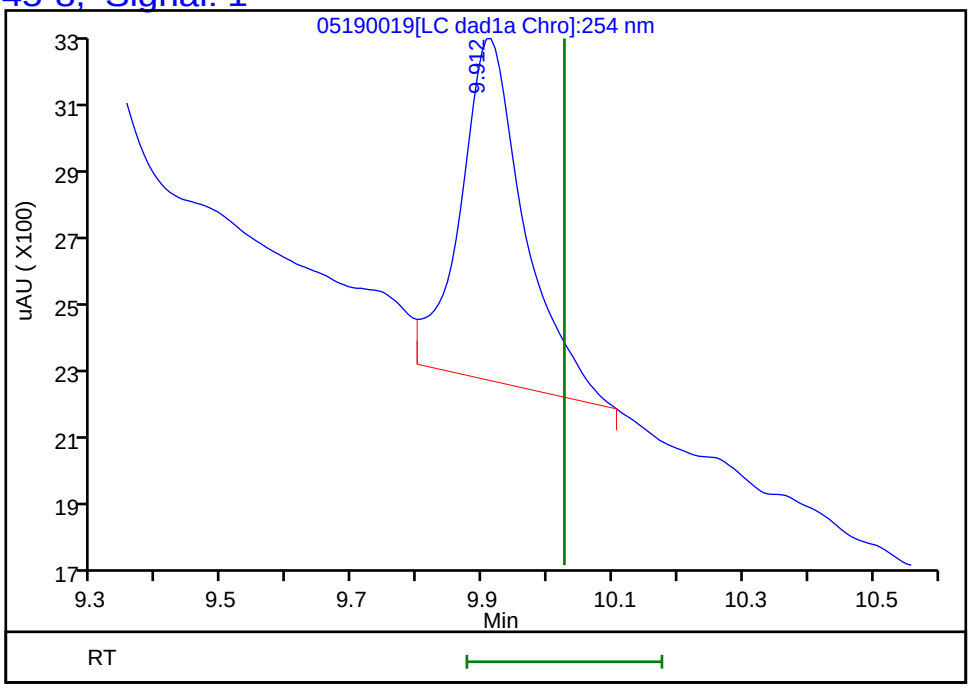
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190019.d				
Injection Date:	19-May-2022 23:54:44	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2		
Client ID:	G0087-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 9.91
Response: 6416
Amount: 0.037616



Reviewer: zhangji, 20-May-2022 12:11:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0087-22A | Lab Sample ID: 280-162386-2

Matrix: Water | Lab File ID: 05200013.D

Analysis Method: 8330A | Date Collected: 05/13/2022 13:15

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 501.7(mL) | Date Analyzed: 05/20/2022 19:46

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575712 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	102		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200013.D
Lims ID: 280-162386-A-2-A
Client ID: G0087-22A
Sample Type: Client
Inject. Date: 20-May-2022 19:46:55 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-2-A
Misc. Info.: 280-0111212-013
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-May-2022 12:33:09 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1646

First Level Reviewer: zhangji Date: 20-May-2022 20:44:52

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1	6.770	6.808	-0.038	10215	0.0615	M
	6 MNX	1		7.509			ND	
	8 RDX	1	8.943	8.988	-0.045	4390	0.0226	M
	9 Nitrobenzene	1		11.961			ND	
$	10 1,2-Dinitrobenzene	1	13.136	13.181	-0.045	50892	0.2038	
	12 1,3-Dinitrobenzene	1		15.507			ND	
	14 o-Nitrotoluene	1		16.741			ND	7
	16 p-Nitrotoluene	1		17.047			ND	
	17 4-Amino-2,6-dinitrotoluene	1	17.610	17.654	-0.044	22118	0.0830	
	18 m-Nitrotoluene	1		18.027			ND	
	19 2-Amino-4,6-dinitrotoluene	1	18.583	18.667	-0.084	20509	0.0569	
	20 1,3,5-Trinitrobenzene	1		18.807			ND	
	21 2,6-Dinitrotoluene	1		20.174			ND	
	22 2,4-Dinitrotoluene	1		20.681			ND	
	23 Tetryl	1		24.428			ND	U
	24 2,4,6-Trinitrotoluene	1		25.188			ND	U

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

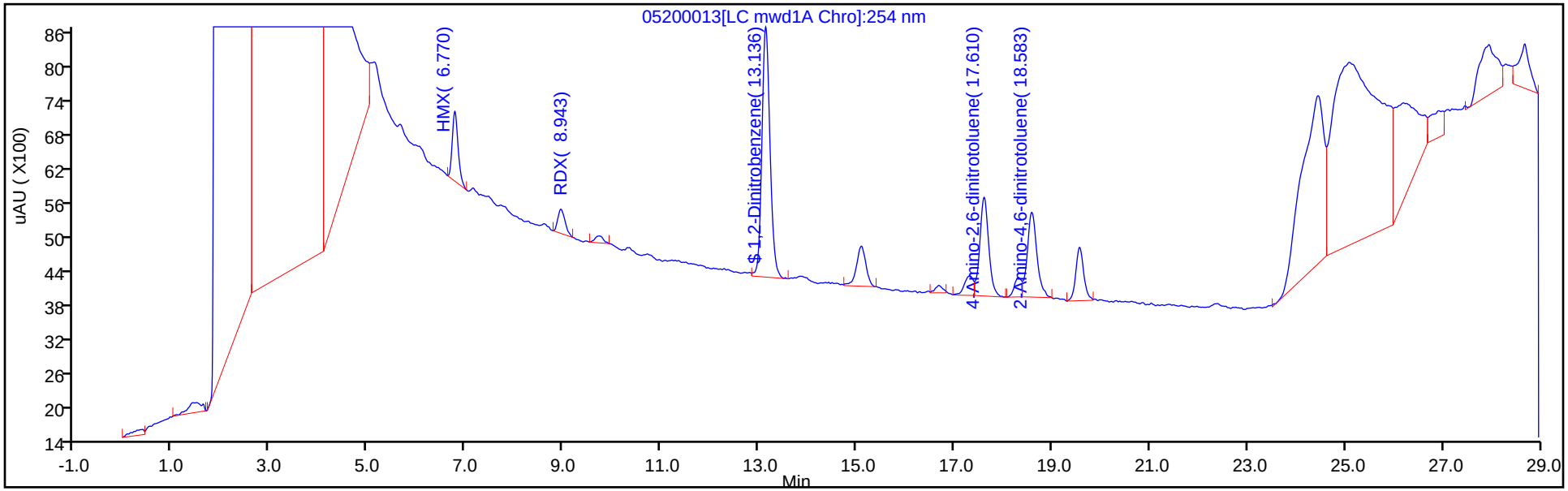
Report Date: 21-May-2022 12:33:11 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

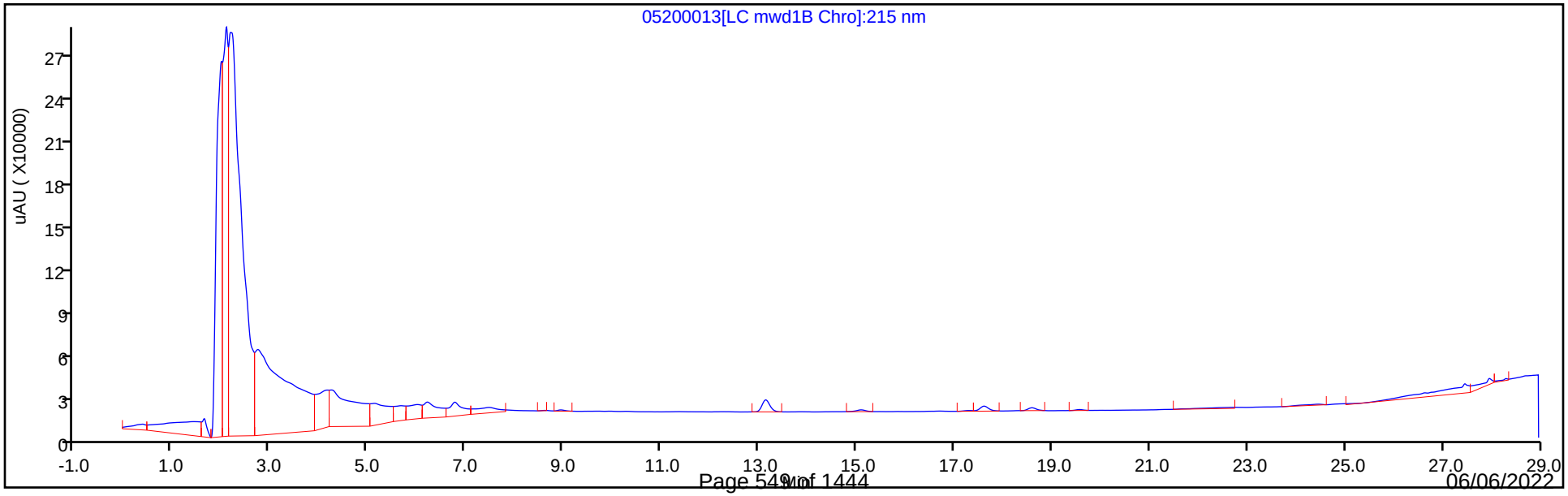
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200013.D

Injection Date:	20-May-2022 19:46:55	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2	Worklist Smp#:	13
Client ID:	G0087-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200013.D				
Lims ID:	280-162386-A-2-A				
Client ID:	G0087-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 19:46:55	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-2-A				
Misc. Info.:	280-0111212-013				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-May-2022 12:33:09	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1646				
First Level Reviewer: zhangji		Date:	20-May-2022 20:44:52		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2038	101.88

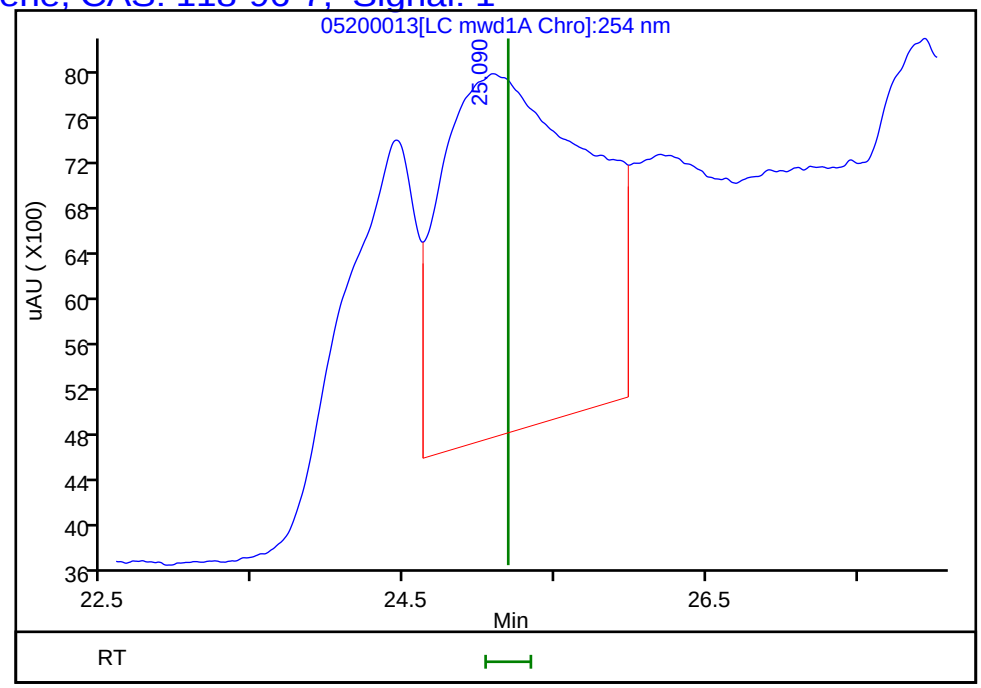
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200013.D				
Injection Date:	20-May-2022 19:46:55	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2		
Client ID:	G0087-22A				
Operator ID:	JZ	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 25.09
Response: 213865
Amount: 0.579299



Reviewer: zhangji, 20-May-2022 20:44:52
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

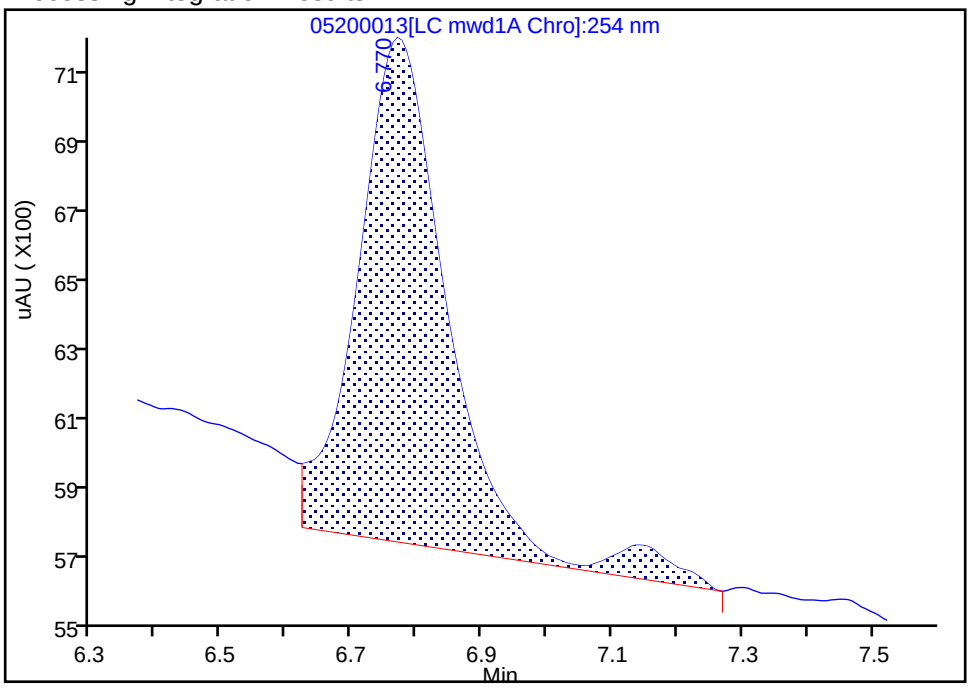
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200013.D				
Injection Date:	20-May-2022 19:46:55	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2		
Client ID:	G0087-22A				
Operator ID:	JZ	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

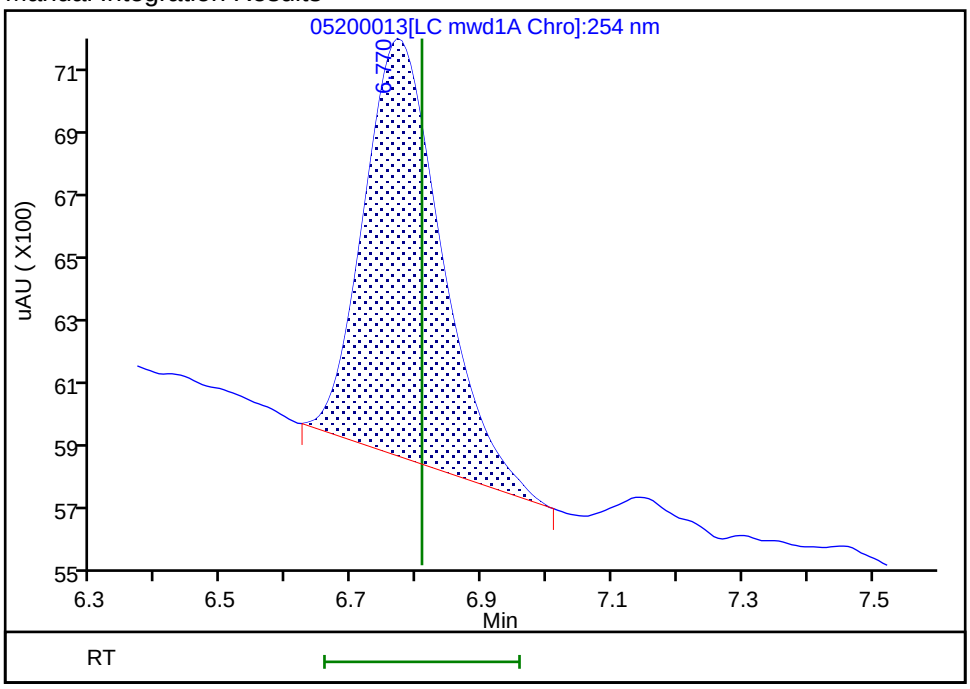
Processing Integration Results

RT: 6.77
Area: 13063
Amount: 0.078629
Amount Units: ug/ml



Manual Integration Results

RT: 6.77
Area: 10215
Amount: 0.061486
Amount Units: ug/ml



Reviewer: zhangji, 20-May-2022 20:44:35

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

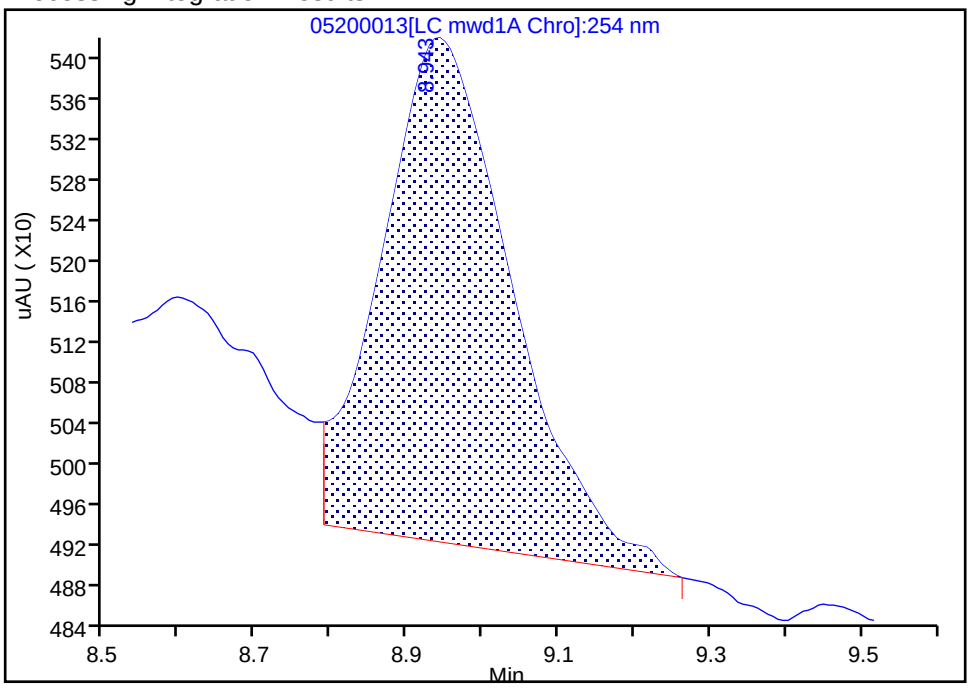
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200013.D				
Injection Date:	20-May-2022 19:46:55	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2		
Client ID:	G0087-22A				
Operator ID:	JZ	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

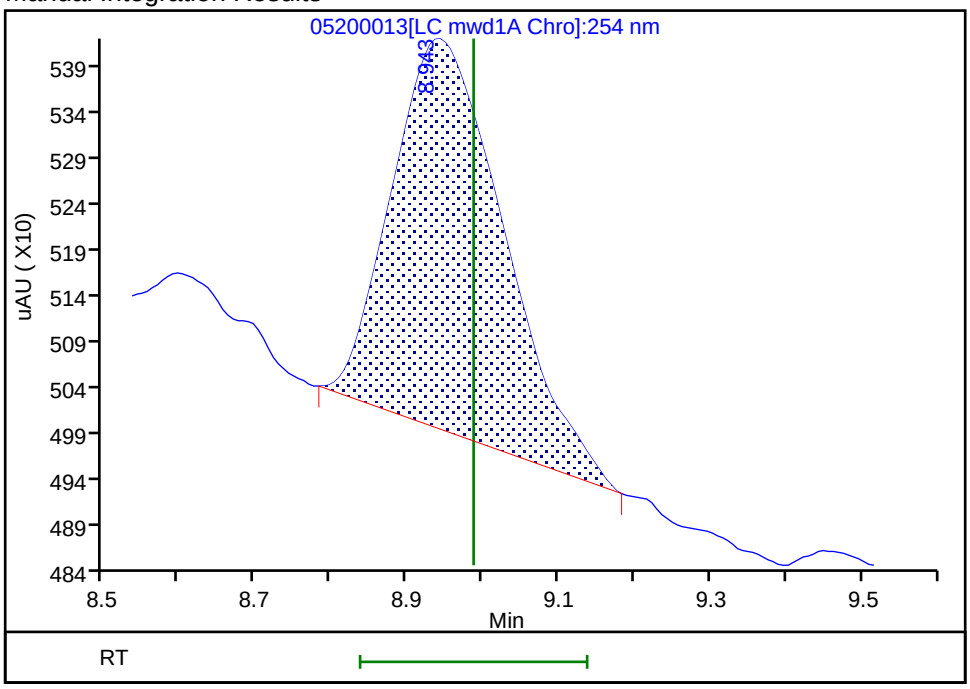
Processing Integration Results

RT: 8.94
Area: 5960
Amount: 0.030669
Amount Units: ug/ml



Manual Integration Results

RT: 8.94
Area: 4390
Amount: 0.022590
Amount Units: ug/ml



Reviewer: zhangji, 20-May-2022 20:44:38

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

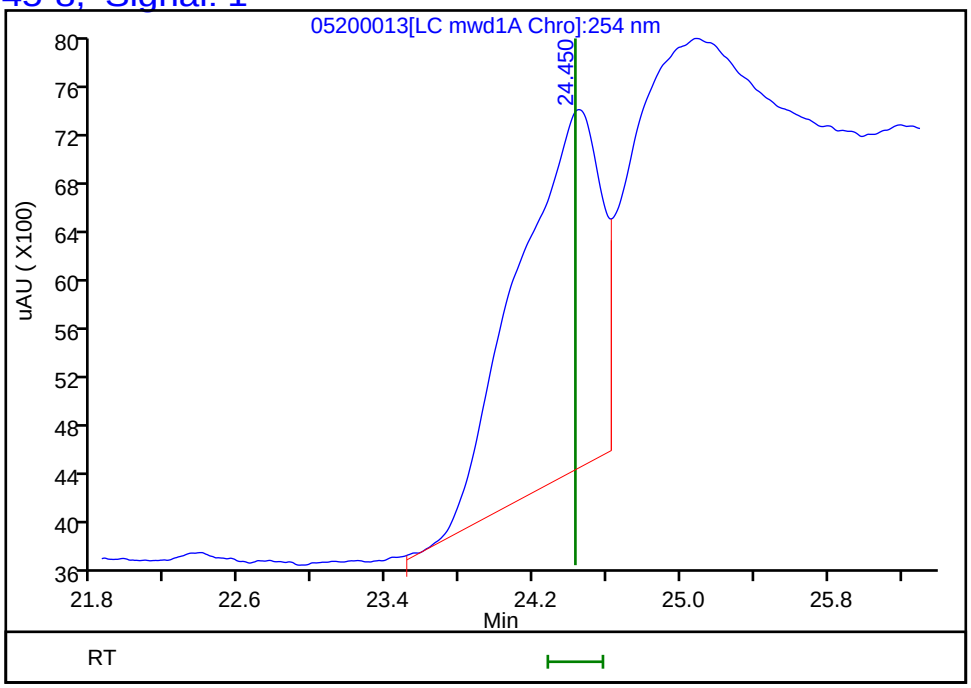
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200013.D				
Injection Date:	20-May-2022 19:46:55	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-2-A	Lab Sample ID:	280-162386-2		
Client ID:	G0087-22A				
Operator ID:	JZ	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 24.45
Response: 95650
Amount: 0.279539



Reviewer: zhangji, 20-May-2022 20:44:52
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0117-22A | Lab Sample ID: 280-162386-3

Matrix: Water | Lab File ID: 05190020.D

Analysis Method: 8330A | Date Collected: 05/13/2022 12:55

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 497.3(mL) | Date Analyzed: 05/20/2022 00:17

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.085
118-96-7	2,4,6-Trinitrotoluene	0.10	U M	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.028
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U M	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.40	U	0.40	0.40	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.20	U	0.21	0.20	0.088
5755-27-1	MNX	0.40	U M	2.0	0.40	0.15
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U M	0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190020.D
Lims ID: 280-162386-B-3-A
Client ID: G0117-22A
Sample Type: Client
Inject. Date: 20-May-2022 00:17:42 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-B-3-A
Misc. Info.: 280-0111180-020
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:40:07 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:14:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.606			ND	
7 MNX	1		7.219			ND	U
8 RDX	1		7.599			ND	
$ 10 1,2-Dinitrobenzene	1	8.553	8.552	0.001	24918	0.1998	M
11 1,3,5-Trinitrobenzene	1		8.679			ND	
12 1,3-Dinitrobenzene	1	9.333	9.306	0.027	150921	0.5233	M
13 Nitrobenzene	1		9.699			ND	
15 Tetryl	1		10.026			ND	U
17 2,4,6-Trinitrotoluene	1		10.932			ND	U
18 4-Amino-2,6-dinitrotoluene	1		11.132			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.386			ND	
20 2,6-Dinitrotoluene	1		11.546			ND	
21 2,4-Dinitrotoluene	1		11.719			ND	
22 o-Nitrotoluene	1		12.572			ND	U
23 p-Nitrotoluene	1		12.999			ND	
24 m-Nitrotoluene	1		13.572			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

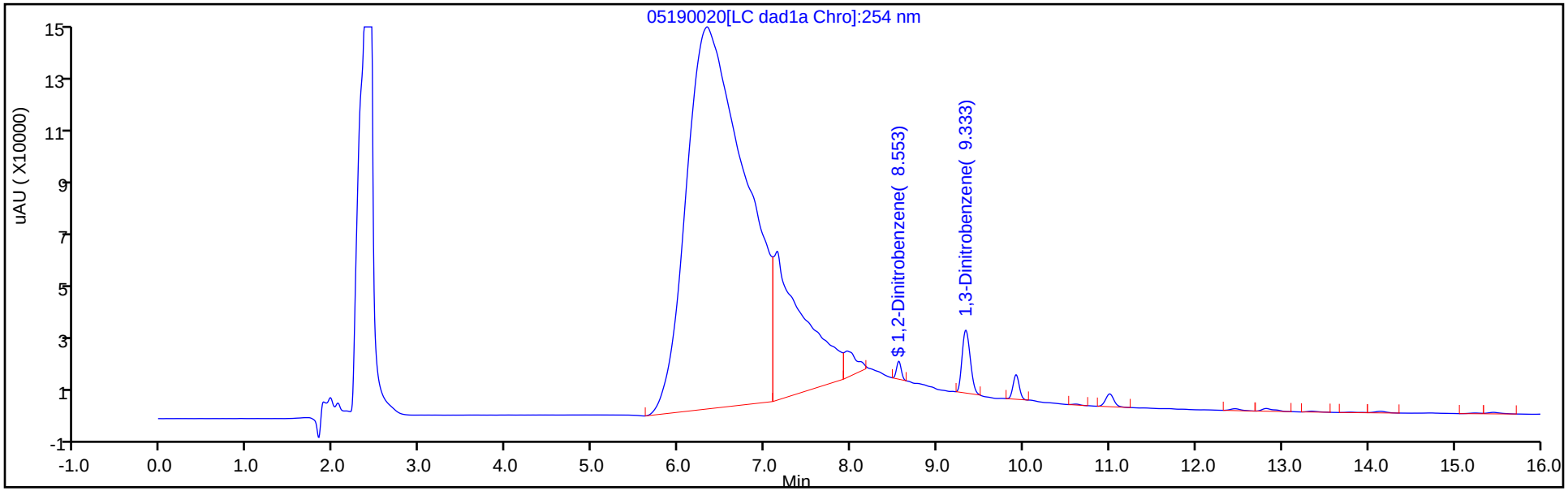
Report Date: 20-May-2022 13:40:08 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

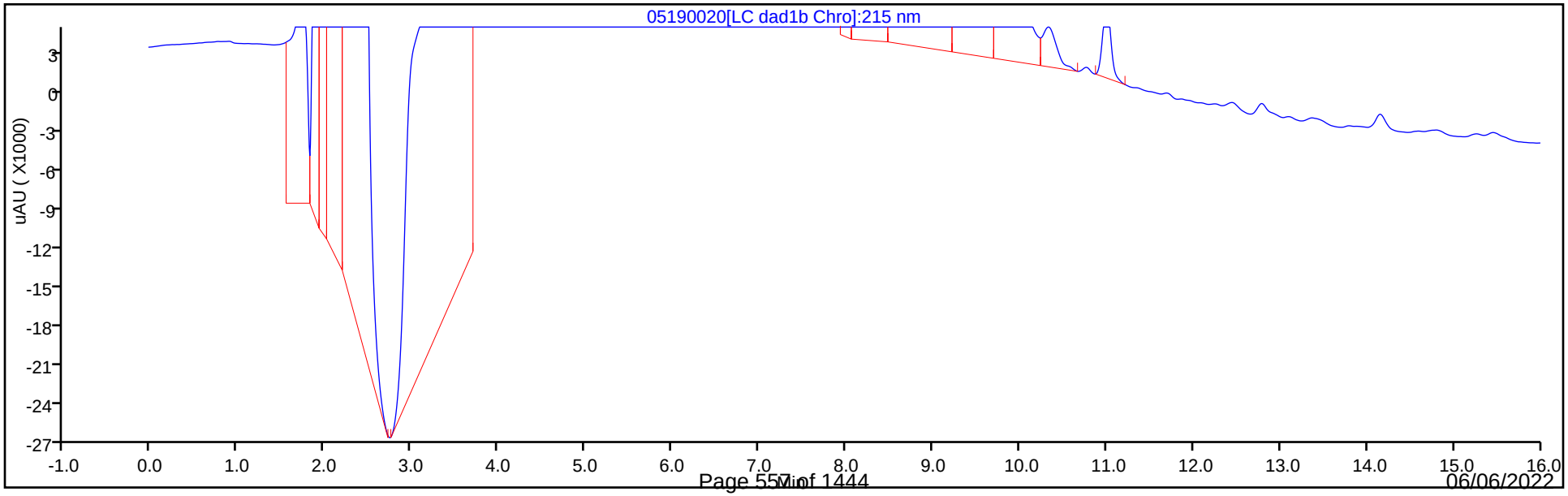
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190020.d

Injection Date:	20-May-2022 00:17:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-B-3-A	Lab Sample ID:	280-162386-3	Worklist Smp#:	20
Client ID:	G0117-22A				
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



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190020.D				
Lims ID:	280-162386-B-3-A				
Client ID:	G0117-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 00:17:42	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-B-3-A				
Misc. Info.:	280-0111180-020				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:14:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1998	99.91

Manual Integration/User Assign Peak Report

Eurofins Denver

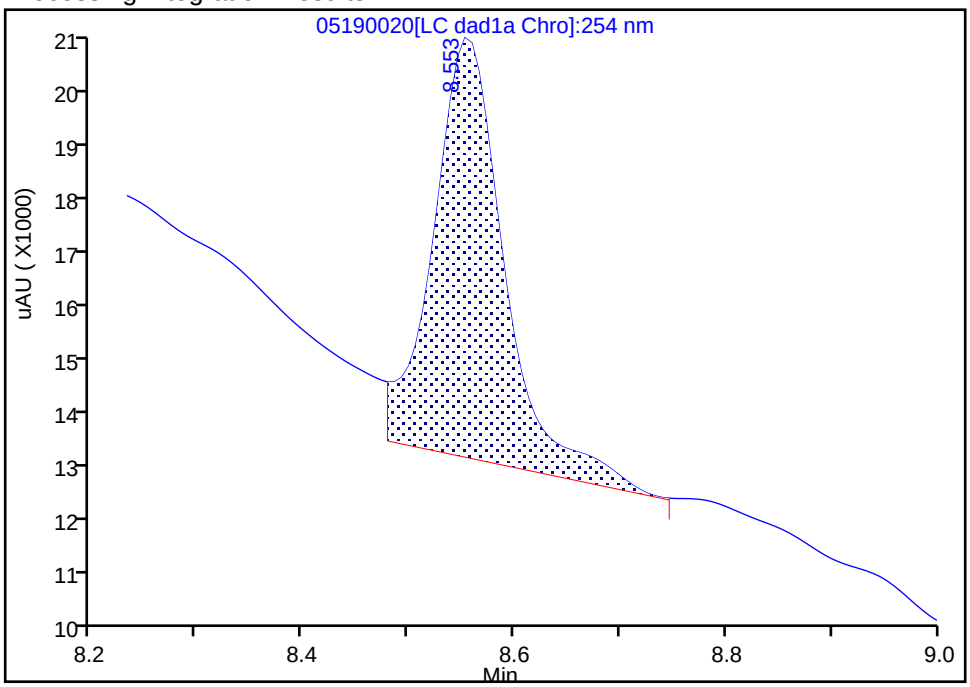
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190020.d				
Injection Date:	20-May-2022 00:17:42	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-3-A	Lab Sample ID:	280-162386-3		
Client ID:	G0117-22A				
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

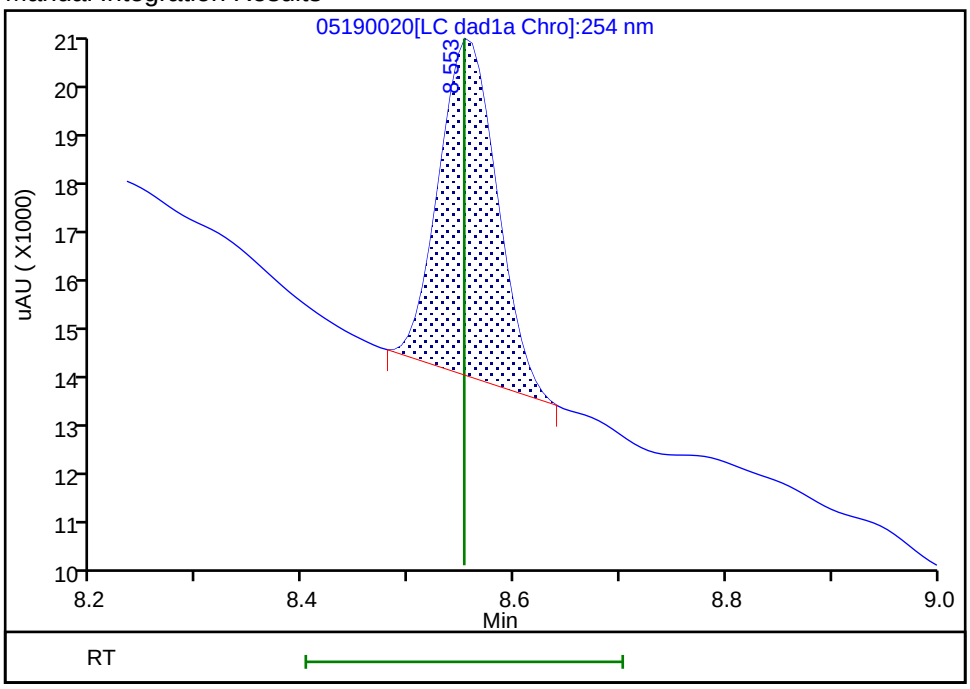
Processing Integration Results

RT: 8.55
Area: 34484
Amount: 0.276541
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 24918
Amount: 0.199827
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:14:51

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

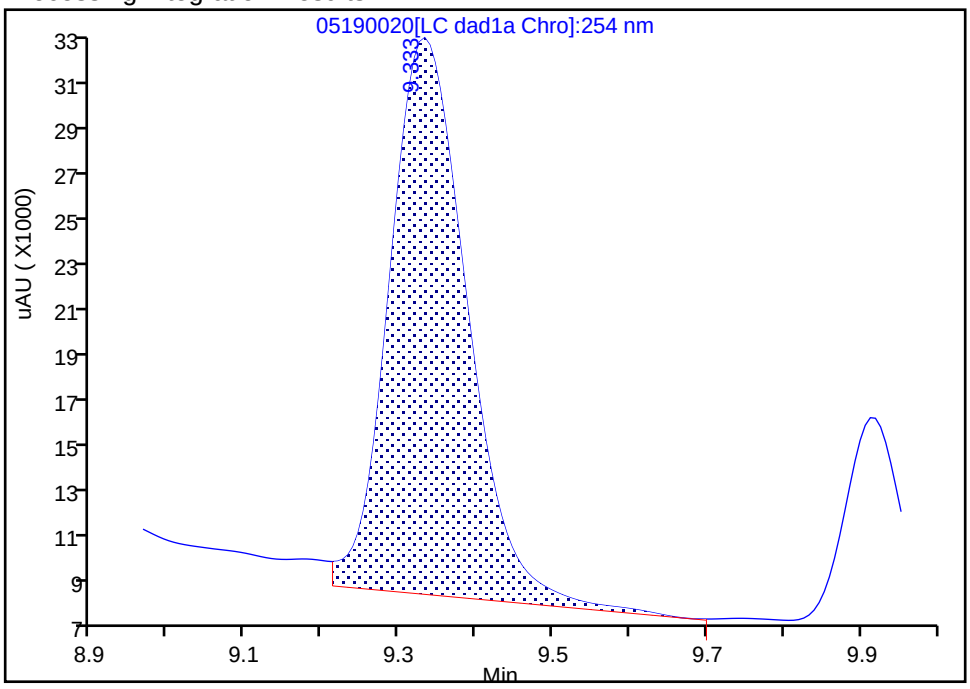
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190020.d				
Injection Date:	20-May-2022 00:17:42	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-3-A	Lab Sample ID:	280-162386-3		
Client ID:	G0117-22A				
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

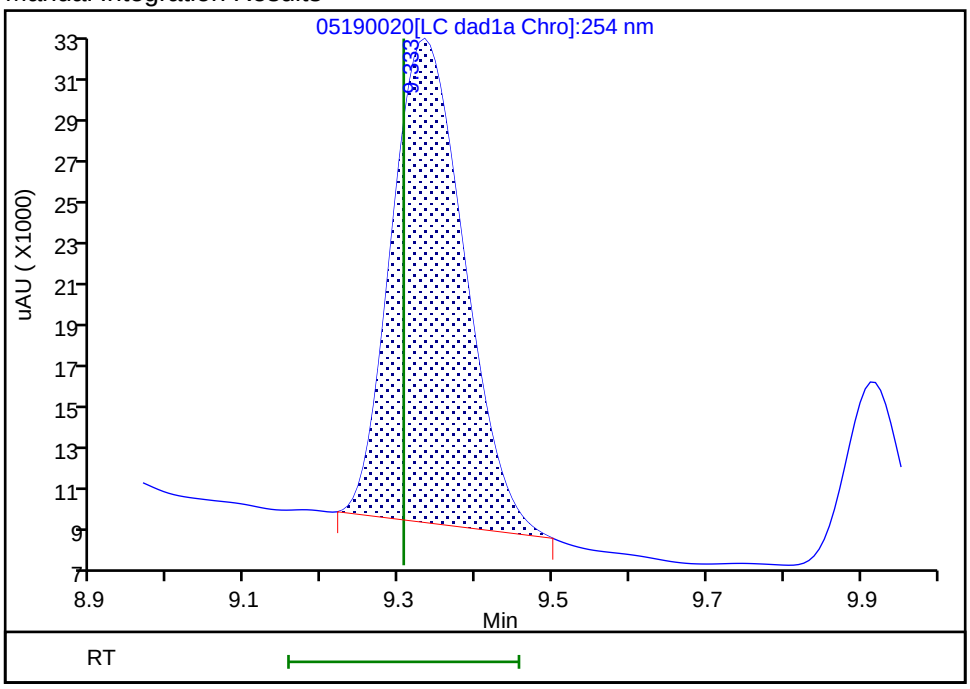
Processing Integration Results

RT: 9.33
Area: 168320
Amount: 0.583631
Amount Units: ug/mL



Manual Integration Results

RT: 9.33
Area: 150921
Amount: 0.523302
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:14:55

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

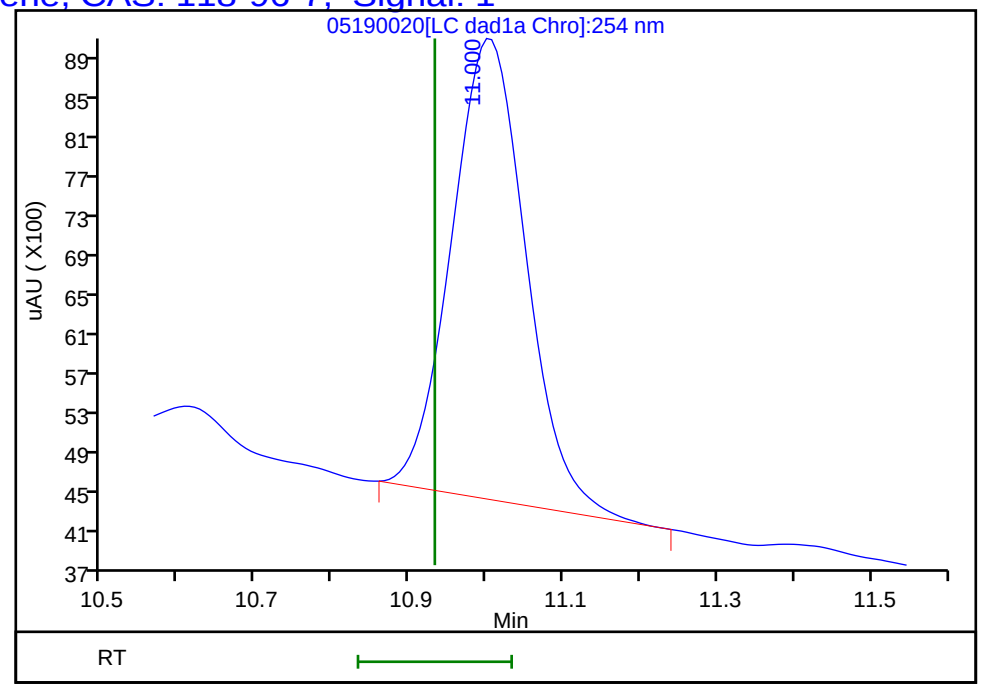
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190020.d
Injection Date: 20-May-2022 00:17:42 Instrument ID: CHHPLC_X3
Lims ID: 280-162386-B-3-A Lab Sample ID: 280-162386-3
Client ID: G0117-22A
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

17 2,4,6-Trinitrotoluene, CAS: 118-96-7, Signal: 1

RT: 11.00
Response: 31529
Amount: 0.155525



Reviewer: zhangji, 20-May-2022 12:14:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

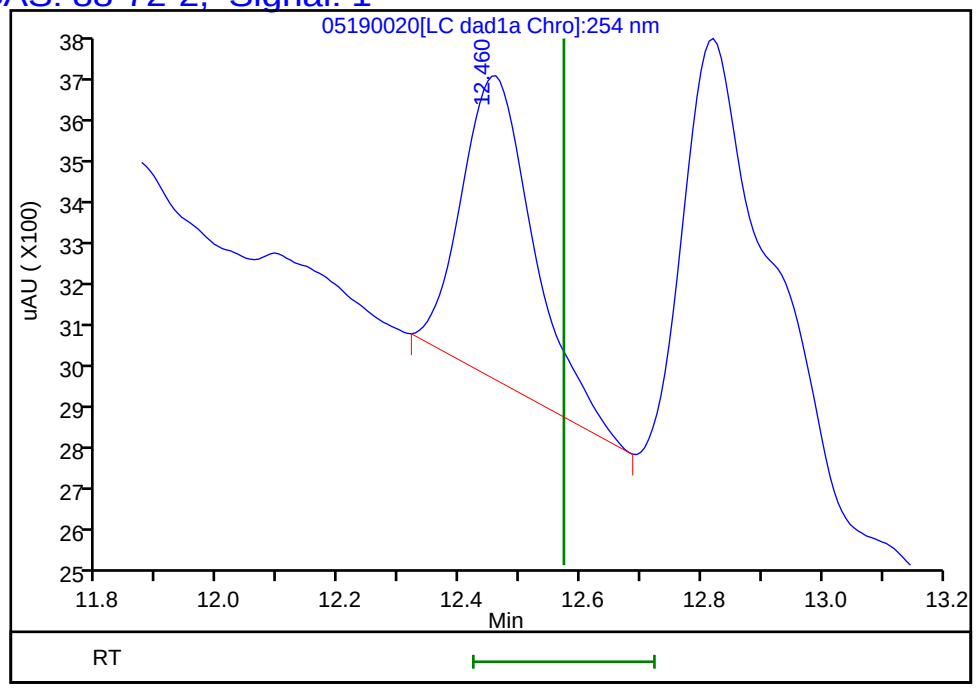
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190020.d				
Injection Date:	20-May-2022 00:17:42	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-3-A	Lab Sample ID:	280-162386-3		
Client ID:	G0117-22A				
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.46
Response: 5728
Amount: 0.044885



Reviewer: zhangji, 20-May-2022 12:14:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

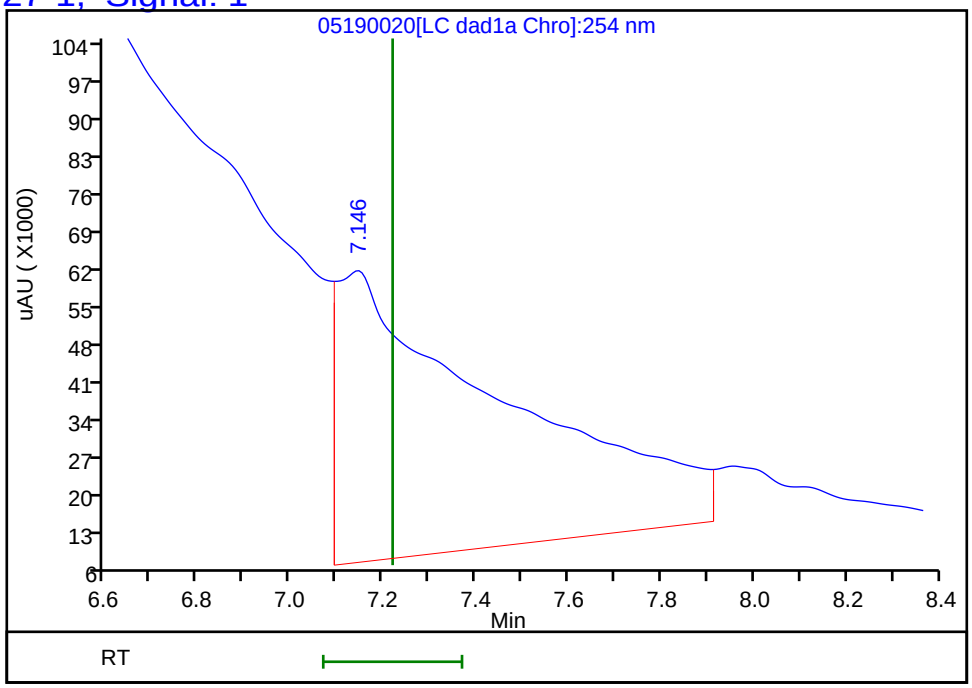
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190020.d				
Injection Date:	20-May-2022 00:17:42	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-3-A	Lab Sample ID:	280-162386-3		
Client ID:	G0117-22A				
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.15
Response: 1334219
Amount: 10.589425



Reviewer: zhangji, 20-May-2022 12:14:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

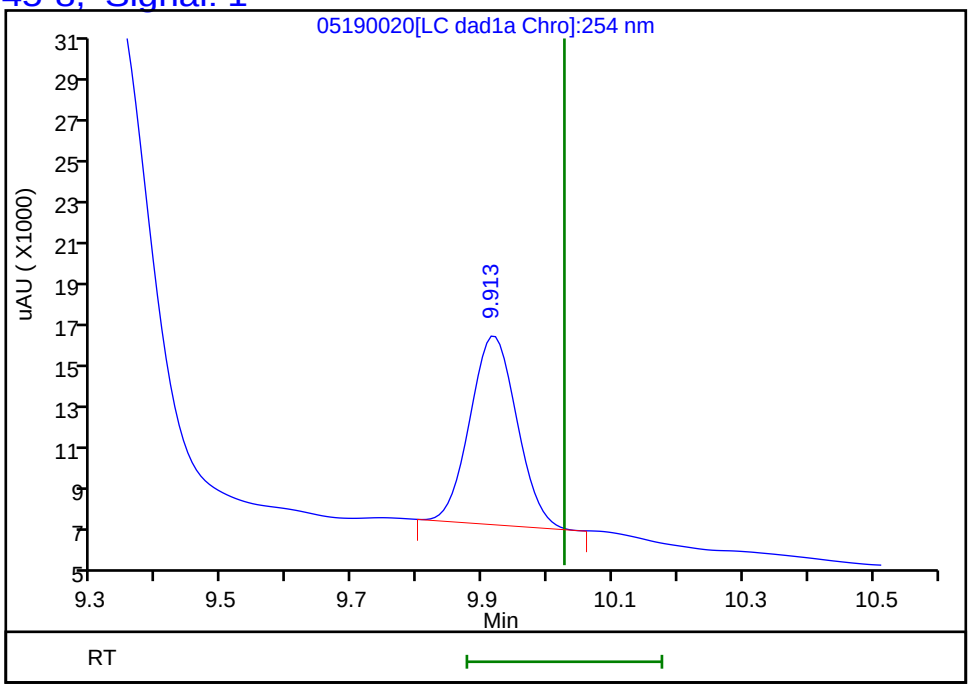
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190020.d				
Injection Date:	20-May-2022 00:17:42	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-3-A	Lab Sample ID:	280-162386-3		
Client ID:	G0117-22A				
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 9.91
Response: 44908
Amount: 0.263287



Reviewer: zhangji, 20-May-2022 12:14:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0117-22A | Lab Sample ID: 280-162386-3

Matrix: Water | Lab File ID: 05200014.D

Analysis Method: 8330A | Date Collected: 05/13/2022 12:55

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 497.3(mL) | Date Analyzed: 05/20/2022 20:21

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575712 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	106	*M*	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200014.D
Lims ID: 280-162386-B-3-A
Client ID: G0117-22A
Sample Type: Client
Inject. Date: 20-May-2022 20:21:53 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-B-3-A
Misc. Info.: 280-0111212-014
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-May-2022 12:33:09 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1646

First Level Reviewer: zhangji Date: 20-May-2022 20:57:37

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1		6.808			ND	
	6 MNX	1		7.509			ND	
	8 RDX	1		8.988			ND	
	9 Nitrobenzene	1		11.961			ND	
$	10 1,2-Dinitrobenzene	1	13.122	13.181	-0.059	52747	0.2112	M
	12 1,3-Dinitrobenzene	1		15.507			ND	
	14 o-Nitrotoluene	1	16.655	16.741	-0.086	1342	0.005719	7M
	16 p-Nitrotoluene	1		17.047			ND	
	17 4-Amino-2,6-dinitrotoluene	1		17.654			ND	
	18 m-Nitrotoluene	1		18.027			ND	
	19 2-Amino-4,6-dinitrotoluene	1		18.667			ND	
	20 1,3,5-Trinitrobenzene	1		18.807			ND	
	21 2,6-Dinitrotoluene	1		20.174			ND	
	22 2,4-Dinitrotoluene	1		20.681			ND	7
	23 Tetryl	1		24.428			ND	U
	24 2,4,6-Trinitrotoluene	1		25.188			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

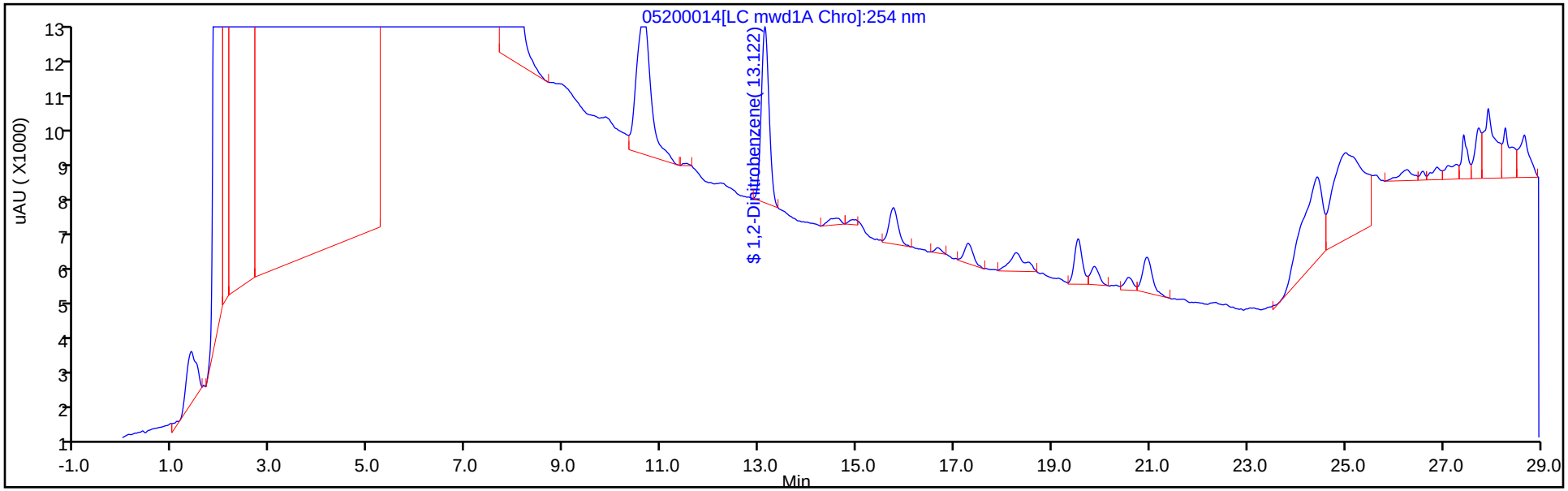
Report Date: 21-May-2022 12:33:11 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

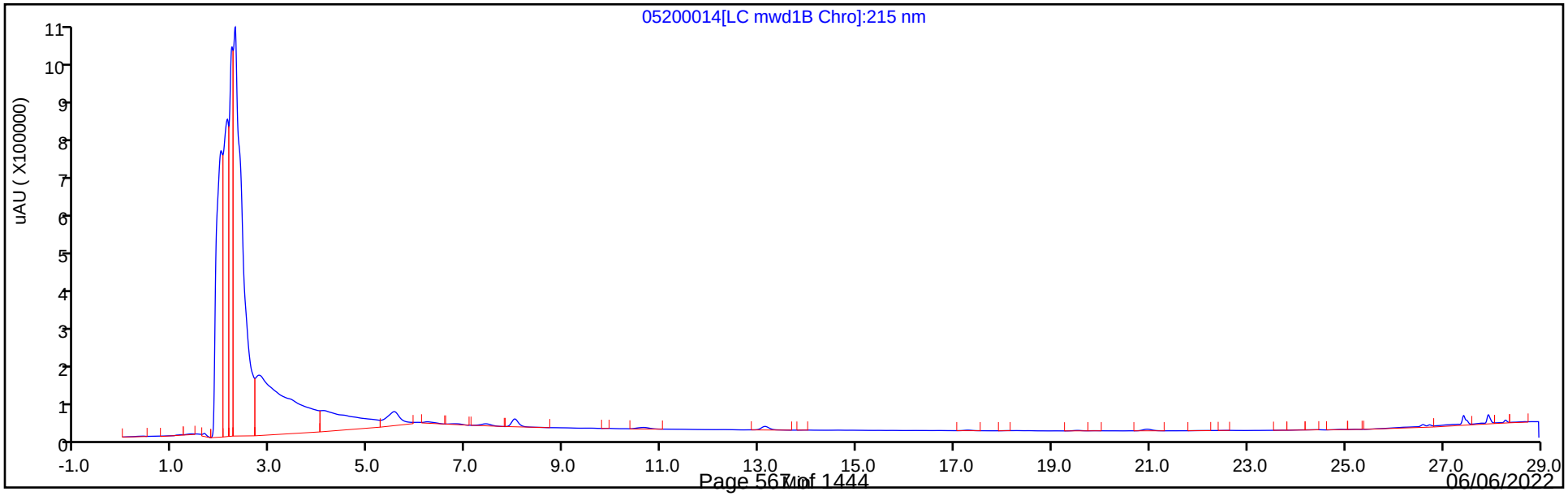
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200014.D

Injection Date:	20-May-2022 20:21:53	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-162386-B-3-A	Lab Sample ID:	280-162386-3	Worklist Smp#:	14
Client ID:	G0117-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200014.D				
Lims ID:	280-162386-B-3-A				
Client ID:	G0117-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 20:21:53	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-B-3-A				
Misc. Info.:	280-0111212-014				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-May-2022 12:33:09	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1646				
First Level Reviewer: zhangji		Date:	20-May-2022 20:57:37		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2112	105.60

Manual Integration/User Assign Peak Report

Eurofins Denver

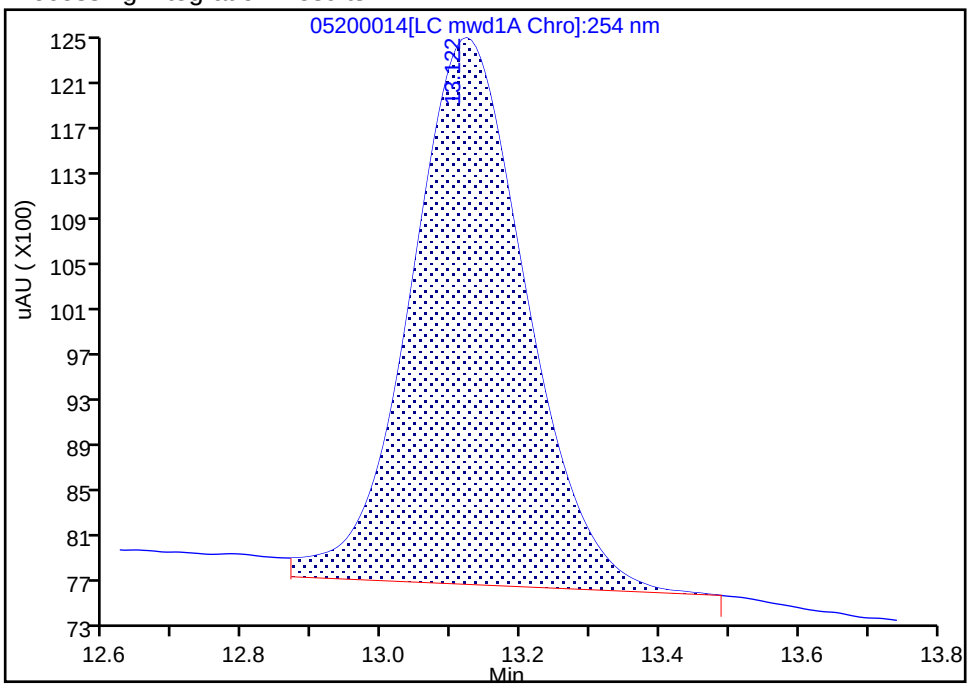
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200014.D				
Injection Date:	20-May-2022 20:21:53	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-3-A	Lab Sample ID:	280-162386-3		
Client ID:	G0117-22A				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

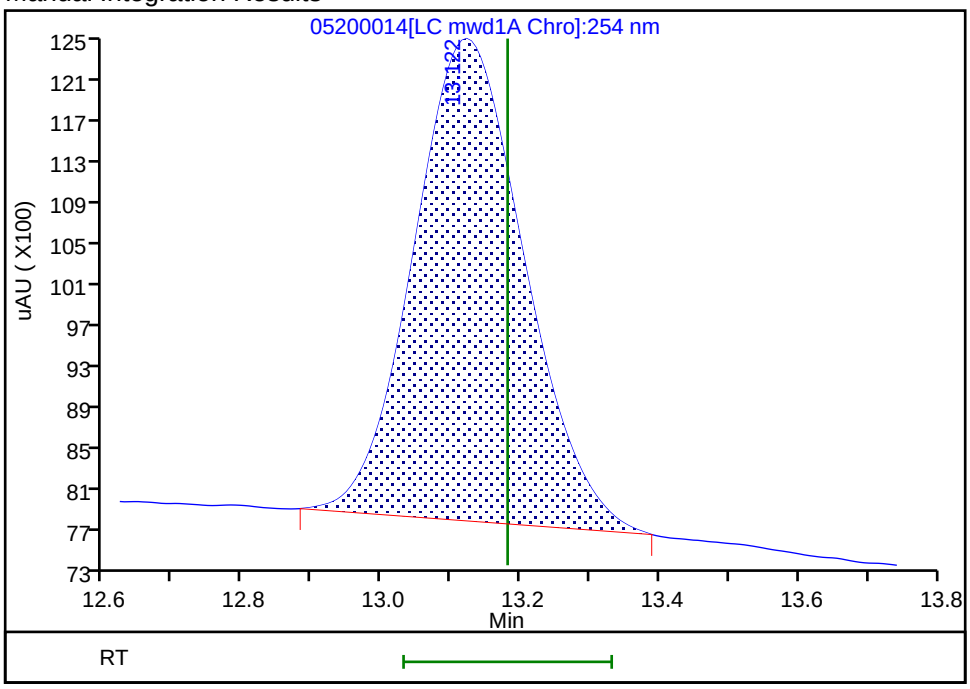
Processing Integration Results

RT: 13.12
Area: 56436
Amount: 0.225967
Amount Units: ug/ml



Manual Integration Results

RT: 13.12
Area: 52747
Amount: 0.211197
Amount Units: ug/ml



Reviewer: zhangji, 20-May-2022 20:57:35

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

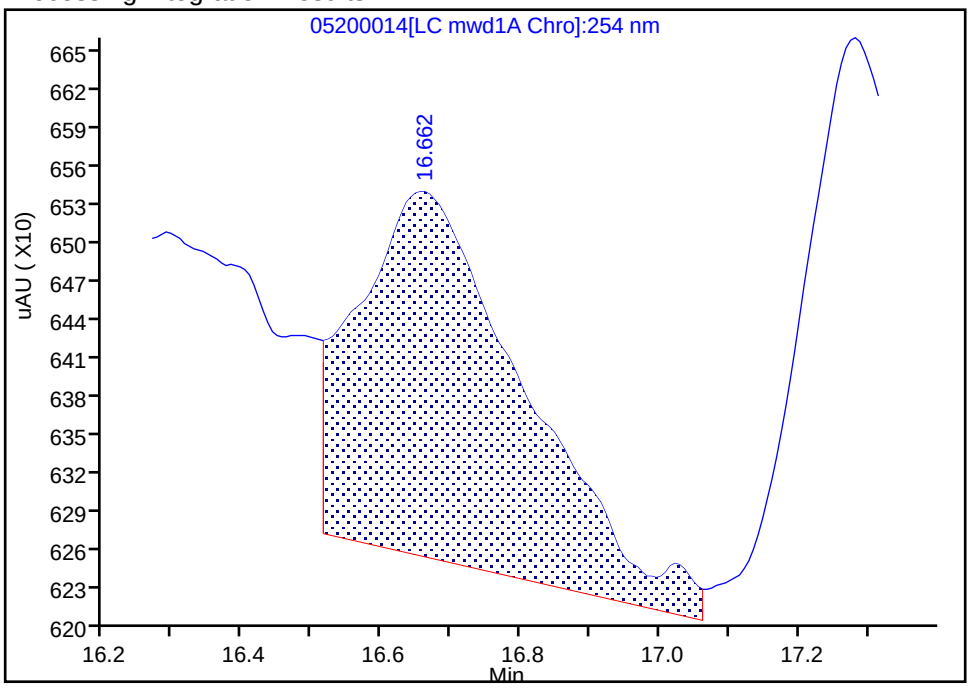
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200014.D				
Injection Date:	20-May-2022 20:21:53	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-3-A	Lab Sample ID:	280-162386-3		
Client ID:	G0117-22A				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

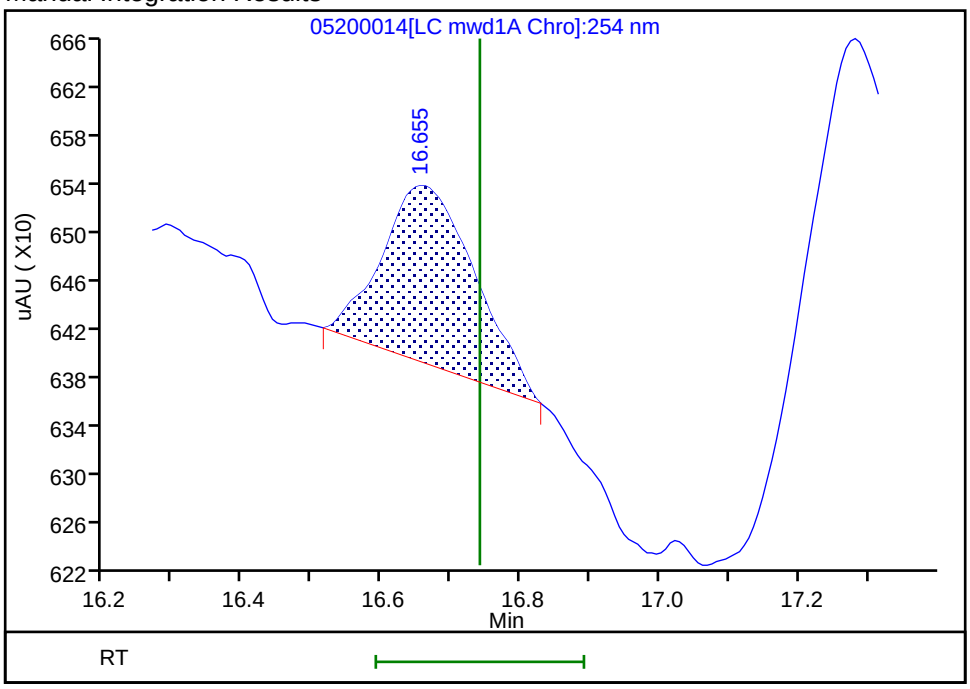
Processing Integration Results

RT: 16.66
Area: 4766
Amount: 0.020309
Amount Units: ug/ml



Manual Integration Results

RT: 16.66
Area: 1342
Amount: 0.005719
Amount Units: ug/ml



Reviewer: zhangji, 20-May-2022 20:57:32

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

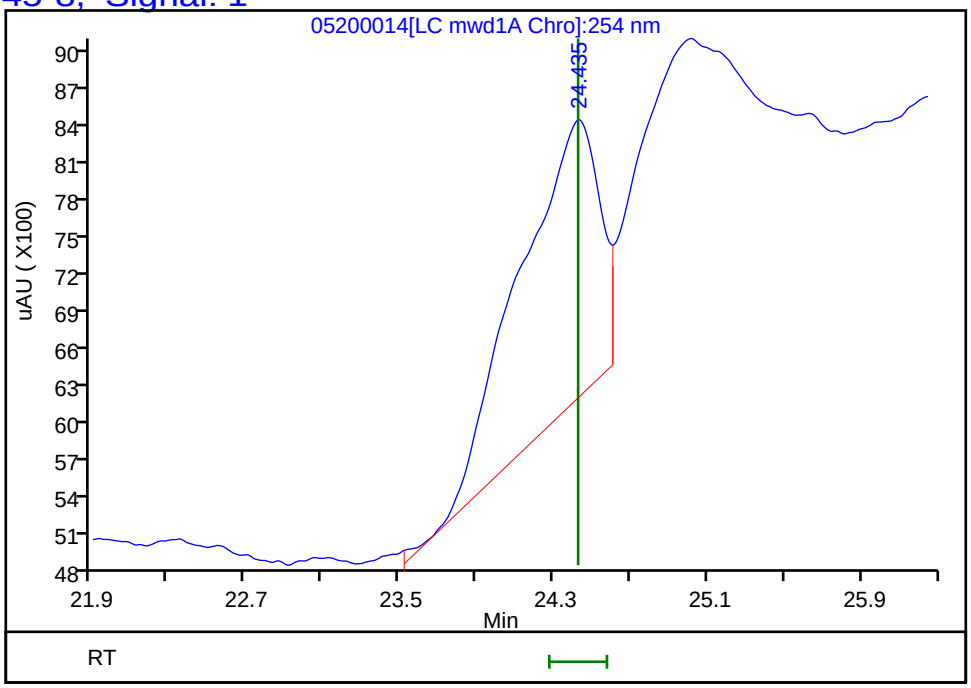
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200014.D				
Injection Date:	20-May-2022 20:21:53	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-3-A	Lab Sample ID:	280-162386-3		
Client ID:	G0117-22A				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 24.44
Response: 68322
Amount: 0.199672



Reviewer: zhangji, 20-May-2022 20:57:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0022-22A | Lab Sample ID: 280-162386-4

Matrix: Water | Lab File ID: 05190024.D

Analysis Method: 8330A | Date Collected: 05/13/2022 14:25

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 482.8(mL) | Date Analyzed: 05/20/2022 01:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038
121-14-2	2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028
606-20-2	2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.33		0.11	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U M	0.22	0.21	0.089
99-08-1	3-Nitrotoluene	0.41	U	0.41	0.41	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.49		0.16	0.12	0.060
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.091
5755-27-1	MNX	0.41	U	2.1	0.41	0.16
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.094
121-82-4	RDX	0.21	U	0.22	0.21	0.053
479-45-8	Tetryl	0.10	U M	0.11	0.10	0.033

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	106	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190024.D
Lims ID: 280-162386-A-4-A
Client ID: G0022-22A
Sample Type: Client
Inject. Date: 20-May-2022 01:49:22 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-4-A
Misc. Info.: 280-0111180-024
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:39:57 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:15:42

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.606			ND	
7 MNX	1		7.219			ND	
8 RDX	1		7.599			ND	
$ 10 1,2-Dinitrobenzene	1	8.561	8.552	0.009	26432	0.2120	M
11 1,3,5-Trinitrobenzene	1		8.679			ND	
12 1,3-Dinitrobenzene	1		9.306			ND	
13 Nitrobenzene	1		9.699			ND	
15 Tetryl	1		10.026			ND	U
17 2,4,6-Trinitrotoluene	1	10.947	10.932	0.015	1540	0.007596	
18 4-Amino-2,6-dinitrotoluene	1	11.127	11.132	-0.005	7102	0.0470	
19 2-Amino-4,6-dinitrotoluene	1	11.381	11.386	-0.005	6501	0.0322	
20 2,6-Dinitrotoluene	1		11.546			ND	
21 2,4-Dinitrotoluene	1		11.719			ND	
22 o-Nitrotoluene	1		12.572			ND	U
23 p-Nitrotoluene	1		12.999			ND	
24 m-Nitrotoluene	1		13.572			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

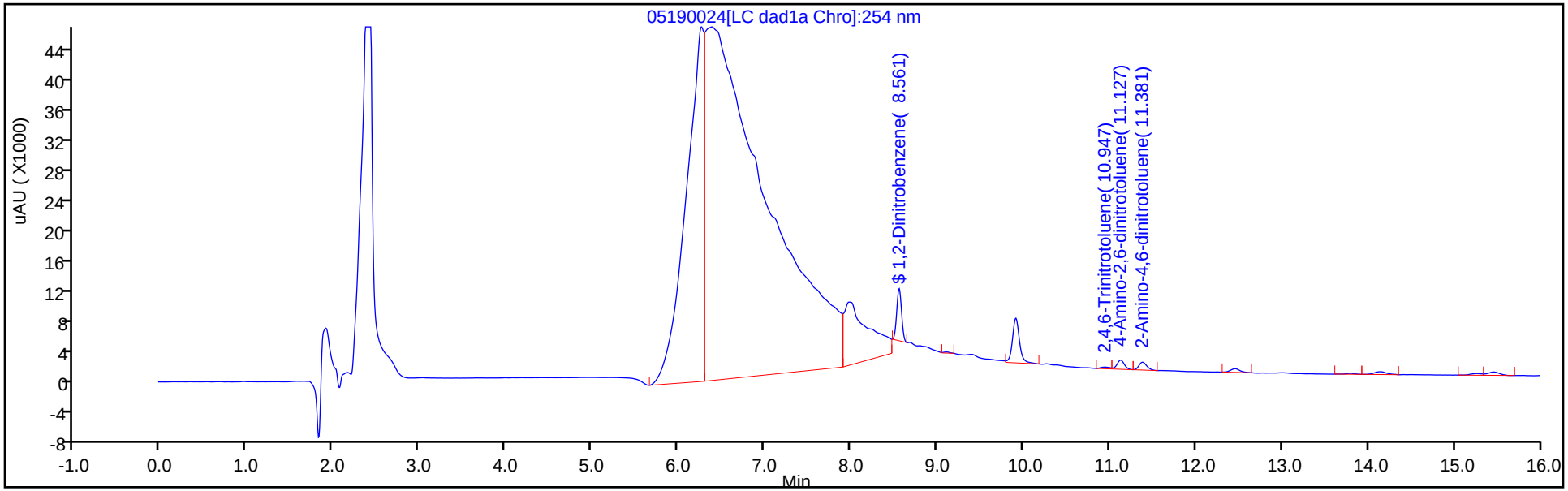
Report Date: 20-May-2022 13:40:05 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

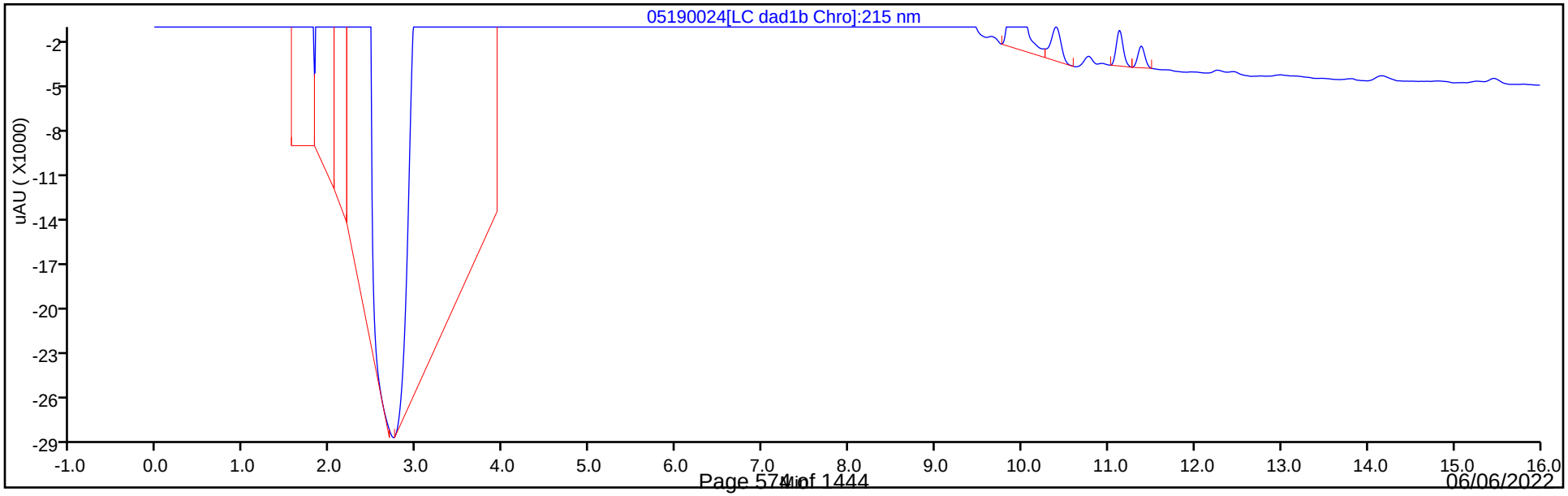
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190024.d

Injection Date:	20-May-2022 01:49:22	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-A-4-A	Lab Sample ID:	280-162386-4	Worklist Smp#:	24
Client ID:	G0022-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190024.D				
Lims ID:	280-162386-A-4-A				
Client ID:	G0022-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 01:49:22	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-4-A				
Misc. Info.:	280-0111180-024				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:39:57	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:15:42

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2120	105.98

Manual Integration/User Assign Peak Report

Eurofins Denver

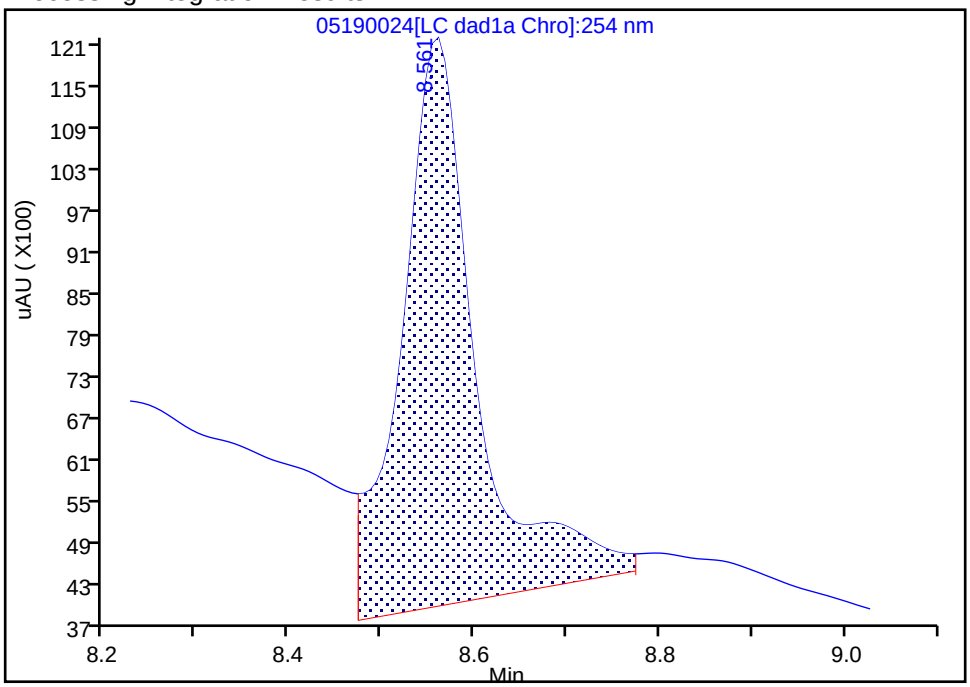
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190024.d				
Injection Date:	20-May-2022 01:49:22	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-4-A	Lab Sample ID:	280-162386-4		
Client ID:	G0022-22A				
Operator ID:	JZ	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

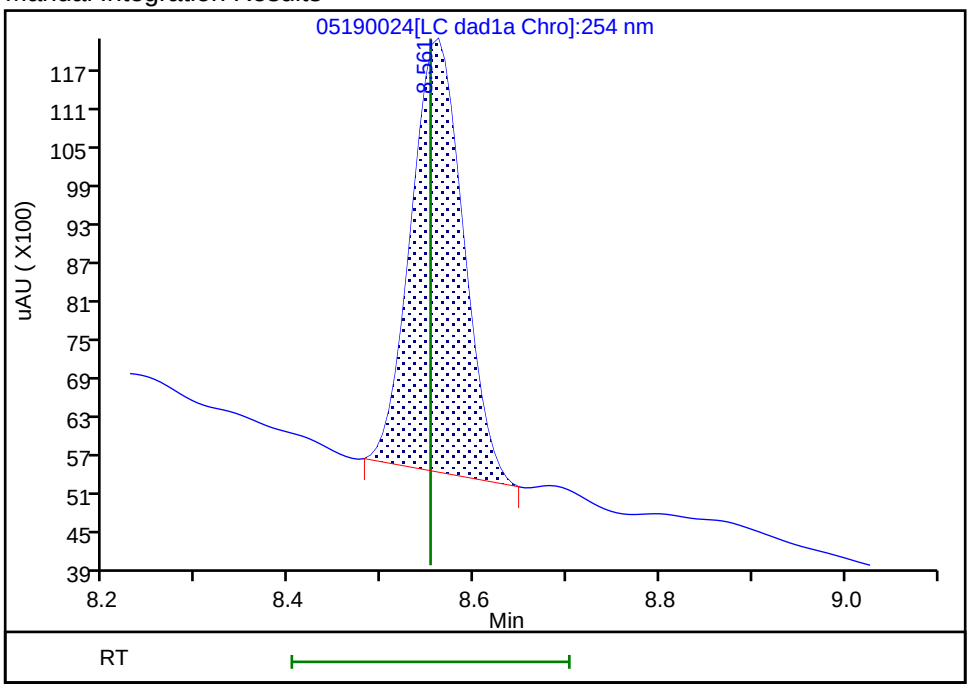
Processing Integration Results

RT: 8.56
Area: 46120
Amount: 0.369855
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 26432
Amount: 0.211969
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:15:38

Audit Action: Manually Integrated Audit Reason: Baseline

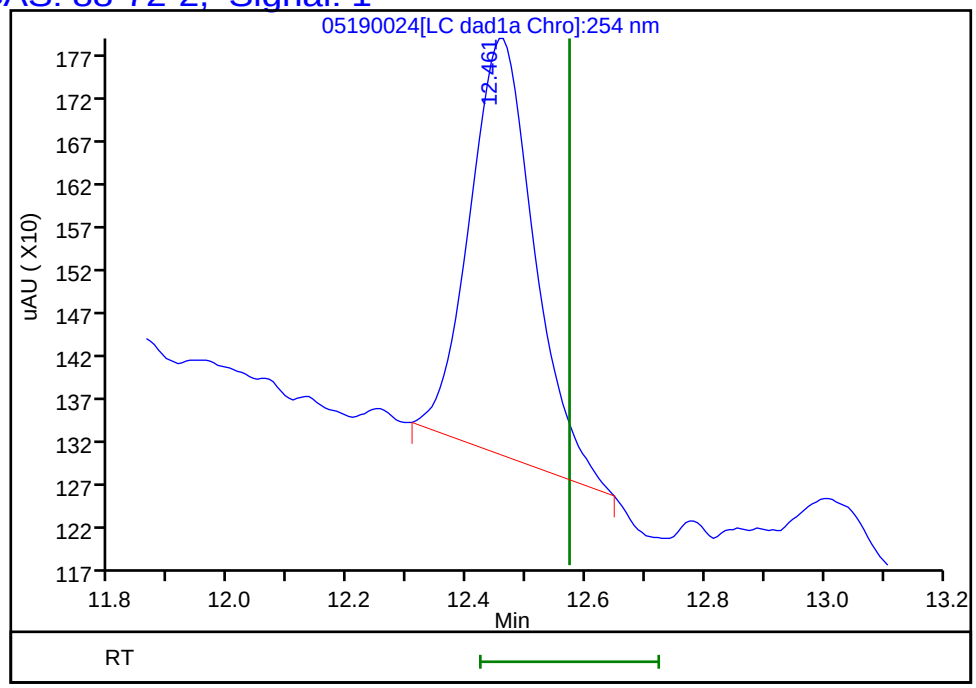
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190024.d				
Injection Date:	20-May-2022 01:49:22	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-4-A	Lab Sample ID:	280-162386-4		
Client ID:	G0022-22A				
Operator ID:	JZ	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.46
Response: 3664
Amount: 0.028712



Reviewer: zhangji, 20-May-2022 12:15:42
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

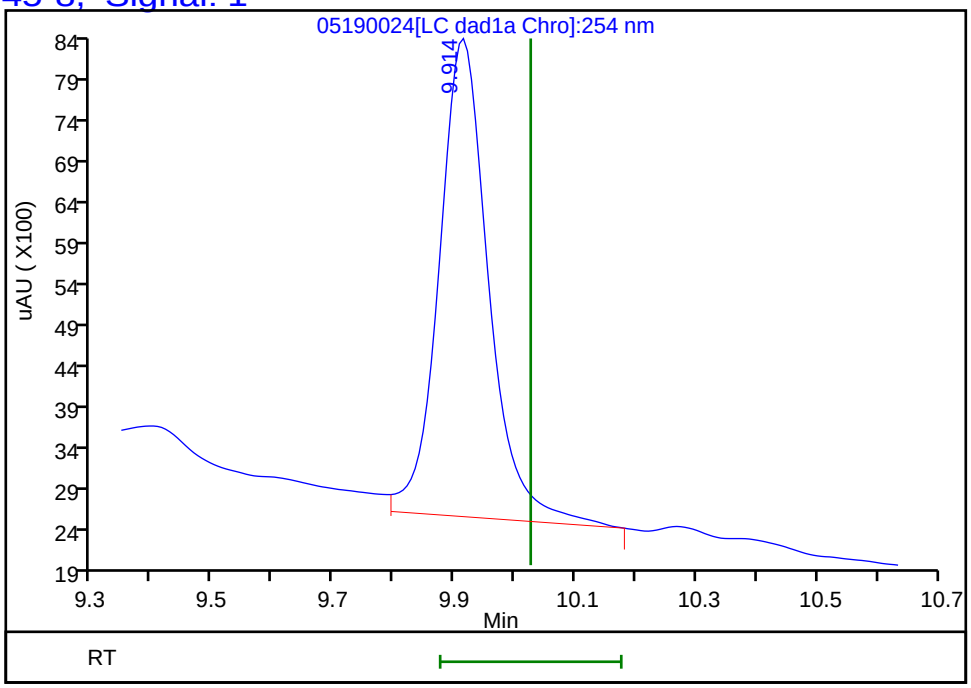
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190024.d				
Injection Date:	20-May-2022 01:49:22	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-4-A	Lab Sample ID:	280-162386-4		
Client ID:	G0022-22A				
Operator ID:	JZ	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 9.91
Response: 33098
Amount: 0.194047



Reviewer: zhangji, 20-May-2022 12:15:42
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0022-22A | Lab Sample ID: 280-162386-4

Matrix: Water | Lab File ID: 05200015.D

Analysis Method: 8330A | Date Collected: 05/13/2022 14:25

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 482.8(mL) | Date Analyzed: 05/20/2022 20:57

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575712 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	0.10	U M	0.11	0.10	0.047

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	108		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200015.D				
Lims ID:	280-162386-A-4-A				
Client ID:	G0022-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 20:57:08	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-4-A				
Misc. Info.:	280-0111212-015				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-May-2022 12:33:09	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1646				
First Level Reviewer: zhangji		Date:	21-May-2022 12:21:19		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 HMX	1	6.766	6.808	-0.042	4312	0.0260	M
6 MNX	1		7.509			ND	
8 RDX	1		8.988			ND	
9 Nitrobenzene	1		11.961			ND	
$ 10 1,2-Dinitrobenzene	1	13.119	13.181	-0.062	53730	0.2151	
12 1,3-Dinitrobenzene	1		15.507			ND	
14 o-Nitrotoluene	1	16.659	16.741	-0.082	2140	0.009119	
16 p-Nitrotoluene	1		17.047			ND	
17 4-Amino-2,6-dinitrotoluene	1	17.566	17.654	-0.088	13470	0.0506	
18 m-Nitrotoluene	1		18.027			ND	
19 2-Amino-4,6-dinitrotoluene	1	18.546	18.667	-0.121	16240	0.0450	
20 1,3,5-Trinitrobenzene	1		18.807			ND	
21 2,6-Dinitrotoluene	1		20.174			ND	
22 2,4-Dinitrotoluene	1		20.681			ND	
23 Tetryl	1		24.428			ND	U
24 2,4,6-Trinitrotoluene	1		25.188			ND	U

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

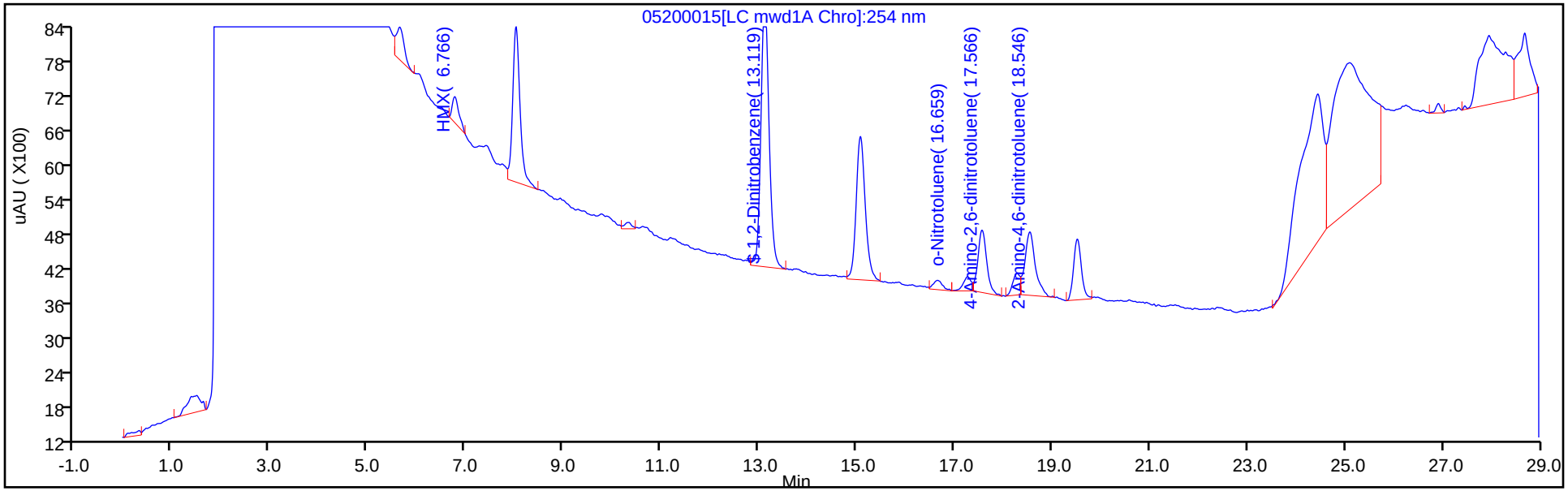
Report Date: 21-May-2022 12:33:12 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

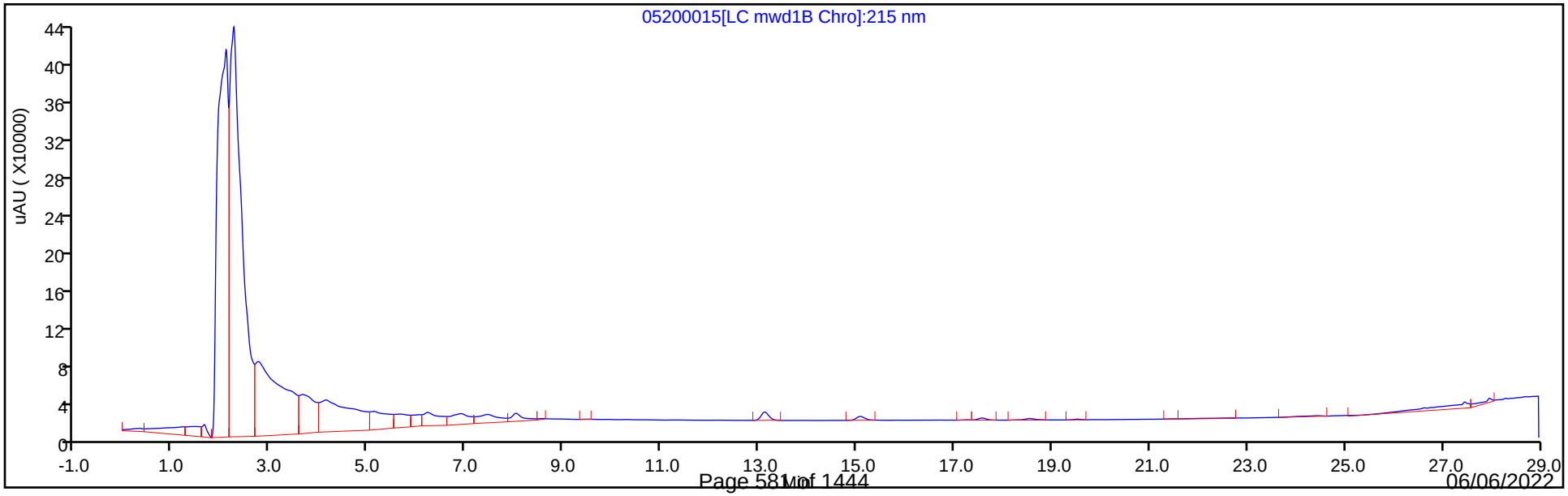
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200015.D

Injection Date:	20-May-2022 20:57:08	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-162386-A-4-A	Lab Sample ID:	280-162386-4	Worklist Smp#:	15
Client ID:	G0022-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200015.D				
Lims ID:	280-162386-A-4-A				
Client ID:	G0022-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 20:57:08	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-4-A				
Misc. Info.:	280-0111212-015				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-May-2022 12:33:09	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1646				
First Level Reviewer: zhangji		Date:	21-May-2022 12:21:19		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2151	107.57

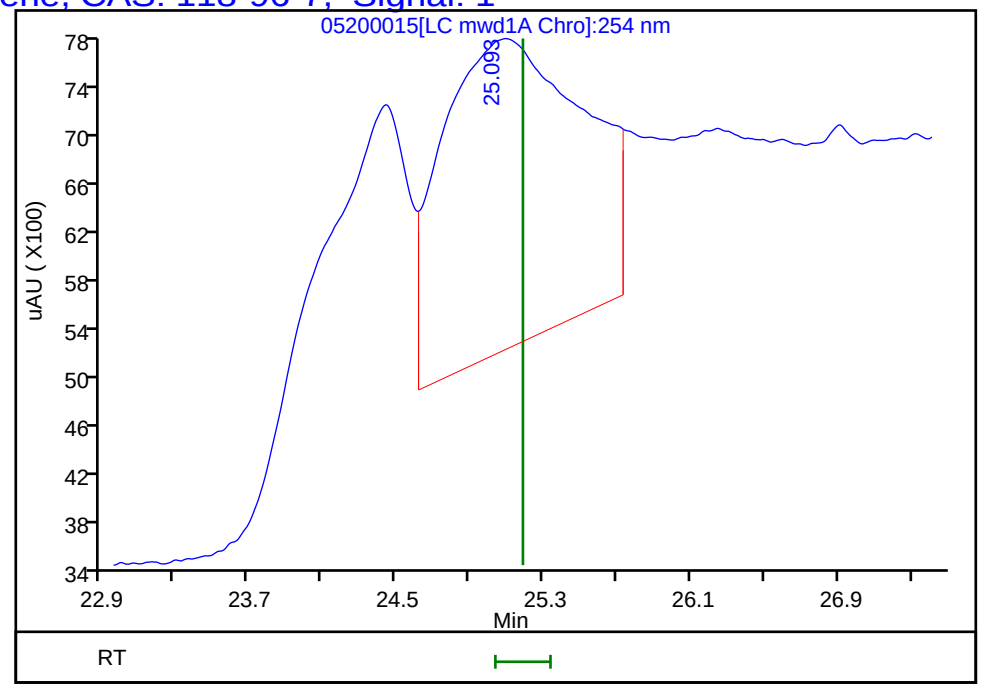
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200015.D				
Injection Date:	20-May-2022 20:57:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-4-A	Lab Sample ID:	280-162386-4		
Client ID:	G0022-22A				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 25.09
Response: 134516
Amount: 0.364365



Reviewer: zhangji, 21-May-2022 12:21:19
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

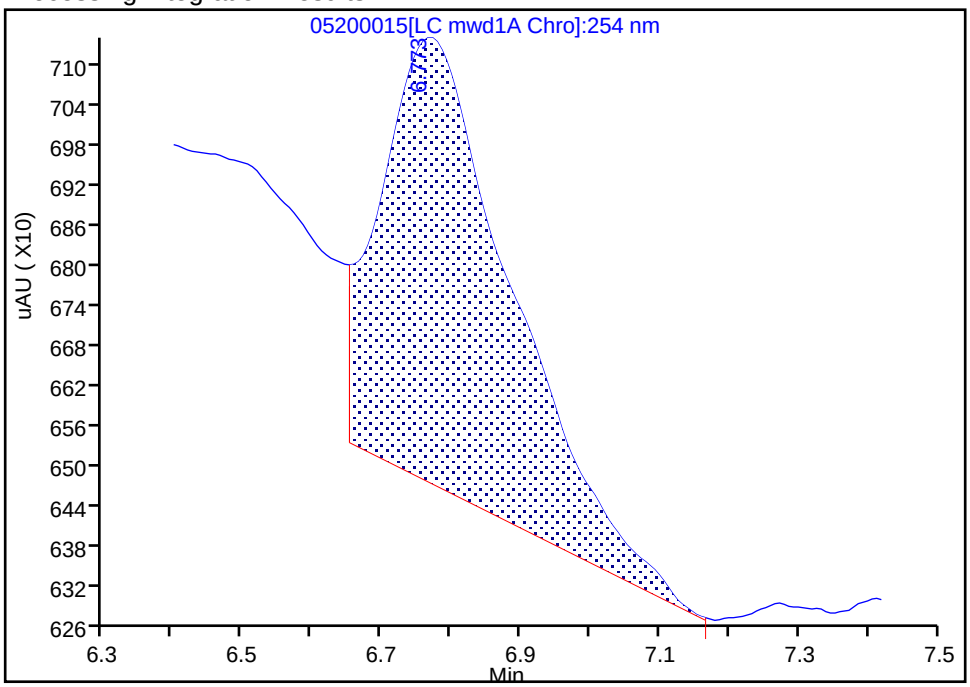
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200015.D				
Injection Date:	20-May-2022 20:57:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-4-A	Lab Sample ID:	280-162386-4		
Client ID:	G0022-22A				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

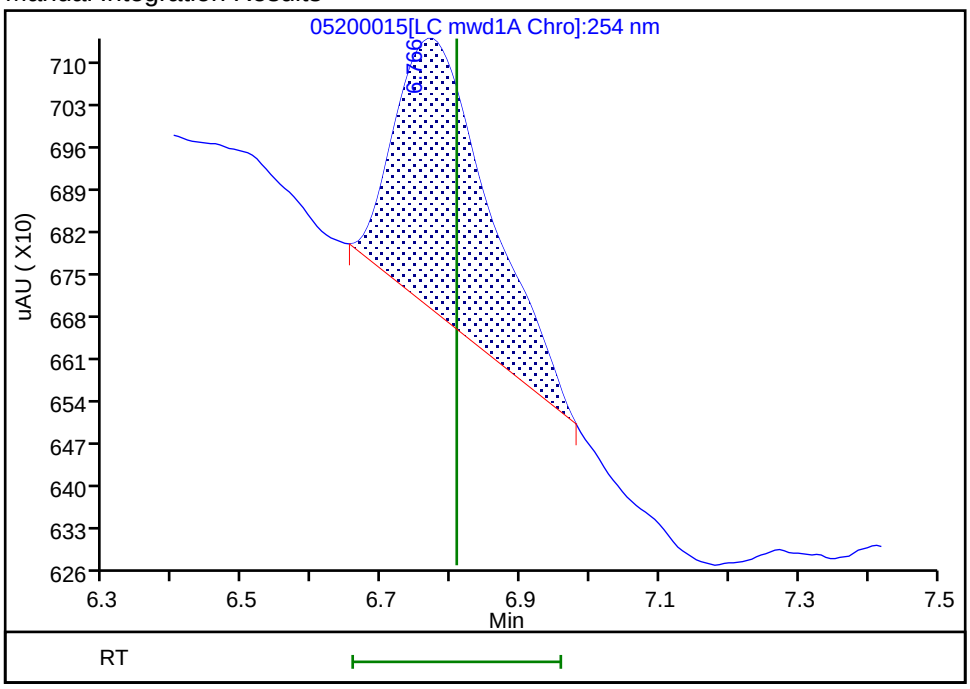
Processing Integration Results

RT: 6.77
Area: 8840
Amount: 0.053210
Amount Units: ug/ml



Manual Integration Results

RT: 6.77
Area: 4312
Amount: 0.025955
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:21:09

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

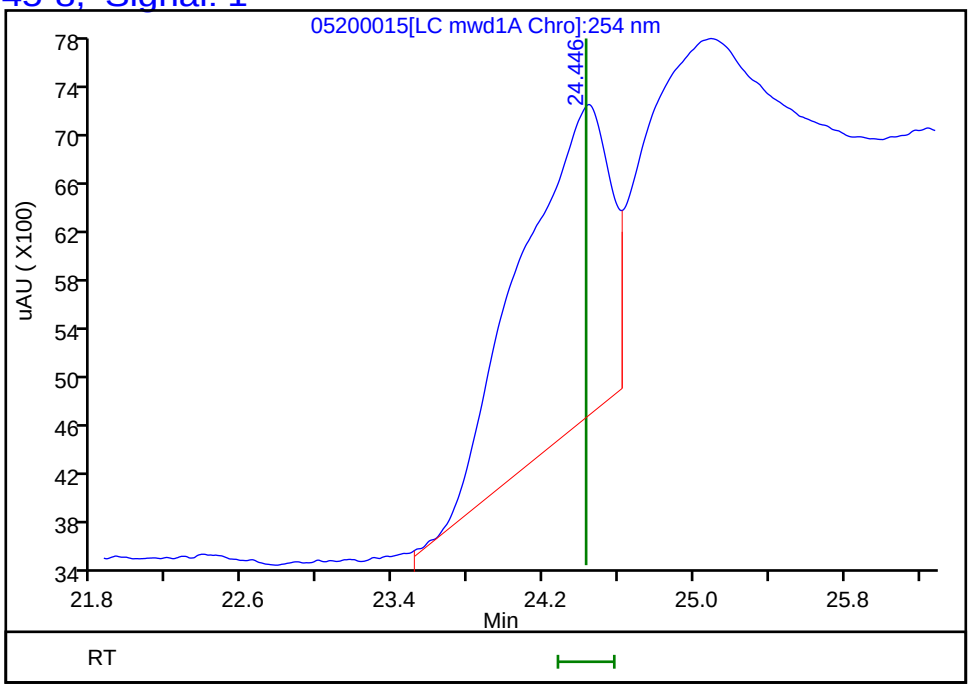
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200015.D				
Injection Date:	20-May-2022 20:57:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-4-A	Lab Sample ID:	280-162386-4		
Client ID:	G0022-22A				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 24.45
Response: 88215
Amount: 0.257810



Reviewer: zhangji, 21-May-2022 12:21:19
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0088-22A | Lab Sample ID: 280-162386-5

Matrix: Water | Lab File ID: 05190025.D

Analysis Method: 8330A | Date Collected: 05/13/2022 15:35

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 494.5(mL) | Date Analyzed: 05/20/2022 02:12

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	4.1	M	0.21	0.20	0.085
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
121-14-2	2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028
606-20-2	2,6-Dinitrotoluene	0.081	U	0.10	0.081	0.041
88-72-2	2-Nitrotoluene	0.20	U M	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.40	U	0.40	0.40	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.38		0.15	0.12	0.058
2691-41-0	HMX	0.20	U M	0.21	0.20	0.089
5755-27-1	MNX	0.40	U	2.0	0.40	0.16
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.092
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U M	0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	107		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190025.D
Lims ID: 280-162386-B-5-A
Client ID: G0088-22A
Sample Type: Client
Inject. Date: 20-May-2022 02:12:21 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-B-5-A
Misc. Info.: 280-0111180-025
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:39:57 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:22:27

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	4 HMX	1		6.606			ND	U
	7 MNX	1		7.219			ND	
	8 RDX	1		7.599			ND	
$	10 1,2-Dinitrobenzene	1	8.556	8.552	0.004	26568	0.2131	
	11 1,3,5-Trinitrobenzene	1	8.676	8.679	-0.003	89193	0.4090	M
	12 1,3-Dinitrobenzene	1		9.306			ND	
	13 Nitrobenzene	1		9.699			ND	
	15 Tetryl	1		10.026			ND	U
	17 2,4,6-Trinitrotoluene	1	10.922	10.932	-0.010	8271	0.0408	
	18 4-Amino-2,6-dinitrotoluene	1	11.122	11.132	-0.010	5622	0.0372	
	19 2-Amino-4,6-dinitrotoluene	1	11.375	11.386	-0.011	7380	0.0365	
	20 2,6-Dinitrotoluene	1		11.546			ND	
	21 2,4-Dinitrotoluene	1		11.719			ND	
	22 o-Nitrotoluene	1		12.572			ND	U
	23 p-Nitrotoluene	1	13.022	12.999	0.023	1892	0.0178	
	24 m-Nitrotoluene	1		13.572			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

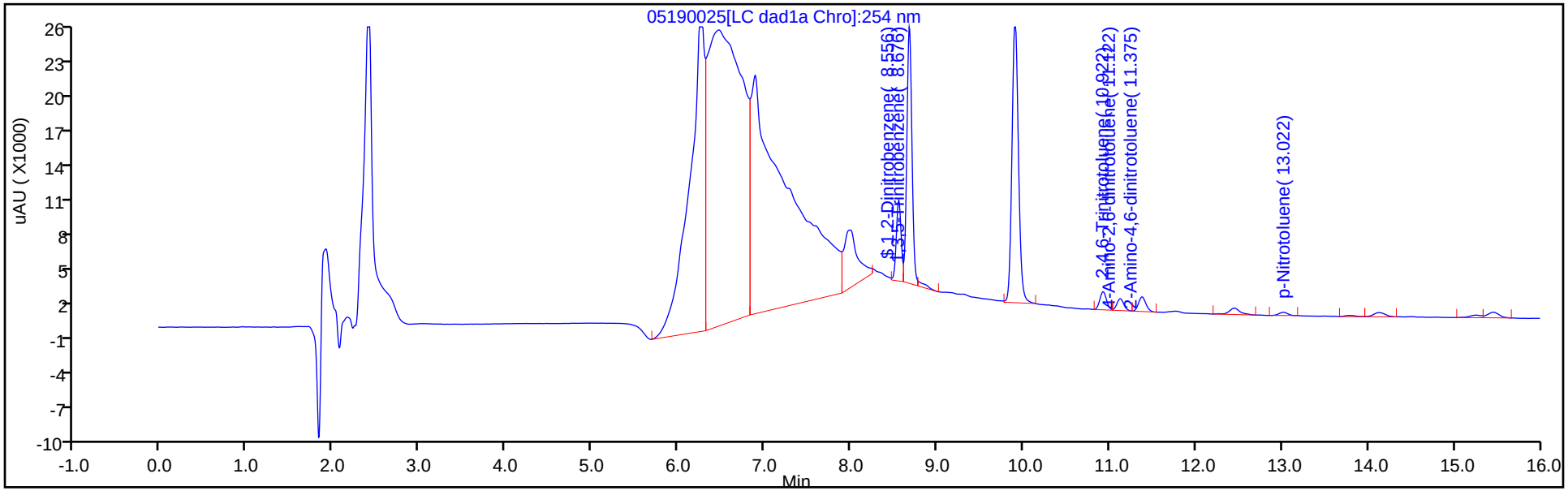
Report Date: 20-May-2022 13:40:04 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

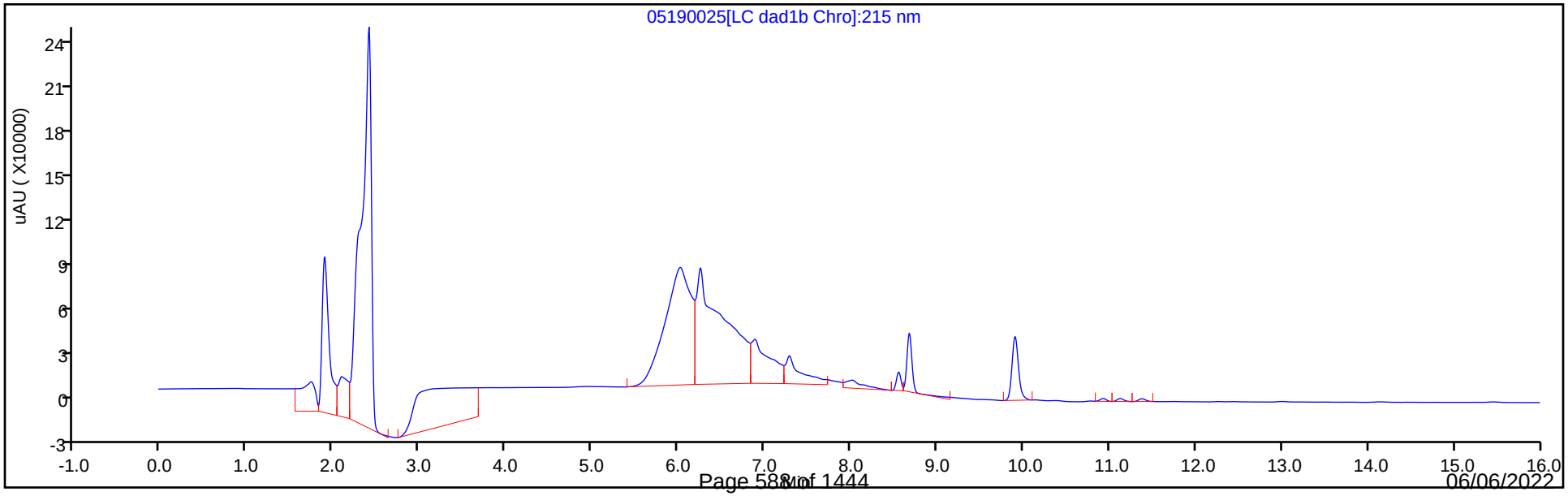
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190025.d

Injection Date:	20-May-2022 02:12:21	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-B-5-A	Lab Sample ID:	280-162386-5	Worklist Smp#:	25
Client ID:	G0088-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190025.D				
Lims ID:	280-162386-B-5-A				
Client ID:	G0088-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 02:12:21	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-B-5-A				
Misc. Info.:	280-0111180-025				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:39:57	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:22:27

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2131	106.53

Manual Integration/User Assign Peak Report

Eurofins Denver

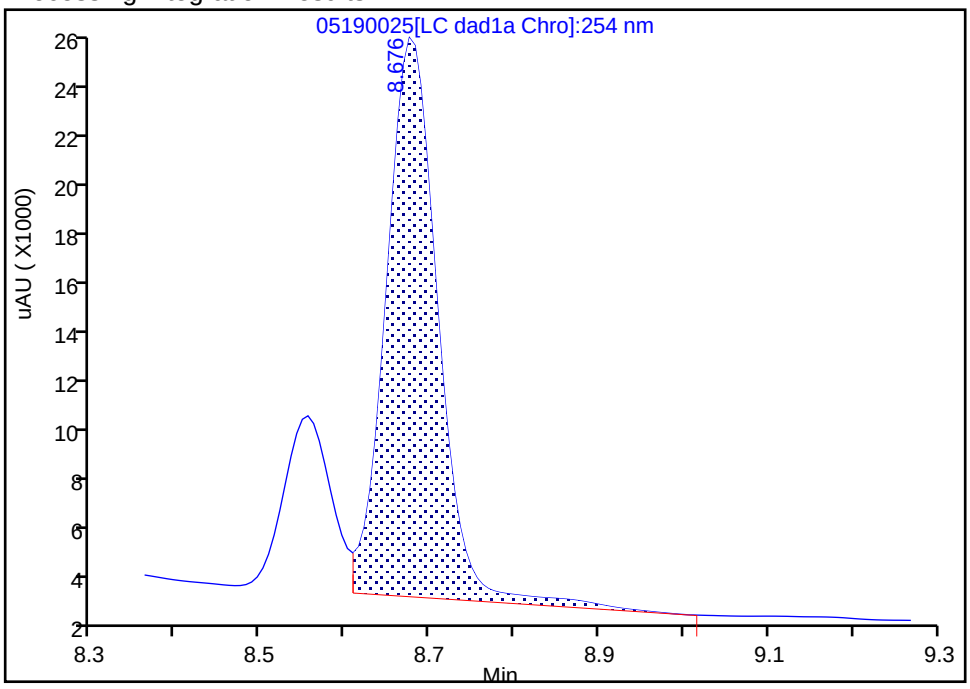
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190025.d				
Injection Date:	20-May-2022 02:12:21	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-5-A	Lab Sample ID:	280-162386-5		
Client ID:	G0088-22A				
Operator ID:	JZ	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

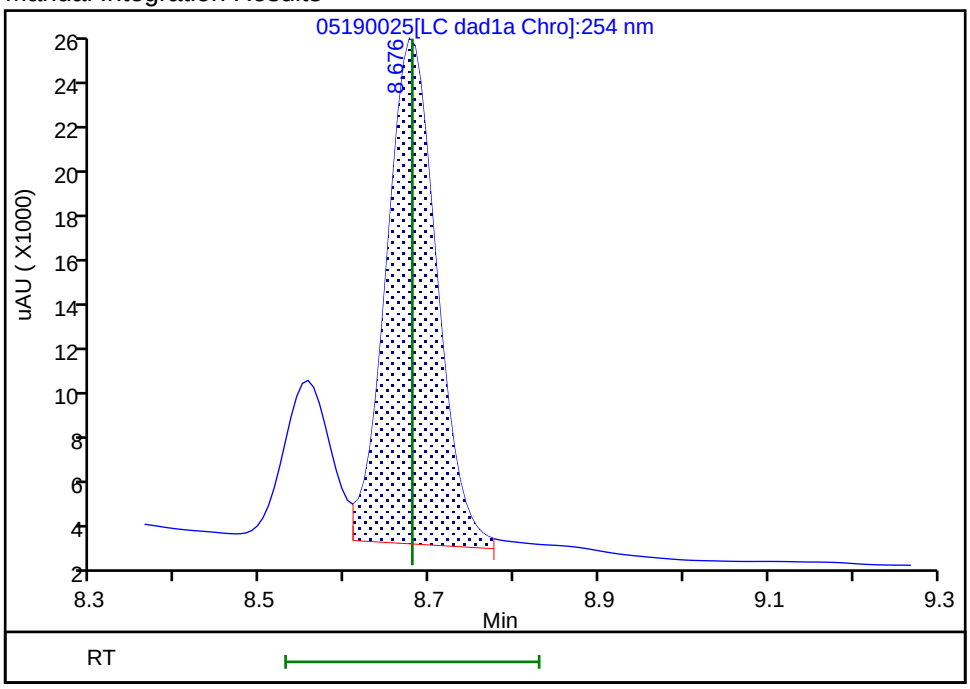
Processing Integration Results

RT: 8.68
Area: 91906
Amount: 0.421402
Amount Units: ug/mL



Manual Integration Results

RT: 8.68
Area: 89193
Amount: 0.408963
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:22:23

Audit Action: Split an Integrated Peak Audit Reason: Baseline

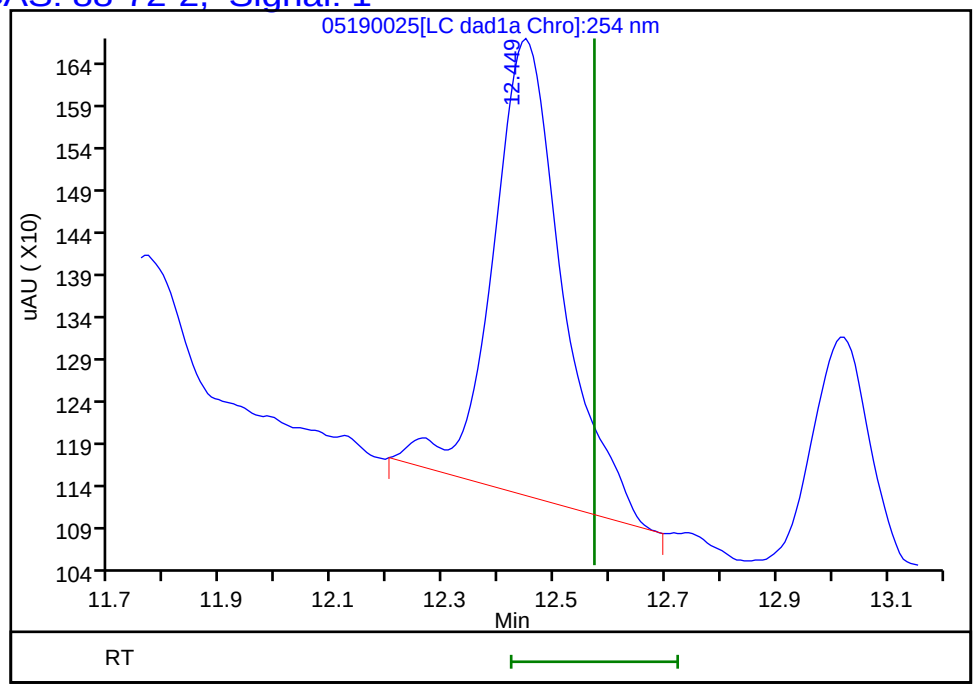
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190025.d				
Injection Date:	20-May-2022 02:12:21	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-5-A	Lab Sample ID:	280-162386-5		
Client ID:	G0088-22A				
Operator ID:	JZ	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.45
Response: 4714
Amount: 0.036940



Reviewer: zhangji, 20-May-2022 12:22:27
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

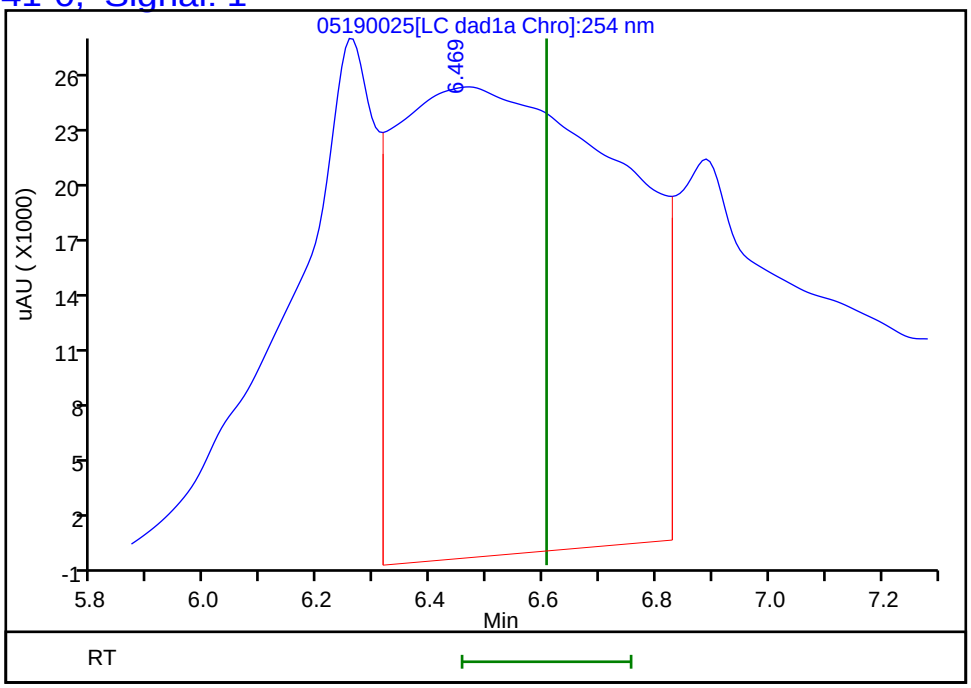
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190025.d
Injection Date: 20-May-2022 02:12:21 Instrument ID: CHHPLC_X3
Lims ID: 280-162386-B-5-A Lab Sample ID: 280-162386-5
Client ID: G0088-22A
Operator ID: JZ ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 6.47
Response: 693385
Amount: 8.271599



Reviewer: zhangji, 20-May-2022 12:22:27
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

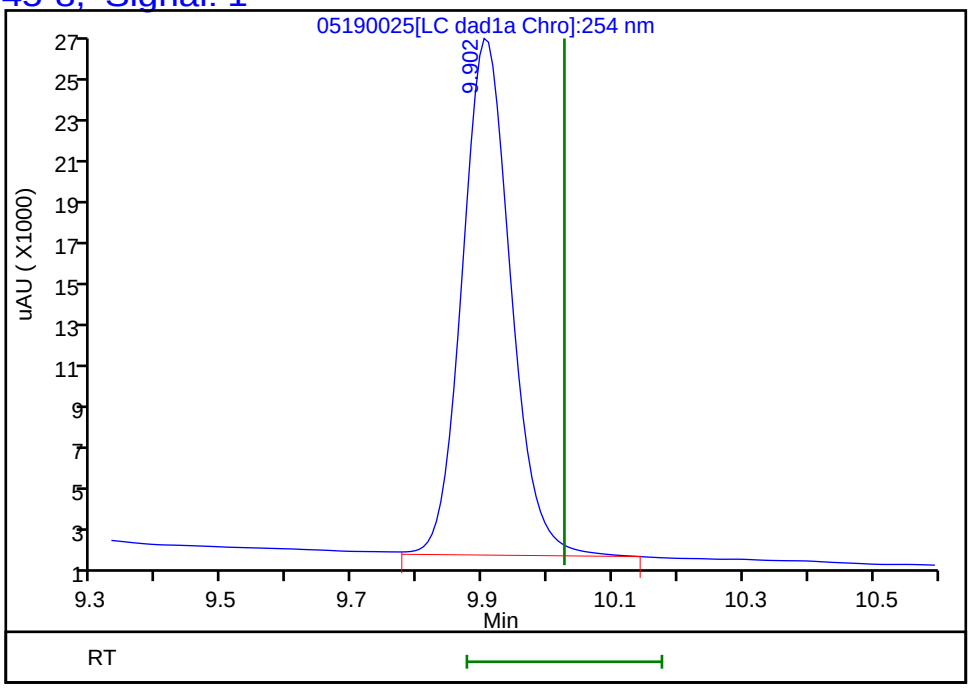
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190025.d
Injection Date: 20-May-2022 02:12:21 Instrument ID: CHHPLC_X3
Lims ID: 280-162386-B-5-A Lab Sample ID: 280-162386-5
Client ID: G0088-22A
Operator ID: JZ ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 9.90
Response: 124384
Amount: 0.729239



Reviewer: zhangji, 20-May-2022 12:22:27
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0088-22A | Lab Sample ID: 280-162386-5

Matrix: Water | Lab File ID: 05200016.D

Analysis Method: 8330A | Date Collected: 05/13/2022 15:35

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 494.5(mL) | Date Analyzed: 05/20/2022 21:32

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575712 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	0.10	U M	0.11	0.10	0.046
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200016.D
Lims ID: 280-162386-B-5-A
Client ID: G0088-22A
Sample Type: Client
Inject. Date: 20-May-2022 21:32:06 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-B-5-A
Misc. Info.: 280-0111212-016
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-May-2022 12:33:09 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1646

First Level Reviewer: zhangji Date: 21-May-2022 12:26:31

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1	6.757	6.808	-0.051	1401	0.008433	M
	6 MNX	1		7.509			ND	
	8 RDX	1		8.988			ND	
	9 Nitrobenzene	1		11.961			ND	
$	10 1,2-Dinitrobenzene	1	13.110	13.181	-0.071	51594	0.2066	
	12 1,3-Dinitrobenzene	1		15.507			ND	
	14 o-Nitrotoluene	1		16.741			ND	7
	16 p-Nitrotoluene	1		17.047			ND	
	17 4-Amino-2,6-dinitrotoluene	1	17.564	17.654	-0.090	12270	0.0461	
	18 m-Nitrotoluene	1		18.027			ND	
	19 2-Amino-4,6-dinitrotoluene	1		18.667			ND	
	20 1,3,5-Trinitrobenzene	1	18.750	18.807	-0.057	185793	0.4472	
	21 2,6-Dinitrotoluene	1		20.174			ND	
	22 2,4-Dinitrotoluene	1		20.681			ND	
	23 Tetryl	1		24.428			ND	U
	24 2,4,6-Trinitrotoluene	1		25.188			ND	U

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

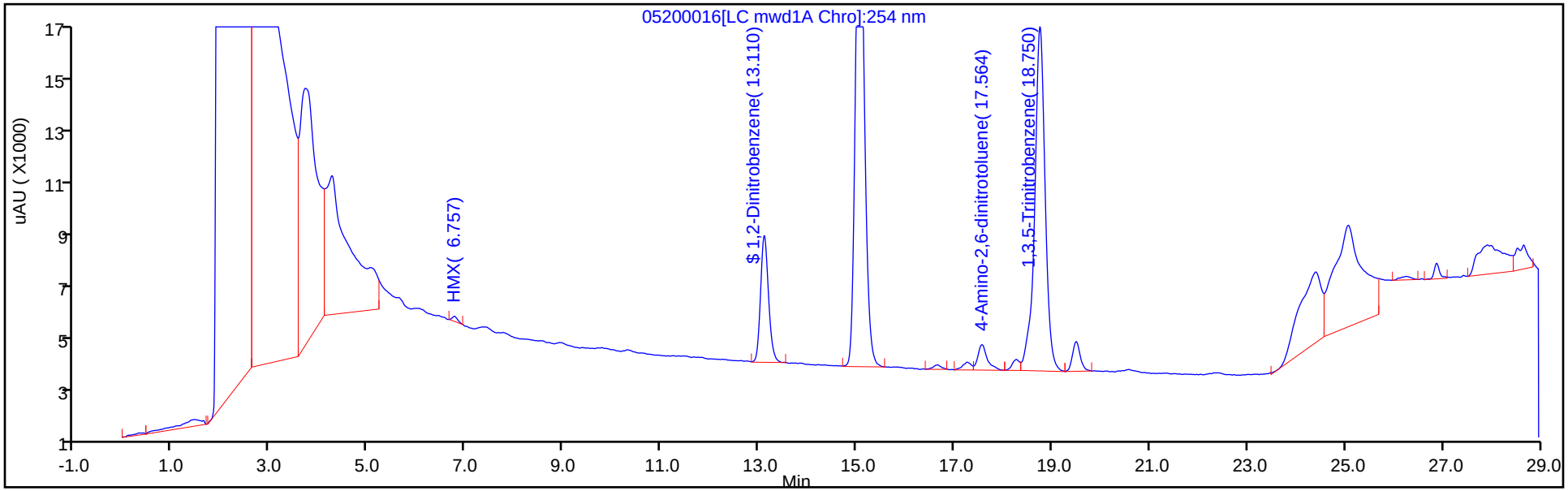
Report Date: 21-May-2022 12:33:12 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

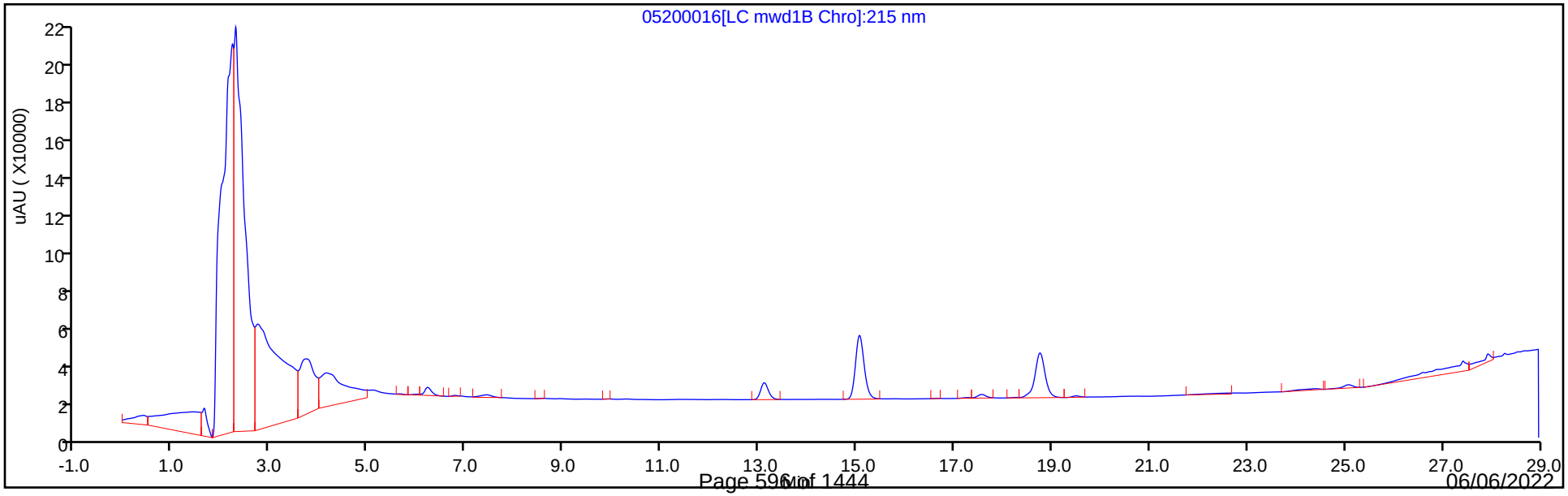
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200016.D

Injection Date:	20-May-2022 21:32:06	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-162386-B-5-A	Lab Sample ID:	280-162386-5	Worklist Smp#:	16
Client ID:	G0088-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200016.D				
Lims ID:	280-162386-B-5-A				
Client ID:	G0088-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 21:32:06	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-B-5-A				
Misc. Info.:	280-0111212-016				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-May-2022 12:33:09	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1646				
First Level Reviewer: zhangji		Date:	21-May-2022 12:26:31		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2066	103.29

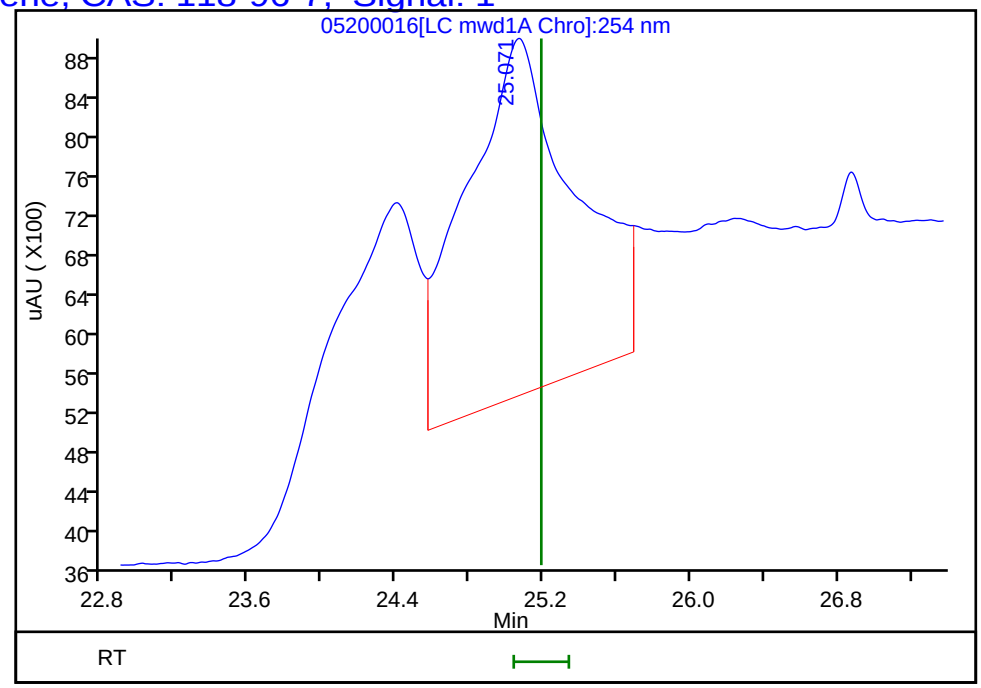
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200016.D				
Injection Date:	20-May-2022 21:32:06	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-5-A	Lab Sample ID:	280-162386-5		
Client ID:	G0088-22A				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 25.07
Response: 150226
Amount: 0.406919



Reviewer: zhangji, 21-May-2022 12:26:31
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

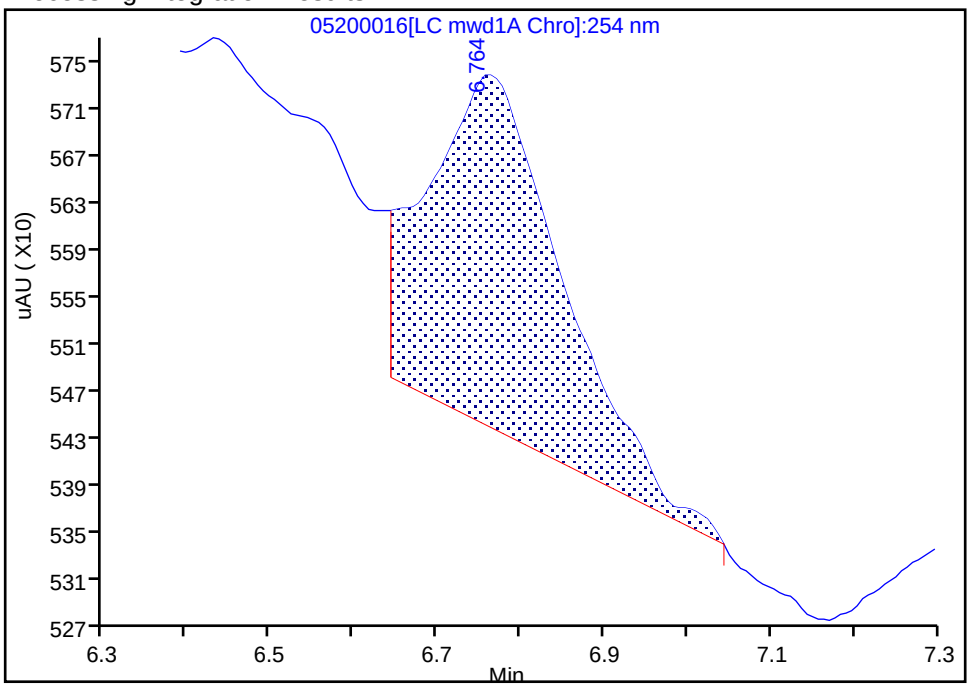
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200016.D				
Injection Date:	20-May-2022 21:32:06	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-5-A	Lab Sample ID:	280-162386-5		
Client ID:	G0088-22A				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

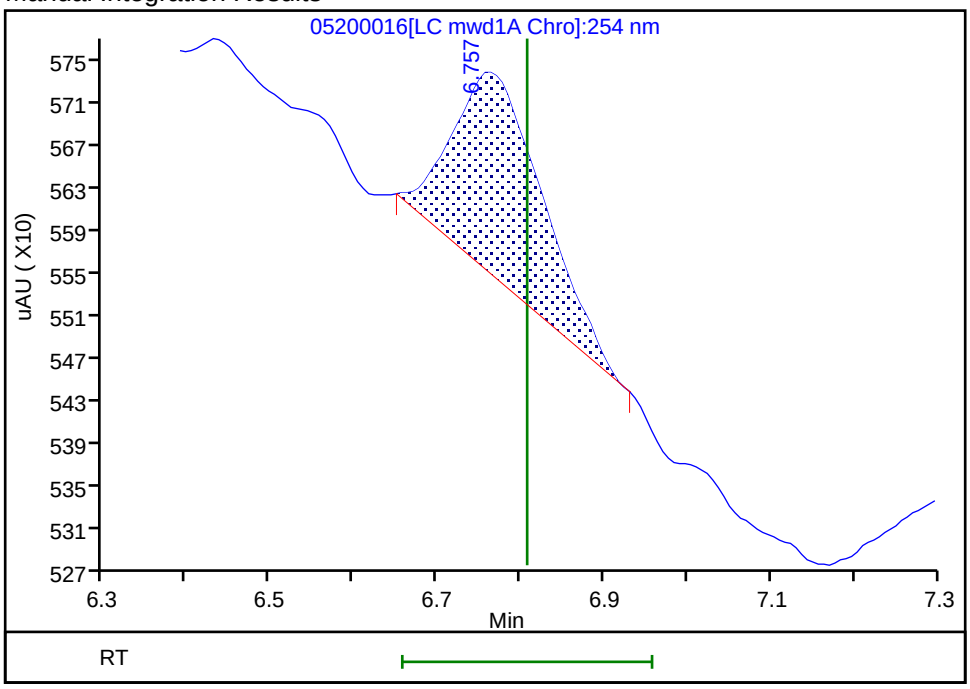
Processing Integration Results

RT: 6.76
Area: 3266
Amount: 0.019659
Amount Units: ug/ml



Manual Integration Results

RT: 6.76
Area: 1401
Amount: 0.008433
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:26:22

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

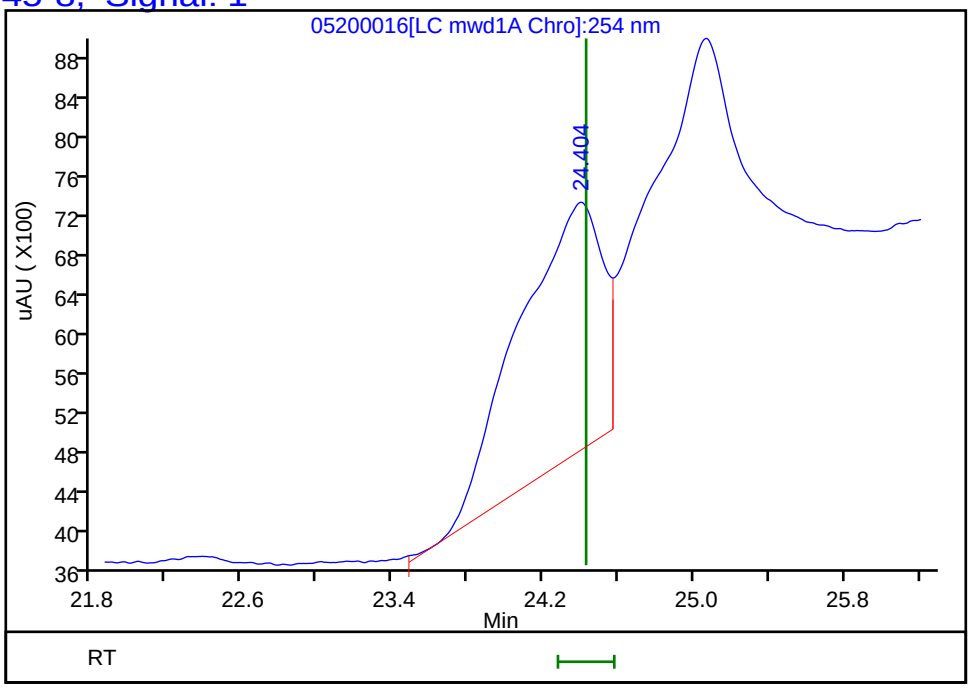
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200016.D				
Injection Date:	20-May-2022 21:32:06	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-5-A	Lab Sample ID:	280-162386-5		
Client ID:	G0088-22A				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 24.40
Response: 81743
Amount: 0.238896



Reviewer: zhangji, 21-May-2022 12:26:31
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0116-22A | Lab Sample ID: 280-162386-6

Matrix: Water | Lab File ID: 05190026.D

Analysis Method: 8330A | Date Collected: 05/13/2022 14:40

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 476.8(mL) | Date Analyzed: 05/20/2022 02:35

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088
118-96-7	2,4,6-Trinitrotoluene	0.10	U M	0.12	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U M	0.10	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U M	0.12	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U M	0.22	0.21	0.090
99-08-1	3-Nitrotoluene	0.42	U	0.42	0.42	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.092
5755-27-1	MNX	0.42	U M	2.1	0.42	0.16
98-95-3	Nitrobenzene	0.21	U M	0.22	0.21	0.095
121-82-4	RDX	0.21	U	0.22	0.21	0.054
479-45-8	Tetryl	0.10	U M	0.12	0.10	0.033

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190026.D
Lims ID: 280-162386-A-6-A
Client ID: G0116-22A
Sample Type: Client
Inject. Date: 20-May-2022 02:35:13 ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-6-A
Misc. Info.: 280-0111180-026
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:39:57 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:22:53

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.606			ND	
7 MNX	1		7.219			ND	U
8 RDX	1		7.599			ND	
$ 10 1,2-Dinitrobenzene	1	8.553	8.552	0.001	29586	0.2373	M
11 1,3,5-Trinitrobenzene	1		8.679			ND	
12 1,3-Dinitrobenzene	1	9.286	9.306	-0.020	313477	1.09	M
13 Nitrobenzene	1		9.699			ND	U
15 Tetryl	1		10.026			ND	U
17 2,4,6-Trinitrotoluene	1		10.932			ND	U
18 4-Amino-2,6-dinitrotoluene	1		11.132			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.386			ND	U
20 2,6-Dinitrotoluene	1		11.546			ND	U
21 2,4-Dinitrotoluene	1		11.719			ND	
22 o-Nitrotoluene	1		12.572			ND	U
23 p-Nitrotoluene	1		12.999			ND	
24 m-Nitrotoluene	1		13.572			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

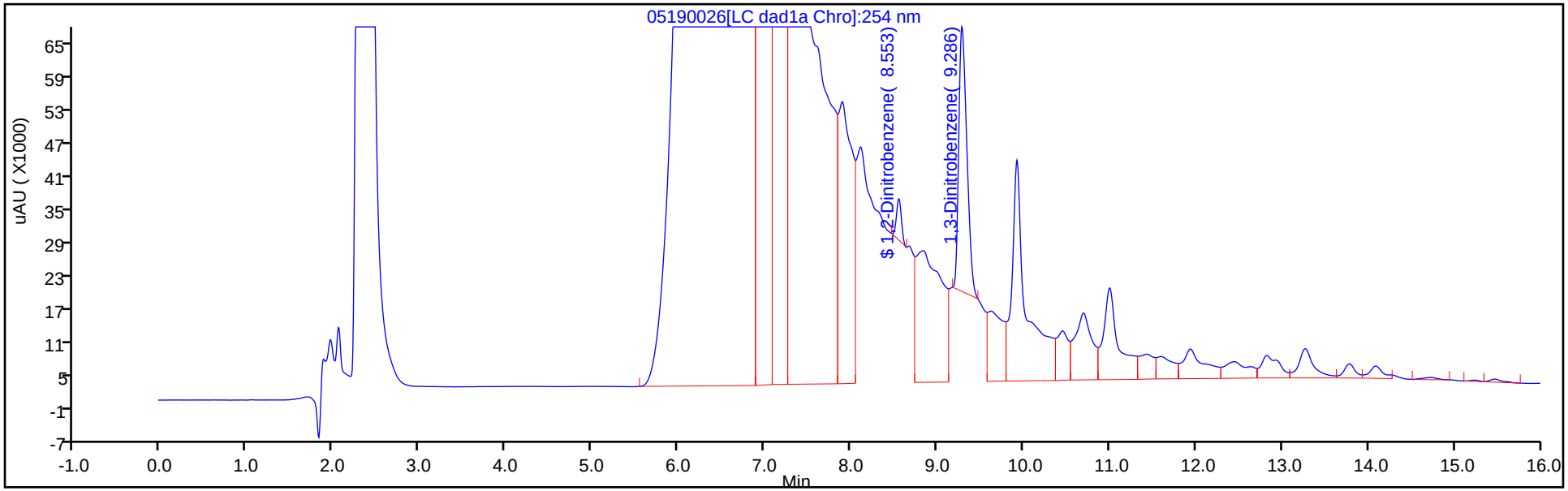
Report Date: 20-May-2022 13:40:03 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

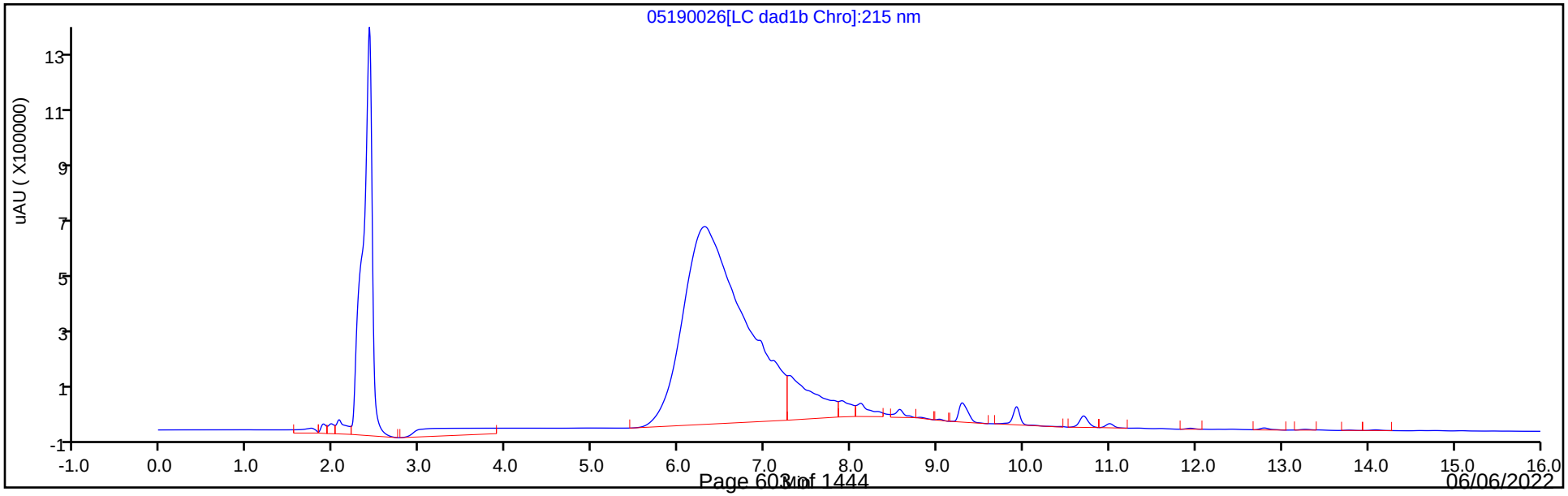
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190026.d

Injection Date:	20-May-2022 02:35:13	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6	Worklist Smp#:	26
Client ID:	G0116-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190026.D				
Lims ID:	280-162386-A-6-A				
Client ID:	G0116-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 02:35:13	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-6-A				
Misc. Info.:	280-0111180-026				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:39:57	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:22:53

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2373	118.63

Manual Integration/User Assign Peak Report

Eurofins Denver

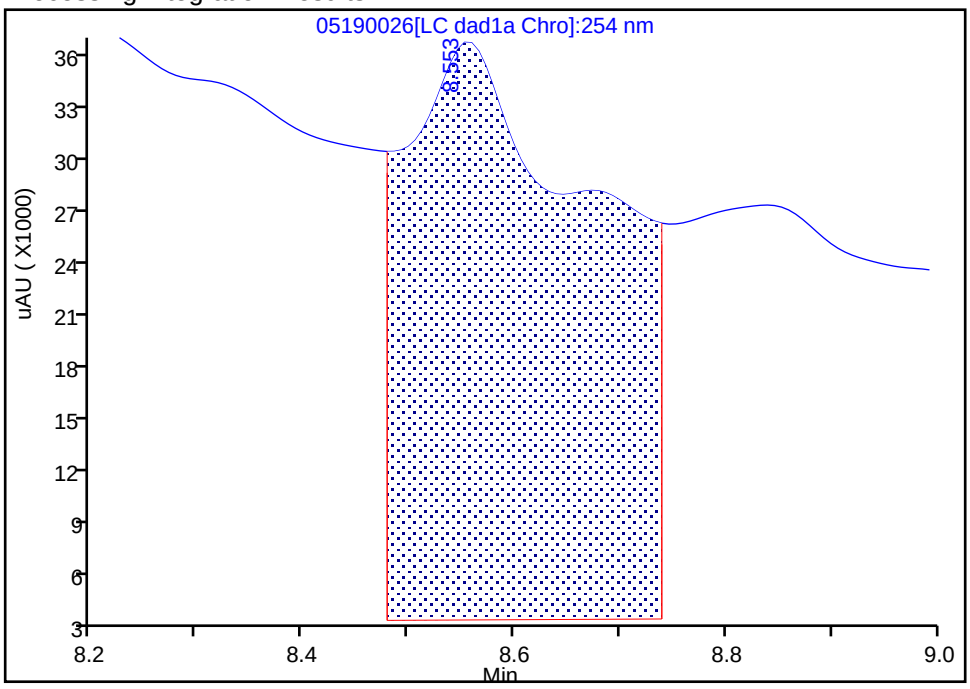
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190026.d				
Injection Date:	20-May-2022 02:35:13	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

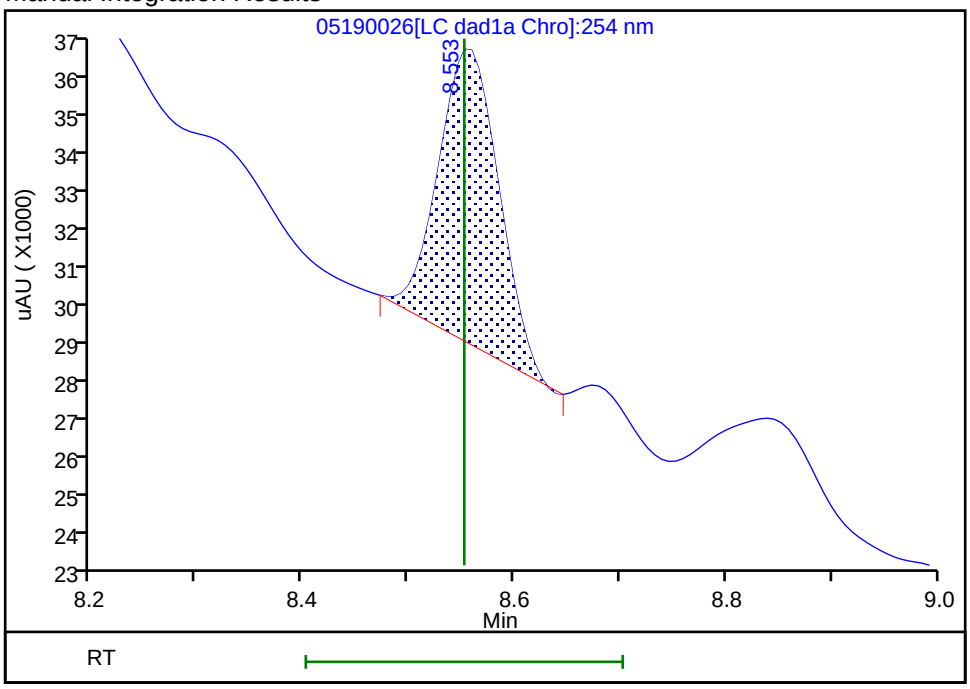
Processing Integration Results

RT: 8.55
Area: 419773
Amount: 3.366326
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 29586
Amount: 0.237262
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:22:47

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

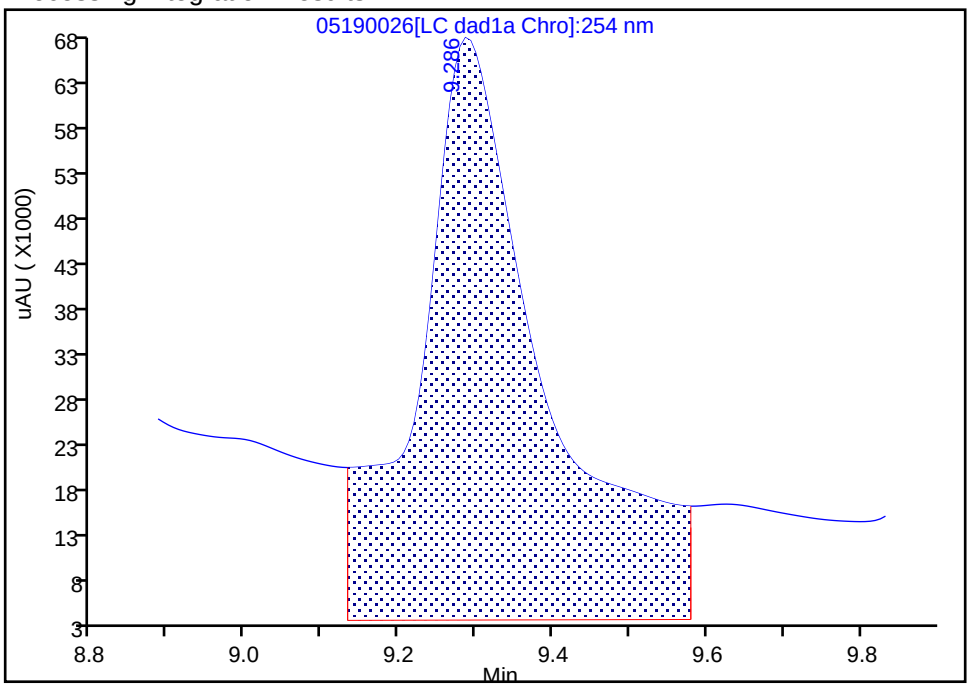
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190026.d				
Injection Date:	20-May-2022 02:35:13	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

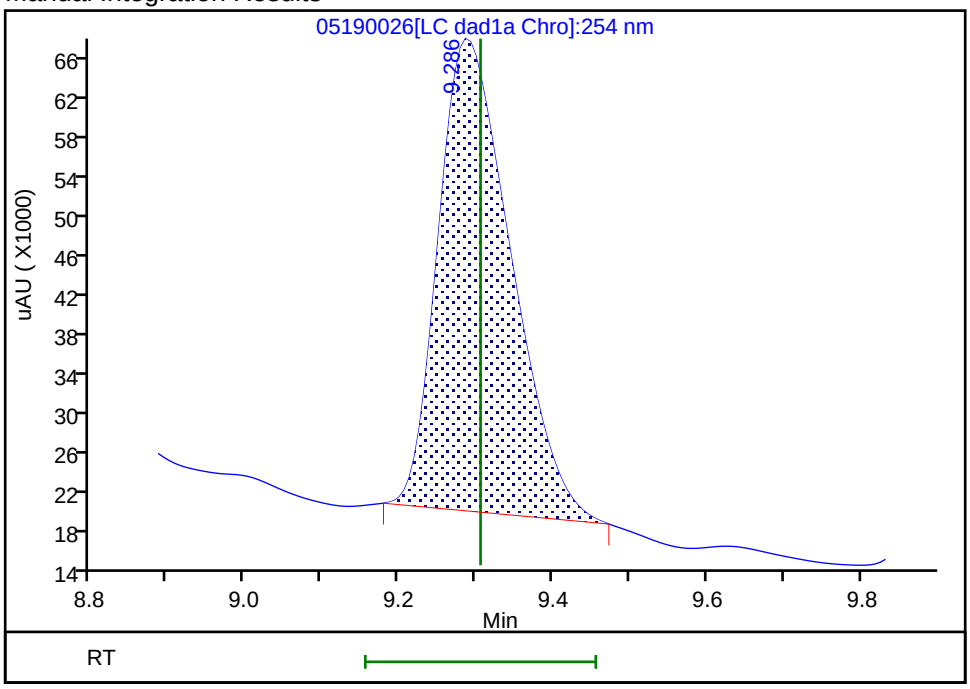
Processing Integration Results

RT: 9.29
Area: 729038
Amount: 2.527858
Amount Units: ug/mL



Manual Integration Results

RT: 9.29
Area: 313477
Amount: 1.086947
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:22:51

Audit Action: Manually Integrated Audit Reason: Baseline

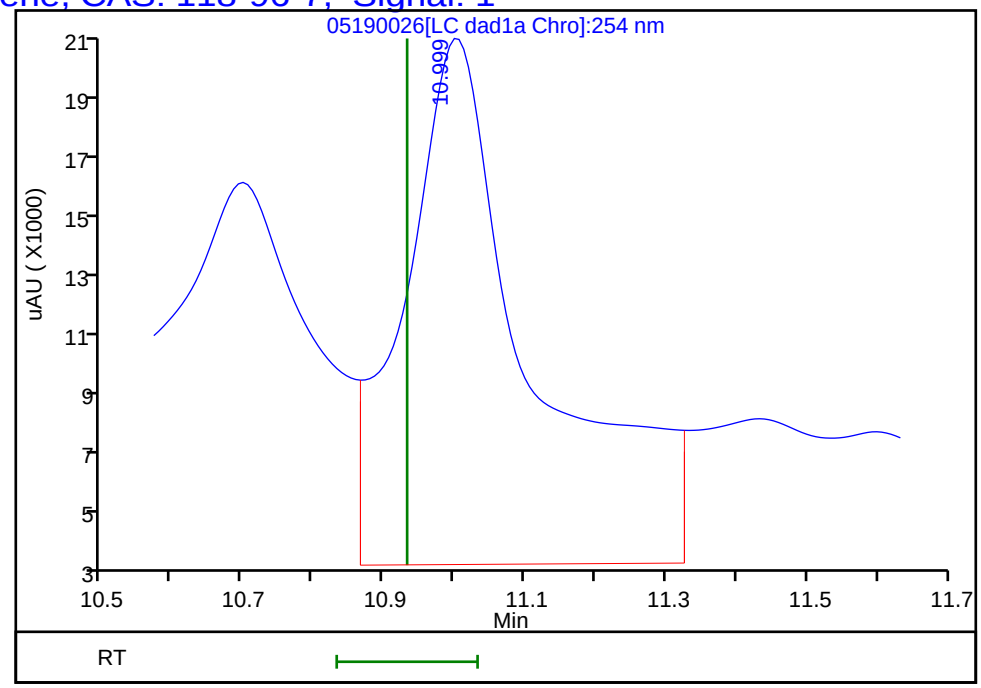
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190026.d				
Injection Date:	20-May-2022 02:35:13	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 2,4,6-Trinitrotoluene, CAS: 118-96-7, Signal: 1

RT: 11.00
Response: 208279
Amount: 1.027392



Reviewer: zhangji, 20-May-2022 12:22:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

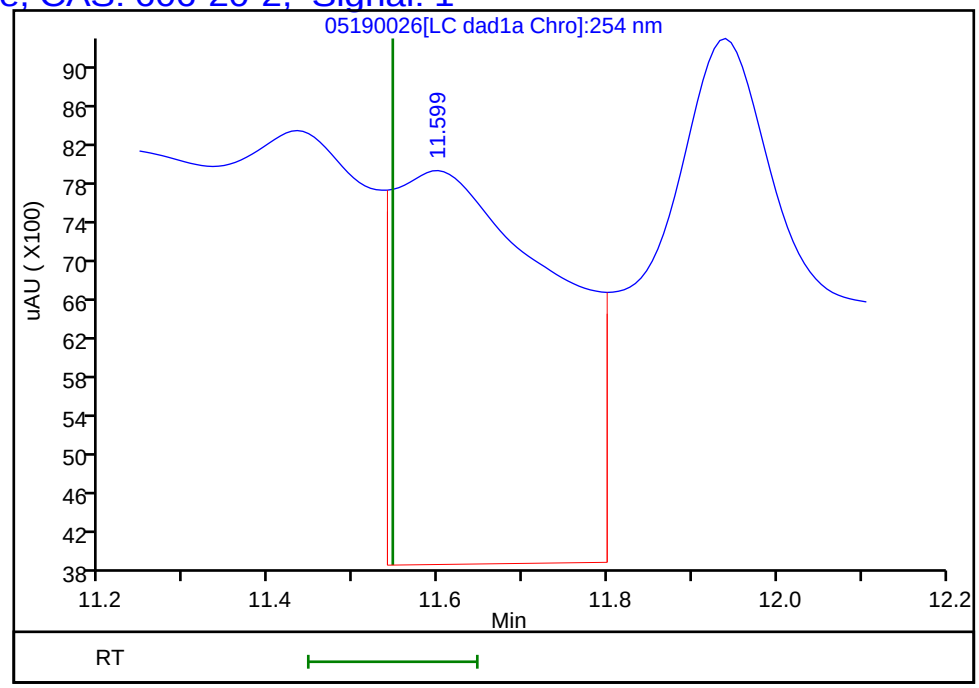
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190026.d				
Injection Date:	20-May-2022 02:35:13	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 11.60
Response: 53517
Amount: 0.373943



Reviewer: zhangji, 20-May-2022 12:22:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

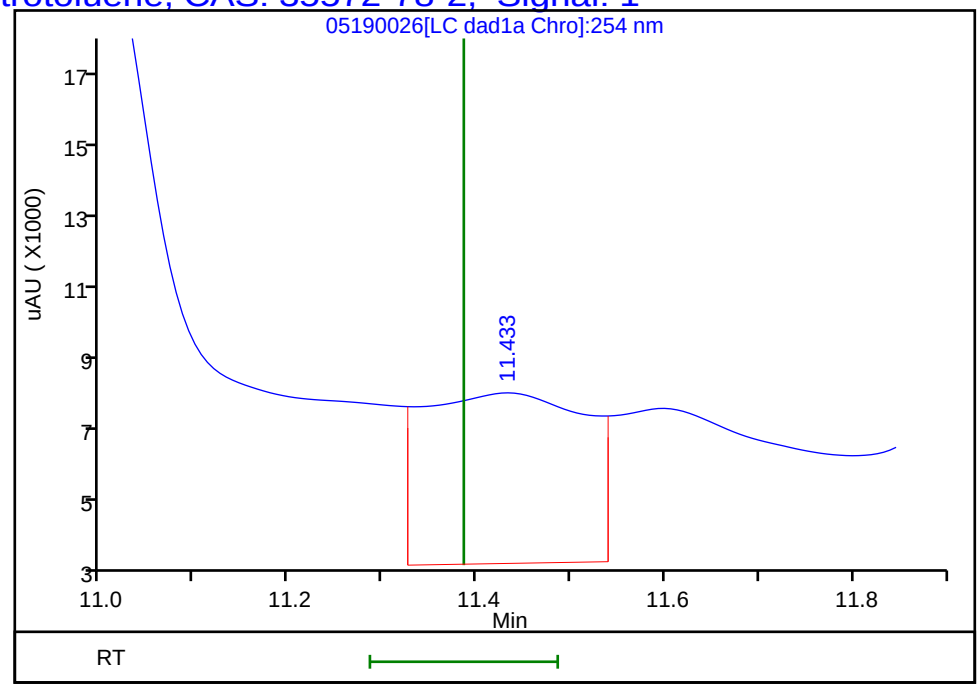
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190026.d
Injection Date: 20-May-2022 02:35:13 Instrument ID: CHHPLC_X3
Lims ID: 280-162386-A-6-A Lab Sample ID: 280-162386-6
Client ID: G0116-22A
Operator ID: JZ ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 11.43
Response: 53889
Amount: 0.266551



Reviewer: zhangji, 20-May-2022 12:22:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

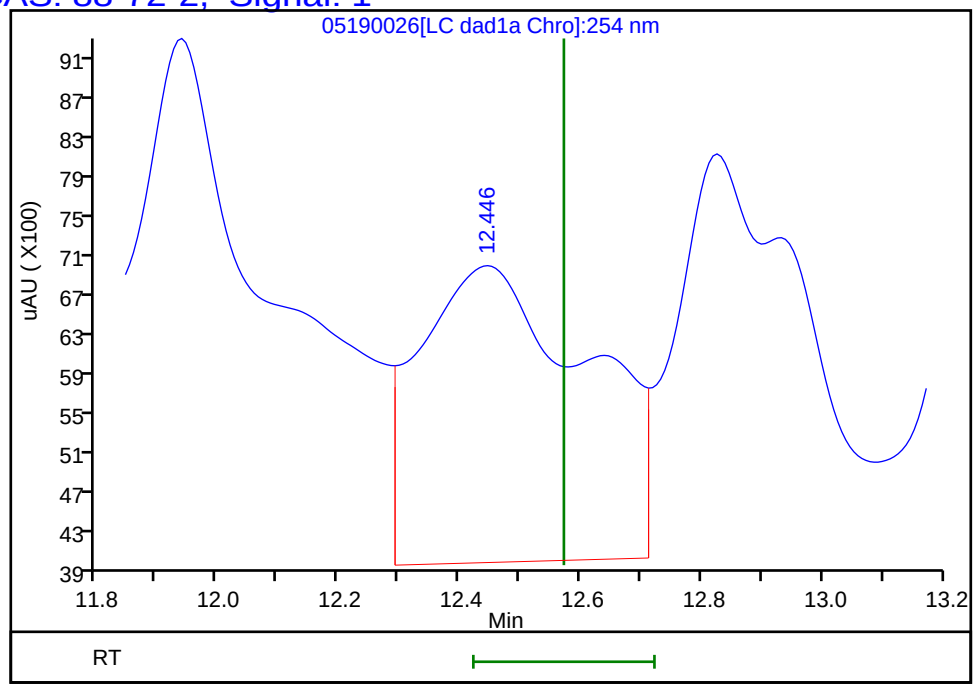
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190026.d				
Injection Date:	20-May-2022 02:35:13	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.45
Response: 57908
Amount: 0.453776



Reviewer: zhangji, 20-May-2022 12:22:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

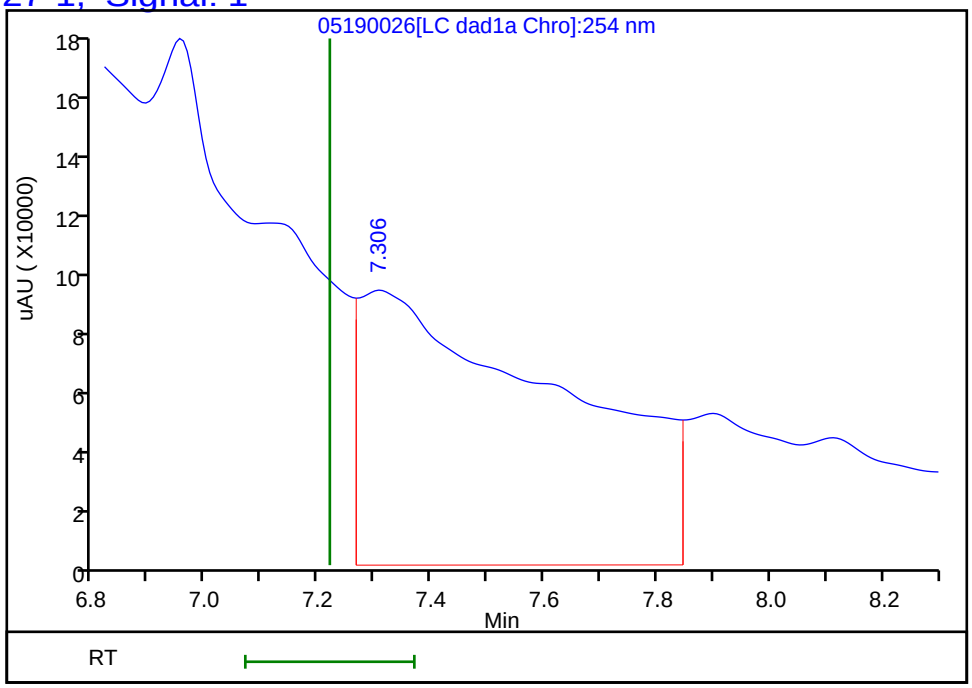
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190026.d				
Injection Date:	20-May-2022 02:35:13	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.31
Response: 2294069
Amount: 18.207559



Reviewer: zhangji, 20-May-2022 12:22:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

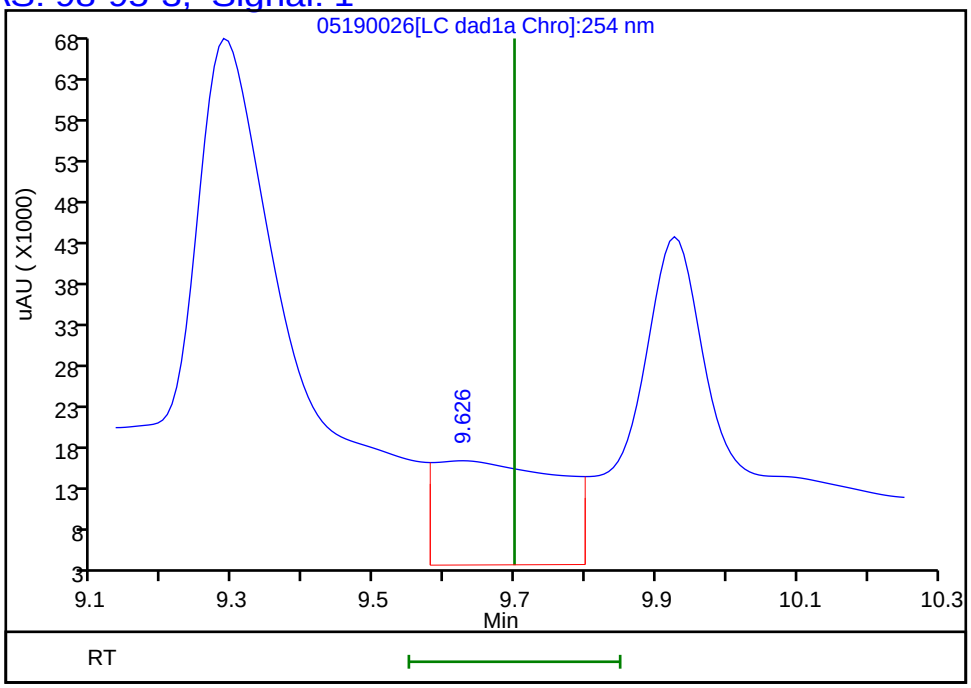
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190026.d				
Injection Date:	20-May-2022 02:35:13	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 9.63
Response: 155089
Amount: 0.807952



Reviewer: zhangji, 20-May-2022 12:22:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

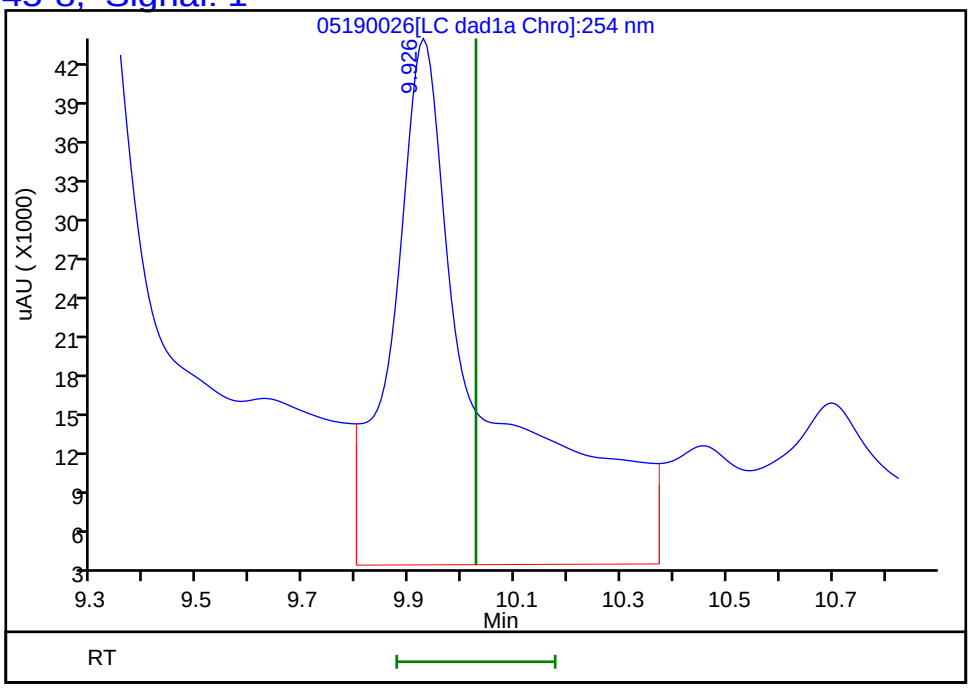
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190026.d				
Injection Date:	20-May-2022 02:35:13	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 9.93
Response: 485742
Amount: 2.847812



Reviewer: zhangji, 20-May-2022 12:22:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0116-22A | Lab Sample ID: 280-162386-6

Matrix: Water | Lab File ID: 05200017.D

Analysis Method: 8330A | Date Collected: 05/13/2022 14:40

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 476.8(mL) | Date Analyzed: 05/20/2022 22:07

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575712 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	81	*M Q*	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200017.D
Lims ID: 280-162386-A-6-A
Client ID: G0116-22A
Sample Type: Client
Inject. Date: 20-May-2022 22:07:08 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-6-A
Misc. Info.: 280-0111212-017
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-May-2022 12:33:09 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1646

First Level Reviewer: zhangji Date: 21-May-2022 12:28:52

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1		6.808			ND	
	6 MNX	1		7.509			ND	
	8 RDX	1		8.988			ND	
	9 Nitrobenzene	1	11.925	11.961	-0.036	55525	0.1508	M
$	10 1,2-Dinitrobenzene	1	13.125	13.181	-0.056	40616	0.1626	M
	12 1,3-Dinitrobenzene	1		15.507			ND	
	14 o-Nitrotoluene	1		16.741			ND	
	16 p-Nitrotoluene	1		17.047			ND	
	17 4-Amino-2,6-dinitrotoluene	1		17.654			ND	U
	18 m-Nitrotoluene	1		18.027			ND	U
	19 2-Amino-4,6-dinitrotoluene	1		18.667			ND	U
	20 1,3,5-Trinitrobenzene	1		18.807			ND	
	21 2,6-Dinitrotoluene	1		20.174			ND	U
	22 2,4-Dinitrotoluene	1	20.572	20.681	-0.109	8416	0.003723	
	23 Tetryl	1		24.428			ND	U
	24 2,4,6-Trinitrotoluene	1		25.188			ND	U

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

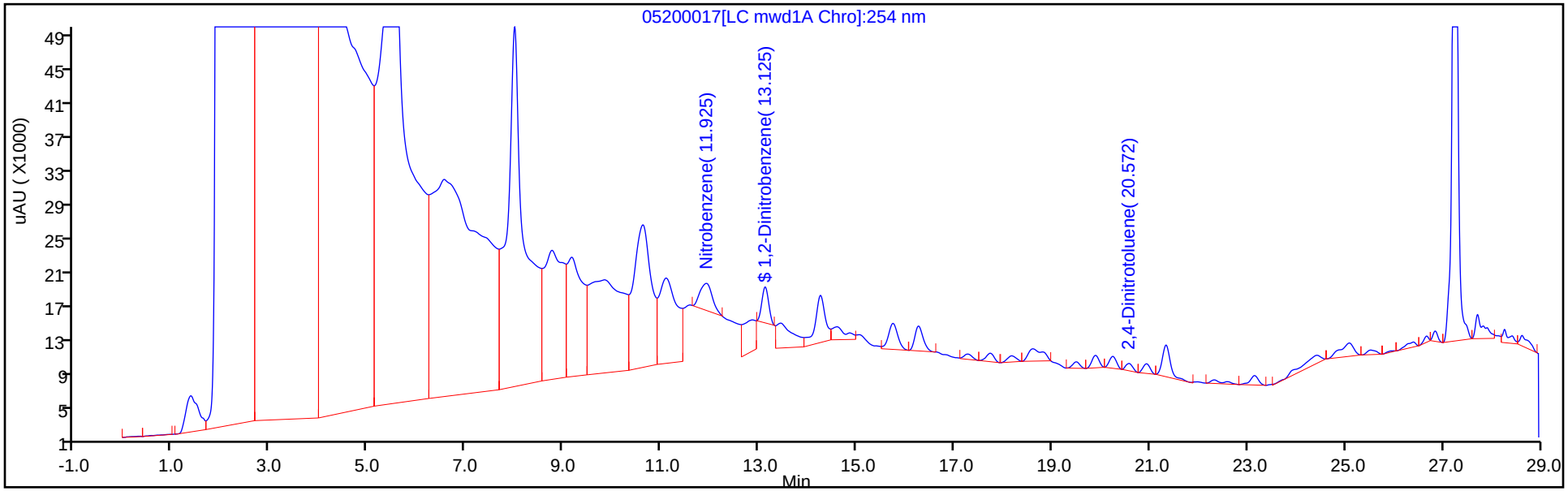
Report Date: 21-May-2022 12:33:13 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

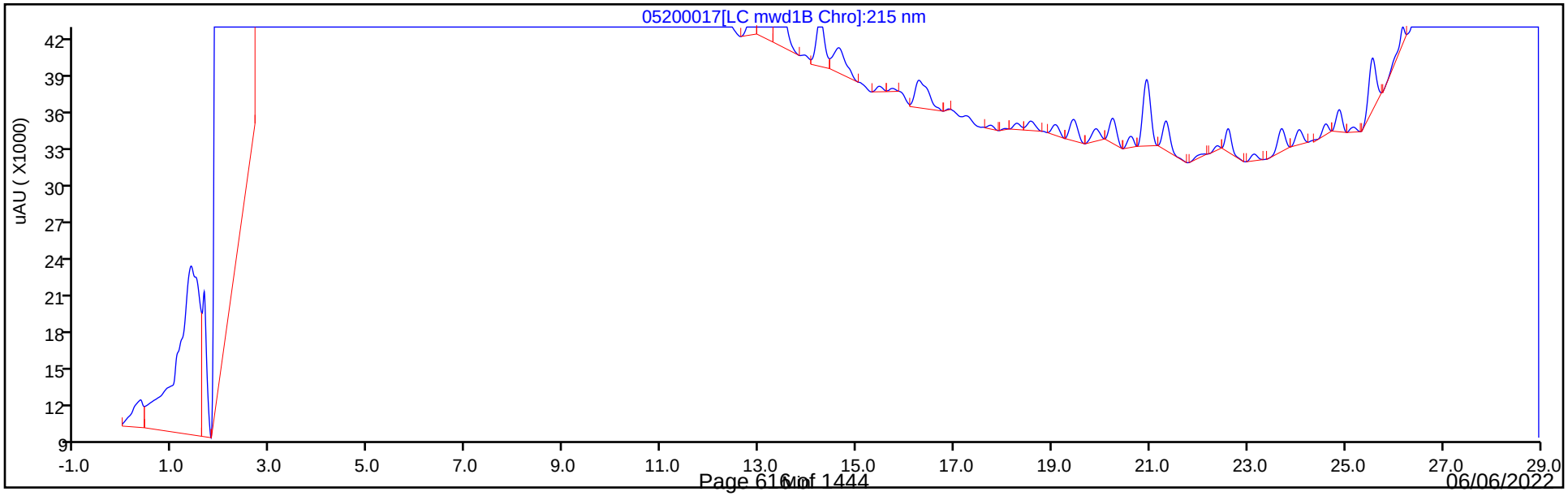
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200017.D

Injection Date:	20-May-2022 22:07:08	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6	Worklist Smp#:	17
Client ID:	G0116-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200017.D				
Lims ID:	280-162386-A-6-A				
Client ID:	G0116-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 22:07:08	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-6-A				
Misc. Info.:	280-0111212-017				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-May-2022 12:33:09	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1646				
First Level Reviewer: zhangji		Date:	21-May-2022 12:28:52		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1626	81.31

Manual Integration/User Assign Peak Report

Eurofins Denver

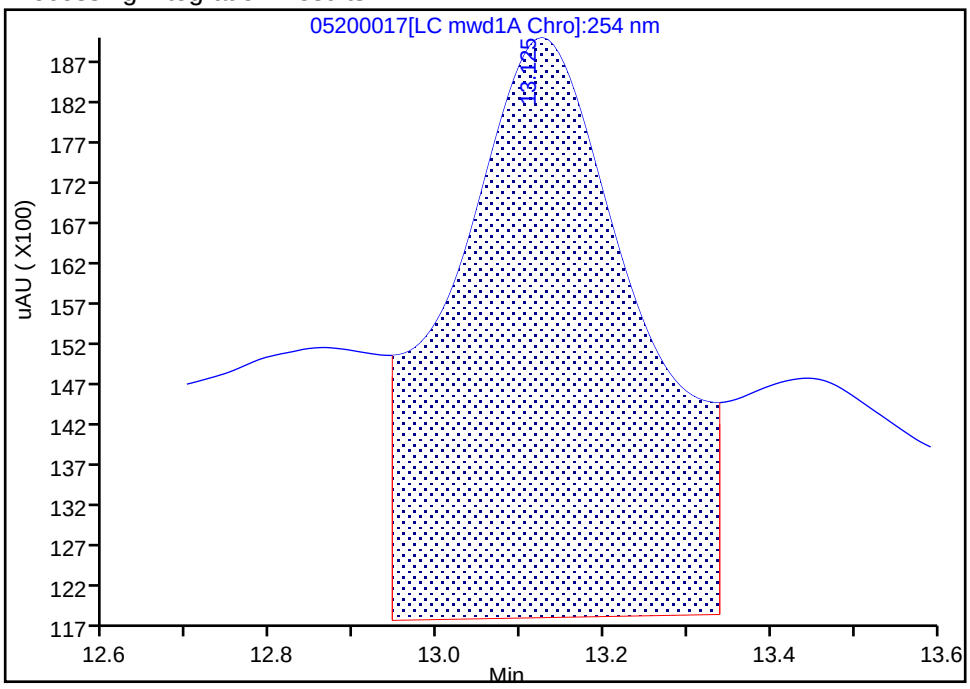
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200017.D				
Injection Date:	20-May-2022 22:07:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

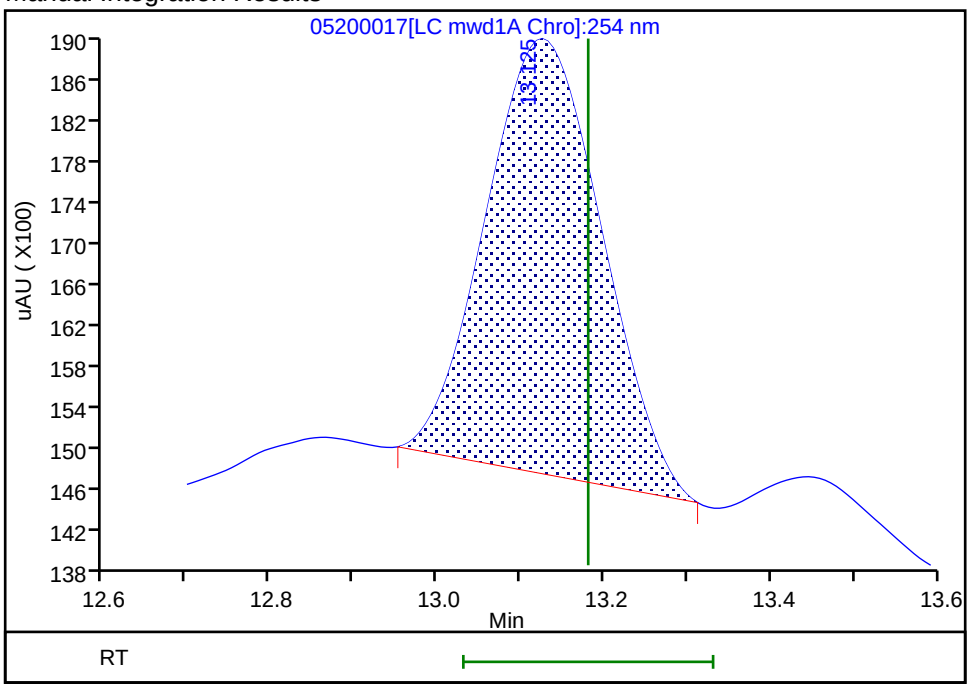
Processing Integration Results

RT: 13.13
Area: 110525
Amount: 0.442537
Amount Units: ug/ml



Manual Integration Results

RT: 13.13
Area: 40616
Amount: 0.162625
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:28:49

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

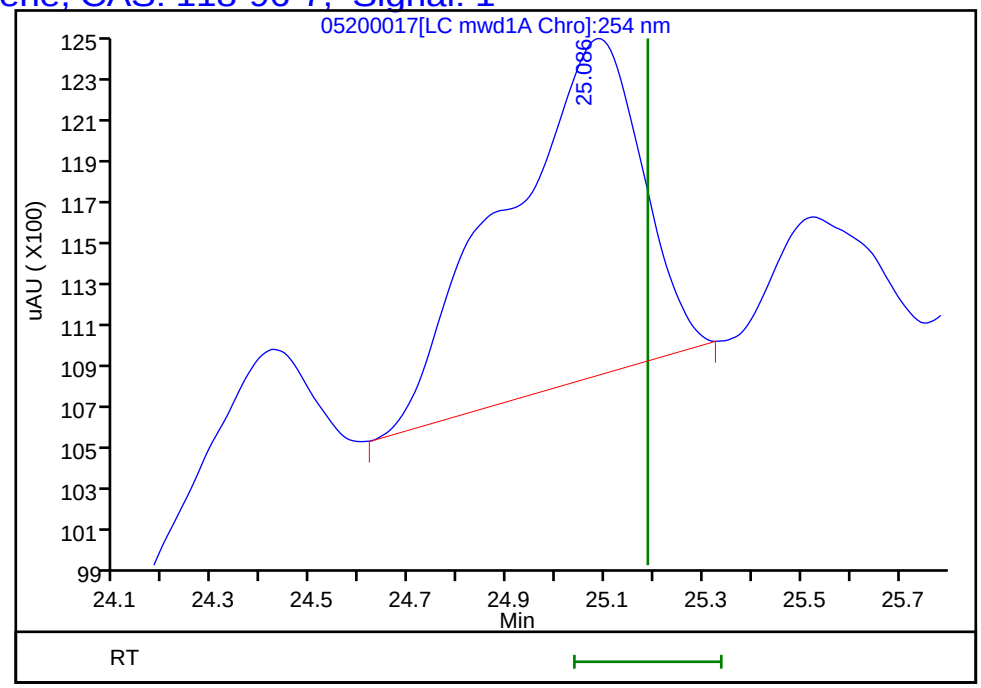
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200017.D				
Injection Date:	20-May-2022 22:07:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 25.09
Response: 30398
Amount: 0.082339



Reviewer: zhangji, 21-May-2022 12:28:52
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

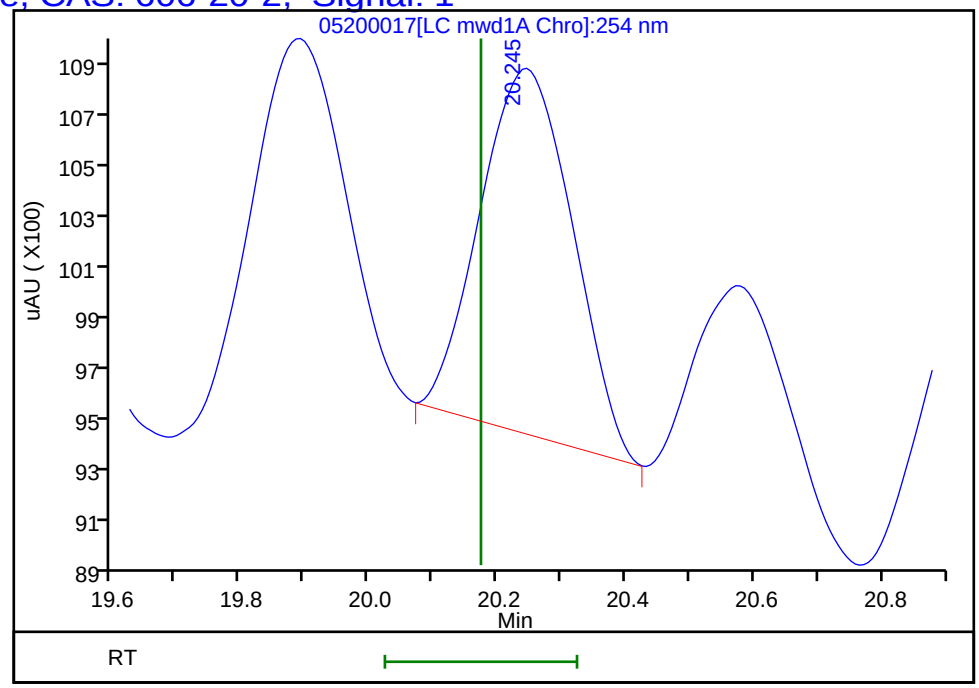
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200017.D				
Injection Date:	20-May-2022 22:07:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

21 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 20.25
Response: 13928
Amount: 0.052428



Reviewer: zhangji, 21-May-2022 12:28:52
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

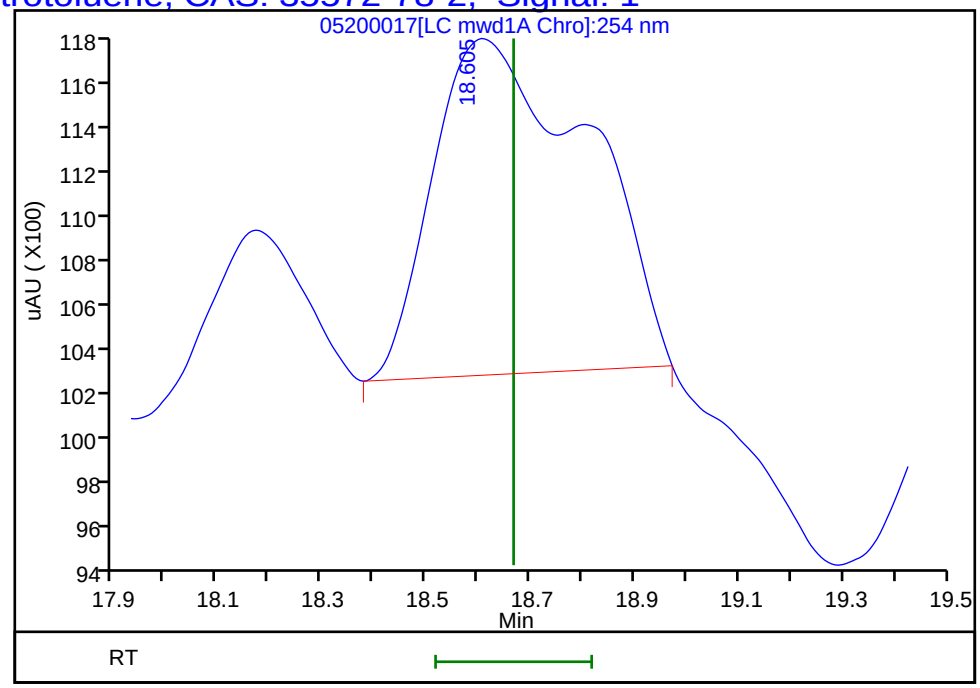
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200017.D				
Injection Date:	20-May-2022 22:07:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 18.61
Response: 29601
Amount: 0.082103



Reviewer: zhangji, 21-May-2022 12:28:52

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

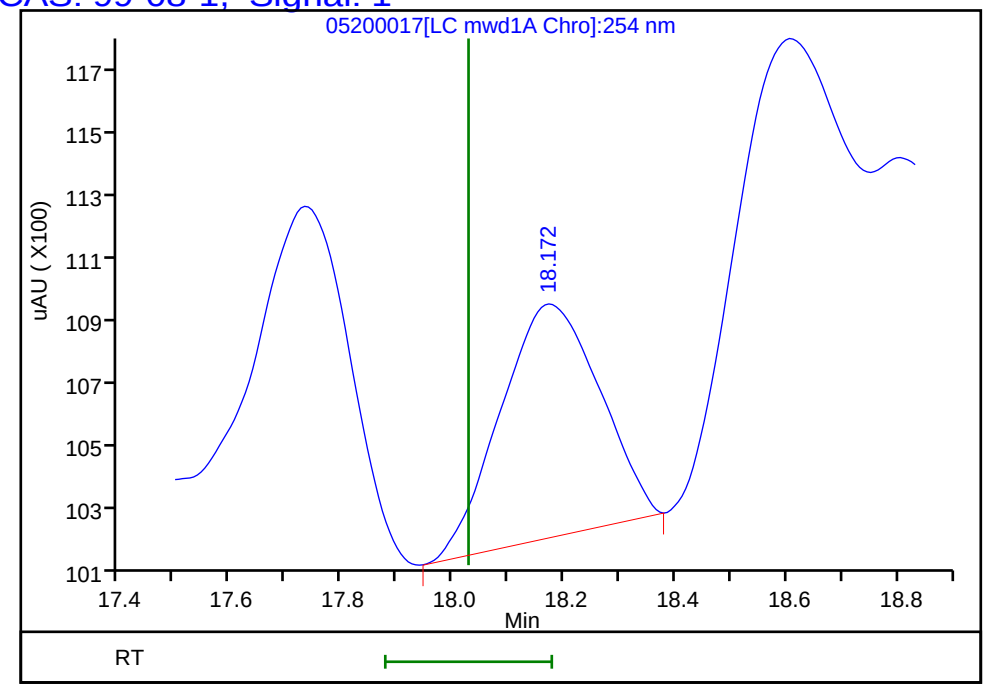
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200017.D				
Injection Date:	20-May-2022 22:07:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

18 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 18.17
Response: 8945
Amount: 0.034340



Reviewer: zhangji, 21-May-2022 12:28:52
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

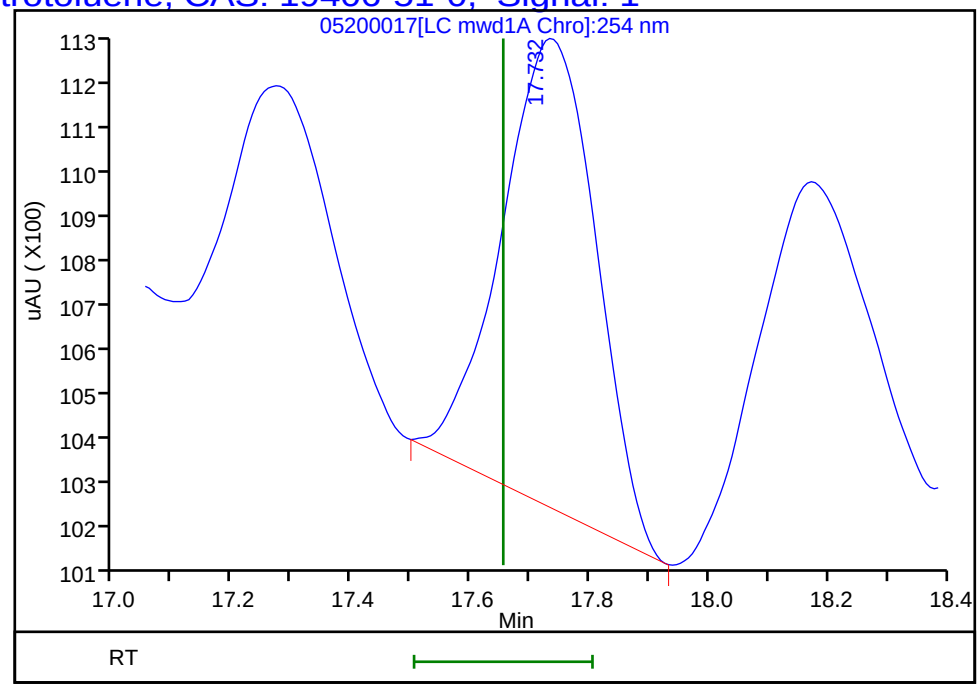
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200017.D				
Injection Date:	20-May-2022 22:07:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 17.73
Response: 10942
Amount: 0.041179



Reviewer: zhangji, 21-May-2022 12:28:52

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

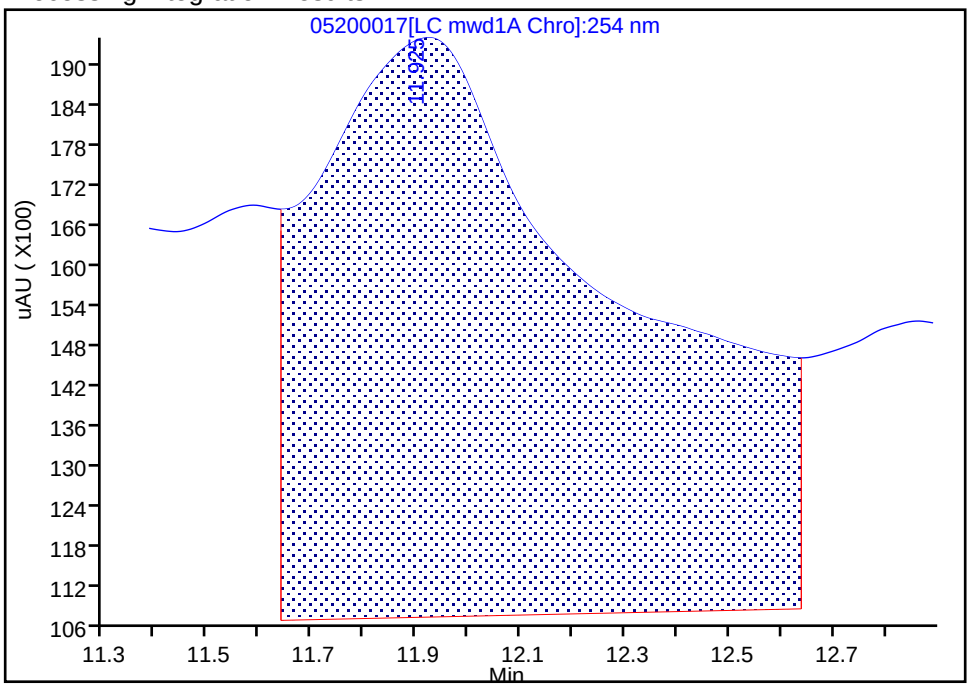
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200017.D				
Injection Date:	20-May-2022 22:07:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

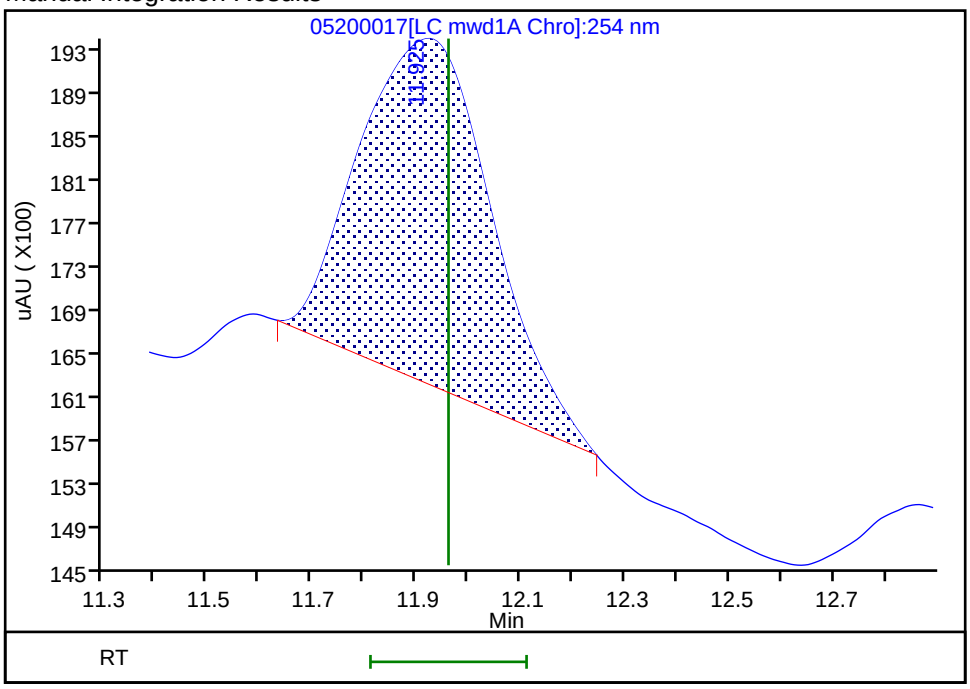
Processing Integration Results

RT: 11.93
Area: 354445
Amount: 0.962399
Amount Units: ug/ml



Manual Integration Results

RT: 11.93
Area: 55525
Amount: 0.150763
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:28:46

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

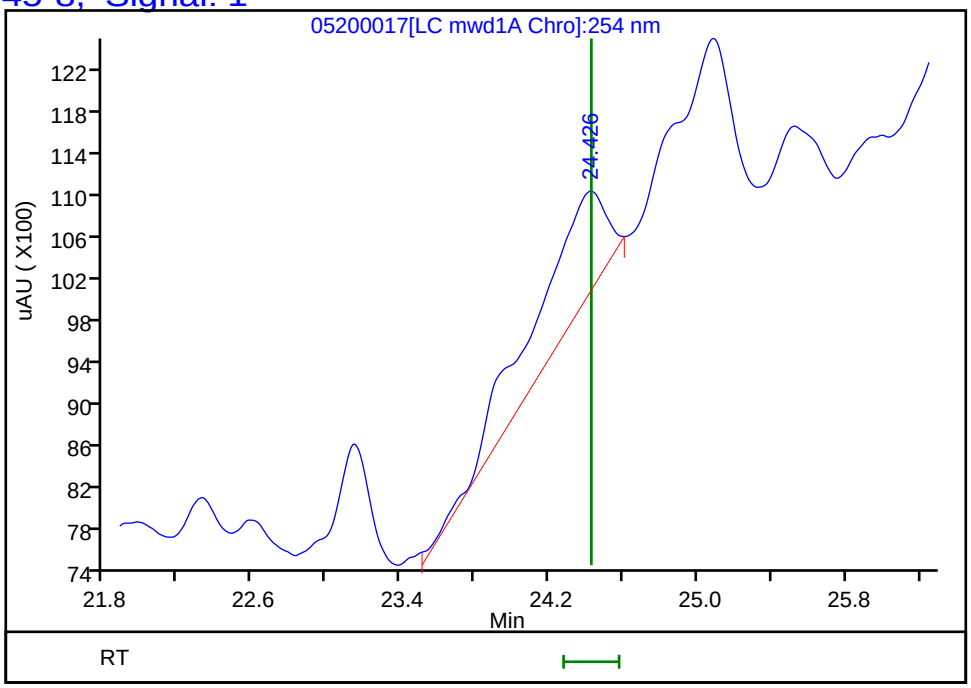
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200017.D				
Injection Date:	20-May-2022 22:07:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-6-A	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 24.43
Response: 29083
Amount: 0.084996



Reviewer: zhangji, 21-May-2022 12:28:52
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ014-22A | Lab Sample ID: 280-162386-7

Matrix: Water | Lab File ID: 05190027.D

Analysis Method: 8330A | Date Collected: 05/13/2022 15:50

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 464.7(mL) | Date Analyzed: 05/20/2022 02:58

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.090
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	0.086	U	0.11	0.086	0.029
606-20-2	2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055
88-72-2	2-Nitrotoluene	0.22	U M	0.23	0.22	0.092
99-08-1	3-Nitrotoluene	0.43	U	0.43	0.43	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062
99-99-0	4-Nitrotoluene	0.43	U	0.44	0.43	0.11
2691-41-0	HMX	0.22	U M	0.23	0.22	0.094
5755-27-1	MNX	0.43	U	2.2	0.43	0.17
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.098
121-82-4	RDX	0.22	U	0.23	0.22	0.055
479-45-8	Tetryl	0.11	U M	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	108	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190027.D
Lims ID: 280-162386-A-7-A
Client ID: PZ014-22A
Sample Type: Client
Inject. Date: 20-May-2022 02:58:07 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-7-A
Misc. Info.: 280-0111180-027
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:39:57 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:23:08

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.606			ND	U
7 MNX	1		7.219			ND	
8 RDX	1		7.599			ND	
$ 10 1,2-Dinitrobenzene	1	8.558	8.552	0.006	26818	0.2151	M
11 1,3,5-Trinitrobenzene	1		8.679			ND	
12 1,3-Dinitrobenzene	1		9.306			ND	U
13 Nitrobenzene	1		9.699			ND	
15 Tetryl	1		10.026			ND	U
17 2,4,6-Trinitrotoluene	1		10.932			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.132			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.386			ND	
20 2,6-Dinitrotoluene	1		11.546			ND	
21 2,4-Dinitrotoluene	1		11.719			ND	
22 o-Nitrotoluene	1		12.572			ND	U
23 p-Nitrotoluene	1		12.999			ND	
24 m-Nitrotoluene	1		13.572			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

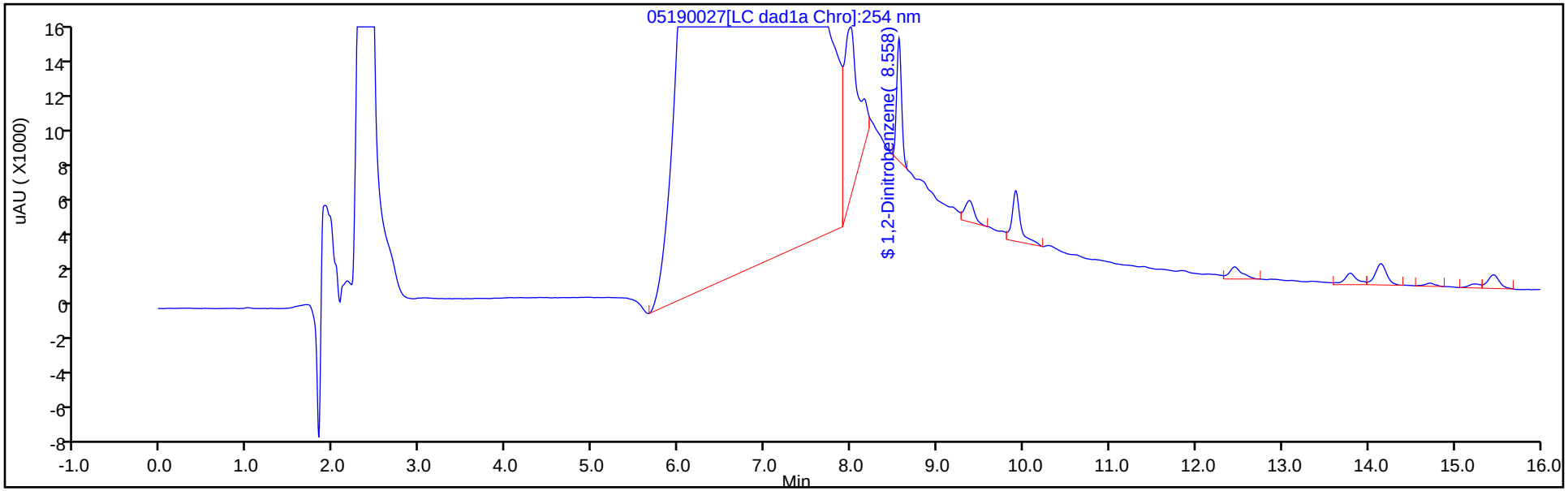
Report Date: 20-May-2022 13:40:02 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

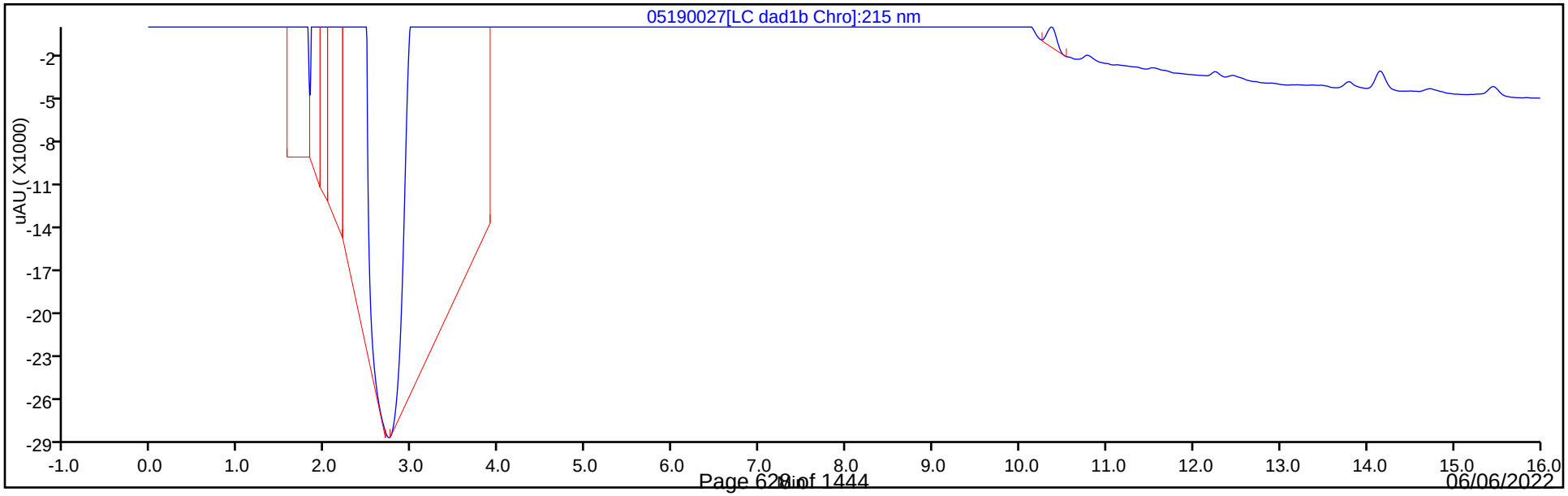
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190027.d

Injection Date:	20-May-2022 02:58:07	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-A-7-A	Lab Sample ID:	280-162386-7	Worklist Smp#:	27
Client ID:	PZ014-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190027.D				
Lims ID:	280-162386-A-7-A				
Client ID:	PZ014-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 02:58:07	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-7-A				
Misc. Info.:	280-0111180-027				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:39:57	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:23:08

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2151	107.53

Manual Integration/User Assign Peak Report

Eurofins Denver

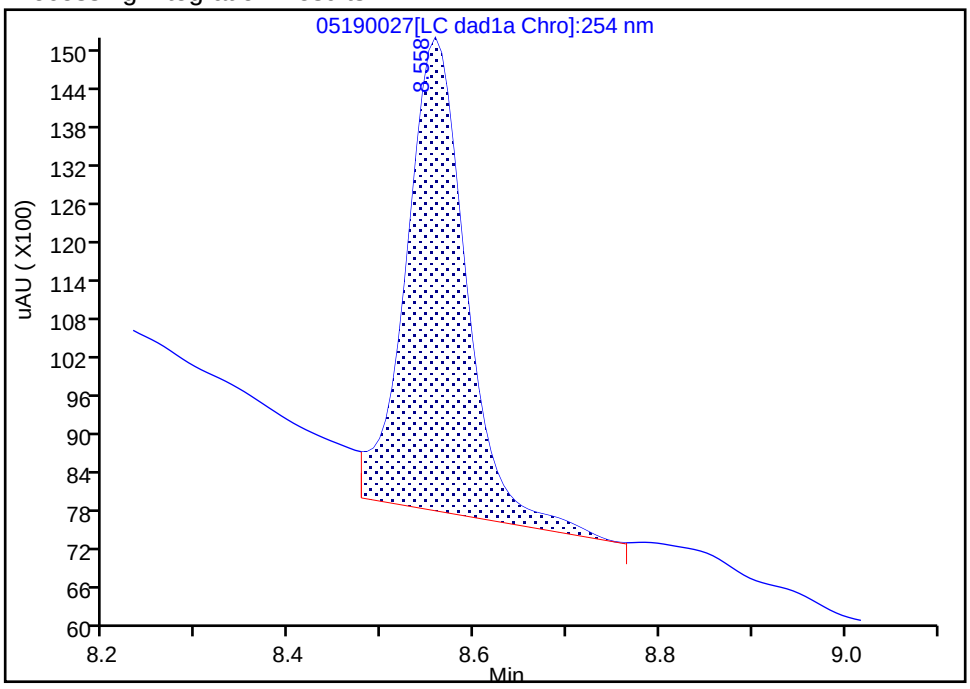
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190027.d				
Injection Date:	20-May-2022 02:58:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-7-A	Lab Sample ID:	280-162386-7		
Client ID:	PZ014-22A				
Operator ID:	JZ	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

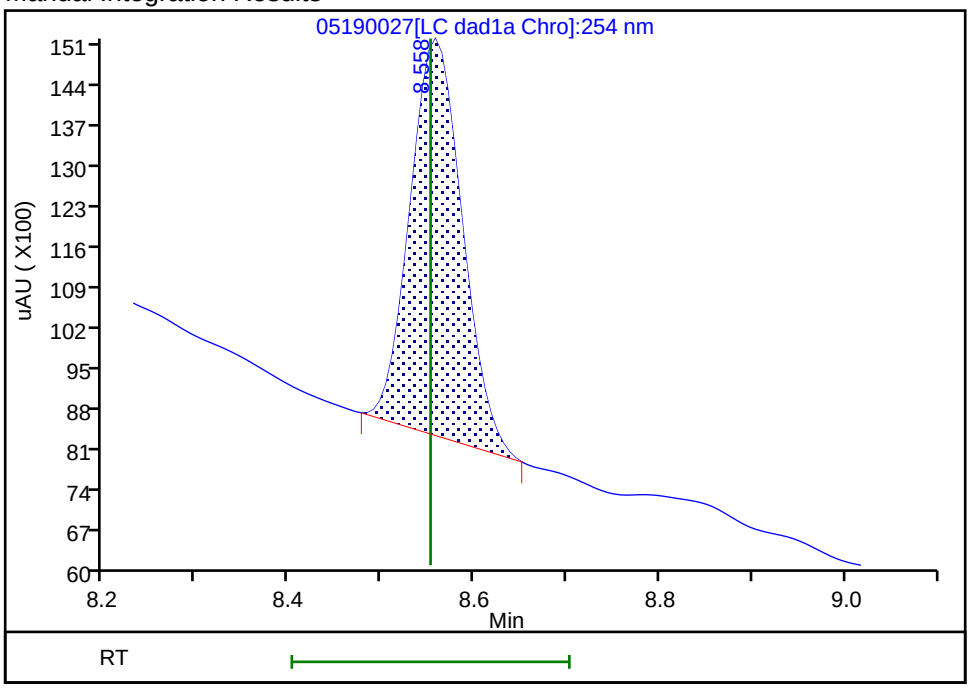
Processing Integration Results

RT: 8.56
Area: 33130
Amount: 0.265683
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 26818
Amount: 0.215064
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:23:07

Audit Action: Manually Integrated Audit Reason: Baseline

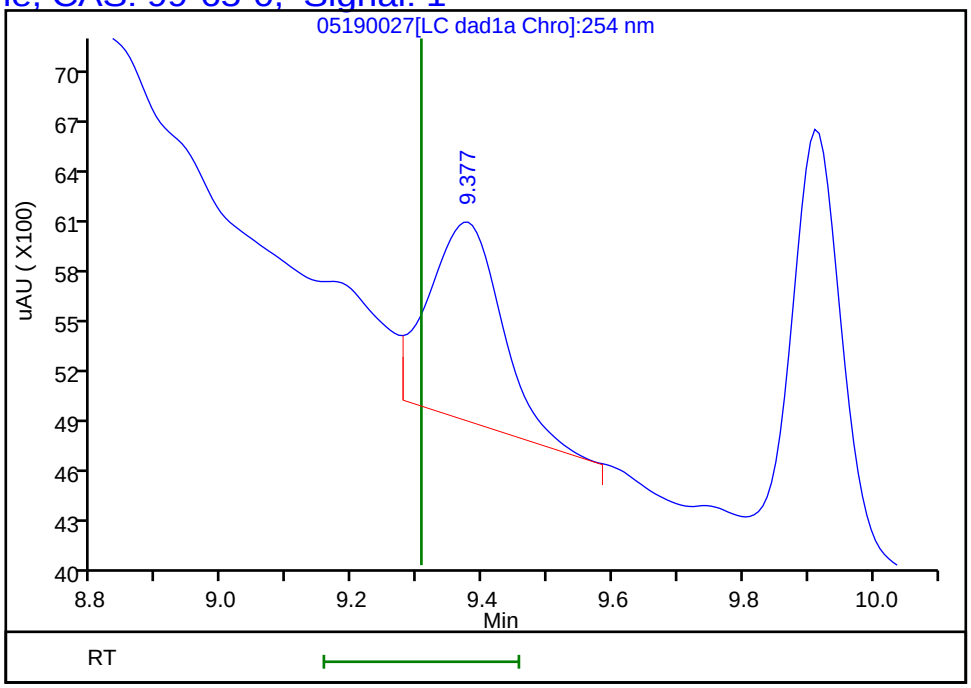
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190027.d				
Injection Date:	20-May-2022 02:58:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-7-A	Lab Sample ID:	280-162386-7		
Client ID:	PZ014-22A				
Operator ID:	JZ	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 9.38
Response: 9287
Amount: 0.032202



Reviewer: zhangji, 20-May-2022 12:23:08
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

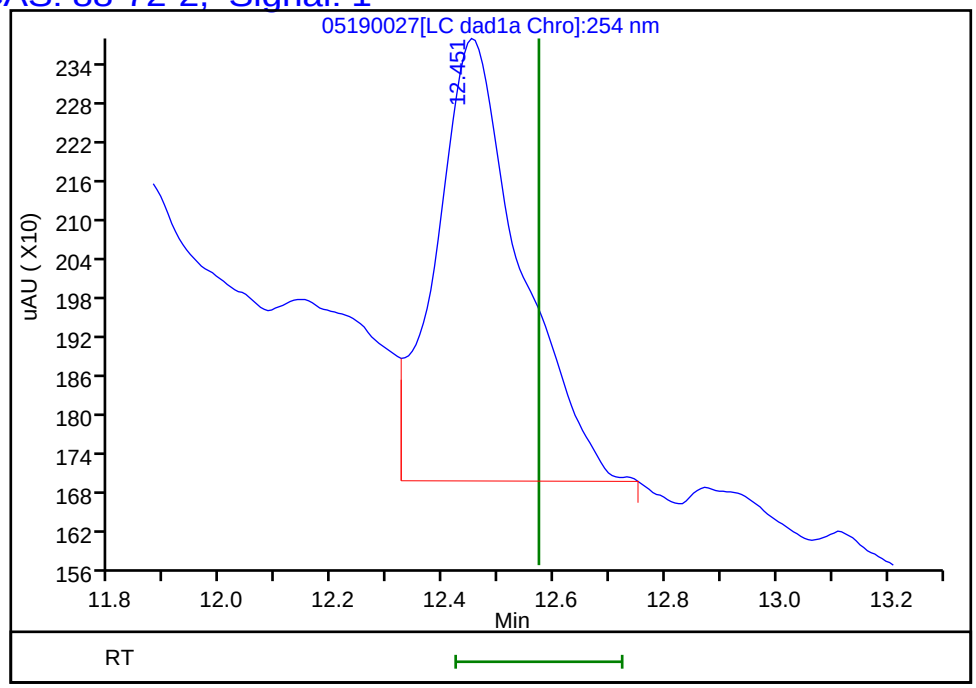
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190027.d
Injection Date: 20-May-2022 02:58:07 Instrument ID: CHHPLC_X3
Lims ID: 280-162386-A-7-A Lab Sample ID: 280-162386-7
Client ID: PZ014-22A
Operator ID: JZ ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.45
Response: 7170
Amount: 0.056185



Reviewer: zhangji, 20-May-2022 12:23:08
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

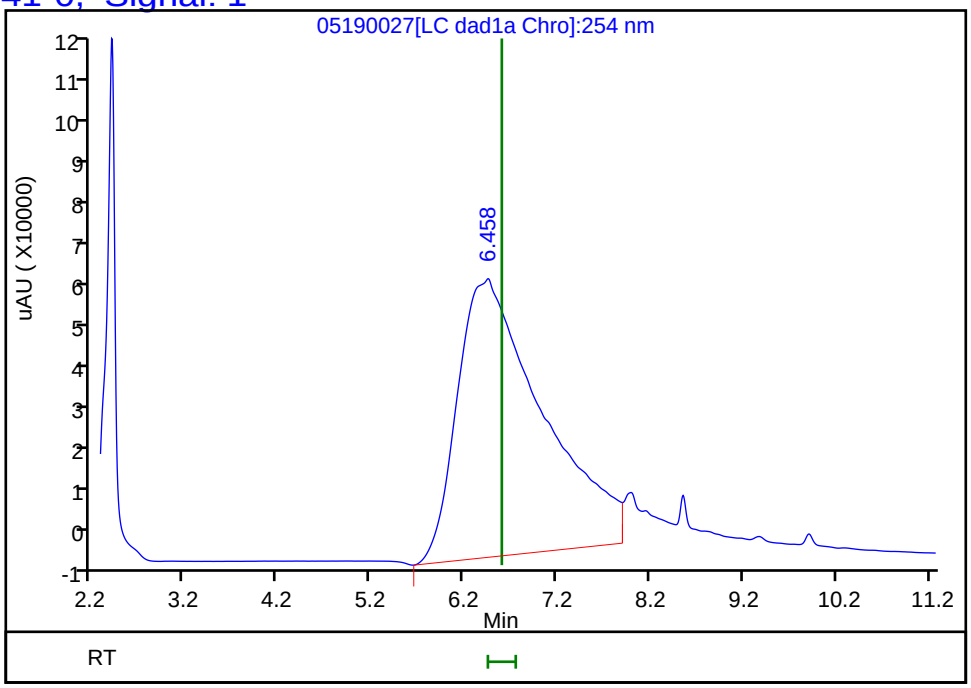
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190027.d				
Injection Date:	20-May-2022 02:58:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-7-A	Lab Sample ID:	280-162386-7		
Client ID:	PZ014-22A				
Operator ID:	JZ	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 6.46
Response: 3893981
Amount: 46.452475



Reviewer: zhangji, 20-May-2022 12:23:08
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

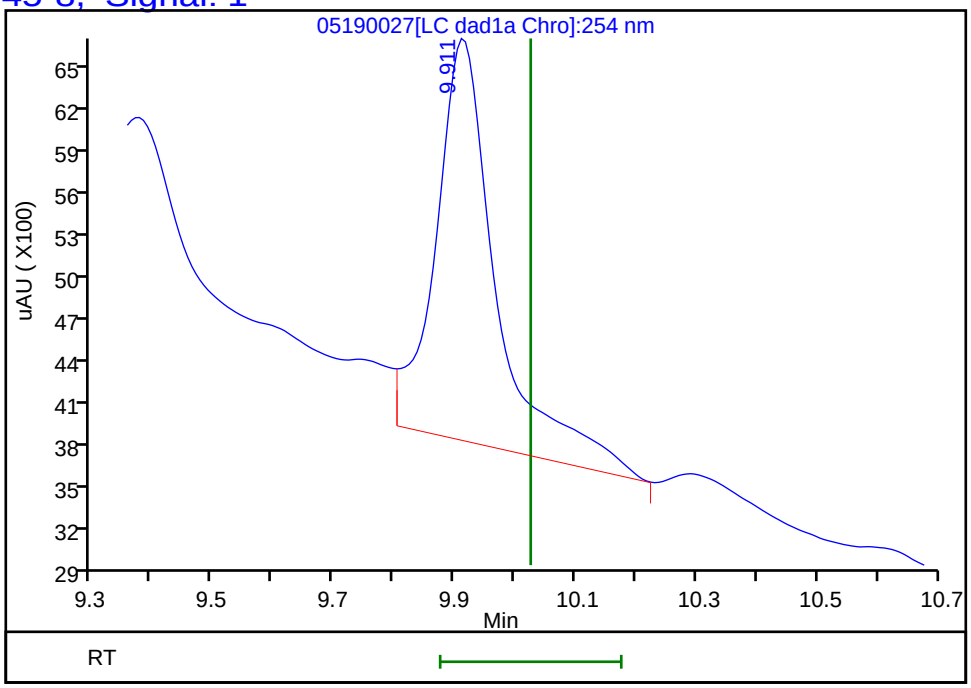
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190027.d				
Injection Date:	20-May-2022 02:58:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-7-A	Lab Sample ID:	280-162386-7		
Client ID:	PZ014-22A				
Operator ID:	JZ	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 9.91
Response: 19685
Amount: 0.115409



Reviewer: zhangji, 20-May-2022 12:23:08
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0092-22A | Lab Sample ID: 280-162386-8

Matrix: Water | Lab File ID: 05190028.D

Analysis Method: 8330A | Date Collected: 05/12/2022 14:20

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 470.3(mL) | Date Analyzed: 05/20/2022 03:21

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029
606-20-2	2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054
88-72-2	2-Nitrotoluene	0.21	U M	0.22	0.21	0.091
99-08-1	3-Nitrotoluene	0.43	U	0.43	0.43	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061
99-99-0	4-Nitrotoluene	0.43	U	0.44	0.43	0.11
2691-41-0	HMX	0.21	U M	0.22	0.21	0.093
5755-27-1	MNX	0.43	U	2.1	0.43	0.16
98-95-3	Nitrobenzene	0.21	U M	0.22	0.21	0.097
121-82-4	RDX	0.21	U	0.22	0.21	0.055
479-45-8	Tetryl	0.11	U M	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	105	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190028.D
Lims ID: 280-162386-A-8-A
Client ID: G0092-22A
Sample Type: Client
Inject. Date: 20-May-2022 03:21:00 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-8-A
Misc. Info.: 280-0111180-028
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:39:57 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:23:24

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.606			ND	U
7 MNX	1		7.219			ND	
8 RDX	1		7.599			ND	
$ 10 1,2-Dinitrobenzene	1	8.558	8.552	0.006	26154	0.2097	M
11 1,3,5-Trinitrobenzene	1		8.679			ND	7
12 1,3-Dinitrobenzene	1		9.306			ND	
13 Nitrobenzene	1		9.699			ND	U
15 Tetryl	1		10.026			ND	U
17 2,4,6-Trinitrotoluene	1		10.932			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.132			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.386			ND	
20 2,6-Dinitrotoluene	1		11.546			ND	
21 2,4-Dinitrotoluene	1		11.719			ND	
22 o-Nitrotoluene	1		12.572			ND	U
23 p-Nitrotoluene	1		12.999			ND	
24 m-Nitrotoluene	1		13.572			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

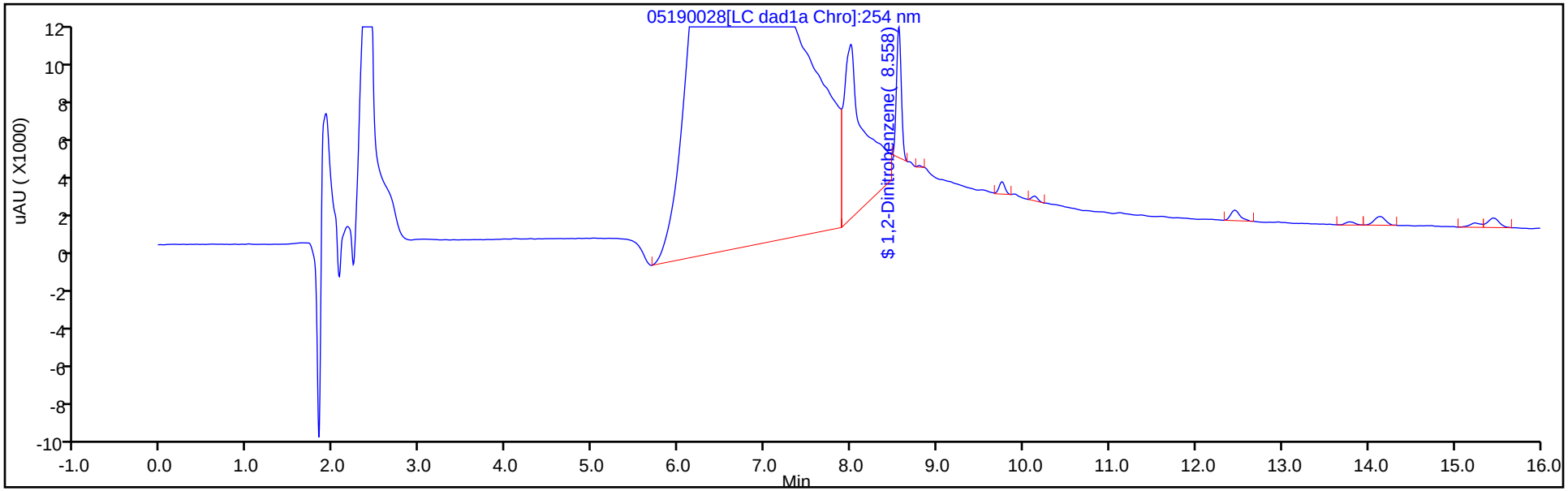
Report Date: 20-May-2022 13:40:01 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

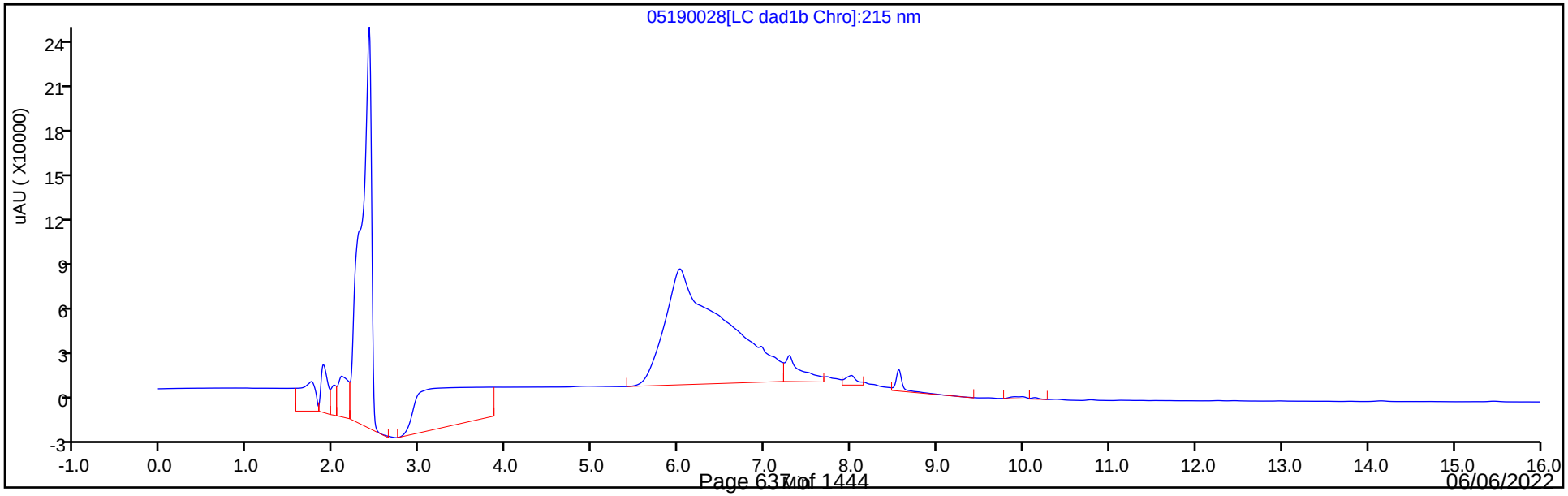
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190028.d

Injection Date:	20-May-2022 03:21:00	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-A-8-A	Lab Sample ID:	280-162386-8	Worklist Smp#:	28
Client ID:	G0092-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190028.D				
Lims ID:	280-162386-A-8-A				
Client ID:	G0092-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 03:21:00	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-8-A				
Misc. Info.:	280-0111180-028				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:39:57	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:23:24

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2097	104.87

Manual Integration/User Assign Peak Report

Eurofins Denver

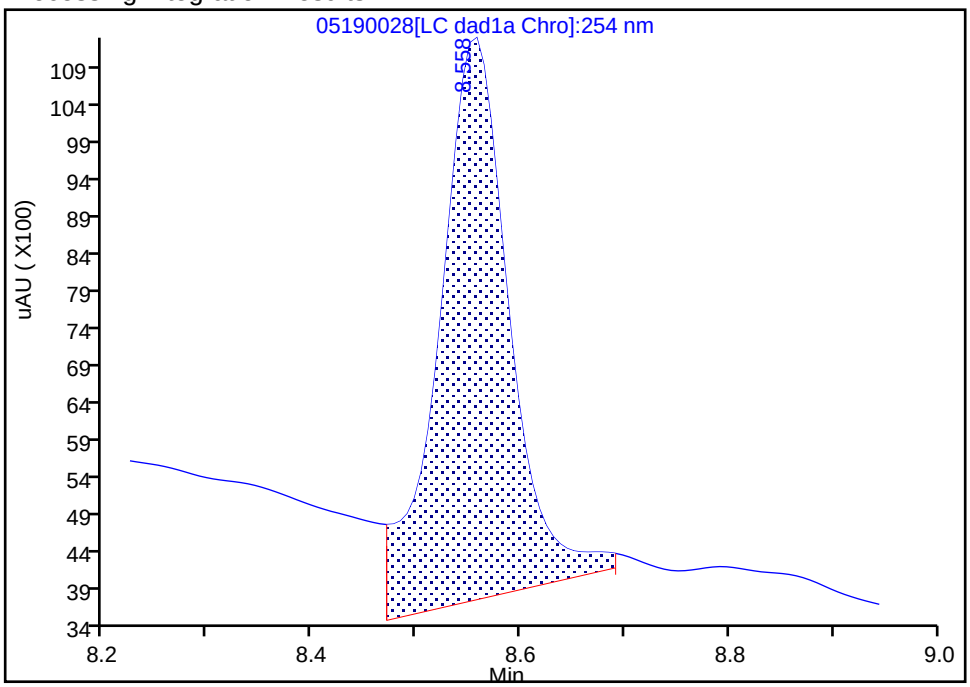
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190028.d				
Injection Date:	20-May-2022 03:21:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-8-A	Lab Sample ID:	280-162386-8		
Client ID:	G0092-22A				
Operator ID:	JZ	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

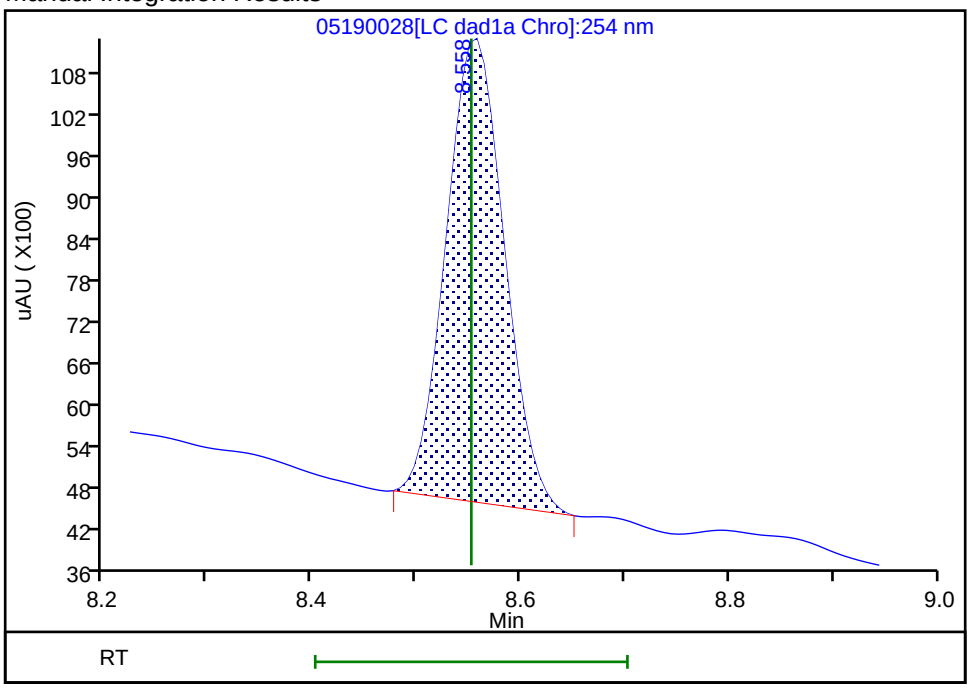
Processing Integration Results

RT: 8.56
Area: 35822
Amount: 0.287271
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 26154
Amount: 0.209739
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:23:23

Audit Action: Manually Integrated Audit Reason: Baseline

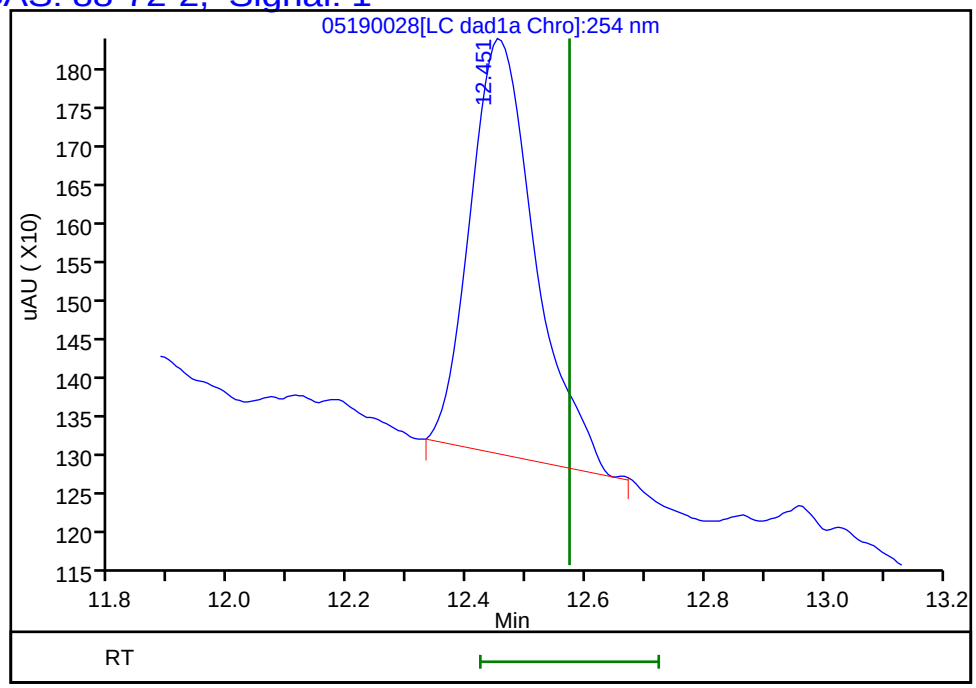
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190028.d				
Injection Date:	20-May-2022 03:21:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-8-A	Lab Sample ID:	280-162386-8		
Client ID:	G0092-22A				
Operator ID:	JZ	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.45
Response: 4087
Amount: 0.032026



Reviewer: zhangji, 20-May-2022 12:23:24
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

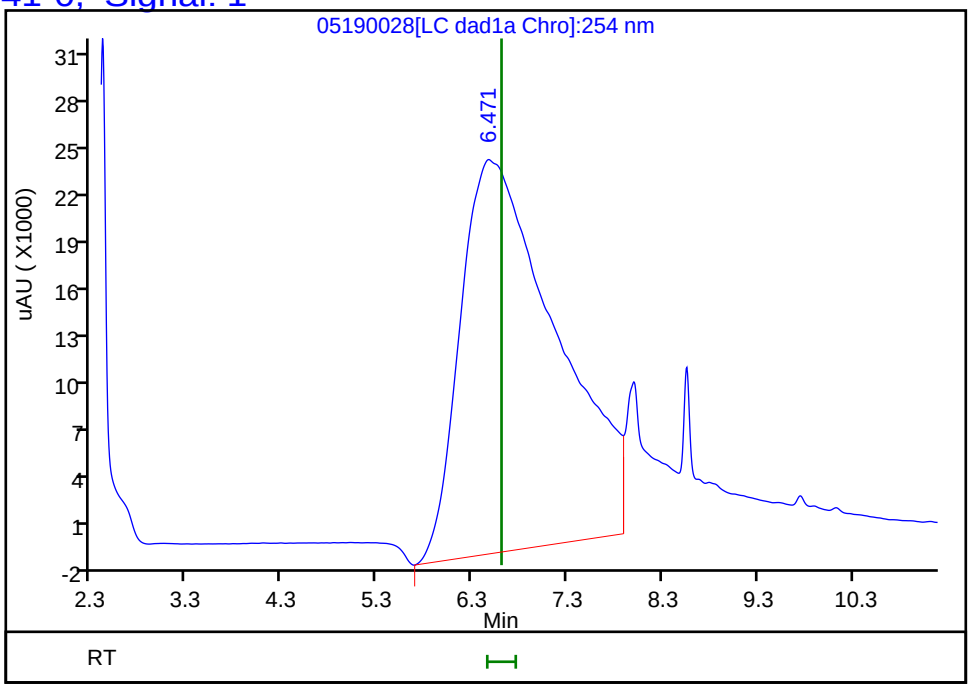
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190028.d				
Injection Date:	20-May-2022 03:21:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-8-A	Lab Sample ID:	280-162386-8		
Client ID:	G0092-22A				
Operator ID:	JZ	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 6.47
Response: 1719960
Amount: 20.517922



Reviewer: zhangji, 20-May-2022 12:23:24
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

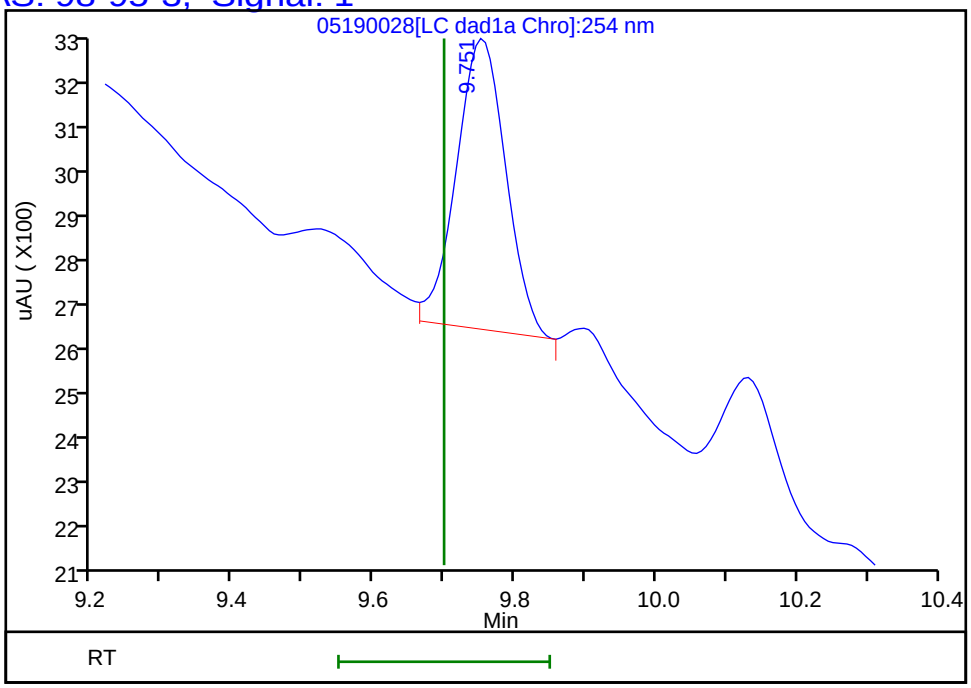
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190028.d				
Injection Date:	20-May-2022 03:21:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-8-A	Lab Sample ID:	280-162386-8		
Client ID:	G0092-22A				
Operator ID:	JZ	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 9.75
Response: 3073
Amount: 0.016009



Reviewer: zhangji, 20-May-2022 12:23:24
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

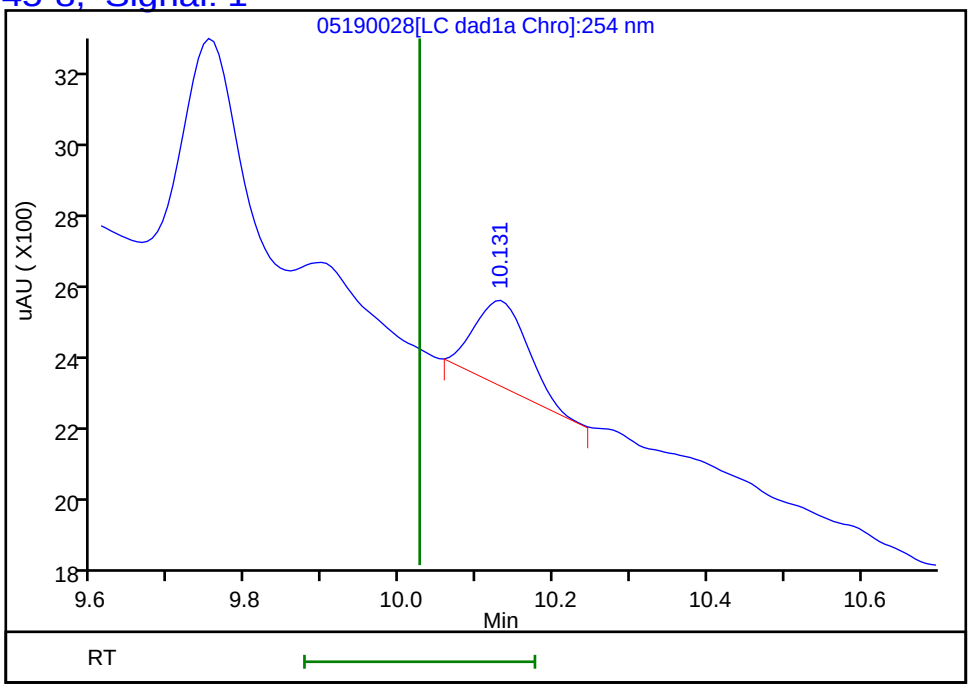
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190028.d				
Injection Date:	20-May-2022 03:21:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-8-A	Lab Sample ID:	280-162386-8		
Client ID:	G0092-22A				
Operator ID:	JZ	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 10.13
Response: 1161
Amount: 0.006807



Reviewer: zhangji, 20-May-2022 12:23:24
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ013-22A | Lab Sample ID: 280-162386-9

Matrix: Water | Lab File ID: 05190029.D

Analysis Method: 8330A | Date Collected: 05/13/2022 11:40

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 492.4(mL) | Date Analyzed: 05/20/2022 03:43

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.98		0.11	0.10	0.046
121-14-2	2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028
606-20-2	2,6-Dinitrotoluene	0.081	U	0.10	0.081	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	3.3		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U M	0.21	0.20	0.087
99-08-1	3-Nitrotoluene	0.41	U	0.41	0.41	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	4.3		0.15	0.12	0.059
2691-41-0	HMX	0.20	U M	0.21	0.20	0.089
5755-27-1	MNX	0.41	U M	2.0	0.41	0.16
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.092
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U M	0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	105		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190029.D
Lims ID: 280-162386-B-9-A
Client ID: PZ013-22A
Sample Type: Client
Inject. Date: 20-May-2022 03:43:54 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-B-9-A
Misc. Info.: 280-0111180-029
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:39:57 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:26:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.606			ND	U
7 MNX	1		7.219			ND	U
8 RDX	1		7.599			ND	
$ 10 1,2-Dinitrobenzene	1	8.553	8.552	0.001	26137	0.2096	
11 1,3,5-Trinitrobenzene	1	8.673	8.679	-0.006	2427	0.0111	
12 1,3-Dinitrobenzene	1		9.306			ND	U
13 Nitrobenzene	1		9.699			ND	
15 Tetryl	1		10.026			ND	U
17 2,4,6-Trinitrotoluene	1	10.939	10.932	0.007	19489	0.0961	
18 4-Amino-2,6-dinitrotoluene	1	11.126	11.132	-0.006	63510	0.4206	
19 2-Amino-4,6-dinitrotoluene	1	11.379	11.386	-0.007	65736	0.3252	
20 2,6-Dinitrotoluene	1		11.546			ND	
21 2,4-Dinitrotoluene	1		11.719			ND	
22 o-Nitrotoluene	1		12.572			ND	U
23 p-Nitrotoluene	1	13.006	12.999	0.007	1179	0.0111	
24 m-Nitrotoluene	1		13.572			ND	

QC Flag Legend

Processing Flags
Review Flags
U - Marked Undetected

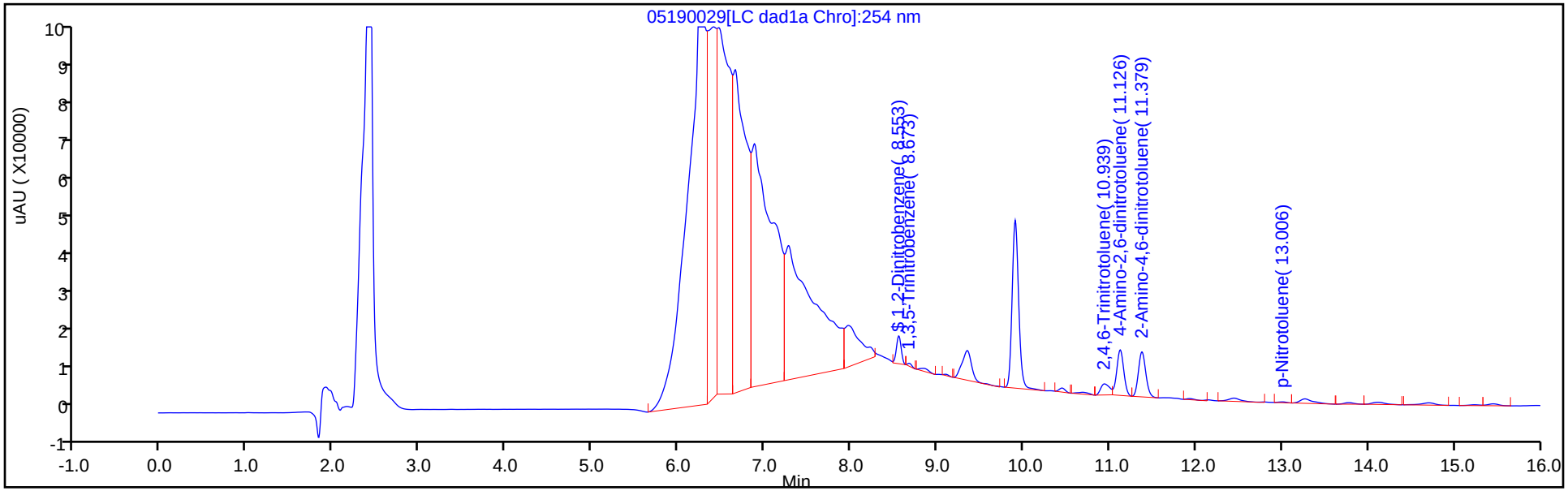
Report Date: 20-May-2022 13:40:01 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

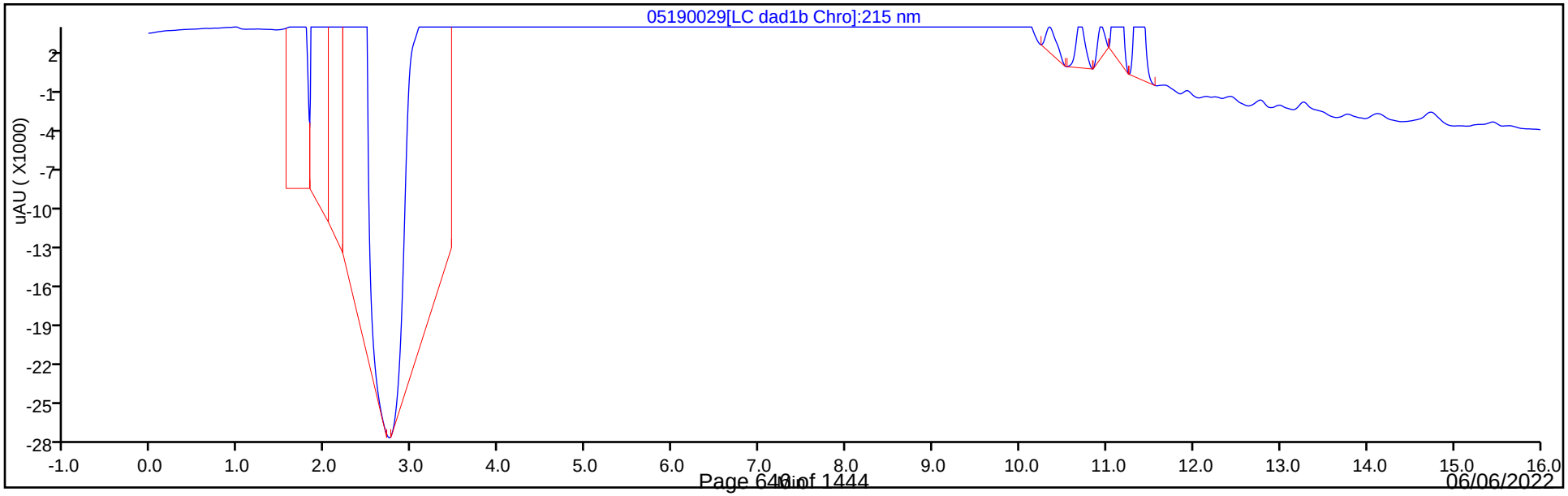
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190029.d

Injection Date:	20-May-2022 03:43:54	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9	Worklist Smp#:	29
Client ID:	PZ013-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190029.D				
Lims ID:	280-162386-B-9-A				
Client ID:	PZ013-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 03:43:54	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-B-9-A				
Misc. Info.:	280-0111180-029				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:39:57	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:26:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2096	104.80

User Disabled Compound Report

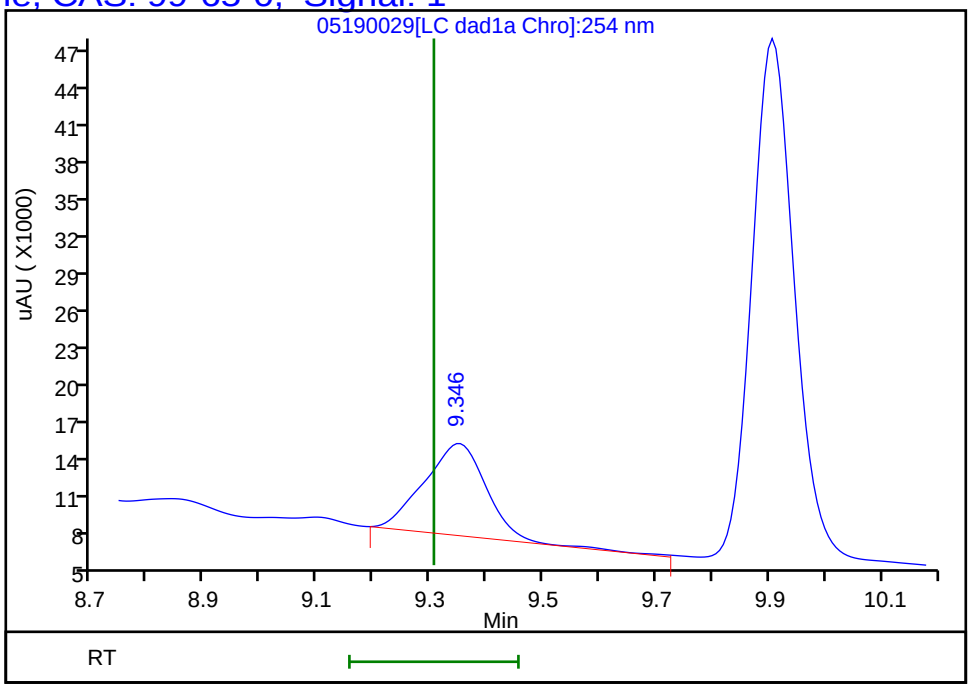
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190029.d
Injection Date: 20-May-2022 03:43:54 Instrument ID: CHHPLC_X3
Lims ID: 280-162386-B-9-A Lab Sample ID: 280-162386-9
Client ID: PZ013-22A
Operator ID: JZ ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 9.35
Response: 56198
Amount: 0.194860



Reviewer: zhangji, 20-May-2022 12:26:49
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

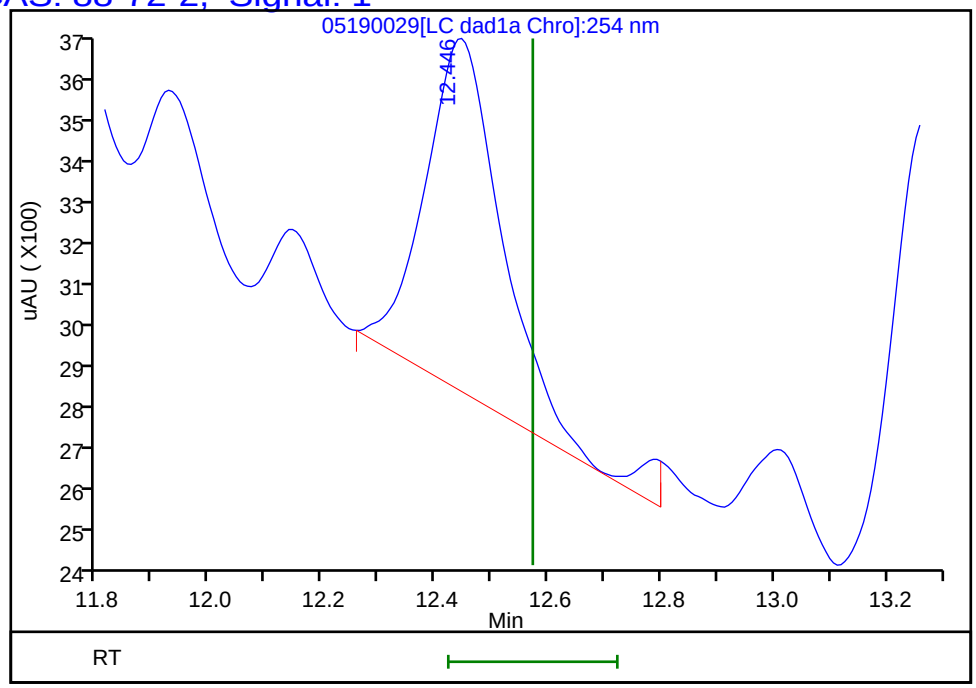
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190029.d				
Injection Date:	20-May-2022 03:43:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9		
Client ID:	PZ013-22A				
Operator ID:	JZ	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.45
Response: 7792
Amount: 0.061059



Reviewer: zhangji, 20-May-2022 12:26:49
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

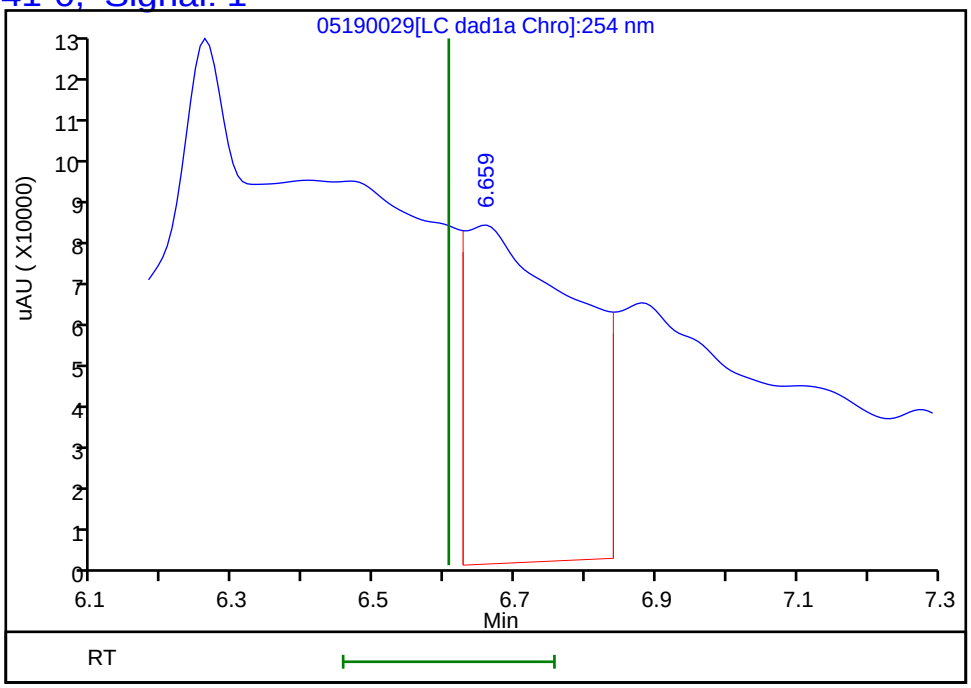
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190029.d
Injection Date: 20-May-2022 03:43:54 Instrument ID: CHHPLC_X3
Lims ID: 280-162386-B-9-A Lab Sample ID: 280-162386-9
Client ID: PZ013-22A
Operator ID: JZ ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 6.66
Response: 863613
Amount: 10.302300



Reviewer: zhangji, 20-May-2022 12:26:49
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

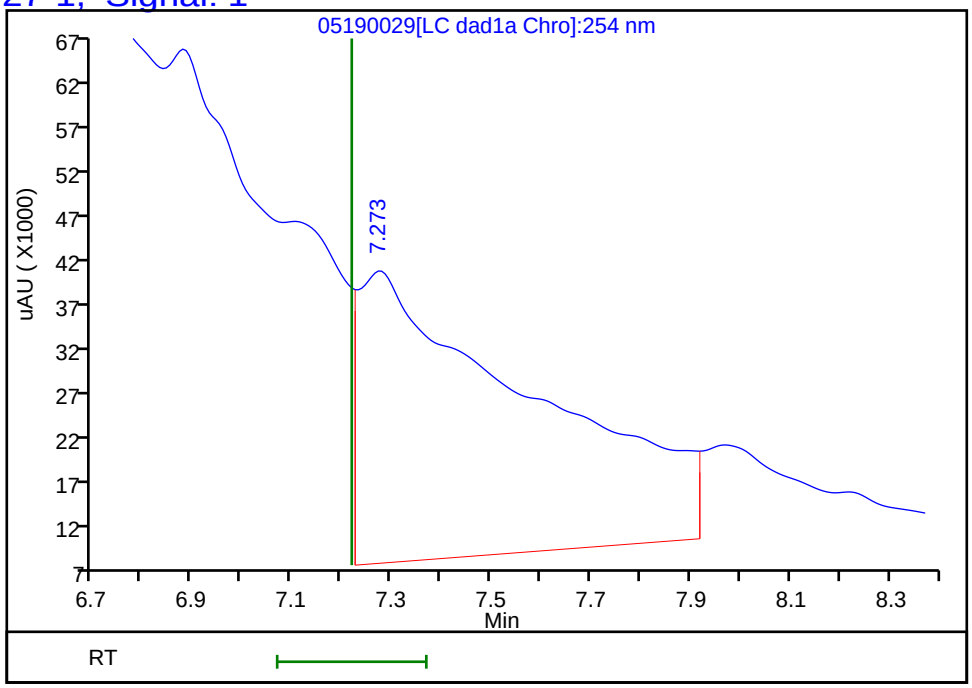
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190029.d				
Injection Date:	20-May-2022 03:43:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9		
Client ID:	PZ013-22A				
Operator ID:	JZ	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.27
Response: 789530
Amount: 6.266339



Reviewer: zhangji, 20-May-2022 12:26:49
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

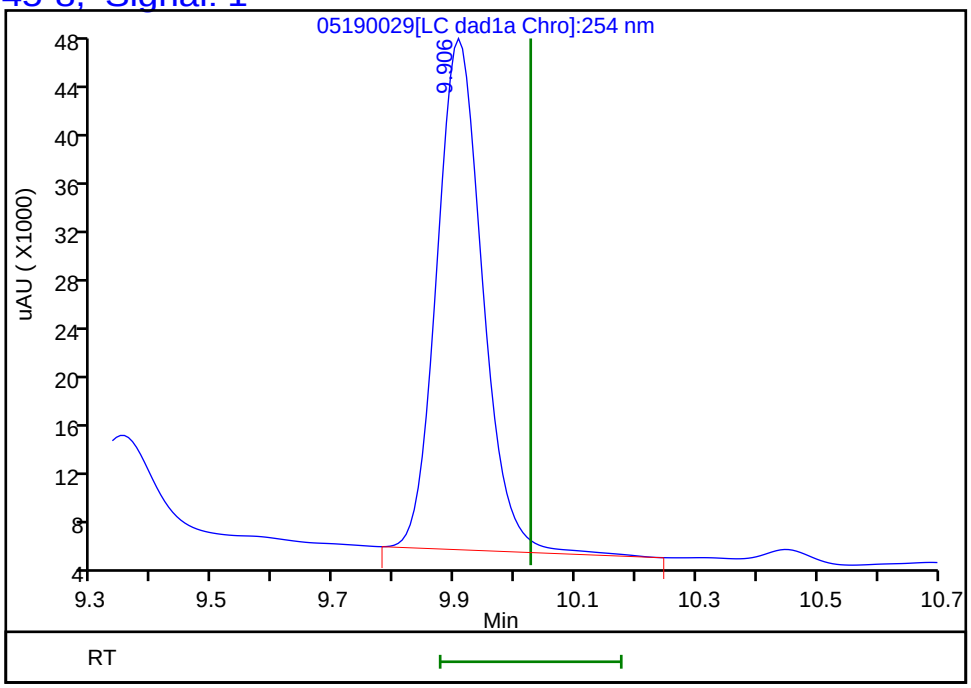
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190029.d				
Injection Date:	20-May-2022 03:43:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9		
Client ID:	PZ013-22A				
Operator ID:	JZ	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 9.91
Response: 216835
Amount: 1.271262



Reviewer: zhangji, 20-May-2022 12:26:49
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ013-22A | Lab Sample ID: 280-162386-9

Matrix: Water | Lab File ID: 05200018.D

Analysis Method: 8330A | Date Collected: 05/13/2022 11:40

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 492.4(mL) | Date Analyzed: 05/20/2022 22:42

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575712 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.085
99-99-0	4-Nitrotoluene	0.41	U M	0.42	0.41	0.10

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200018.D
Lims ID: 280-162386-B-9-A
Client ID: PZ013-22A
Sample Type: Client
Inject. Date: 20-May-2022 22:42:08 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-B-9-A
Misc. Info.: 280-0111212-018
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-May-2022 12:33:09 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1646

First Level Reviewer: zhangji Date: 21-May-2022 12:29:26

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1	6.767	6.808	-0.041	9891	0.0595	M
	6 MNX	1		7.509			ND	
	8 RDX	1		8.988			ND	
	9 Nitrobenzene	1		11.961			ND	U
$	10 1,2-Dinitrobenzene	1	13.134	13.181	-0.047	45873	0.1837	M
	12 1,3-Dinitrobenzene	1		15.507			ND	
	14 o-Nitrotoluene	1		16.741			ND	
	16 p-Nitrotoluene	1		17.047			ND	U
	17 4-Amino-2,6-dinitrotoluene	1	17.594	17.654	-0.060	121082	0.4533	M
	18 m-Nitrotoluene	1		18.027			ND	
	19 2-Amino-4,6-dinitrotoluene	1	18.574	18.667	-0.093	131055	0.3635	M
	20 1,3,5-Trinitrobenzene	1		18.807			ND	
	21 2,6-Dinitrotoluene	1		20.174			ND	
	22 2,4-Dinitrotoluene	1		20.681			ND	7
	23 Tetryl	1		24.428			ND	U
	24 2,4,6-Trinitrotoluene	1	25.094	25.188	-0.094	26134	0.0708	M

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

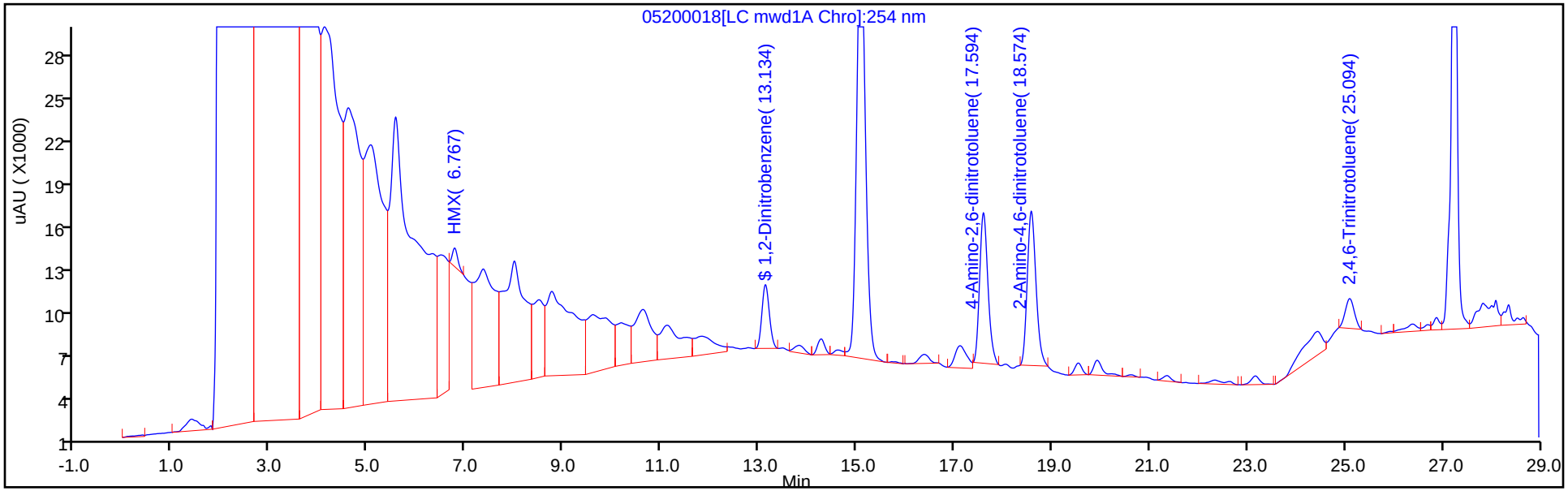
Report Date: 21-May-2022 12:33:13 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

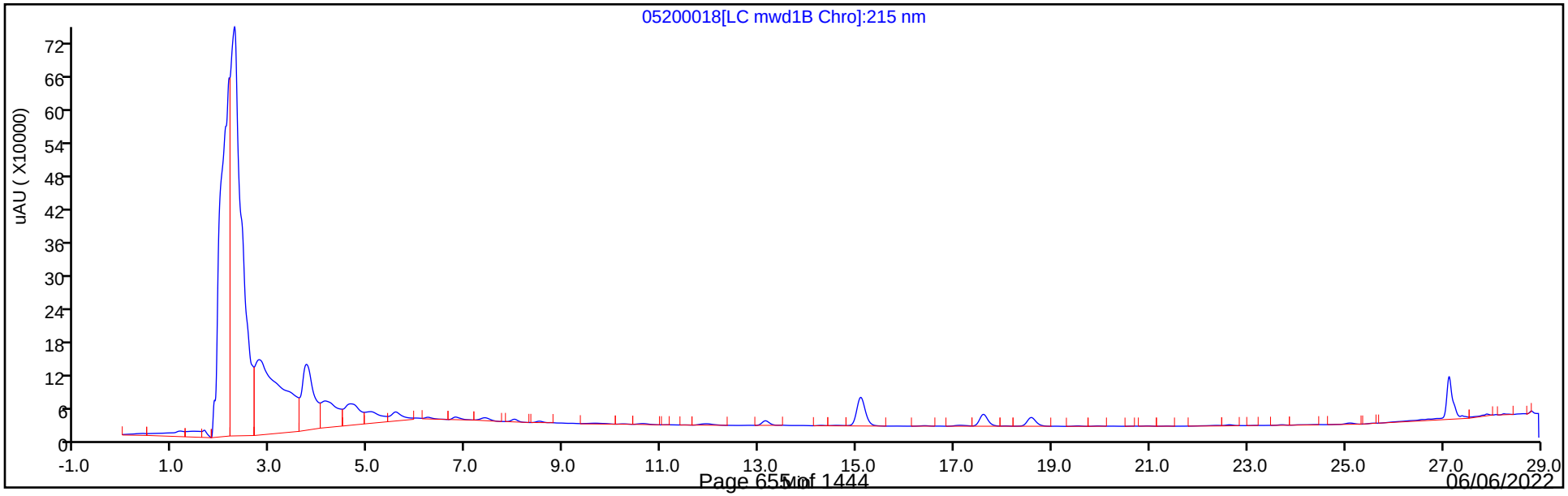
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200018.D

Injection Date:	20-May-2022 22:42:08	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9	Worklist Smp#:	18
Client ID:	PZ013-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200018.D				
Lims ID:	280-162386-B-9-A				
Client ID:	PZ013-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 22:42:08	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-B-9-A				
Misc. Info.:	280-0111212-018				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-May-2022 12:33:09	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1646				
First Level Reviewer: zhangji		Date:	21-May-2022 12:29:26		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1837	91.84

Manual Integration/User Assign Peak Report

Eurofins Denver

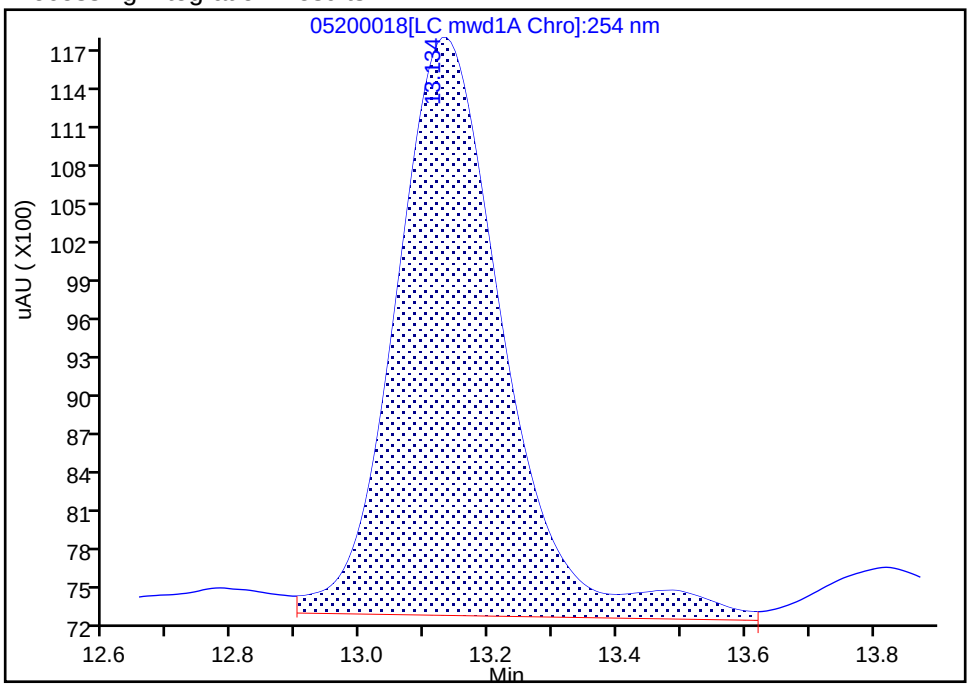
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200018.D				
Injection Date:	20-May-2022 22:42:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9		
Client ID:	PZ013-22A				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

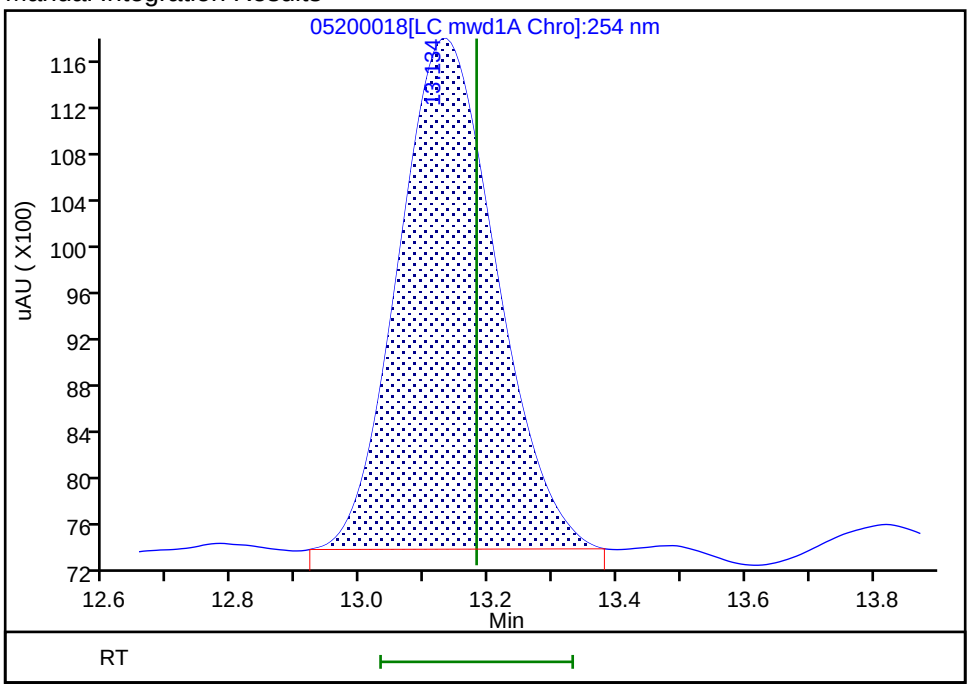
Processing Integration Results

RT: 13.13
Area: 52983
Amount: 0.212142
Amount Units: ug/ml



Manual Integration Results

RT: 13.13
Area: 45873
Amount: 0.183674
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:29:19

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

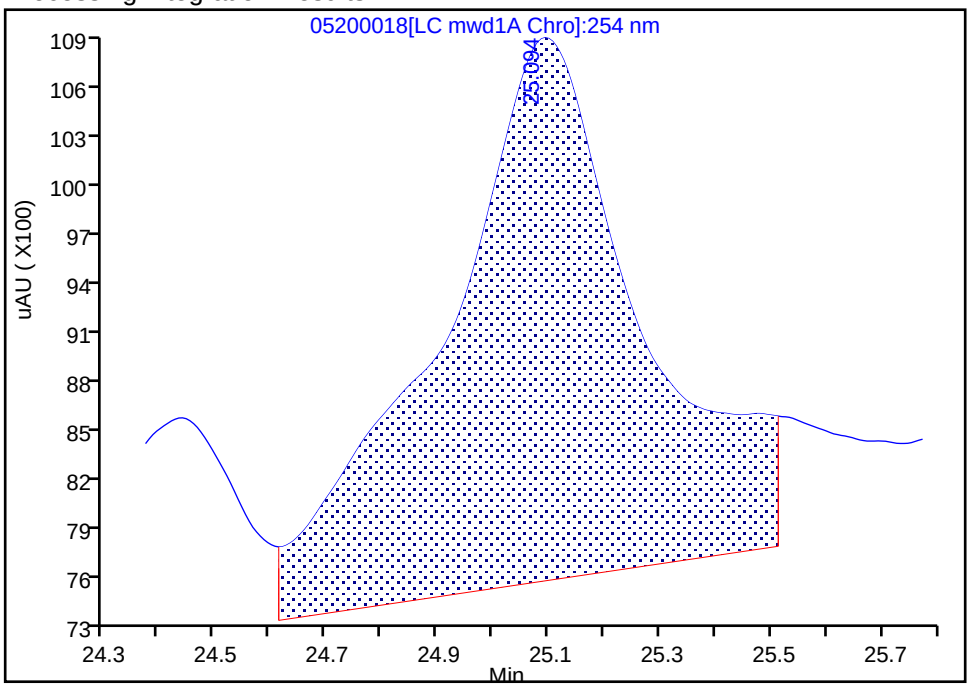
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200018.D				
Injection Date:	20-May-2022 22:42:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9		
Client ID:	PZ013-22A				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

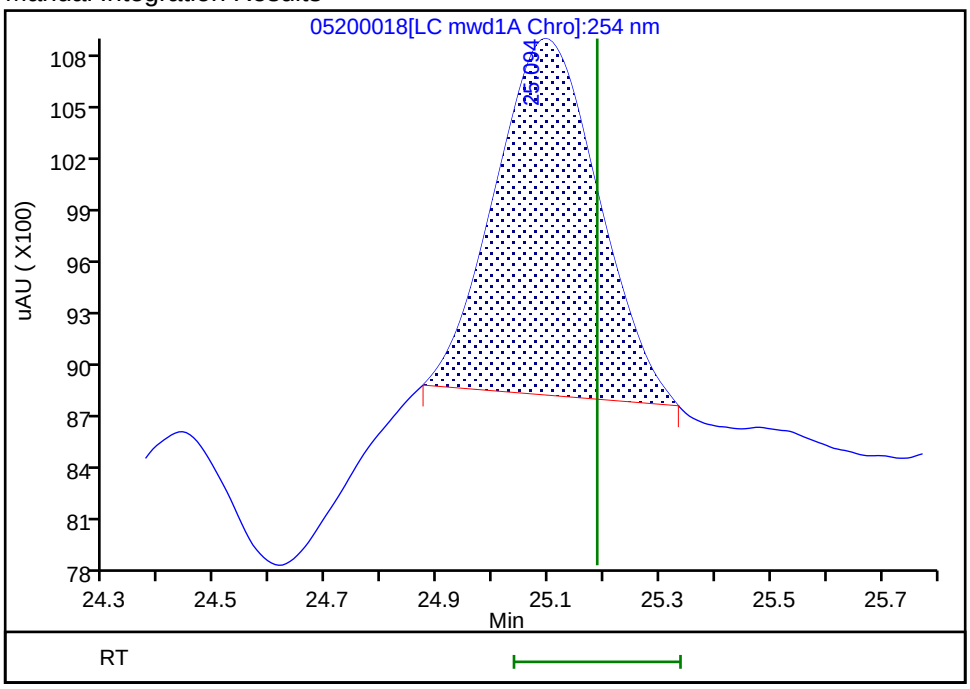
Processing Integration Results

RT: 25.09
Area: 80531
Amount: 0.218135
Amount Units: ug/ml



Manual Integration Results

RT: 25.09
Area: 26134
Amount: 0.070789
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:29:09

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

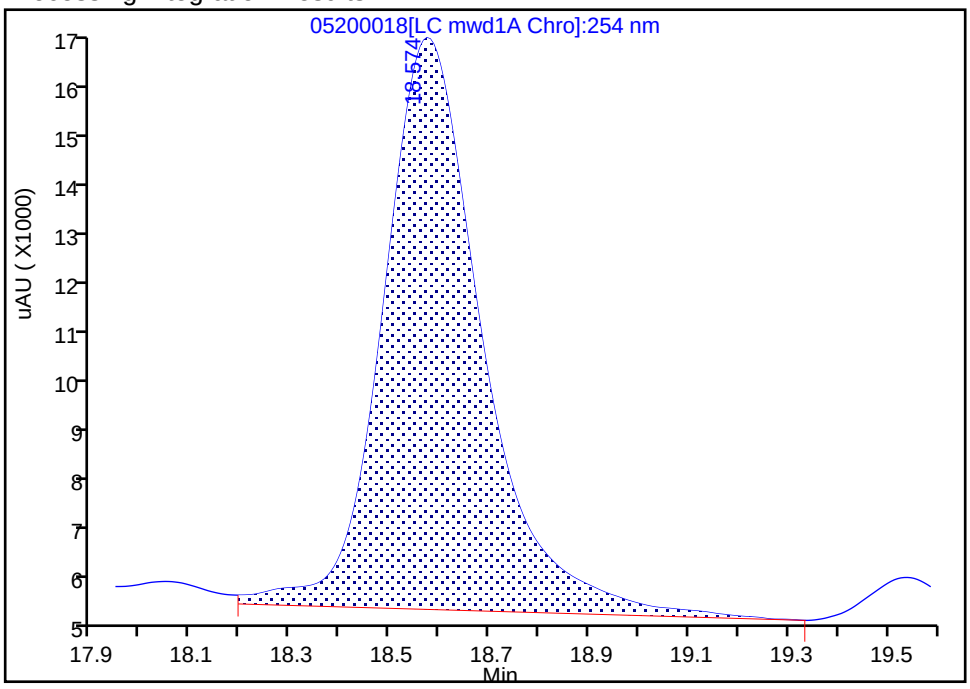
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200018.D				
Injection Date:	20-May-2022 22:42:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9		
Client ID:	PZ013-22A				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

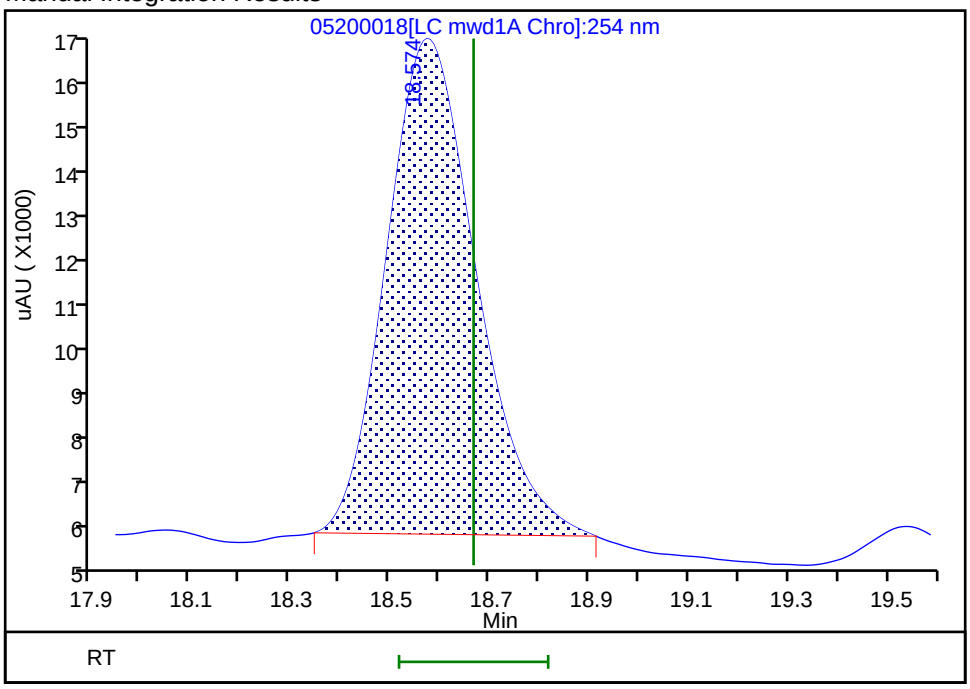
Processing Integration Results

RT: 18.57
Area: 152621
Amount: 0.423317
Amount Units: ug/ml



Manual Integration Results

RT: 18.57
Area: 131055
Amount: 0.363501
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:29:12

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

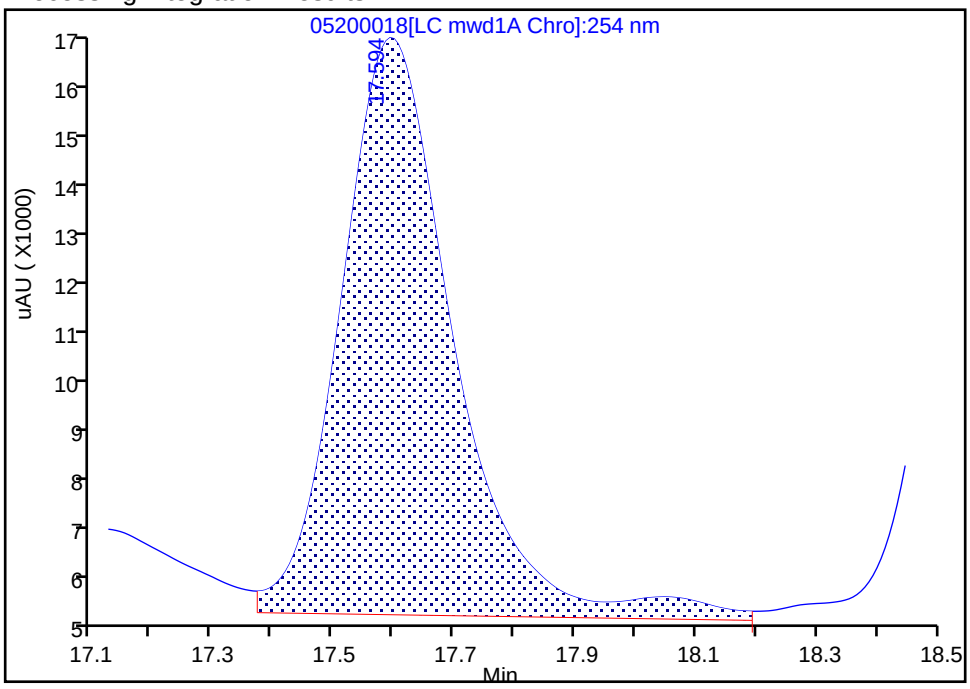
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200018.D				
Injection Date:	20-May-2022 22:42:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9		
Client ID:	PZ013-22A				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

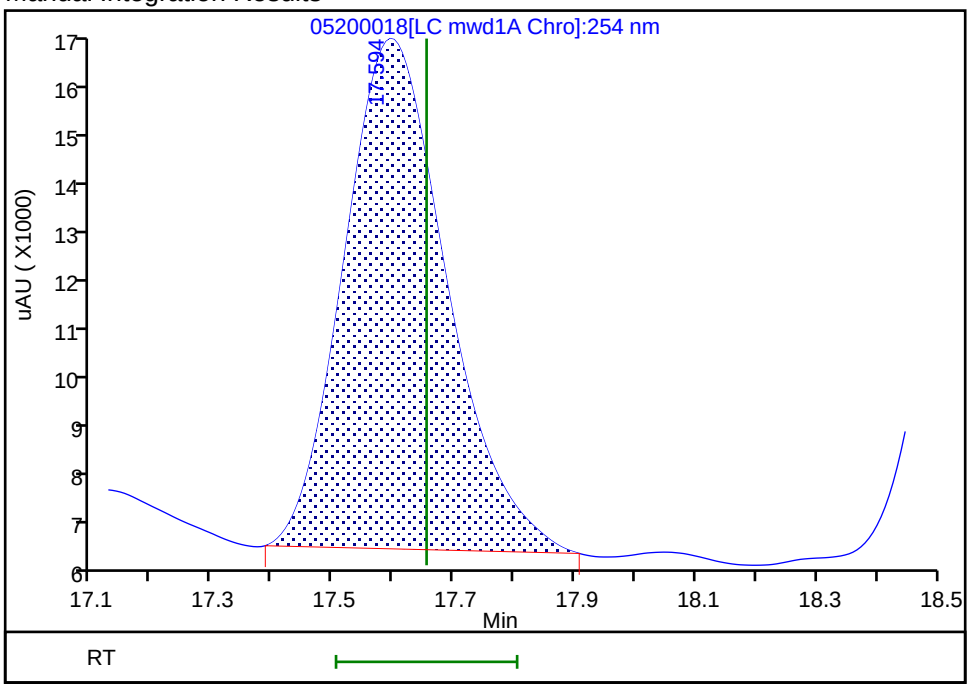
Processing Integration Results

RT: 17.59
Area: 138712
Amount: 0.519281
Amount Units: ug/ml



Manual Integration Results

RT: 17.59
Area: 121082
Amount: 0.453311
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:29:16

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

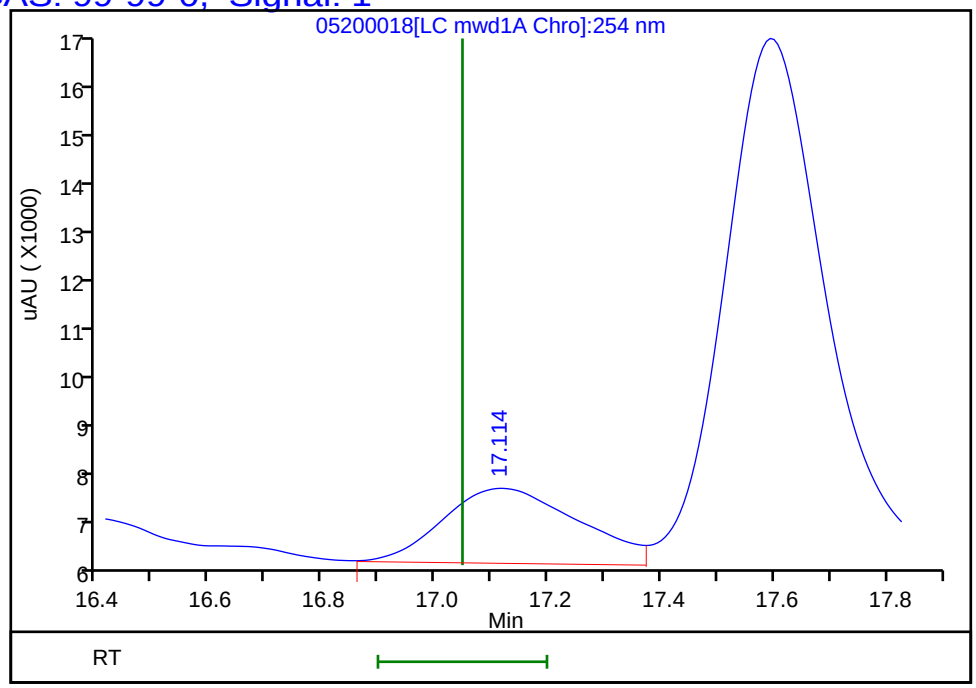
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200018.D				
Injection Date:	20-May-2022 22:42:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9		
Client ID:	PZ013-22A				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 17.11
Response: 25145
Amount: 0.119274



Reviewer: zhangji, 21-May-2022 12:29:26
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

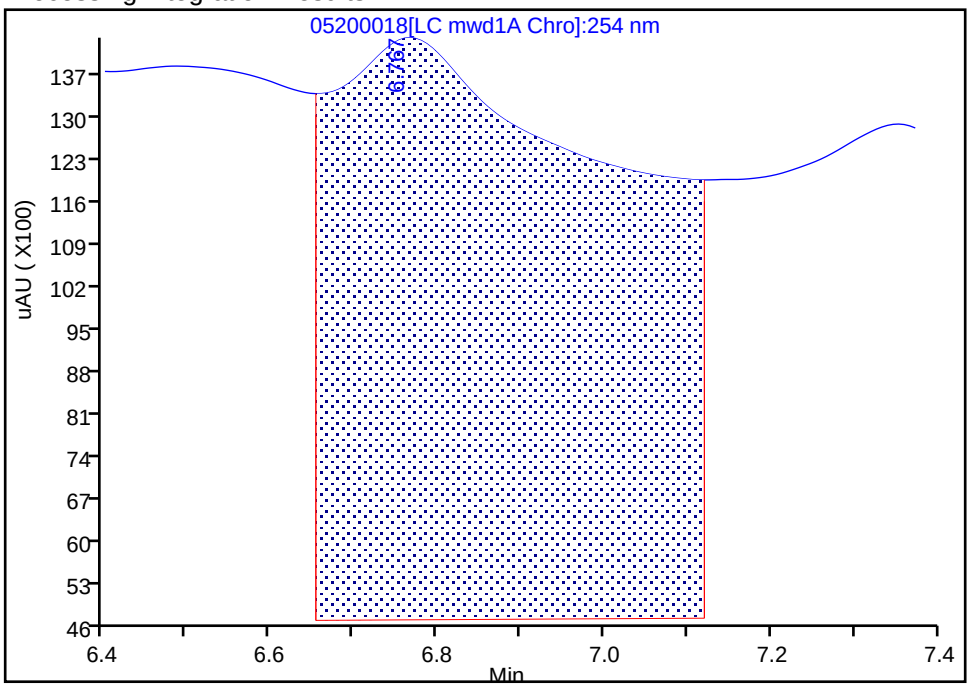
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200018.D				
Injection Date:	20-May-2022 22:42:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9		
Client ID:	PZ013-22A				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

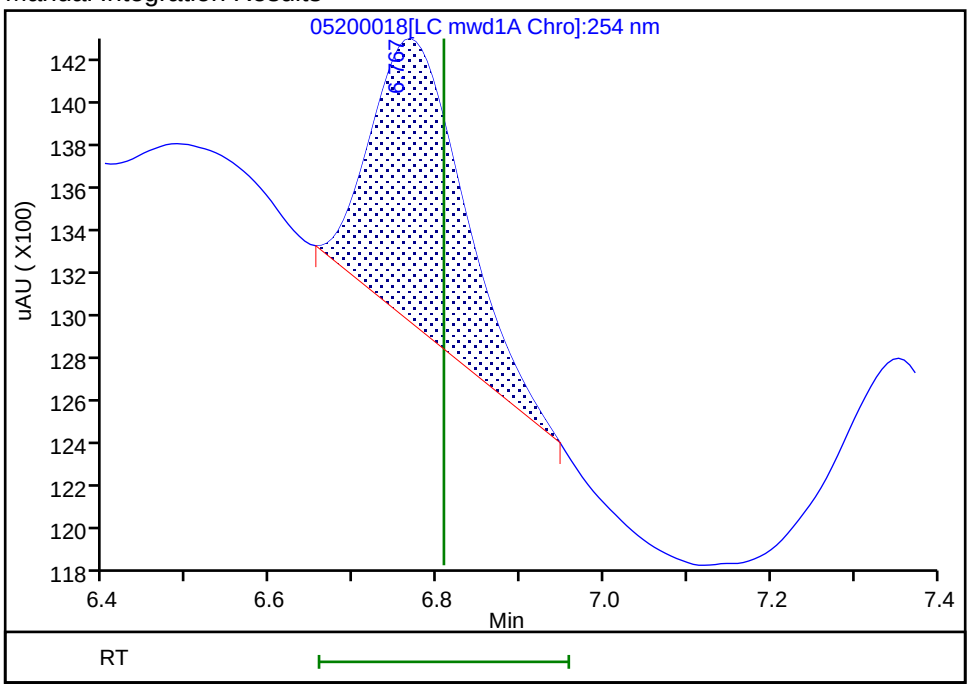
Processing Integration Results

RT: 6.77
Area: 232130
Amount: 1.397235
Amount Units: ug/ml



Manual Integration Results

RT: 6.77
Area: 9891
Amount: 0.059536
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:29:23
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

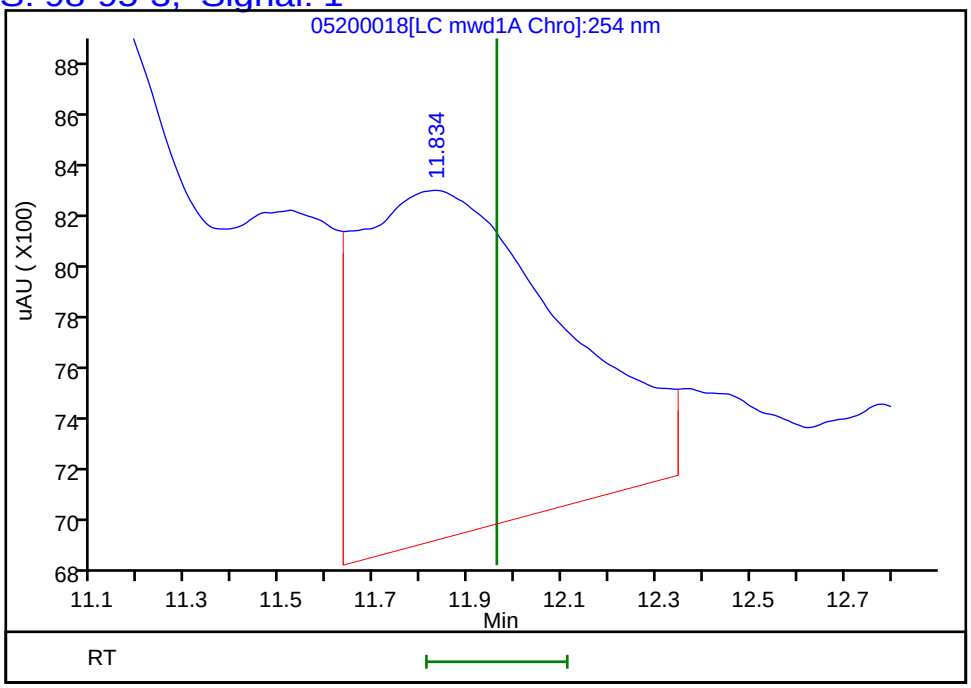
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200018.D				
Injection Date:	20-May-2022 22:42:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9		
Client ID:	PZ013-22A				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 11.83
Response: 37527
Amount: 0.101894



Reviewer: zhangji, 21-May-2022 12:29:26
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

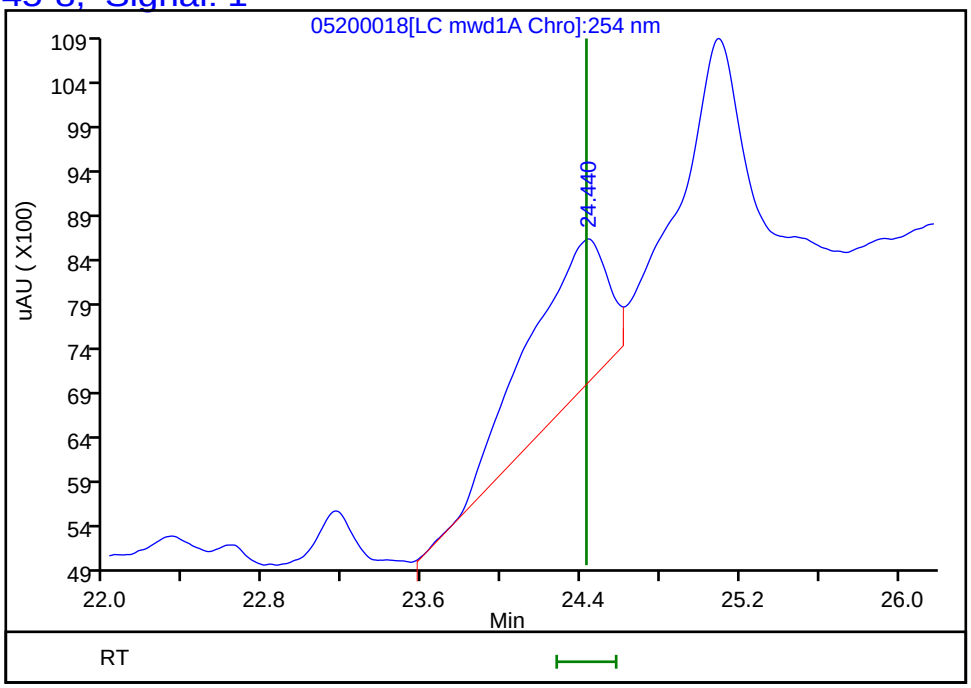
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200018.D				
Injection Date:	20-May-2022 22:42:08	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-B-9-A	Lab Sample ID:	280-162386-9		
Client ID:	PZ013-22A				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 24.44
Response: 48985
Amount: 0.143160



Reviewer: zhangji, 21-May-2022 12:29:26
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0081-22A | Lab Sample ID: 280-162386-10

Matrix: Water | Lab File ID: 05190030.D

Analysis Method: 8330A | Date Collected: 05/13/2022 12:05

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 489.4(mL) | Date Analyzed: 05/20/2022 04:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.36	M	0.21	0.20	0.086
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038
121-14-2	2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028
606-20-2	2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041
88-72-2	2-Nitrotoluene	0.20	U M	0.21	0.20	0.087
99-08-1	3-Nitrotoluene	0.41	U	0.41	0.41	0.20
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
2691-41-0	HMX	0.20	U	0.21	0.20	0.089
5755-27-1	MNX	0.41	U	2.0	0.41	0.16
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.093
121-82-4	RDX	0.20	U	0.21	0.20	0.053
479-45-8	Tetryl	0.10	U M	0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	108	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190030.D
Lims ID: 280-162386-A-10-A
Client ID: G0081-22A
Sample Type: Client
Inject. Date: 20-May-2022 04:06:49 ALS Bottle#: 30 Worklist Smp#: 30
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-10-
Misc. Info.: 280-0111180-030
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:39:57 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:28:40

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.606			ND	
7 MNX	1		7.219			ND	
8 RDX	1		7.599			ND	
$ 10 1,2-Dinitrobenzene	1	8.560	8.552	0.008	26860	0.2154	M
11 1,3,5-Trinitrobenzene	1	8.686	8.679	0.007	7619	0.0349	M
12 1,3-Dinitrobenzene	1		9.306			ND	U
13 Nitrobenzene	1		9.699			ND	
15 Tetryl	1		10.026			ND	U
17 2,4,6-Trinitrotoluene	1	10.933	10.932	0.001	1793	0.008844	
18 4-Amino-2,6-dinitrotoluene	1	11.133	11.132	0.001	1360	0.009008	
19 2-Amino-4,6-dinitrotoluene	1	11.386	11.386	0.000	1776	0.008785	
20 2,6-Dinitrotoluene	1		11.546			ND	
21 2,4-Dinitrotoluene	1		11.719			ND	
22 o-Nitrotoluene	1		12.572			ND	U
23 p-Nitrotoluene	1		12.999			ND	
24 m-Nitrotoluene	1		13.572			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

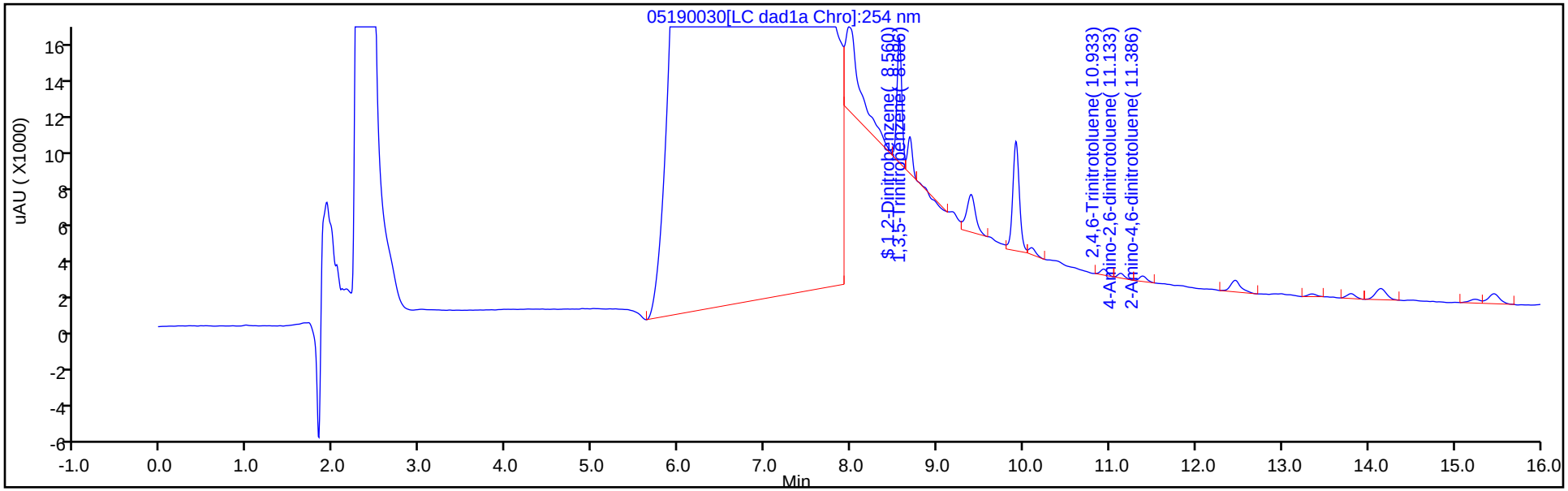
Report Date: 20-May-2022 13:40:00 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

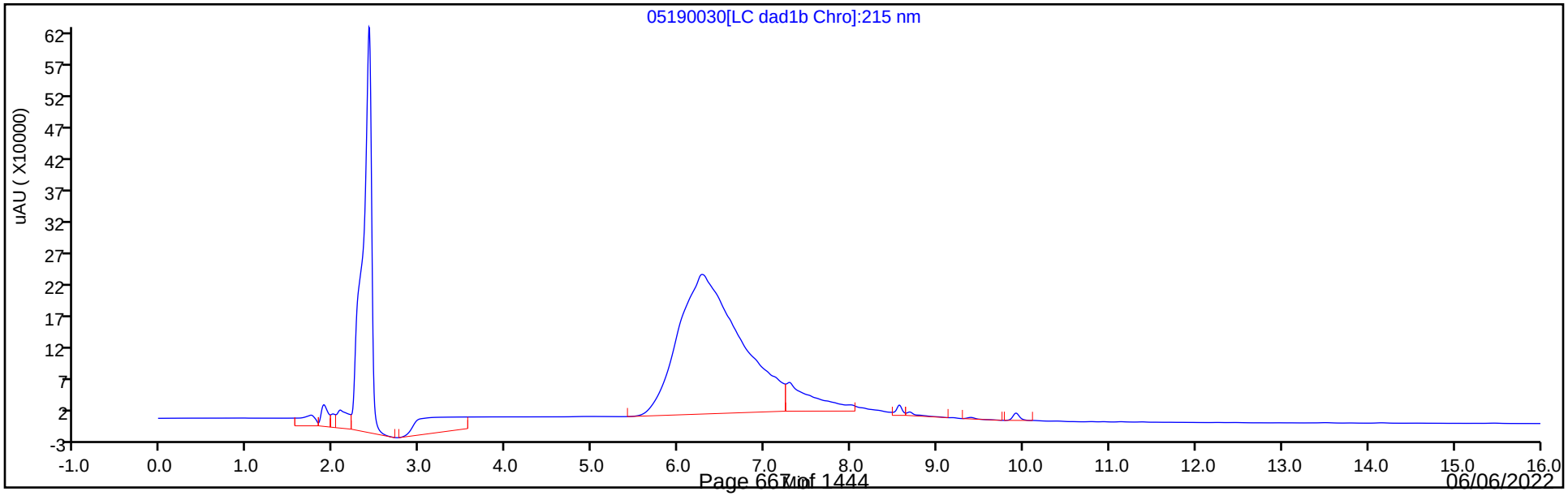
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190030.d

Injection Date:	20-May-2022 04:06:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10	Worklist Smp#:	30
Client ID:	G0081-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190030.D				
Lims ID:	280-162386-A-10-A				
Client ID:	G0081-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 04:06:49	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-10-				
Misc. Info.:	280-0111180-030				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:39:57	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:28:40

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2154	107.70

Manual Integration/User Assign Peak Report

Eurofins Denver

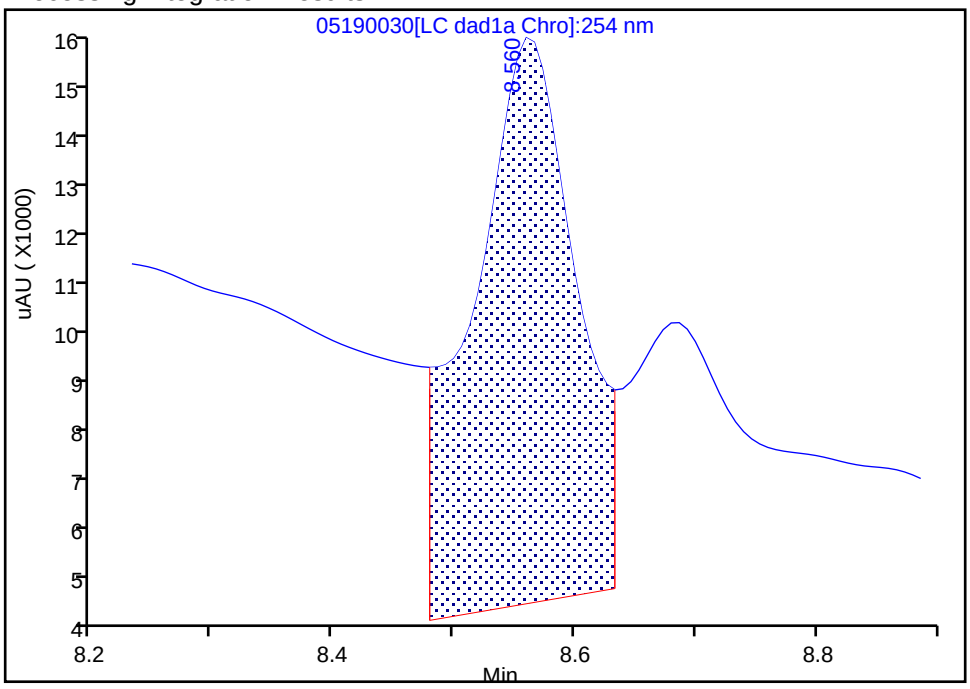
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190030.d				
Injection Date:	20-May-2022 04:06:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10		
Client ID:	G0081-22A				
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

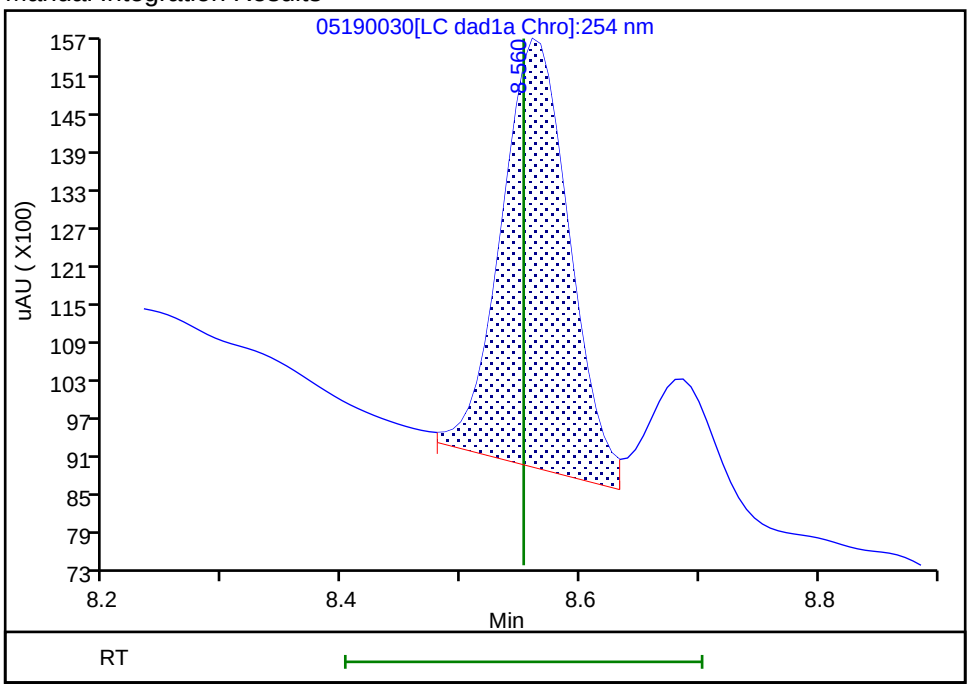
Processing Integration Results

RT: 8.56
Area: 62947
Amount: 0.504797
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 26860
Amount: 0.215401
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:28:34
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

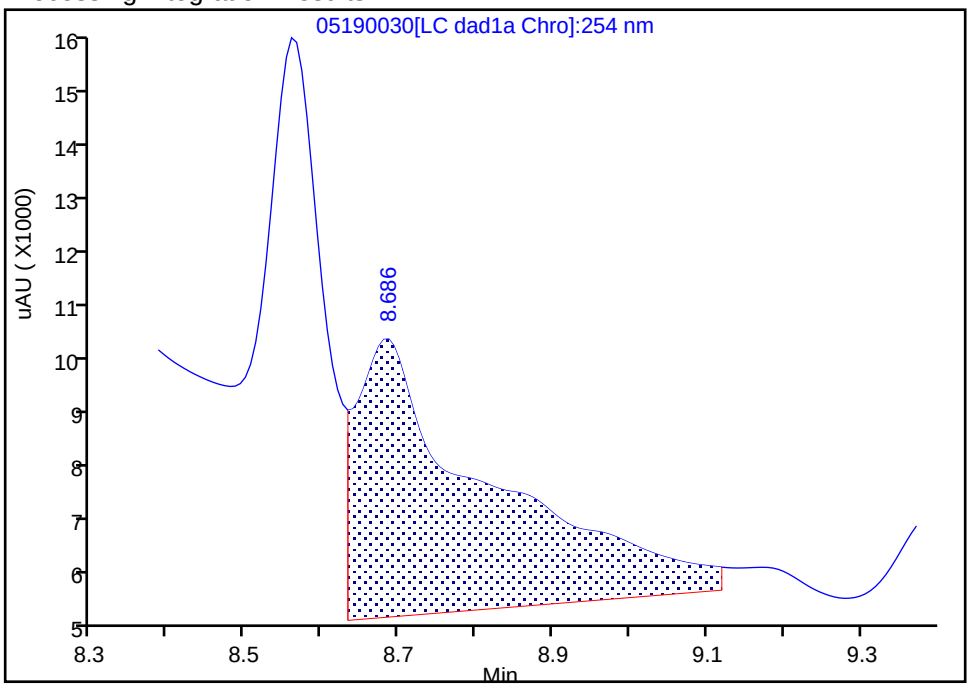
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190030.d				
Injection Date:	20-May-2022 04:06:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10		
Client ID:	G0081-22A				
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

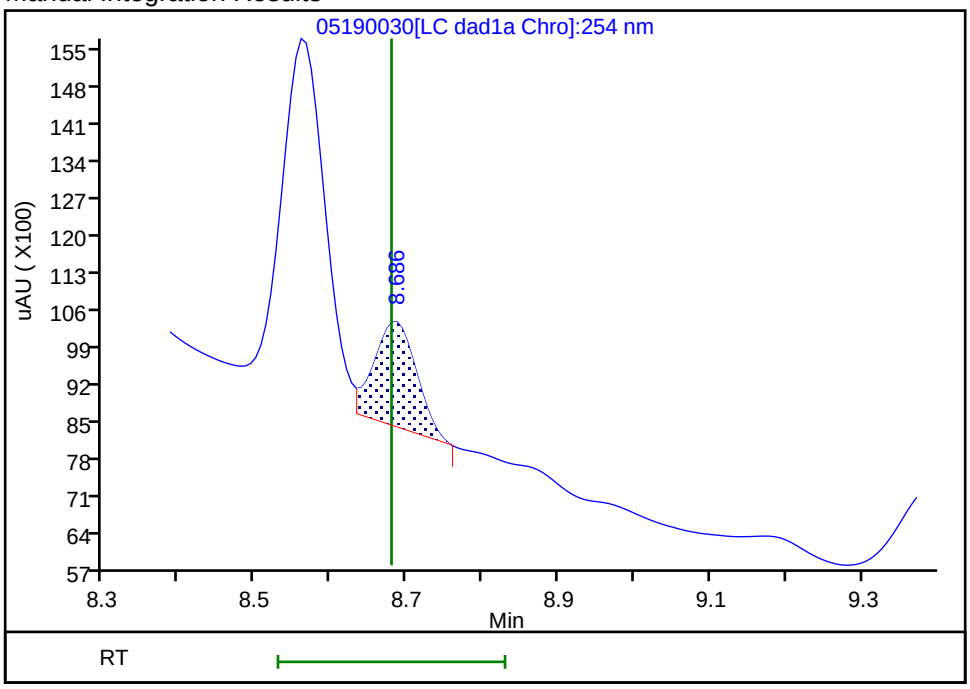
Processing Integration Results

RT: 8.69
Area: 59544
Amount: 0.273018
Amount Units: ug/mL



Manual Integration Results

RT: 8.69
Area: 7619
Amount: 0.034934
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:28:37

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

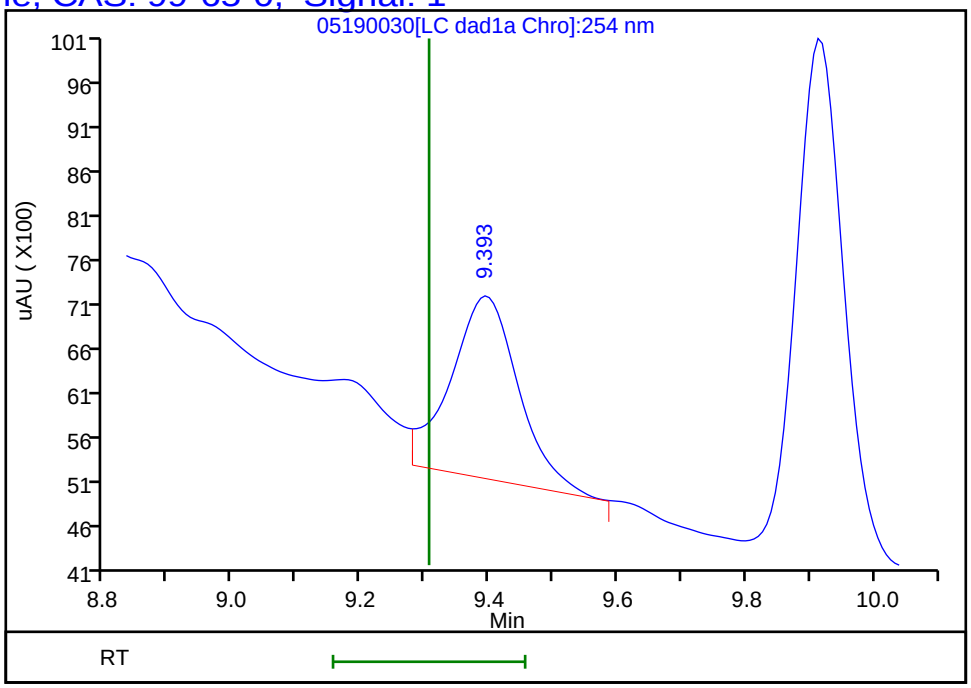
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190030.d
Injection Date: 20-May-2022 04:06:49 Instrument ID: CHHPLC_X3
Lims ID: 280-162386-A-10-A Lab Sample ID: 280-162386-10
Client ID: G0081-22A
Operator ID: JZ ALS Bottle#: 30 Worklist Smp#: 30
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 9.39
Response: 14973
Amount: 0.051917



Reviewer: zhangji, 20-May-2022 12:28:40
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

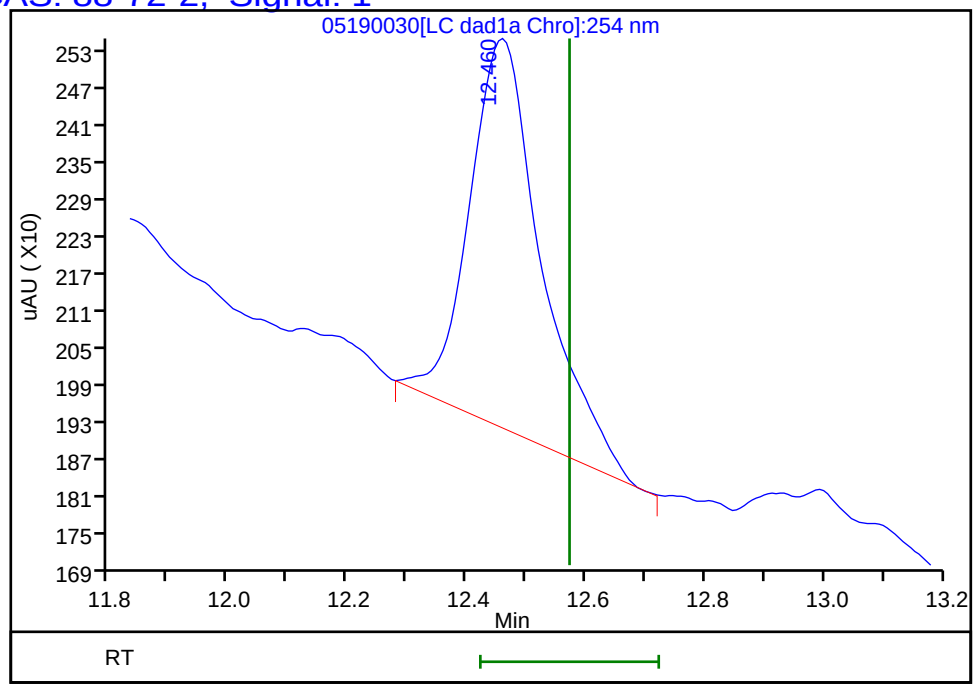
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190030.d				
Injection Date:	20-May-2022 04:06:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10		
Client ID:	G0081-22A				
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.46
Response: 5292
Amount: 0.041469



Reviewer: zhangji, 20-May-2022 12:28:40
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

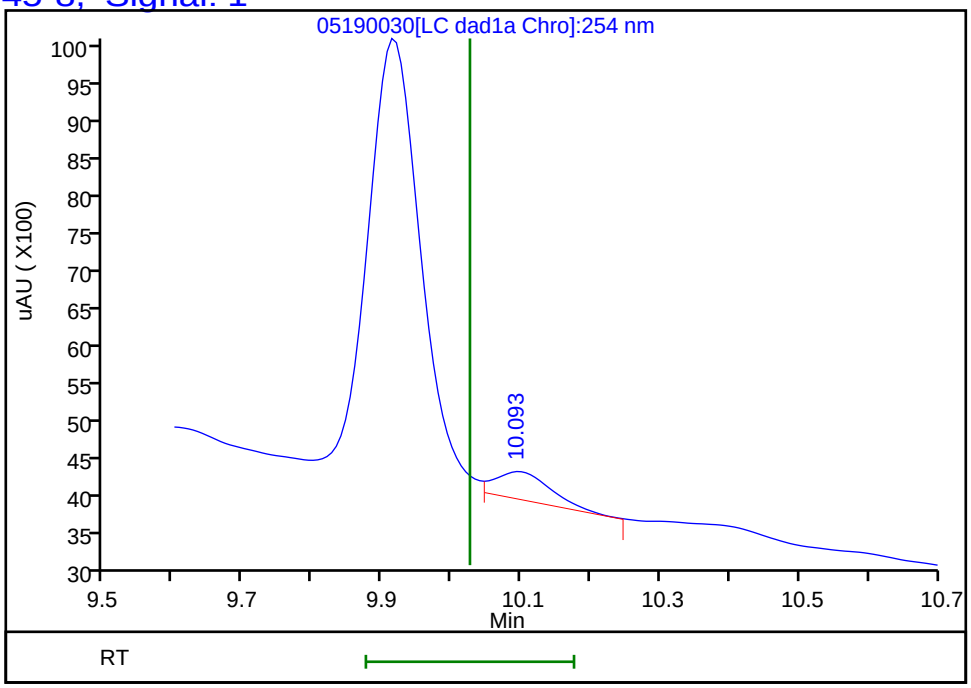
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190030.d				
Injection Date:	20-May-2022 04:06:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10		
Client ID:	G0081-22A				
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 10.09
Response: 2042
Amount: 0.011972



Reviewer: zhangji, 20-May-2022 12:28:40
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: G0081-22A | Lab Sample ID: 280-162386-10

Matrix: Water | Lab File ID: 05200019.D

Analysis Method: 8330A | Date Collected: 05/13/2022 12:05

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 489.4(mL) | Date Analyzed: 05/20/2022 23:17

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575712 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
118-96-7	2,4,6-Trinitrotoluene	0.10	U M	0.11	0.10	0.046
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	105	*M*	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200019.D
Lims ID: 280-162386-A-10-A
Client ID: G0081-22A
Sample Type: Client
Inject. Date: 20-May-2022 23:17:18 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-10-A
Misc. Info.: 280-0111212-019
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-May-2022 12:33:09 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1646

First Level Reviewer: zhangji Date: 21-May-2022 12:29:55

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1	6.773	6.808	-0.035	4398	0.0265	M
	6 MNX	1		7.509			ND	
	8 RDX	1		8.988			ND	
	9 Nitrobenzene	1		11.961			ND	
$	10 1,2-Dinitrobenzene	1	13.139	13.181	-0.042	52415	0.2099	M
	12 1,3-Dinitrobenzene	1		15.507			ND	
	14 o-Nitrotoluene	1	16.659	16.741	-0.082	3465	0.0148	M
	16 p-Nitrotoluene	1		17.047			ND	
	17 4-Amino-2,6-dinitrotoluene	1		17.654			ND	
	18 m-Nitrotoluene	1		18.027			ND	
	19 2-Amino-4,6-dinitrotoluene	1		18.667			ND	
	20 1,3,5-Trinitrobenzene	1	18.752	18.807	-0.055	16205	0.0390	M
	21 2,6-Dinitrotoluene	1		20.174			ND	
	22 2,4-Dinitrotoluene	1		20.681			ND	
	23 Tetryl	1		24.428			ND	U
	24 2,4,6-Trinitrotoluene	1		25.188			ND	U

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

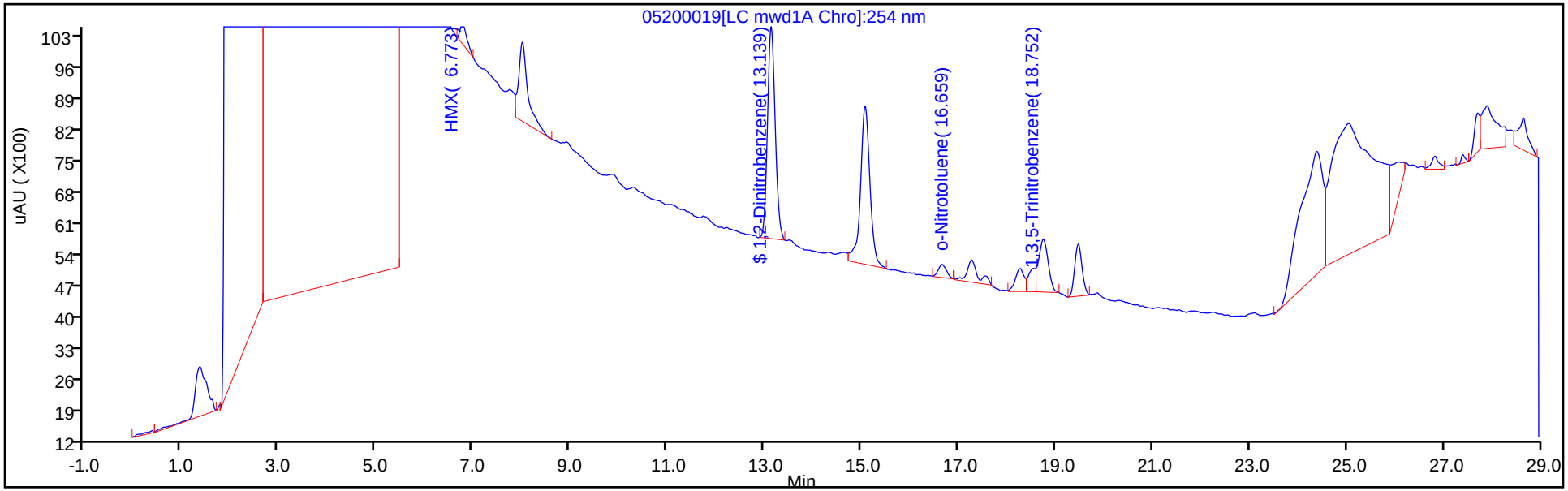
Report Date: 21-May-2022 12:33:14 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

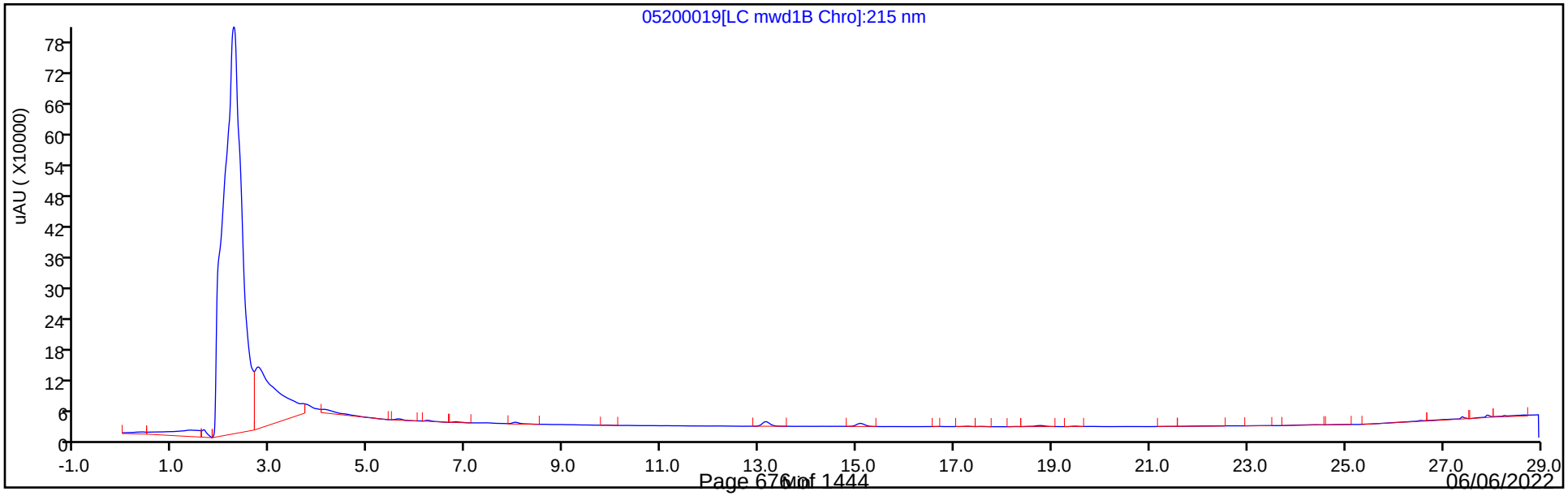
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200019.D

Injection Date:	20-May-2022 23:17:18	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10	Worklist Smp#:	19
Client ID:	G0081-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200019.D				
Lims ID:	280-162386-A-10-A				
Client ID:	G0081-22A				
Sample Type:	Client				
Inject. Date:	20-May-2022 23:17:18	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-10-A				
Misc. Info.:	280-0111212-019				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-May-2022 12:33:09	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1646				
First Level Reviewer: zhangji		Date:	21-May-2022 12:29:55		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2099	104.93

Manual Integration/User Assign Peak Report

Eurofins Denver

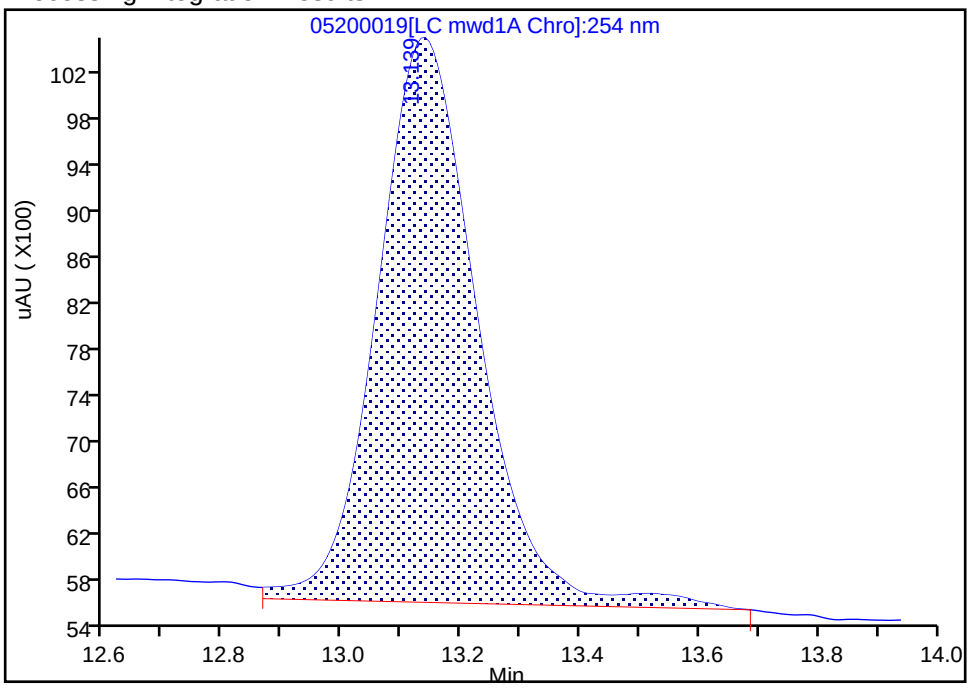
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200019.D				
Injection Date:	20-May-2022 23:17:18	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10		
Client ID:	G0081-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

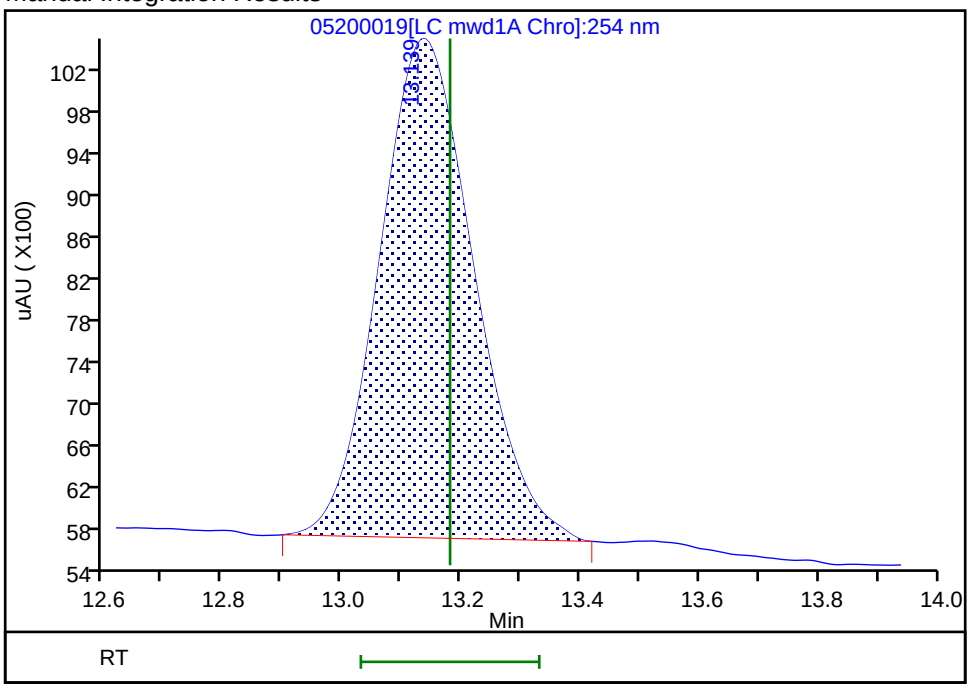
Processing Integration Results

RT: 13.14
Area: 57166
Amount: 0.228890
Amount Units: ug/ml



Manual Integration Results

RT: 13.14
Area: 52415
Amount: 0.209867
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:29:37

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

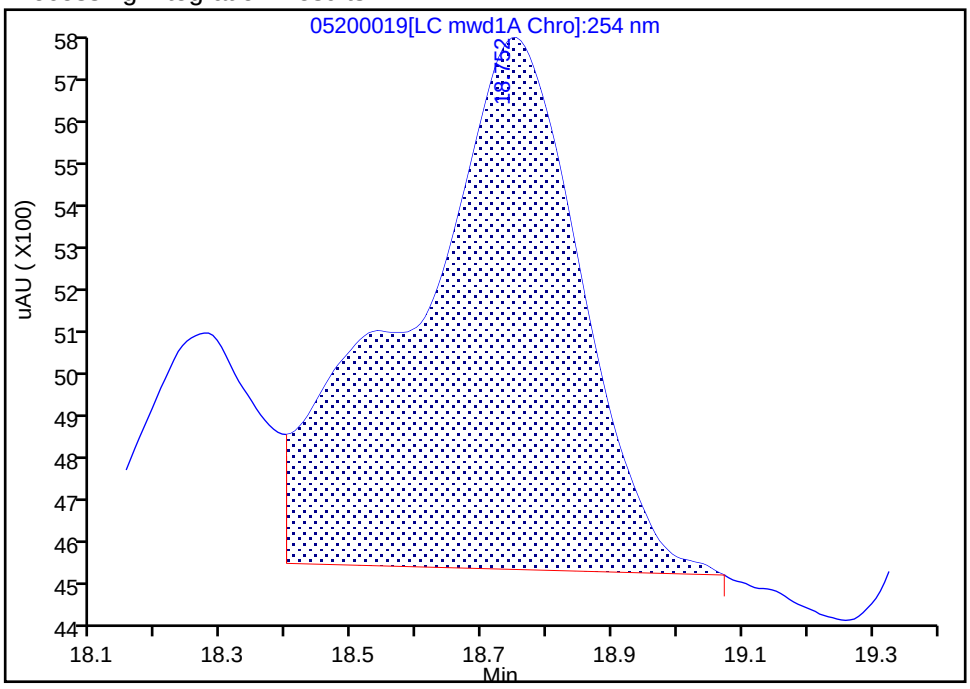
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200019.D				
Injection Date:	20-May-2022 23:17:18	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10		
Client ID:	G0081-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

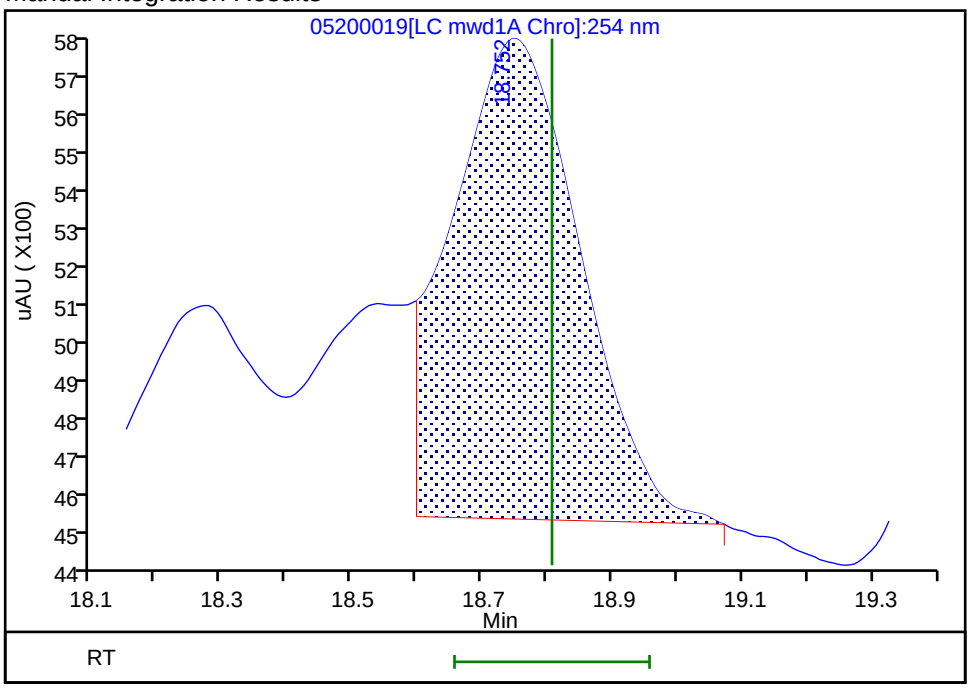
Processing Integration Results

RT: 18.75
Area: 21571
Amount: 0.051920
Amount Units: ug/ml



Manual Integration Results

RT: 18.75
Area: 16205
Amount: 0.039005
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:29:50

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

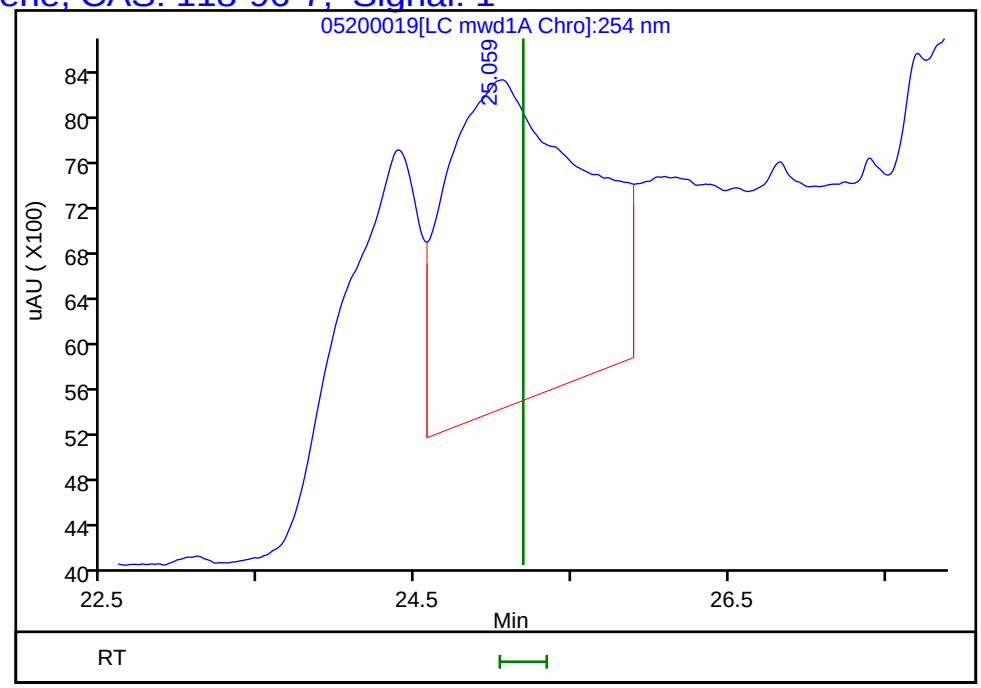
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200019.D				
Injection Date:	20-May-2022 23:17:18	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10		
Client ID:	G0081-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 25.06
Response: 177343
Amount: 0.480371



Reviewer: zhangji, 21-May-2022 12:29:55
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

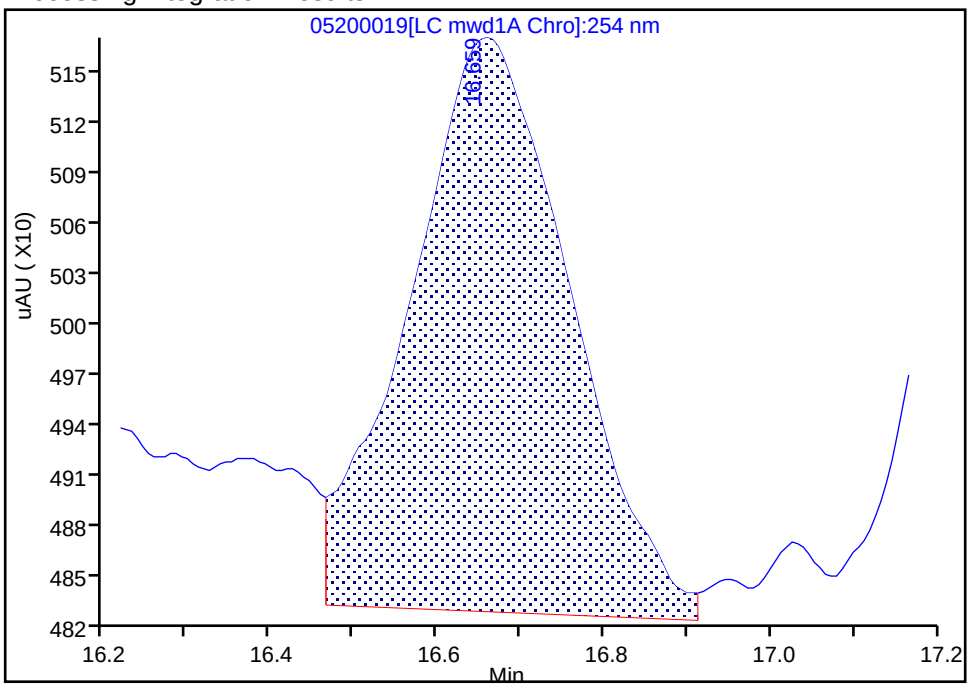
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200019.D				
Injection Date:	20-May-2022 23:17:18	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10		
Client ID:	G0081-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

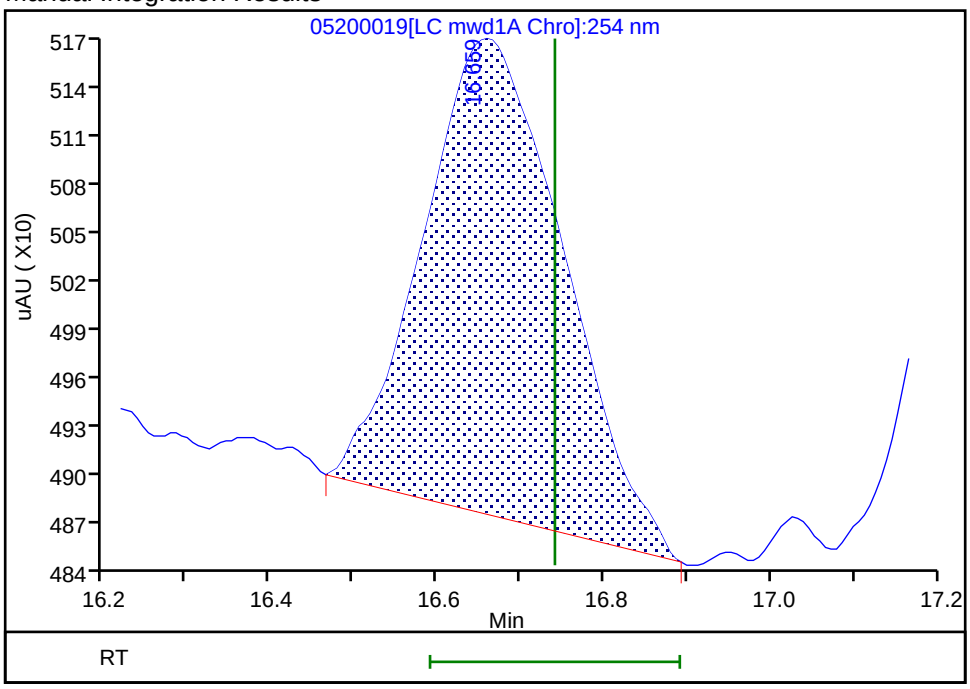
Processing Integration Results

RT: 16.66
Area: 4516
Amount: 0.019244
Amount Units: ug/ml



Manual Integration Results

RT: 16.66
Area: 3465
Amount: 0.014765
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:29:44

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

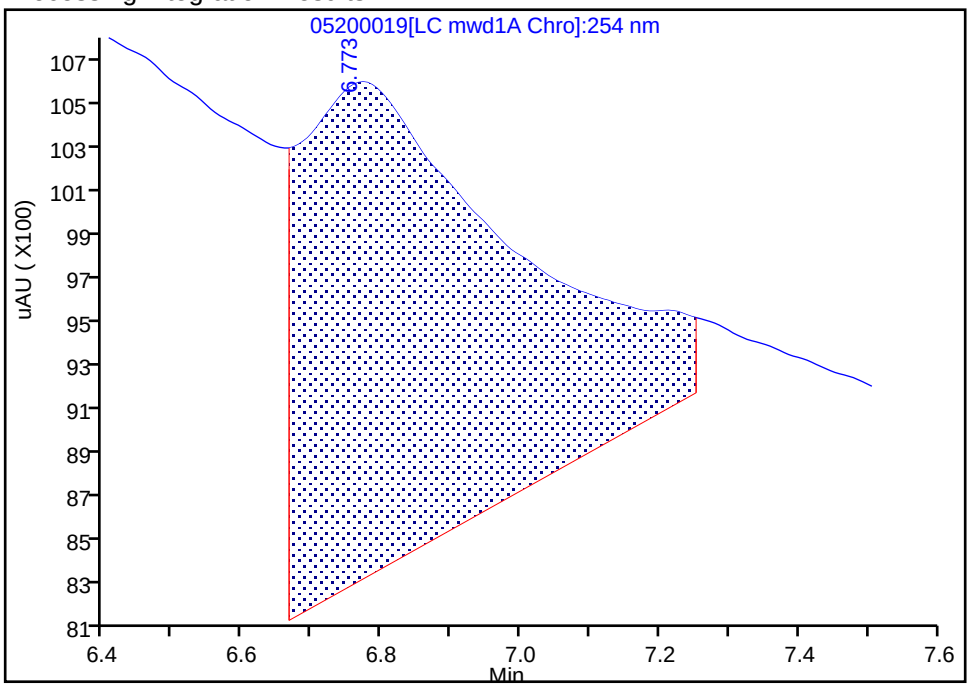
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200019.D				
Injection Date:	20-May-2022 23:17:18	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10		
Client ID:	G0081-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

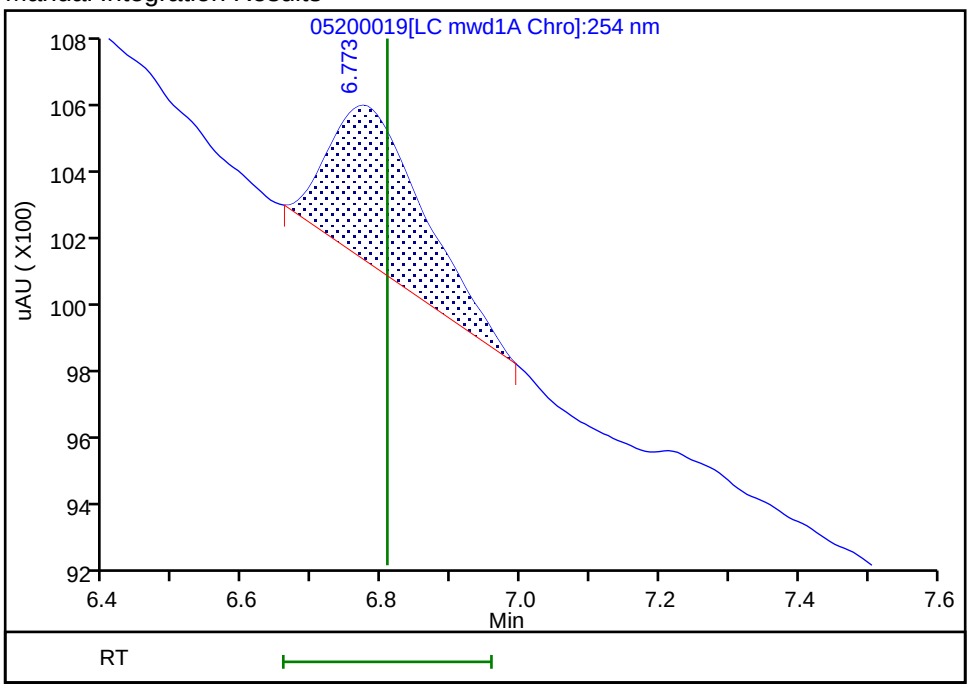
Processing Integration Results

RT: 6.77
Area: 45404
Amount: 0.273295
Amount Units: ug/ml



Manual Integration Results

RT: 6.77
Area: 4398
Amount: 0.026472
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:29:34

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

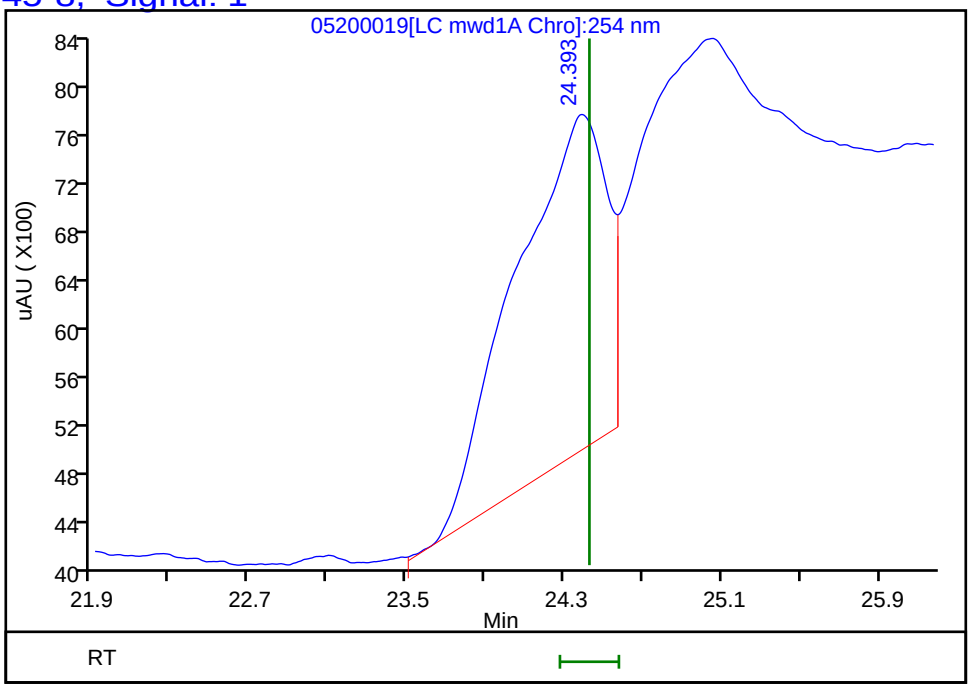
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200019.D				
Injection Date:	20-May-2022 23:17:18	Instrument ID:	CHHPLC_X5		
Lims ID:	280-162386-A-10-A	Lab Sample ID:	280-162386-10		
Client ID:	G0081-22A				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 24.39
Response: 91492
Amount: 0.267387



Reviewer: zhangji, 21-May-2022 12:29:55
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/19	01040019.D
Level 2	IC 280-562503/18	01040018.D
Level 3	IC 280-562503/17	01040017.D
Level 4	IC 280-562503/16	01040016.D
Level 5	IC 280-562503/15	01040015.D
Level 6	IC 280-562503/14	01040014.D
Level 7	IC 280-562503/13	01040013.D
Level 8	IC 280-562503/12	01040012.D
Level 9	IC 280-562503/11	01040011.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
HMX	6.601	6.595	6.600	6.598	6.601	6.601	6.599	6.598	6.593		6.448 - 6.748	6.598
RDX	7.601	7.608	7.607	7.605	7.601	7.607	7.606	7.604	7.600		7.455 - 7.755	7.604
Picric acid	7.941	7.948	7.947	7.945	7.934	7.927	7.913	7.904	7.860		7.795 - 8.095	7.924
1,3,5-Trinitrobenzene	8.688	8.695	8.693	8.692	8.687	8.694	8.693	8.691	8.687		8.542 - 8.842	8.691
1,3-Dinitrobenzene	9.321	9.328	9.327	9.331	9.327	9.327	9.326	9.324	9.320		9.181 - 9.481	9.326
Nitrobenzene	9.714	9.722	9.727	9.725	9.720	9.727	9.726	9.717	9.713		9.575 - 9.875	9.721
Tetryl	10.041	10.055	10.060	10.058	10.054	10.061	10.053	10.051	10.046		9.908 - 10.208	10.053
Nitroglycerin	10.501	10.515	10.513	10.518	10.514	10.514	10.513	10.504	10.500		10.368 - 10.668	10.510
2,4,6-Trinitrotoluene	10.954	10.968	10.973	10.971	10.967	10.967	10.966	10.964	10.960		10.871 - 11.071	10.966
4-Amino-2,6-dinitrotoluene	11.154	11.175	11.173	11.171	11.167	11.174	11.173	11.164	11.160		11.071 - 11.271	11.168
2-Amino-4,6-dinitrotoluene	11.408	11.428	11.427	11.425	11.420	11.421	11.419	11.417	11.413		11.325 - 11.525	11.420
2,6-Dinitrotoluene	11.581	11.595	11.593	11.598	11.594	11.594	11.593	11.591	11.586		11.498 - 11.698	11.592
2,4-Dinitrotoluene	11.748	11.762	11.767	11.765	11.760	11.767	11.766	11.757	11.753		11.665 - 11.865	11.761
2-Nitrotoluene	12.614	12.642	12.640	12.638	12.634	12.634	12.633	12.631	12.620		12.488 - 12.788	12.632
4-Nitrotoluene	13.054	13.075	13.067	13.071	13.060	13.067	13.066	13.057	13.053		12.921 - 13.221	13.063
3-Nitrotoluene	13.634	13.655	13.653	13.651	13.647	13.647	13.646	13.644	13.633		13.501 - 13.801	13.646
PETN	14.708	14.735	14.733	14.738	14.727	14.734	14.733	14.724	14.713		14.588 - 14.888	14.727
1,2-Dinitrobenzene	8.561	8.575	8.573	8.572	8.567	8.574	8.573	8.571	8.567		8.422 - 8.722	8.570

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/19	01040019.D
Level 2	IC 280-562503/18	01040018.D
Level 3	IC 280-562503/17	01040017.D
Level 4	IC 280-562503/16	01040016.D
Level 5	IC 280-562503/15	01040015.D
Level 6	IC 280-562503/14	01040014.D
Level 7	IC 280-562503/13	01040013.D
Level 8	IC 280-562503/12	01040012.D
Level 9	IC 280-562503/11	01040011.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
HMX	90100 81580 81292	86750 82313	84600 81626	84890 81295	Ave		83827.2016				3.6		20.0			
RDX	115200 98540 100273	104200 97815	114300 98669	104470 99016	Ave		103609.197				6.5		20.0			
Picric acid	71600 74240 80484	77700 76623	80580 76297	78550 77279	Ave		77039.1825				3.7		20.0			
1,3,5-Trinitrobenzene	219261 209936 225698	212026 217802	213792 221958	218124 224262	Ave		218095.534				2.5		20.0			
1,3-Dinitrobenzene	262774 281713 296660	291068 291824	293074 292328	291567 294606	Ave		288401.481				3.6		20.0			
Nitrobenzene	205876 184653 193838	191484 188466	185837 191771	192102 193551	Ave		191953.206				3.2		20.0			
Tetryl	177445 163545 172217	174551 166432	165968 169313	172036 173594	Ave		170566.759				2.7		20.0			
Nitroglycerin	63480 60791 64852	60040 64322	61302 64183	63595 64770	Ave		63037.2862				2.9		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
2,4,6-Trinitrotoluene	211753 195486 202459	210508 199081	203227 198317	203267 200435	Ave		202725.952				2.7		20.0			
4-Amino-2,6-dinitrotoluene	171628 142434 147171	157343 146076	152967 145091	149600 146556	Ave		150985.194				5.9		20.0			
2-Amino-4,6-dinitrotoluene	227789 193171 199435	213247 197134	191235 196207	201992 199332	Ave		202171.240				5.7		20.0			
2,6-Dinitrotoluene	154482 136163 144227	149054 142460	137610 141928	141773 140340	Ave		143115.218				4.0		20.0			
2,4-Dinitrotoluene	303486 281295 293182	293327 286355	277550 285832	292380 290749	Ave		289350.655				2.6		20.0			
2-Nitrotoluene	138700 121120 126002	137150 123750	126280 123333	127770 124418	Ave		127613.606				4.8		20.0			
4-Nitrotoluene	108084 103090 108687	107335 105826	103054 106012	106936 107095	Ave		106235.483				1.9		20.0			
3-Nitrotoluene	176224 132507 139283	149301 136601	134525 135465	139890 136664	Ave		142273.338				9.6		20.0			
PETN	87840 71710 74726	78525 73771	70168 73720	74208 74427	Lin2	1383.22998	72545.1478							0.9990		0.9900
1,2-Dinitrobenzene	118800 123244 127495	125150 124888	122540 125351	127800 127011	Ave		124697.681				2.3		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/19	01040019.D
Level 2	IC 280-562503/18	01040018.D
Level 3	IC 280-562503/17	01040017.D
Level 4	IC 280-562503/16	01040016.D
Level 5	IC 280-562503/15	01040015.D
Level 6	IC 280-562503/14	01040014.D
Level 7	IC 280-562503/13	01040013.D
Level 8	IC 280-562503/12	01040012.D
Level 9	IC 280-562503/11	01040011.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
HMX	Ave	901	1735	4230	8489	20395	0.0100	0.0200	0.0500	0.100	0.250
		32925	57138	81295	203229		0.400	0.700	1.00	2.50	
RDX	Ave	1152	2084	5715	10447	24635	0.0100	0.0200	0.0500	0.100	0.250
		39126	69068	99016	250683		0.400	0.700	1.00	2.50	
Picric acid	Ave	716	1554	4029	7855	18560	0.0100	0.0200	0.0500	0.100	0.250
		30649	53408	77279	201210		0.400	0.700	1.00	2.50	
1,3,5-Trinitrobenzene	Ave	2197	4249	10711	21856	52589	0.0100	0.0200	0.0501	0.100	0.251
		87295	155681	224711	565374		0.401	0.701	1.00	2.51	
1,3-Dinitrobenzene	Ave	2633	5833	14683	29215	70569	0.0100	0.0200	0.0501	0.100	0.251
		116963	205039	295195	743133		0.401	0.701	1.00	2.51	
Nitrobenzene	Ave	2067	3845	9329	19287	46348	0.0100	0.0201	0.0502	0.100	0.251
		75688	134777	194325	486534		0.402	0.703	1.00	2.51	
Tetryl	Ave	1778	3498	8315	17238	40968	0.0100	0.0200	0.0501	0.100	0.251
		66706	118756	173941	431404		0.401	0.701	1.00	2.51	
Nitroglycerin	Ave	6348	12008	30651	63595	151977	0.100	0.200	0.500	1.00	2.50
		257287	449283	647703	1621311		4.00	7.00	10.0	25.0	
2,4,6-Trinitrotoluene	Ave	2126	4227	10202	20408	49067	0.0100	0.0201	0.0502	0.100	0.251
		79951	139377	201237	508173		0.402	0.703	1.00	2.51	
4-Amino-2,6-dinitrotoluene	Ave	1718	3150	7656	14975	35644	0.0100	0.0200	0.0501	0.100	0.250
		58489	101665	146703	368296		0.400	0.701	1.00	2.50	
2-Amino-4,6-dinitrotoluene	Ave	2287	4282	9600	20280	48486	0.0100	0.0201	0.0502	0.100	0.251
		79169	137894	200129	500581		0.402	0.703	1.00	2.51	
2,6-Dinitrotoluene	Ave	1551	2993	6908	14234	34177	0.0100	0.0201	0.0502	0.100	0.251
		57212	99747	140901	362011		0.402	0.703	1.00	2.51	
2,4-Dinitrotoluene	Ave	3047	5890	13933	29355	70605	0.0100	0.0201	0.0502	0.100	0.251

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

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
		115000	200883	291912	735887		0.402	0.703	1.00	2.51	
2-Nitrotoluene	Ave	1387	2743	6314	12777	30280	0.0100	0.0200	0.0500	0.100	0.250
		49500	86333	124418	315004		0.400	0.700	1.00	2.50	
4-Nitrotoluene	Ave	1083	2151	5163	10715	25824	0.0100	0.0200	0.0501	0.100	0.251
		42415	74357	107309	272262		0.401	0.701	1.00	2.51	
3-Nitrotoluene	Ave	1764	2989	6733	14003	33160	0.0100	0.0200	0.0501	0.100	0.250
		54695	94920	136801	348555		0.400	0.701	1.00	2.50	
PETN	Lin2	8784	15705	35084	74208	179275	0.100	0.200	0.500	1.00	2.50
		295082	516042	744274	1868141		4.00	7.00	10.0	25.0	
1,2-Dinitrobenzene	Ave	1188	2503	6127	12780	30811	0.0100	0.0200	0.0500	0.100	0.250
		49955	87746	127011	318738		0.400	0.700	1.00	2.50	

Curve Type Legend
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040011.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 04-Jan-2022 18:28:10 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 9
Misc. Info.: 280-0107731-011
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:10 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 19:18:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.593	6.598	-0.005	203229	2.50	2.42	M
8 RDX	1	7.600	7.605	-0.005	250683	2.50	2.42	
9 2,4,6-Trinitrophenol	1	7.860	7.945	-0.085	201210	2.50	2.61	
$ 10 1,2-Dinitrobenzene	1	8.567	8.572	-0.005	318738	2.50	2.56	
11 1,3,5-Trinitrobenzene	1	8.687	8.692	-0.005	565374	2.51	2.59	
12 1,3-Dinitrobenzene	1	9.320	9.331	-0.011	743133	2.51	2.58	
13 Nitrobenzene	1	9.713	9.725	-0.012	486534	2.51	2.53	
15 Tetryl	1	10.046	10.058	-0.012	431404	2.51	2.53	
16 Nitroglycerin	2	10.500	10.518	-0.018	1621311	25.0	25.7	
17 2,4,6-Trinitrotoluene	1	10.960	10.971	-0.011	508173	2.51	2.51	
18 4-Amino-2,6-dinitrotoluene	1	11.160	11.171	-0.011	368296	2.50	2.44	
19 2-Amino-4,6-dinitrotoluene	1	11.413	11.425	-0.012	500581	2.51	2.48	
20 2,6-Dinitrotoluene	1	11.586	11.598	-0.012	362011	2.51	2.53	
21 2,4-Dinitrotoluene	1	11.753	11.765	-0.012	735887	2.51	2.54	
22 o-Nitrotoluene	1	12.620	12.638	-0.018	315004	2.50	2.47	
23 p-Nitrotoluene	1	13.053	13.071	-0.018	272262	2.51	2.56	
24 m-Nitrotoluene	1	13.633	13.651	-0.018	348555	2.50	2.45	
25 PETN	2	14.713	14.738	-0.025	1868141	25.0	25.7	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

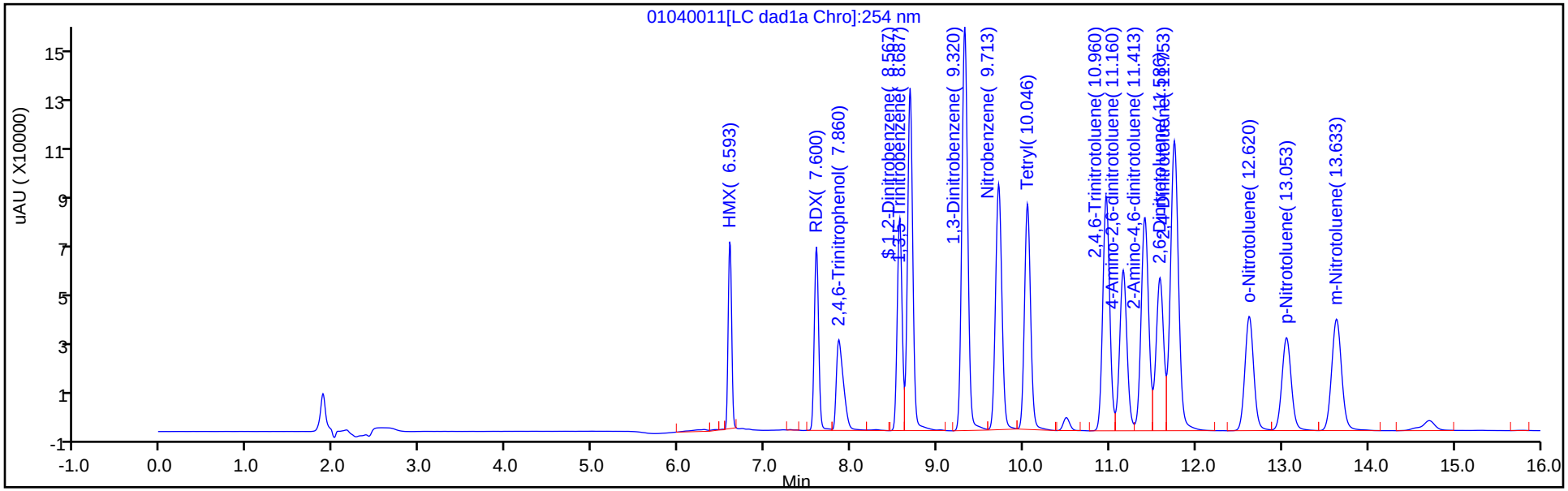
8330IntermStk_00070 Amount Added: 250.00 Units: uL

Report Date: 06-Jan-2022 20:05:10 Chrom Revision: 2.3 03-Jan-2022 17:03:12

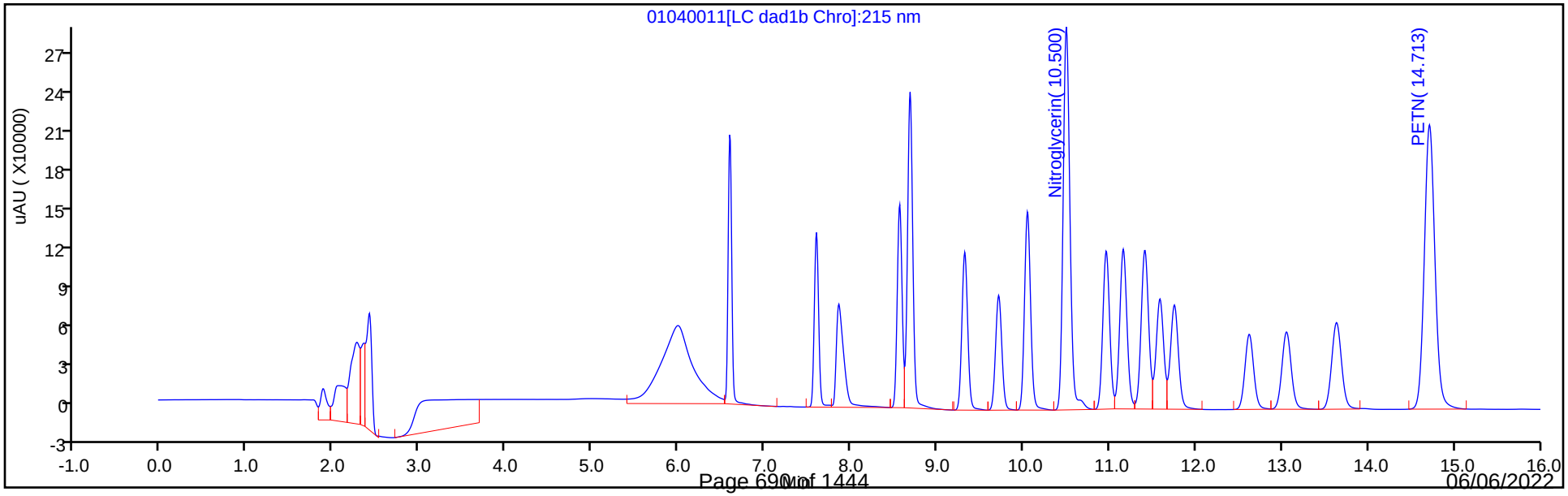
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040011.d				
Injection Date:	04-Jan-2022 18:28:10	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

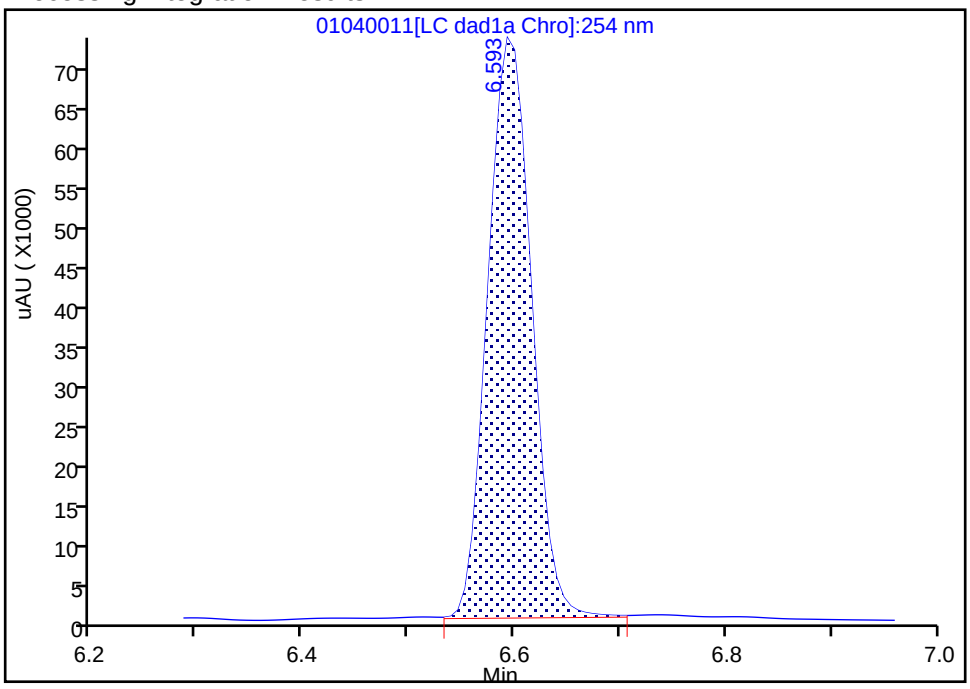
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040011.d				
Injection Date:	04-Jan-2022 18:28:10	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

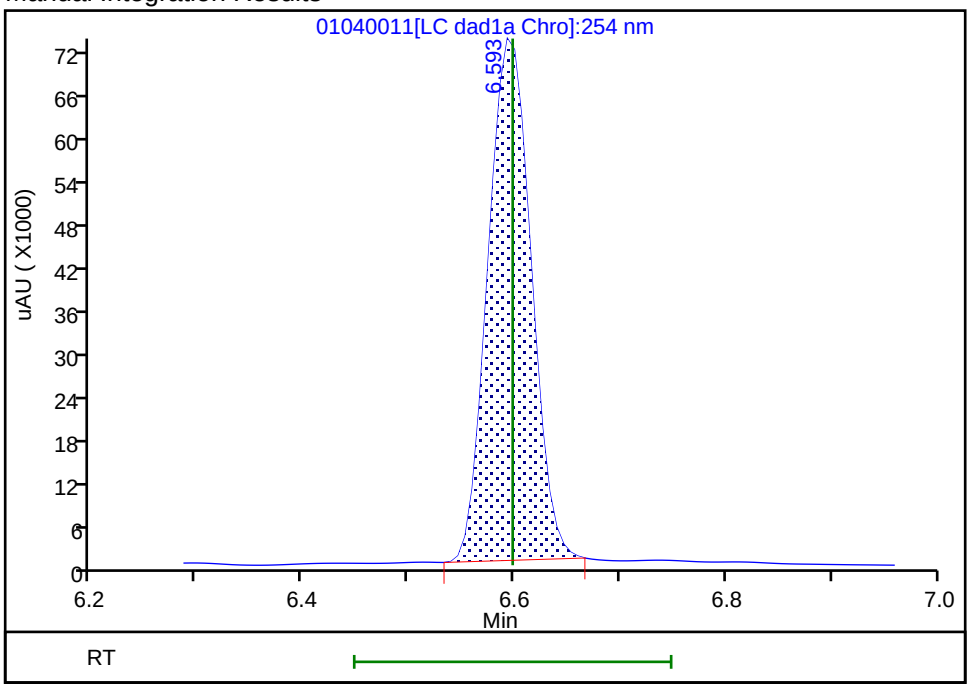
Processing Integration Results

RT: 6.59
Area: 207225
Amount: 2.498192
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 203229
Amount: 2.424380
Amount Units: ug/mL



Reviewer: zhangji, 04-Jan-2022 19:18:30
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040012.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 04-Jan-2022 18:51:00 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 8
Misc. Info.: 280-0107731-012
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:11 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 19:18:25

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.598	6.598	0.000	81295	1.00	0.9698	M
8 RDX	1	7.604	7.605	-0.001	99016	1.00	0.9557	
9 2,4,6-Trinitrophenol	1	7.904	7.945	-0.041	77279	1.00	1.00	
$ 10 1,2-Dinitrobenzene	1	8.571	8.572	-0.001	127011	1.00	1.02	
11 1,3,5-Trinitrobenzene	1	8.691	8.692	-0.001	224711	1.00	1.03	
12 1,3-Dinitrobenzene	1	9.324	9.331	-0.007	295195	1.00	1.02	
13 Nitrobenzene	1	9.717	9.725	-0.008	194325	1.00	1.01	
15 Tetryl	1	10.051	10.058	-0.007	173941	1.00	1.02	
16 Nitroglycerin	2	10.504	10.518	-0.014	647703	10.0	10.3	
17 2,4,6-Trinitrotoluene	1	10.964	10.971	-0.007	201237	1.00	0.99	
18 4-Amino-2,6-dinitrotoluene	1	11.164	11.171	-0.007	146703	1.00	0.9716	
19 2-Amino-4,6-dinitrotoluene	1	11.417	11.425	-0.008	200129	1.00	0.9899	
20 2,6-Dinitrotoluene	1	11.591	11.598	-0.007	140901	1.00	0.9845	
21 2,4-Dinitrotoluene	1	11.757	11.765	-0.008	291912	1.00	1.01	
22 o-Nitrotoluene	1	12.631	12.638	-0.007	124418	1.00	0.9750	
23 p-Nitrotoluene	1	13.057	13.071	-0.014	107309	1.00	1.01	
24 m-Nitrotoluene	1	13.644	13.651	-0.007	136801	1.00	0.9615	
25 PETN	2	14.724	14.738	-0.014	744274	10.0	10.2	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070 Amount Added: 100.00 Units: uL

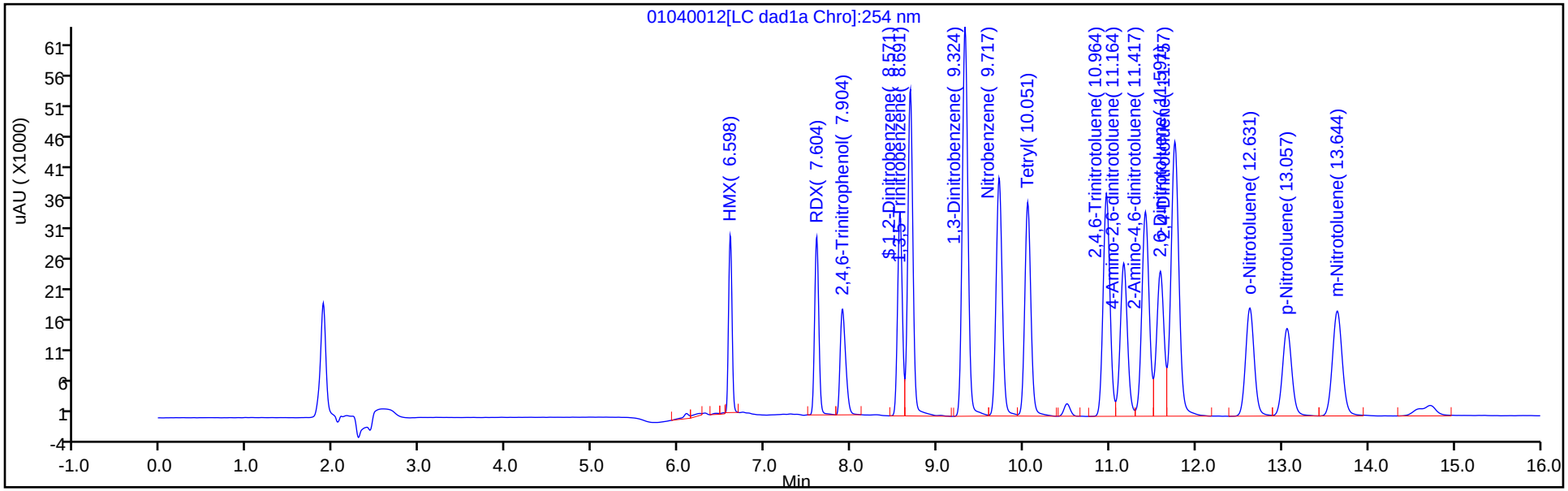
Report Date: 06-Jan-2022 20:05:11 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

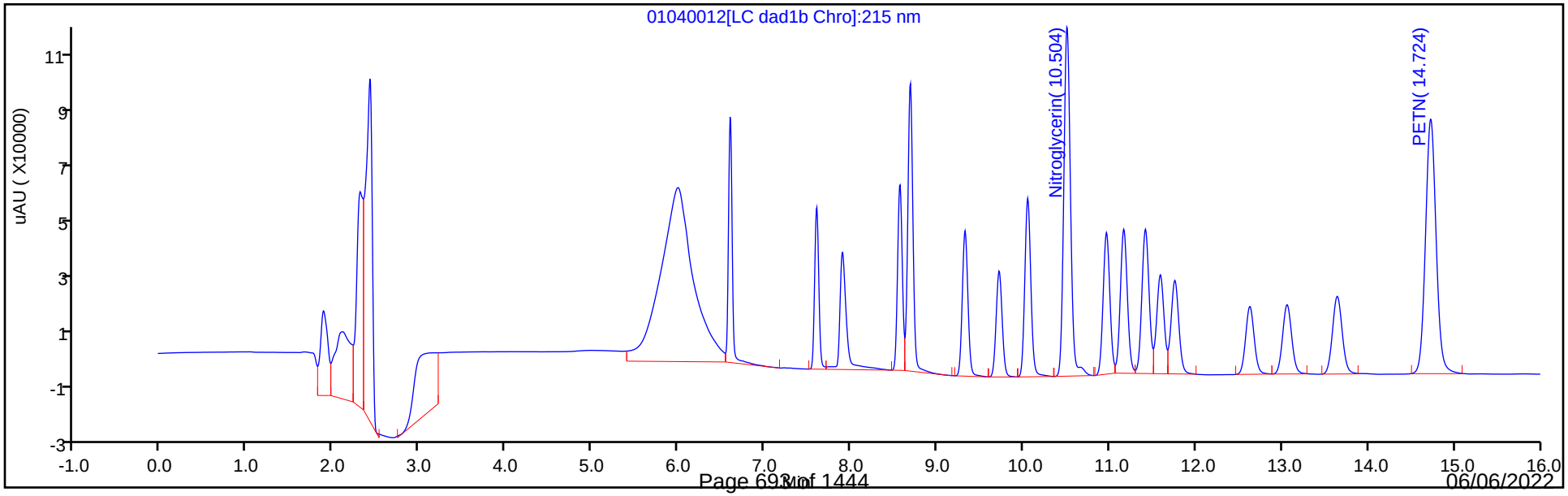
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040012.d

Injection Date:	04-Jan-2022 18:51:00	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

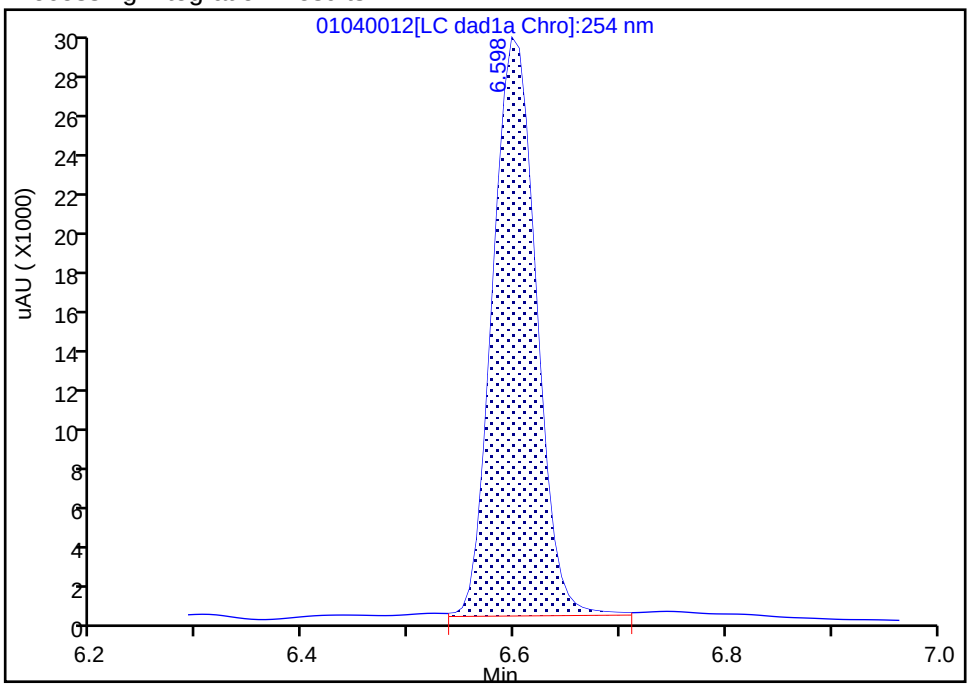
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040012.d				
Injection Date:	04-Jan-2022 18:51:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

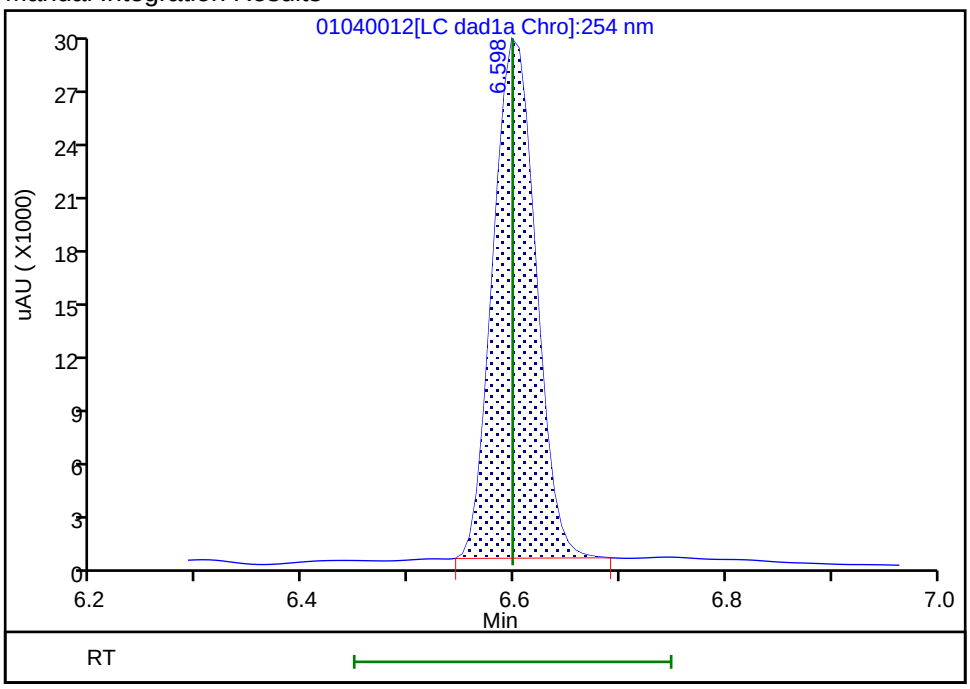
Processing Integration Results

RT: 6.60
Area: 83010
Amount: 1.010459
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 81295
Amount: 0.969793
Amount Units: ug/mL



Reviewer: zhangji, 04-Jan-2022 19:18:46
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040013.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 04-Jan-2022 19:13:53 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 7
Misc. Info.: 280-0107731-013
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:11 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 19:38:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.599	6.598	0.001	57138	0.7000	0.6816	
8 RDX	1	7.606	7.605	0.001	69068	0.7000	0.6666	
9 2,4,6-Trinitrophenol	1	7.913	7.945	-0.032	53408	0.7000	0.6933	
$ 10 1,2-Dinitrobenzene	1	8.573	8.572	0.001	87746	0.7000	0.7037	
11 1,3,5-Trinitrobenzene	1	8.693	8.692	0.001	155681	0.7014	0.7138	
12 1,3-Dinitrobenzene	1	9.326	9.331	-0.005	205039	0.7014	0.7109	
13 Nitrobenzene	1	9.726	9.725	0.001	134777	0.7028	0.7021	
15 Tetryl	1	10.053	10.058	-0.005	118756	0.7014	0.6962	
16 Nitroglycerin	2	10.513	10.518	-0.005	449283	7.00	7.13	
17 2,4,6-Trinitrotoluene	1	10.966	10.971	-0.005	139377	0.7028	0.6875	
18 4-Amino-2,6-dinitrotoluene	1	11.173	11.171	0.002	101665	0.7007	0.6733	
19 2-Amino-4,6-dinitrotoluene	1	11.419	11.425	-0.006	137894	0.7028	0.6821	
20 2,6-Dinitrotoluene	1	11.593	11.598	-0.005	99747	0.7028	0.6970	
21 2,4-Dinitrotoluene	1	11.766	11.765	0.001	200883	0.7028	0.6943	
22 o-Nitrotoluene	1	12.633	12.638	-0.005	86333	0.7000	0.6765	
23 p-Nitrotoluene	1	13.066	13.071	-0.005	74357	0.7014	0.6999	
24 m-Nitrotoluene	1	13.646	13.651	-0.005	94920	0.7007	0.6672	
25 PETN	2	14.733	14.738	-0.005	516042	7.00	7.09	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00070 Amount Added: 70.00 Units: uL

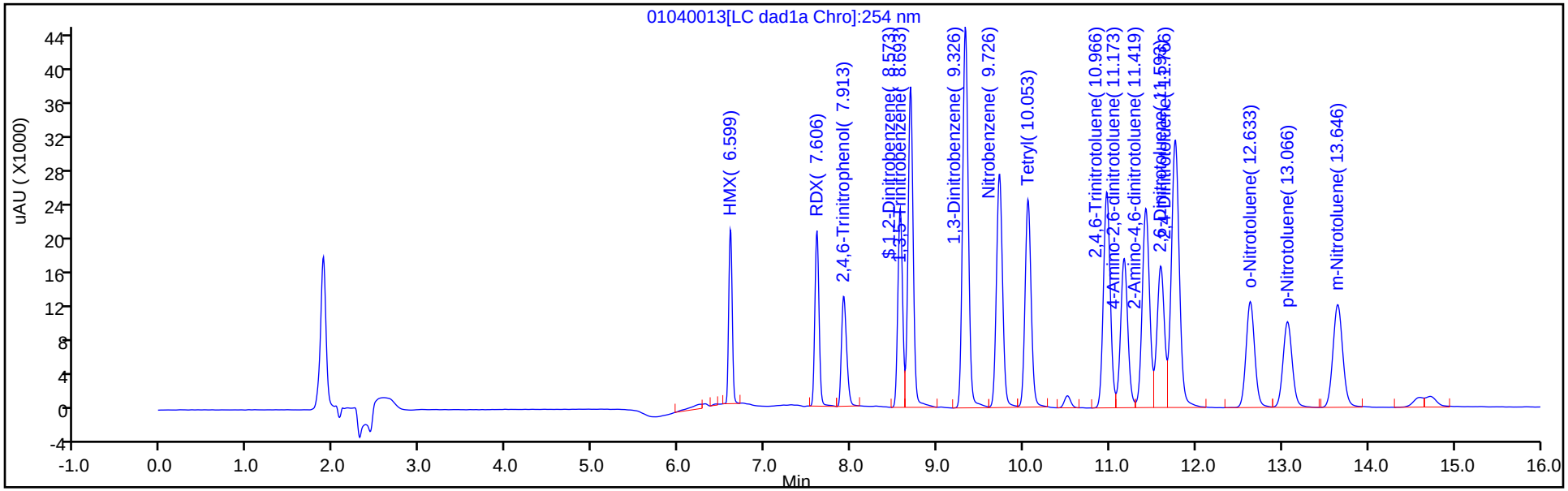
Report Date: 06-Jan-2022 20:05:11 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

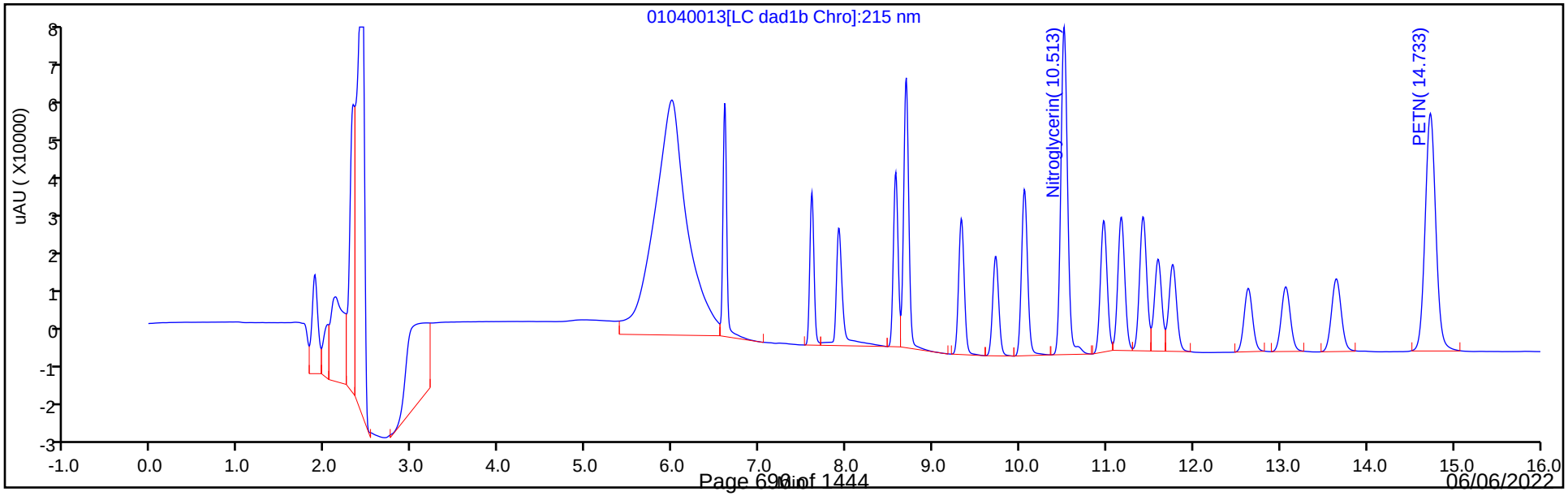
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040013.d

Injection Date:	04-Jan-2022 19:13:53	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040014.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 04-Jan-2022 19:36:46 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 6
Misc. Info.: 280-0107731-014
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:12 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 20:03:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.601	6.598	0.003	32925	0.4000	0.3928	
8 RDX	1	7.607	7.605	0.002	39126	0.4000	0.3776	
9 2,4,6-Trinitrophenol	1	7.927	7.945	-0.018	30649	0.4000	0.3978	
$ 10 1,2-Dinitrobenzene	1	8.574	8.572	0.002	49955	0.4000	0.4006	
11 1,3,5-Trinitrobenzene	1	8.694	8.692	0.002	87295	0.4008	0.4003	
12 1,3-Dinitrobenzene	1	9.327	9.331	-0.004	116963	0.4008	0.4056	
13 Nitrobenzene	1	9.727	9.725	0.002	75688	0.4016	0.3943	
15 Tetryl	1	10.061	10.058	0.003	66706	0.4008	0.3911	
16 Nitroglycerin	2	10.514	10.518	-0.004	257287	4.00	4.08	
17 2,4,6-Trinitrotoluene	1	10.967	10.971	-0.004	79951	0.4016	0.3944	
18 4-Amino-2,6-dinitrotoluene	1	11.174	11.171	0.003	58489	0.4004	0.3874	
19 2-Amino-4,6-dinitrotoluene	1	11.421	11.425	-0.004	79169	0.4016	0.3916	
20 2,6-Dinitrotoluene	1	11.594	11.598	-0.004	57212	0.4016	0.3998	
21 2,4-Dinitrotoluene	1	11.767	11.765	0.002	115000	0.4016	0.3974	
22 o-Nitrotoluene	1	12.634	12.638	-0.004	49500	0.4000	0.3879	
23 p-Nitrotoluene	1	13.067	13.071	-0.004	42415	0.4008	0.3993	
24 m-Nitrotoluene	1	13.647	13.651	-0.004	54695	0.4004	0.3844	
25 PETN	2	14.734	14.738	-0.004	295082	4.00	4.05	

QC Flag Legend

Processing Flags

Reagents:

8330IntermStk_00070 Amount Added: 40.00 Units: uL

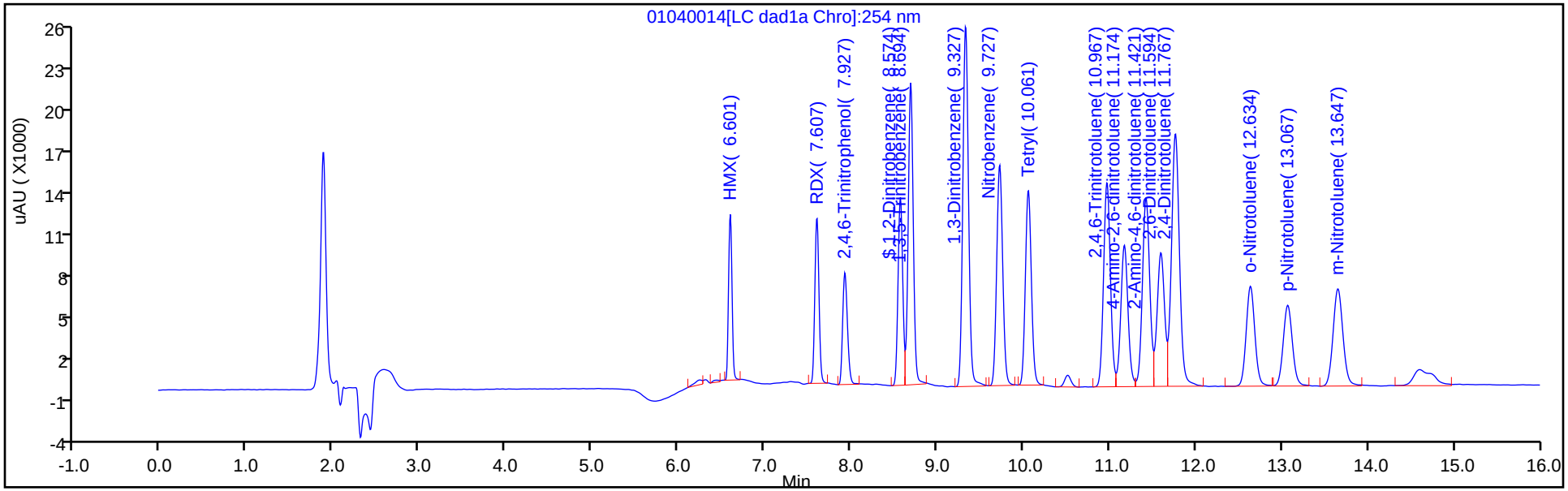
Report Date: 06-Jan-2022 20:05:12 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

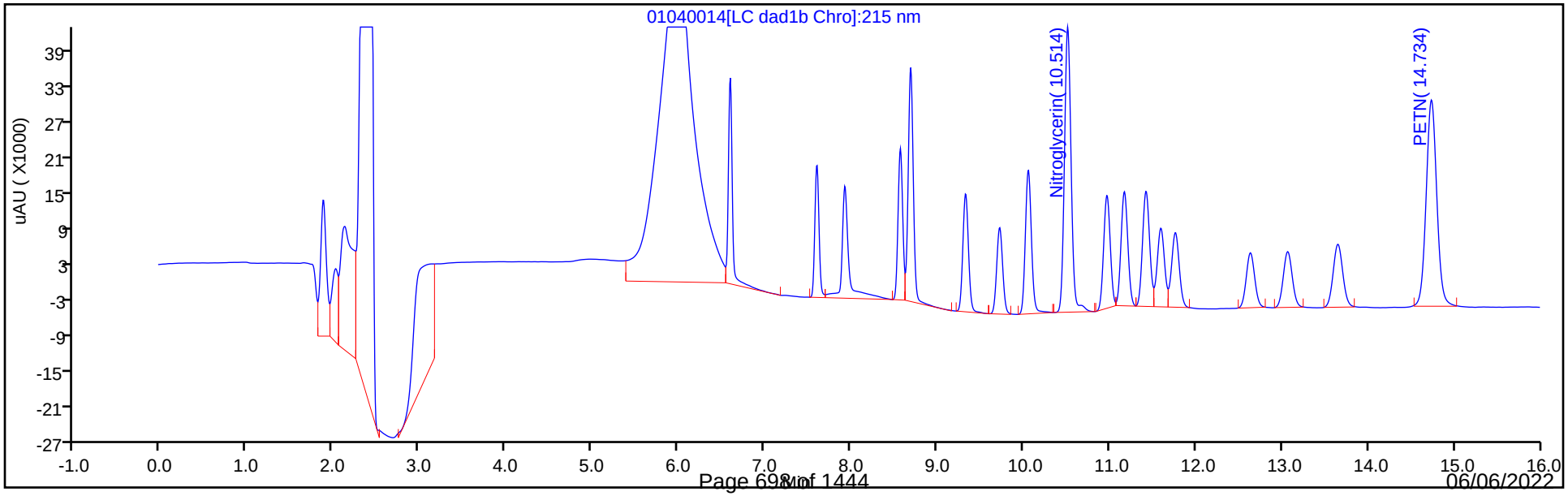
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040014.d

Injection Date:	04-Jan-2022 19:36:46	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040015.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 04-Jan-2022 19:59:42 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 5
Misc. Info.: 280-0107731-015
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:12 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 20:30:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.601	6.598	0.003	20395	0.2500	0.2433	
8 RDX	1	7.601	7.605	-0.004	24635	0.2500	0.2378	
9 2,4,6-Trinitrophenol	1	7.934	7.945	-0.011	18560	0.2500	0.2409	
$ 10 1,2-Dinitrobenzene	1	8.567	8.572	-0.005	30811	0.2500	0.2471	
11 1,3,5-Trinitrobenzene	1	8.687	8.692	-0.005	52589	0.2505	0.2411	
12 1,3-Dinitrobenzene	1	9.327	9.331	-0.004	70569	0.2505	0.2447	
13 Nitrobenzene	1	9.720	9.725	-0.005	46348	0.2510	0.2415	
15 Tetryl	1	10.054	10.058	-0.004	40968	0.2505	0.2402	
16 Nitroglycerin	2	10.514	10.518	-0.004	151977	2.50	2.41	
17 2,4,6-Trinitrotoluene	1	10.967	10.971	-0.004	49067	0.2510	0.2420	
18 4-Amino-2,6-dinitrotoluene	1	11.167	11.171	-0.004	35644	0.2503	0.2361	
19 2-Amino-4,6-dinitrotoluene	1	11.420	11.425	-0.005	48486	0.2510	0.2398	
20 2,6-Dinitrotoluene	1	11.594	11.598	-0.004	34177	0.2510	0.2388	
21 2,4-Dinitrotoluene	1	11.760	11.765	-0.005	70605	0.2510	0.2440	
22 o-Nitrotoluene	1	12.634	12.638	-0.004	30280	0.2500	0.2373	
23 p-Nitrotoluene	1	13.060	13.071	-0.011	25824	0.2505	0.2431	
24 m-Nitrotoluene	1	13.647	13.651	-0.004	33160	0.2503	0.2331	
25 PETN	2	14.727	14.738	-0.011	179275	2.50	2.45	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00070 Amount Added: 25.00 Units: uL

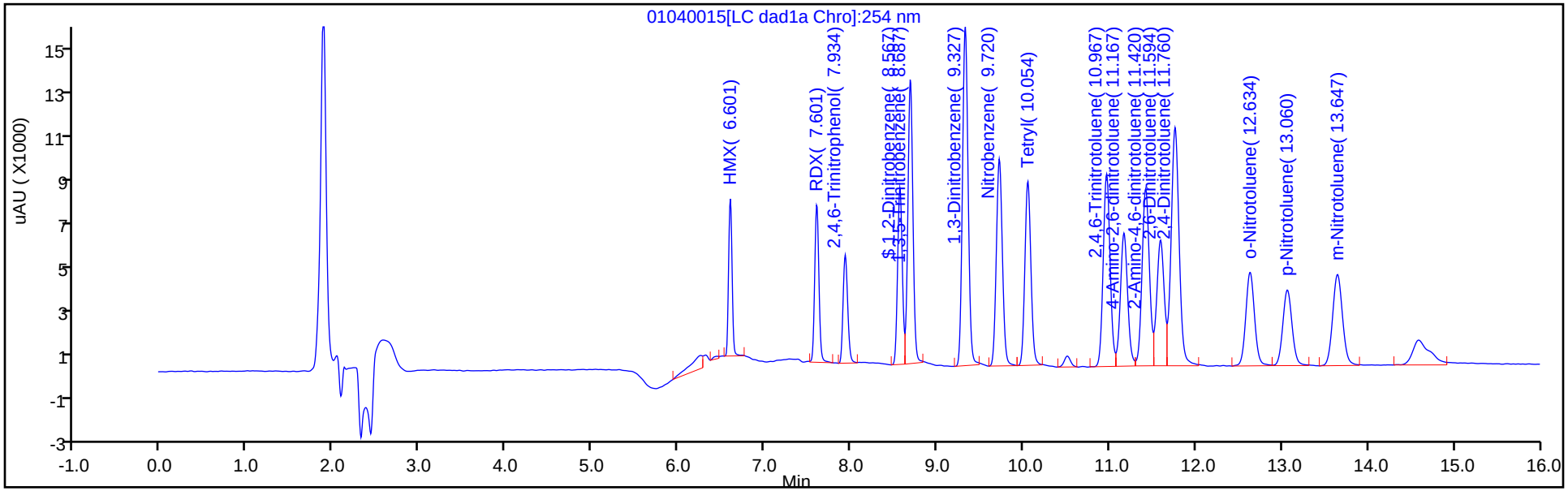
Report Date: 06-Jan-2022 20:05:12 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

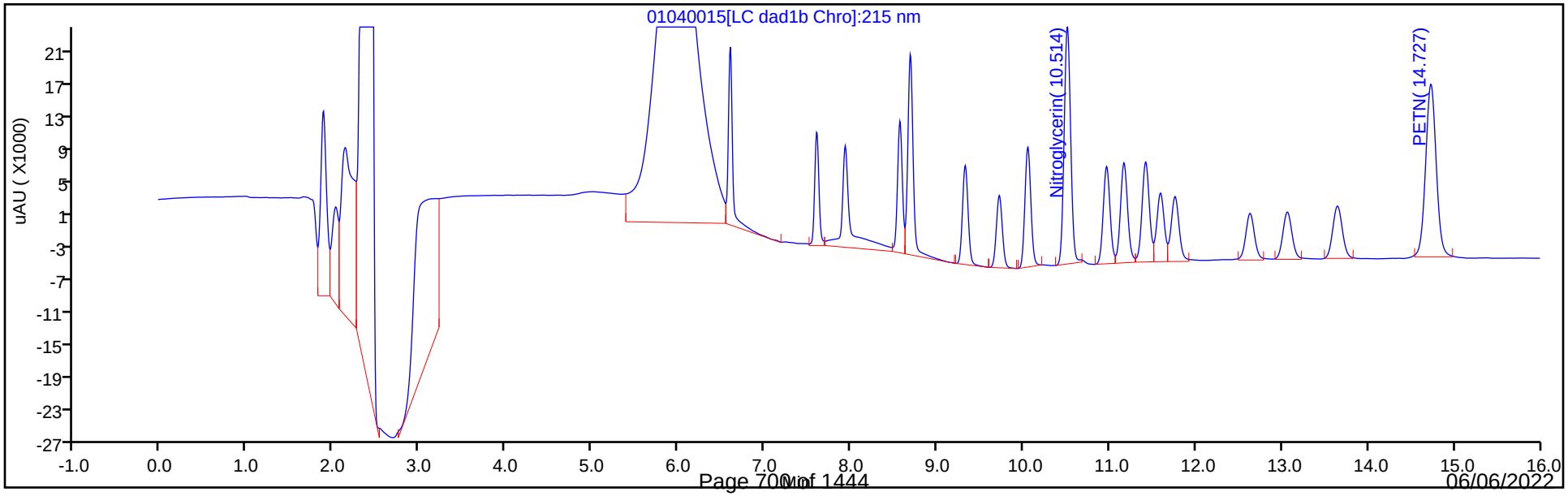
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040015.d

Injection Date:	04-Jan-2022 19:59:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040016.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 04-Jan-2022 20:22:36 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 4
Misc. Info.: 280-0107731-016
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:12 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 20:49:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.598	6.598	0.000	8489	0.1000	0.1013	
8 RDX	1	7.605	7.605	0.000	10447	0.1000	0.1008	
9 2,4,6-Trinitrophenol	1	7.945	7.945	0.000	7855	0.1000	0.1020	
$ 10 1,2-Dinitrobenzene	1	8.572	8.572	0.000	12780	0.1000	0.1025	
11 1,3,5-Trinitrobenzene	1	8.692	8.692	0.000	21856	0.1002	0.1002	
12 1,3-Dinitrobenzene	1	9.331	9.331	0.000	29215	0.1002	0.1013	
13 Nitrobenzene	1	9.725	9.725	0.000	19287	0.1004	0.1005	
15 Tetryl	1	10.058	10.058	0.000	17238	0.1002	0.1011	
16 Nitroglycerin	2	10.518	10.518	0.000	63595	1.00	1.01	
17 2,4,6-Trinitrotoluene	1	10.971	10.971	0.000	20408	0.1004	0.1007	
18 4-Amino-2,6-dinitrotoluene	1	11.171	11.171	0.000	14975	0.1001	0.0992	
19 2-Amino-4,6-dinitrotoluene	1	11.425	11.425	0.000	20280	0.1004	0.1003	
20 2,6-Dinitrotoluene	1	11.598	11.598	0.000	14234	0.1004	0.0995	
21 2,4-Dinitrotoluene	1	11.765	11.765	0.000	29355	0.1004	0.1015	
22 o-Nitrotoluene	1	12.638	12.638	0.000	12777	0.1000	0.1001	
23 p-Nitrotoluene	1	13.071	13.071	0.000	10715	0.1002	0.1009	
24 m-Nitrotoluene	1	13.651	13.651	0.000	14003	0.1001	0.0984	
25 PETN	2	14.738	14.738	0.000	74208	1.00	1.00	

QC Flag Legend

Processing Flags

Reagents:

8330IntermStk_00070 Amount Added: 10.00 Units: uL

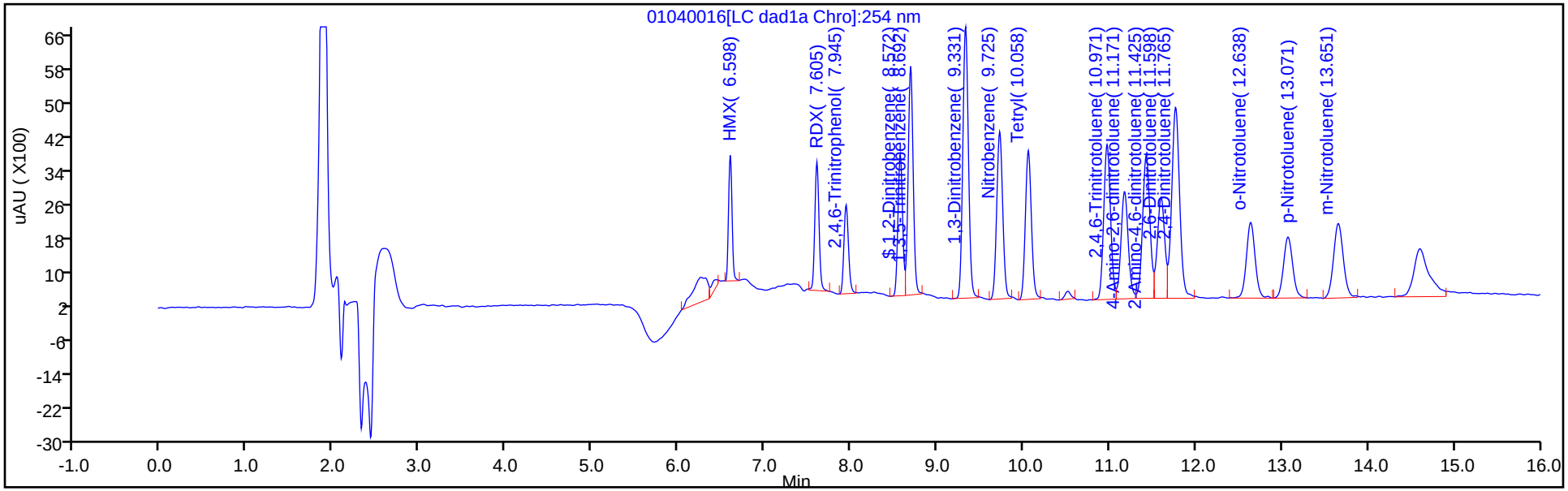
Report Date: 06-Jan-2022 20:05:13 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

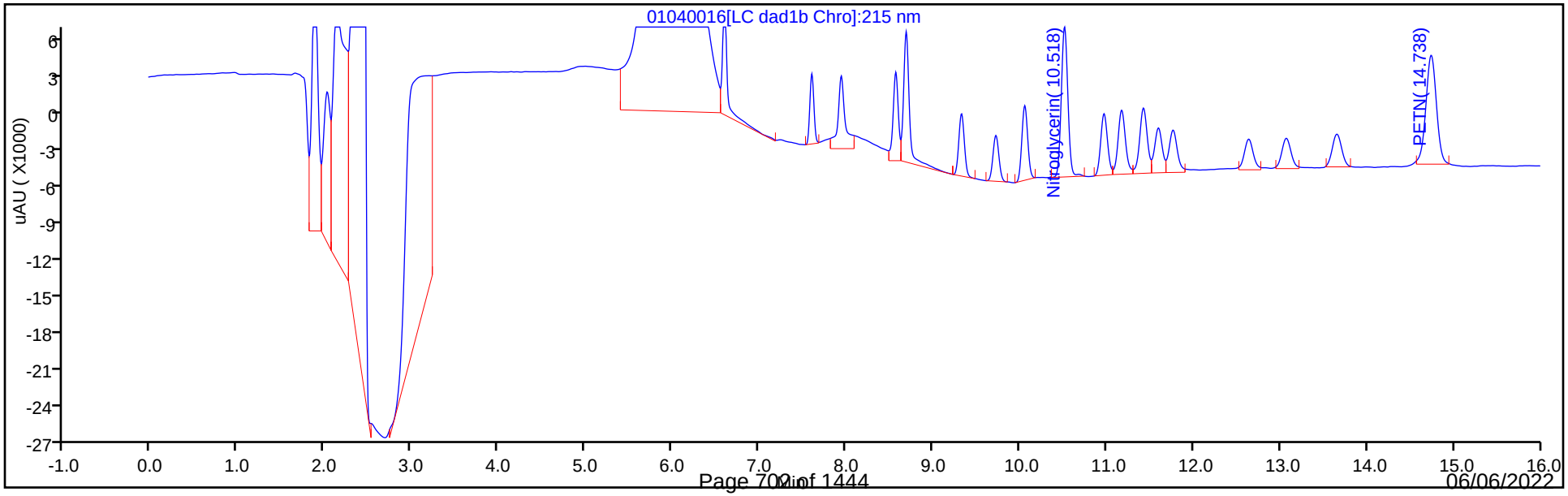
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040016.d

Injection Date:	04-Jan-2022 20:22:36	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040017.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 04-Jan-2022 20:45:29 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 3
Misc. Info.: 280-0107731-017
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:13 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	4 HMX	1	6.600	6.598	0.002	4230	0.0500	0.0505	
	8 RDX	1	7.607	7.605	0.002	5715	0.0500	0.0552	
	9 2,4,6-Trinitrophenol	1	7.947	7.945	0.002	4029	0.0500	0.0523	
$	10 1,2-Dinitrobenzene	1	8.573	8.572	0.001	6127	0.0500	0.0491	
	11 1,3,5-Trinitrobenzene	1	8.693	8.692	0.001	10711	0.0501	0.0491	
	12 1,3-Dinitrobenzene	1	9.327	9.331	-0.004	14683	0.0501	0.0509	
	13 Nitrobenzene	1	9.727	9.725	0.002	9329	0.0502	0.0486	
	15 Tetryl	1	10.060	10.058	0.002	8315	0.0501	0.0487	
	16 Nitroglycerin	2	10.513	10.518	-0.005	30651	0.5000	0.4862	
	17 2,4,6-Trinitrotoluene	1	10.973	10.971	0.002	10202	0.0502	0.0503	
	18 4-Amino-2,6-dinitrotoluene	1	11.173	11.171	0.002	7656	0.0501	0.0507	
	19 2-Amino-4,6-dinitrotoluene	1	11.427	11.425	0.002	9600	0.0502	0.0475	
	20 2,6-Dinitrotoluene	1	11.593	11.598	-0.005	6908	0.0502	0.0483	
	21 2,4-Dinitrotoluene	1	11.767	11.765	0.002	13933	0.0502	0.0482	
	22 o-Nitrotoluene	1	12.640	12.638	0.002	6314	0.0500	0.0495	
	23 p-Nitrotoluene	1	13.067	13.071	-0.004	5163	0.0501	0.0486	
	24 m-Nitrotoluene	1	13.653	13.651	0.002	6733	0.0501	0.0473	
	25 PETN	2	14.733	14.738	-0.005	35084	0.5000	0.4645	

Reagents:

8330IntermStk_00070 Amount Added: 5.00 Units: uL

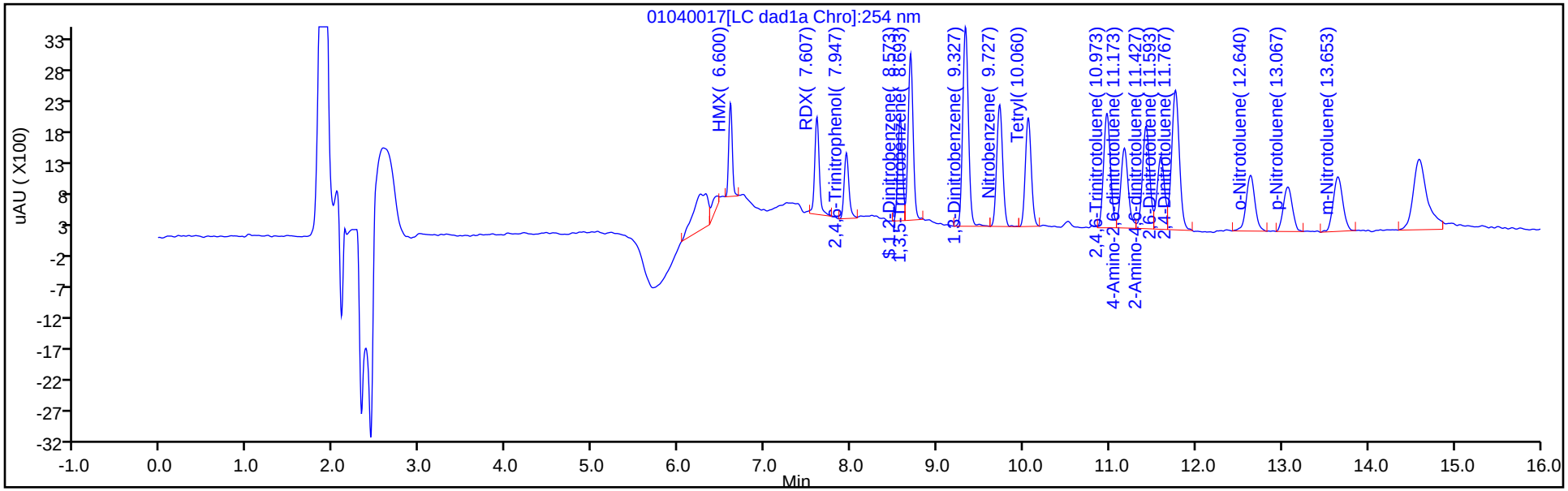
Report Date: 06-Jan-2022 20:05:13 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

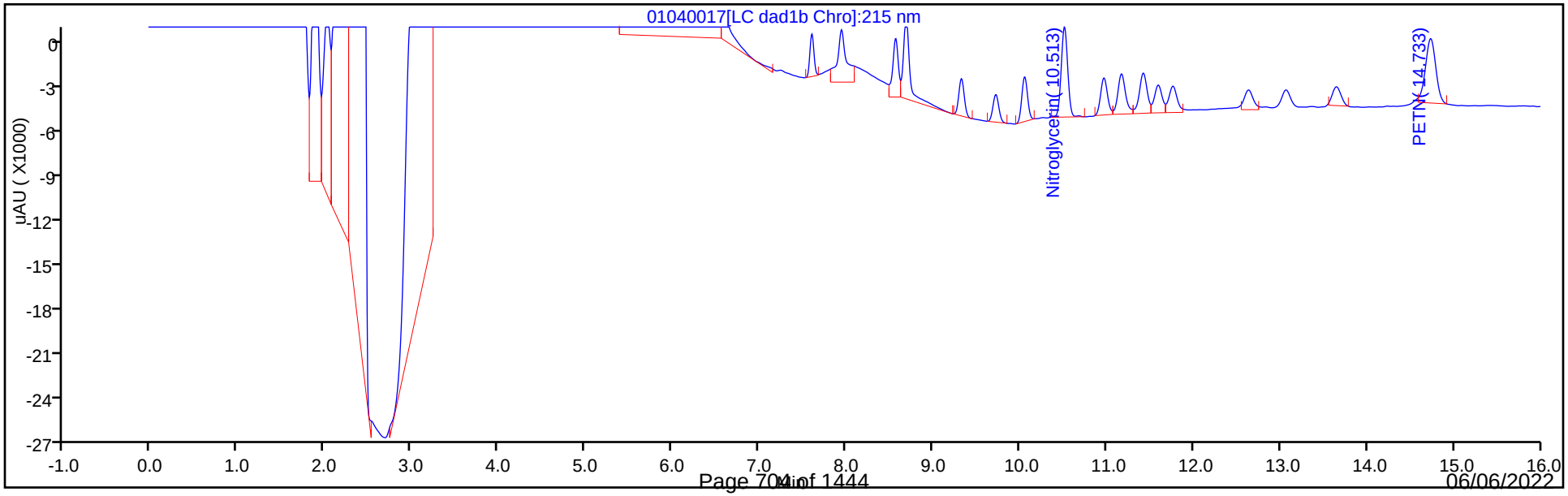
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040017.d

Injection Date:	04-Jan-2022 20:45:29	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040018.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 04-Jan-2022 21:08:26 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 2
Misc. Info.: 280-0107731-018
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:13 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 05-Jan-2022 12:01:28

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.595	6.598	-0.003	1735	0.0200	0.0207	
8 RDX	1	7.608	7.605	0.003	2084	0.0200	0.0201	M
9 2,4,6-Trinitrophenol	1	7.948	7.945	0.003	1554	0.0200	0.0202	M
$ 10 1,2-Dinitrobenzene	1	8.575	8.572	0.003	2503	0.0200	0.0201	
11 1,3,5-Trinitrobenzene	1	8.695	8.692	0.003	4249	0.0200	0.0195	
12 1,3-Dinitrobenzene	1	9.328	9.331	-0.003	5833	0.0200	0.0202	
13 Nitrobenzene	1	9.722	9.725	-0.003	3845	0.0201	0.0200	
15 Tetryl	1	10.055	10.058	-0.003	3498	0.0200	0.0205	
16 Nitroglycerin	2	10.515	10.518	-0.003	12008	0.2000	0.1905	
17 2,4,6-Trinitrotoluene	1	10.968	10.971	-0.003	4227	0.0201	0.0209	
18 4-Amino-2,6-dinitrotoluene	1	11.175	11.171	0.004	3150	0.0200	0.0209	
19 2-Amino-4,6-dinitrotoluene	1	11.428	11.425	0.003	4282	0.0201	0.0212	
20 2,6-Dinitrotoluene	1	11.595	11.598	-0.003	2993	0.0201	0.0209	
21 2,4-Dinitrotoluene	1	11.762	11.765	-0.003	5890	0.0201	0.0204	
22 o-Nitrotoluene	1	12.642	12.638	0.004	2743	0.0200	0.0215	
23 p-Nitrotoluene	1	13.075	13.071	0.004	2151	0.0200	0.0202	
24 m-Nitrotoluene	1	13.655	13.651	0.004	2989	0.0200	0.0210	
25 PETN	2	14.735	14.738	-0.003	15705	0.2000	0.1974	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070 Amount Added: 2.00 Units: uL

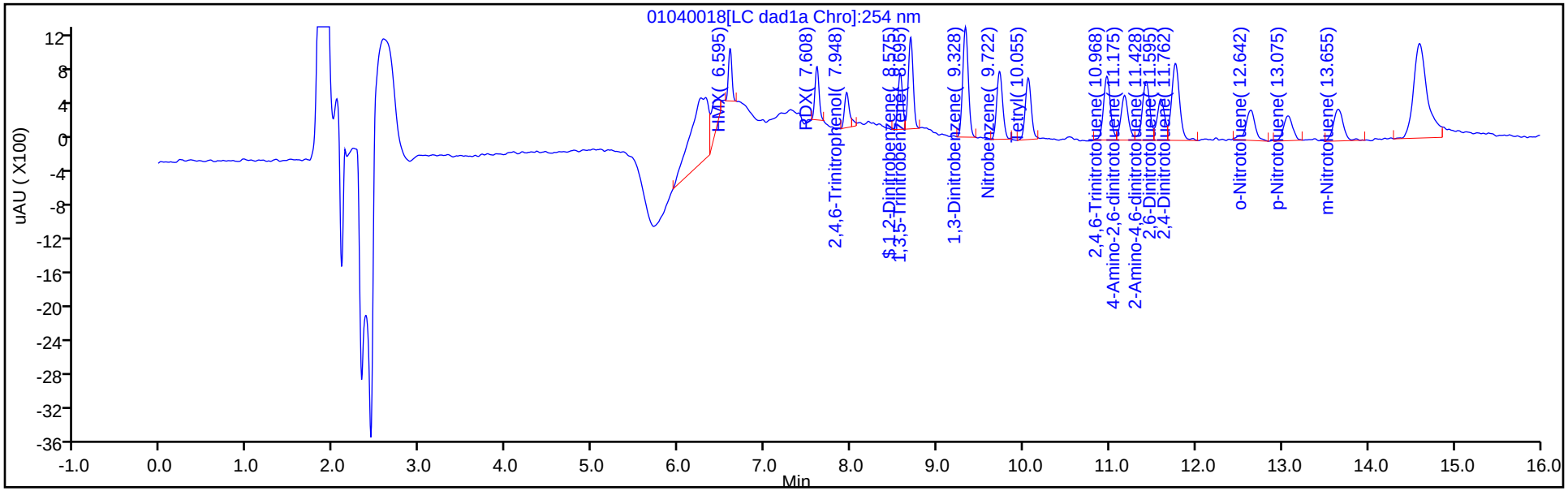
Report Date: 06-Jan-2022 20:05:13 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

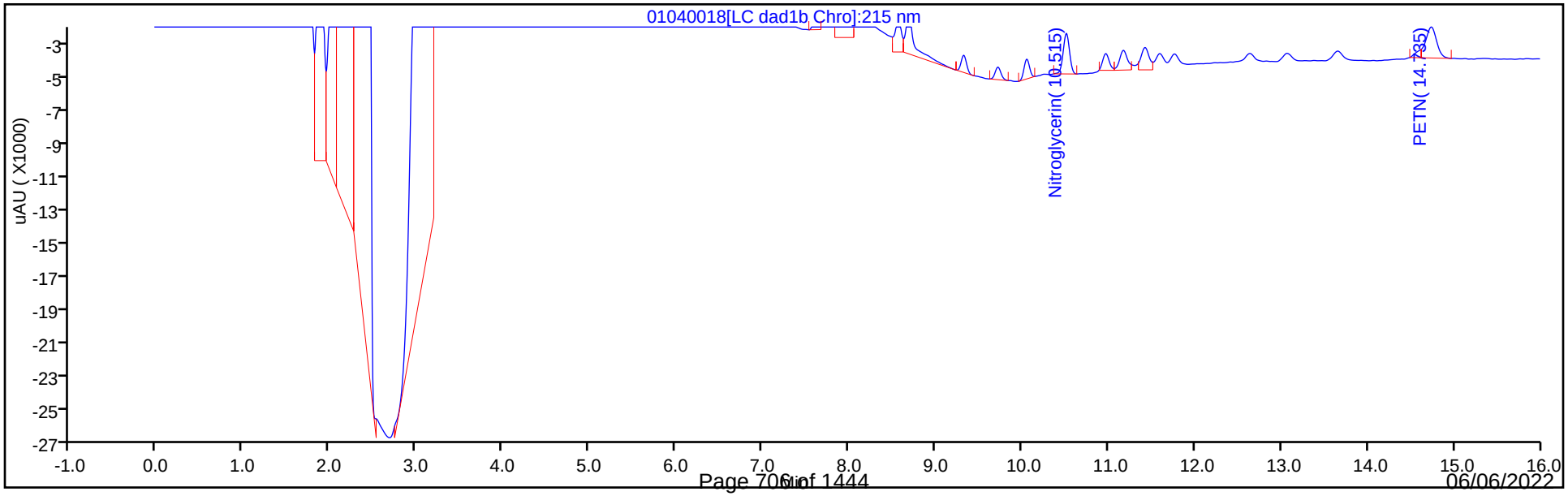
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040018.d

Injection Date:	04-Jan-2022 21:08:26	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 2			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

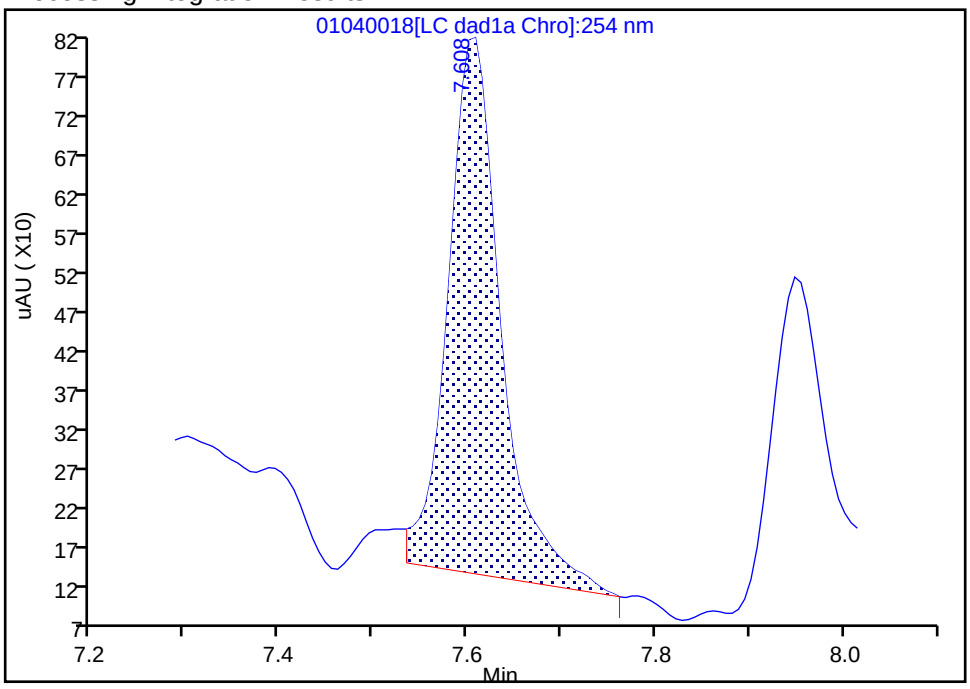
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040018.d				
Injection Date:	04-Jan-2022 21:08:26	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

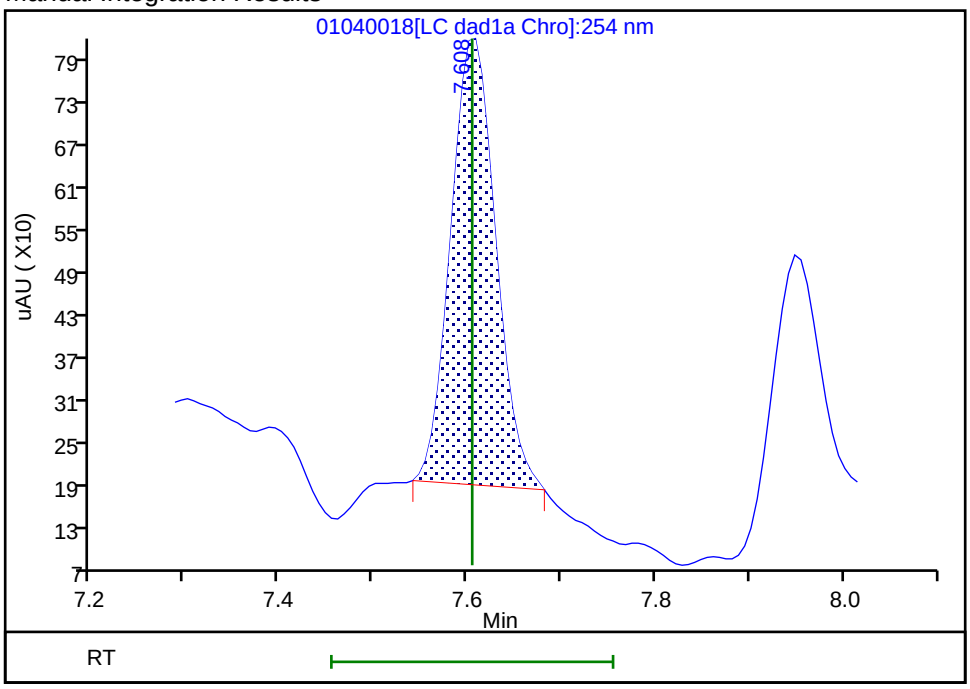
Processing Integration Results

RT: 7.61
Area: 2668
Amount: 0.024969
Amount Units: ug/mL



Manual Integration Results

RT: 7.61
Area: 2084
Amount: 0.020114
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:01:55

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

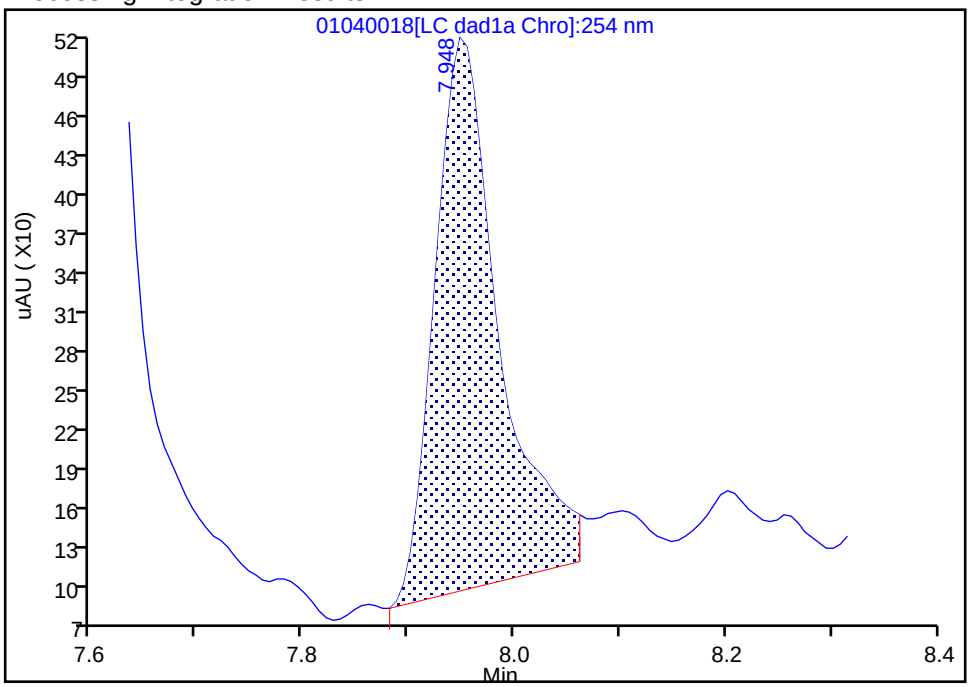
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040018.d				
Injection Date:	04-Jan-2022 21:08:26	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

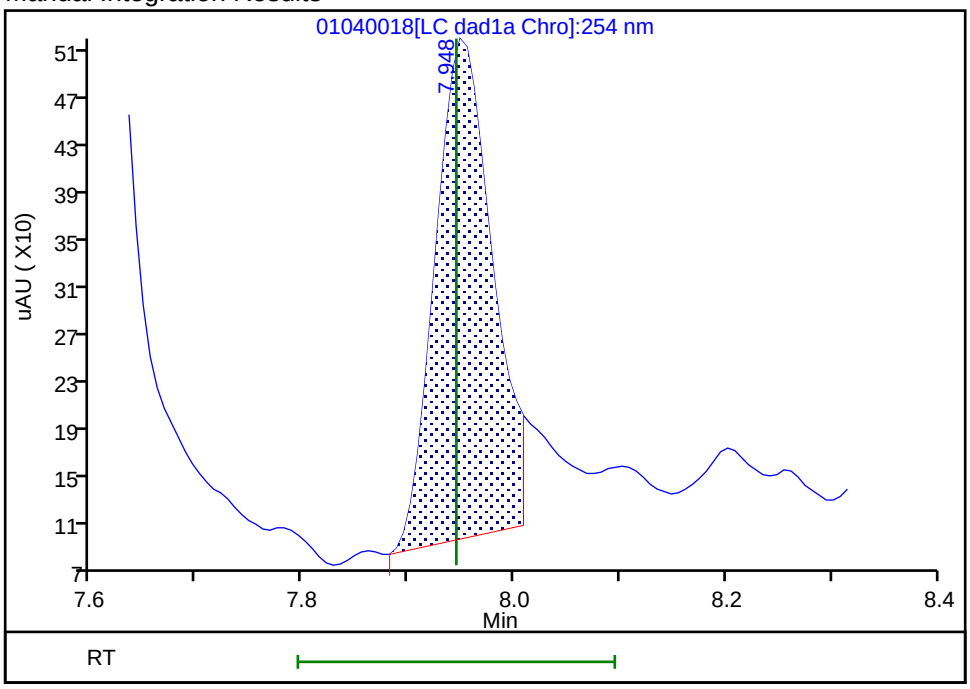
Processing Integration Results

RT: 7.95
Area: 1744
Amount: 0.022332
Amount Units: ug/mL



Manual Integration Results

RT: 7.95
Area: 1554
Amount: 0.020172
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:02:02
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

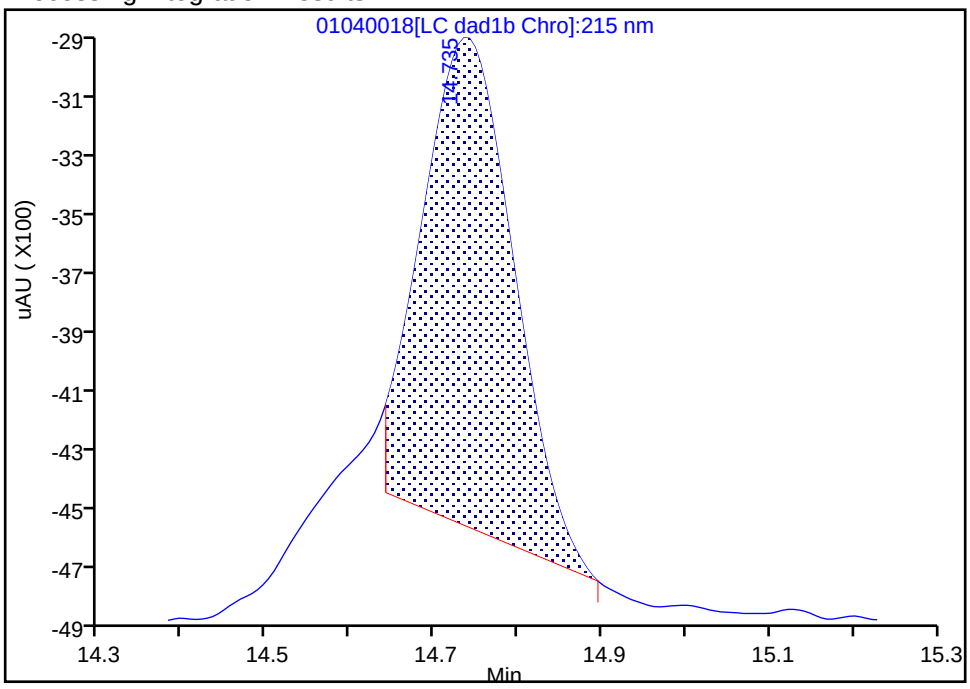
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040018.d
Injection Date: 04-Jan-2022 21:08:26 Instrument ID: CHHPLC_X3
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

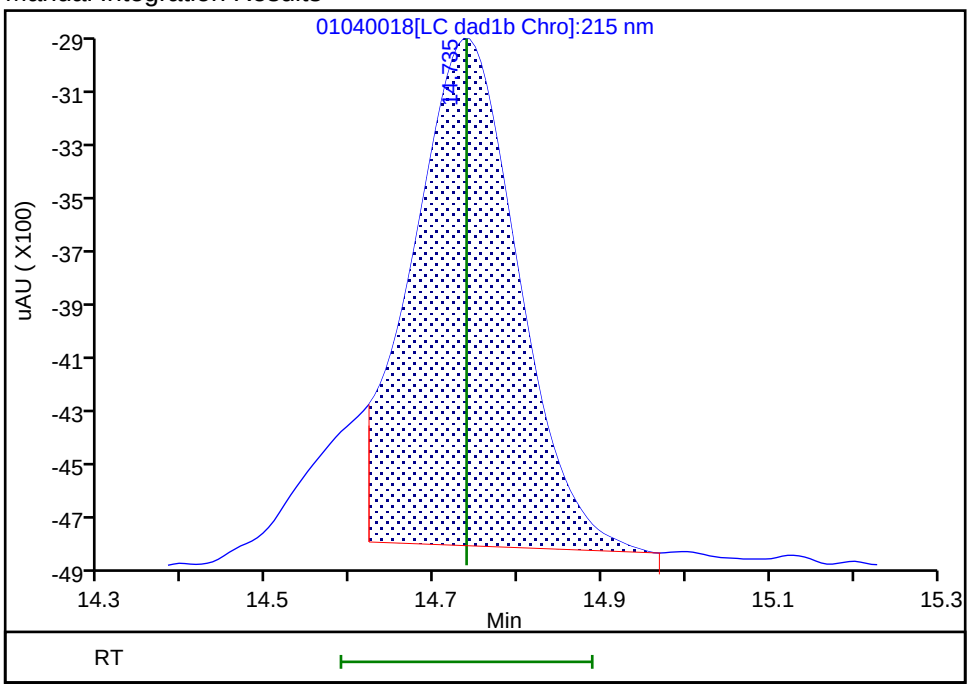
Processing Integration Results

RT: 14.73
Area: 11890
Amount: 0.166241
Amount Units: ug/mL



Manual Integration Results

RT: 14.73
Area: 15705
Amount: 0.197419
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:01:38
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040019.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 04-Jan-2022 21:31:24 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 1
Misc. Info.: 280-0107731-019
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:14 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 06-Jan-2022 20:05:03

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.601	6.598	0.003	901	0.0100	0.0107	M
8 RDX	1	7.601	7.605	-0.004	1152	0.0100	0.0111	M
9 2,4,6-Trinitrophenol	1	7.941	7.945	-0.004	716	0.0100	0.009294	M
$ 10 1,2-Dinitrobenzene	1	8.561	8.572	-0.011	1188	0.0100	0.009527	
11 1,3,5-Trinitrobenzene	1	8.688	8.692	-0.004	2197	0.0100	0.0101	
12 1,3-Dinitrobenzene	1	9.321	9.331	-0.010	2633	0.0100	0.009130	
13 Nitrobenzene	1	9.714	9.725	-0.011	2067	0.0100	0.0108	
15 Tetryl	1	10.041	10.058	-0.017	1778	0.0100	0.0104	
16 Nitroglycerin	2	10.501	10.518	-0.017	6348	0.1000	0.1007	
17 2,4,6-Trinitrotoluene	1	10.954	10.971	-0.017	2126	0.0100	0.0105	M
18 4-Amino-2,6-dinitrotoluene	1	11.154	11.171	-0.017	1718	0.0100	0.0114	M
19 2-Amino-4,6-dinitrotoluene	1	11.408	11.425	-0.017	2287	0.0100	0.0113	M
20 2,6-Dinitrotoluene	1	11.581	11.598	-0.017	1551	0.0100	0.0108	M
21 2,4-Dinitrotoluene	1	11.748	11.765	-0.017	3047	0.0100	0.0105	M
22 o-Nitrotoluene	1	12.614	12.638	-0.024	1387	0.0100	0.0109	
23 p-Nitrotoluene	1	13.054	13.071	-0.017	1083	0.0100	0.0102	
24 m-Nitrotoluene	1	13.634	13.651	-0.017	1764	0.0100	0.0124	
25 PETN	2	14.708	14.738	-0.030	8784	0.1000	0.1020	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070 Amount Added: 1.00 Units: uL

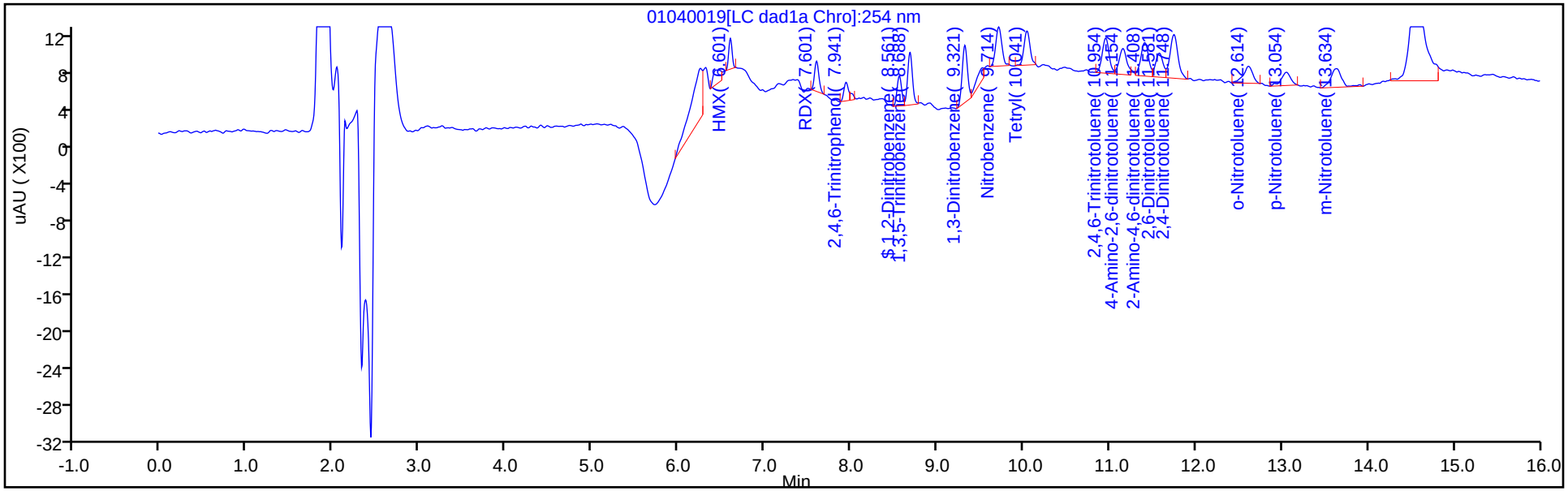
Report Date: 06-Jan-2022 20:05:14 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

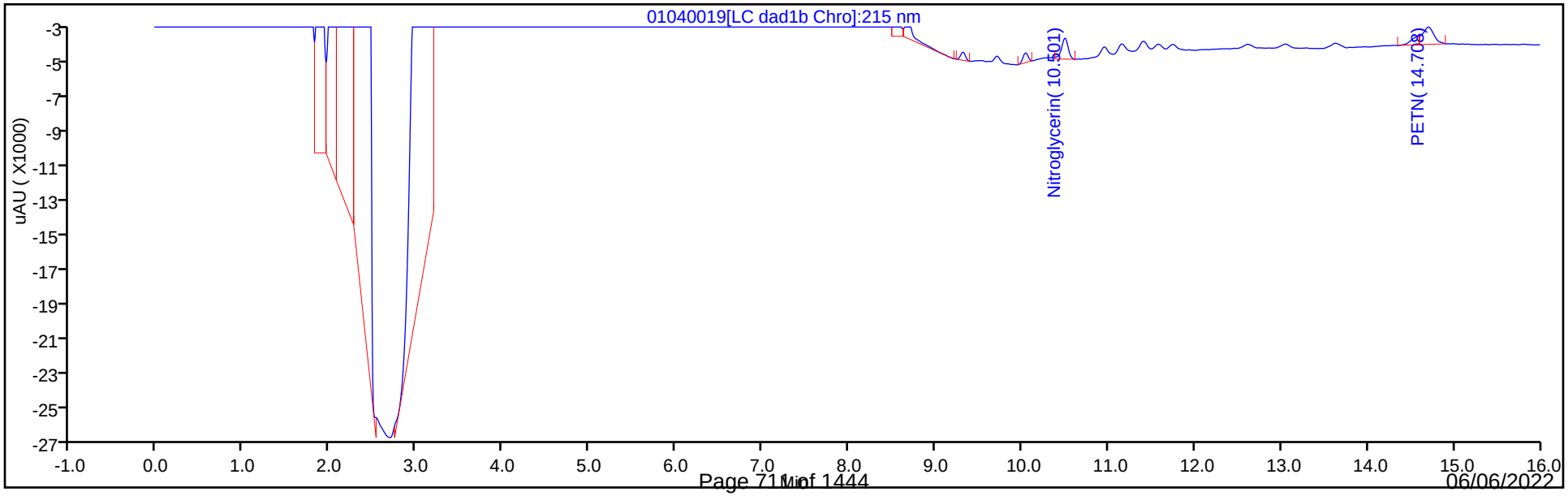
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d

Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 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



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



Eurofins TestAmerica, Denver

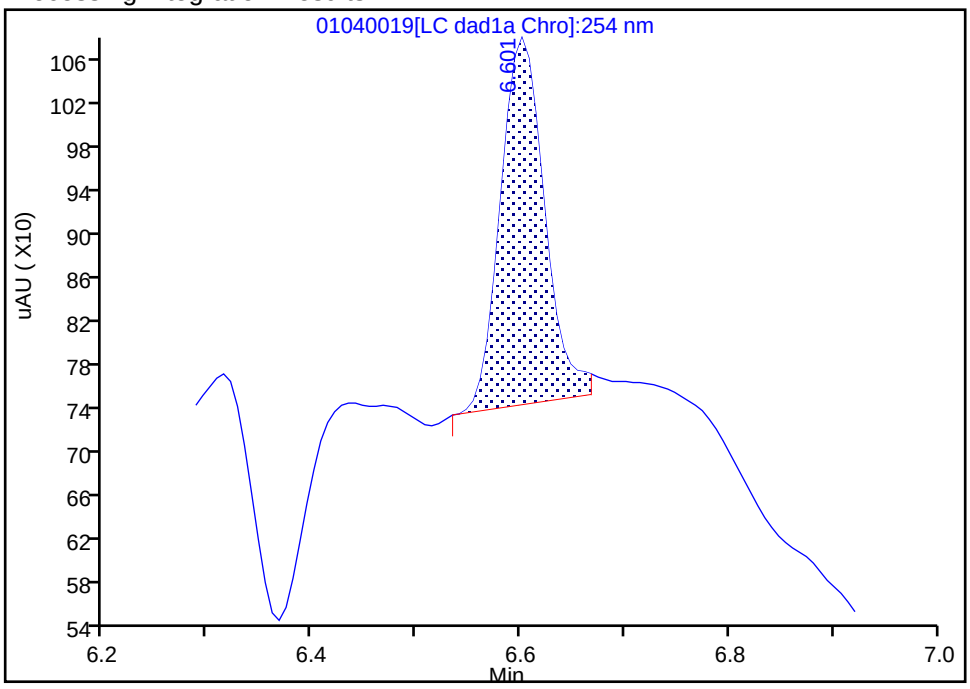
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

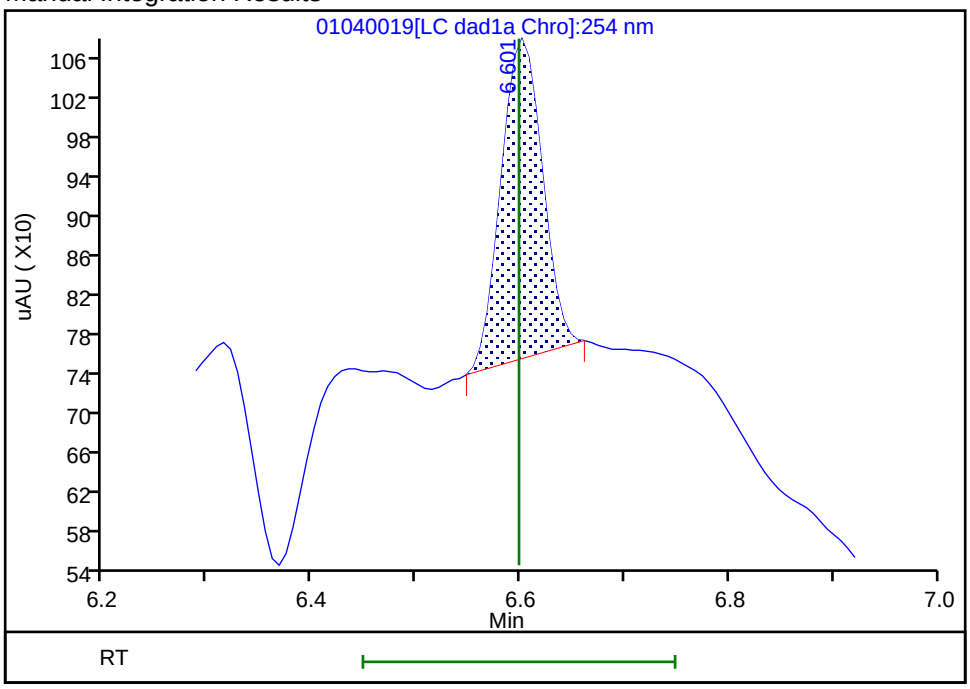
Processing Integration Results

RT: 6.60
Area: 995
Amount: 0.011724
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 901
Amount: 0.010748
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 11:59:58
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

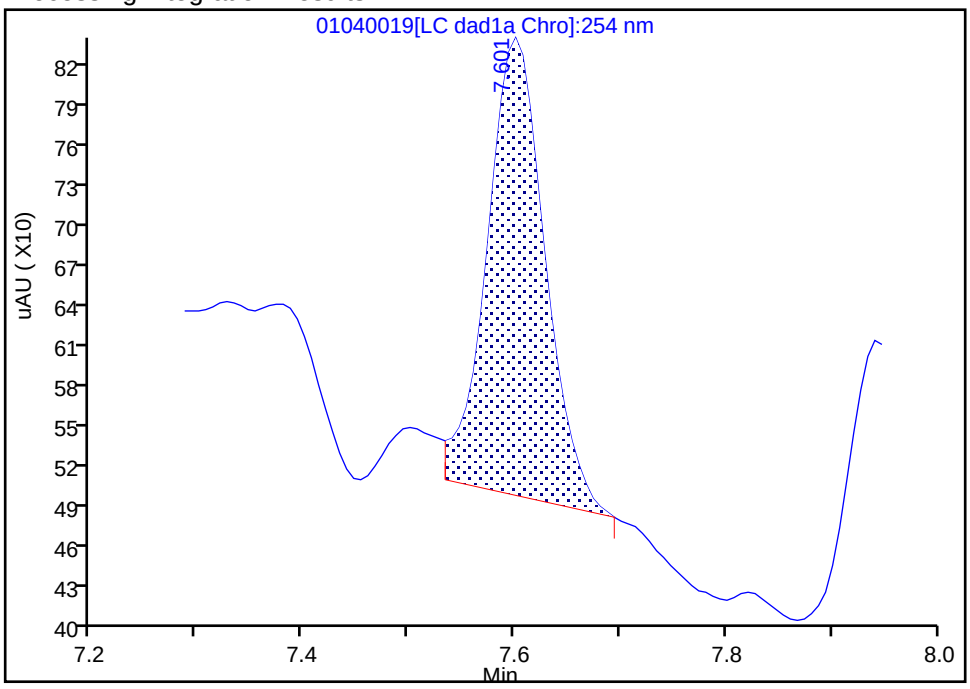
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

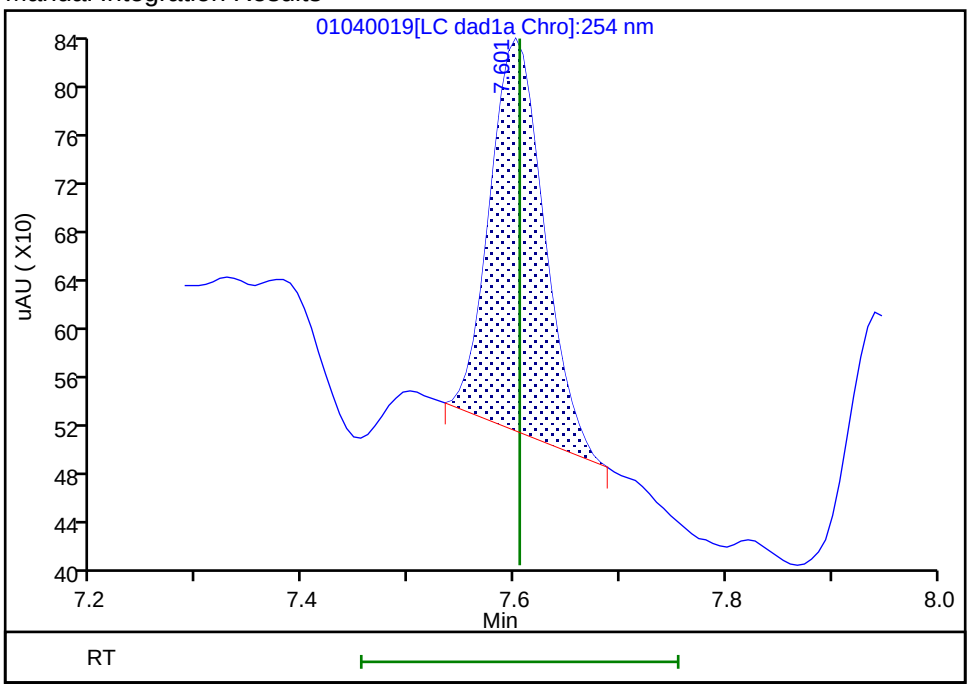
Processing Integration Results

RT: 7.60
Area: 1299
Amount: 0.011974
Amount Units: ug/mL



Manual Integration Results

RT: 7.60
Area: 1152
Amount: 0.011119
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:04
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

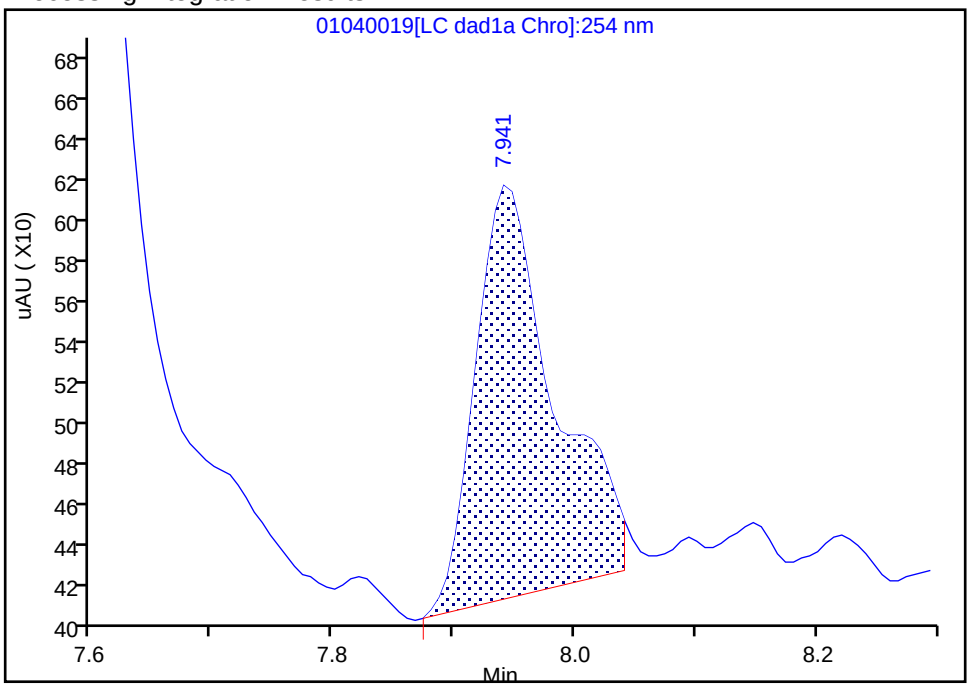
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

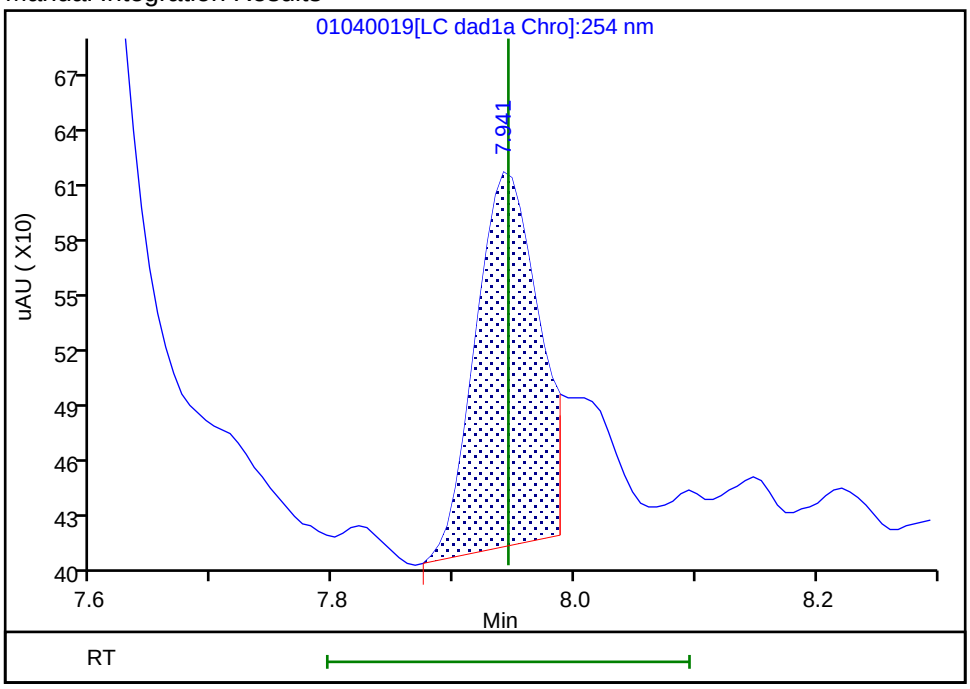
Processing Integration Results

RT: 7.94
Area: 903
Amount: 0.011263
Amount Units: ug/mL



Manual Integration Results

RT: 7.94
Area: 716
Amount: 0.009294
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:13
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

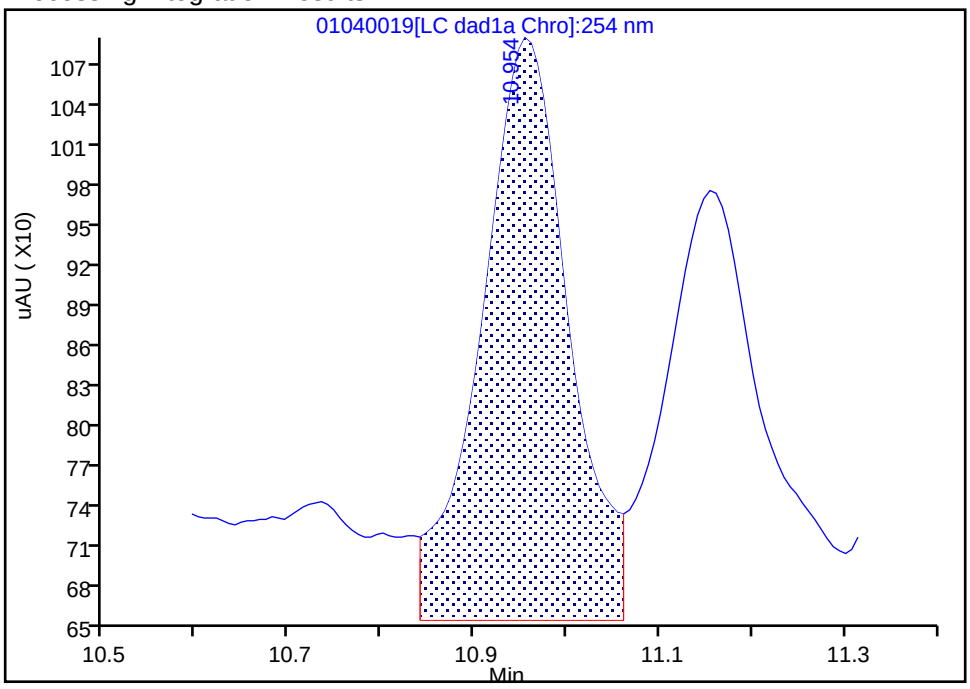
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

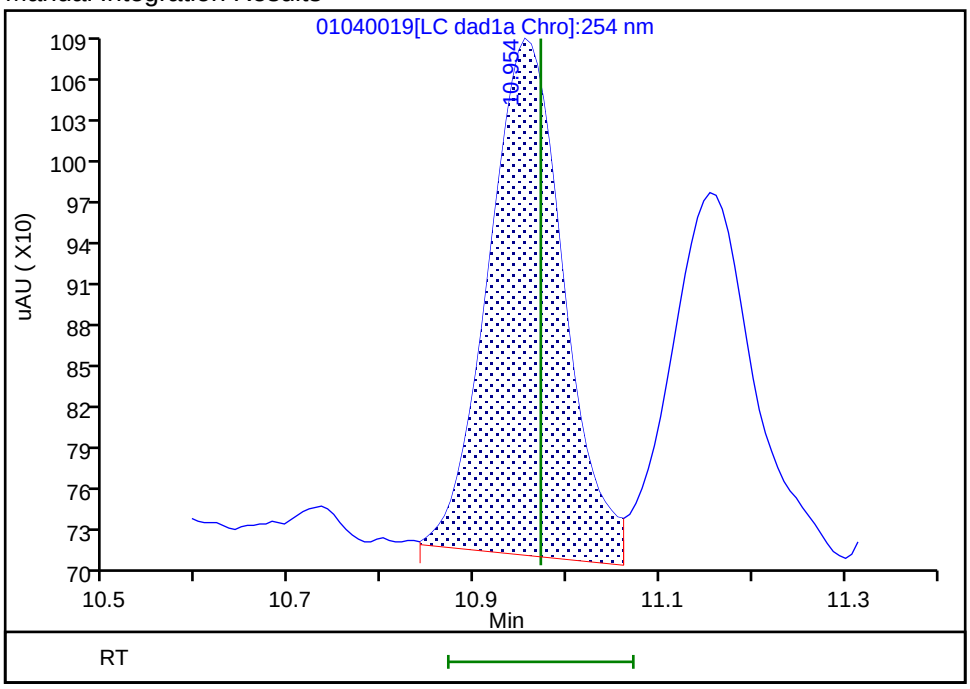
Processing Integration Results

RT: 10.95
Area: 2806
Amount: 0.013346
Amount Units: ug/mL



Manual Integration Results

RT: 10.95
Area: 2126
Amount: 0.010487
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

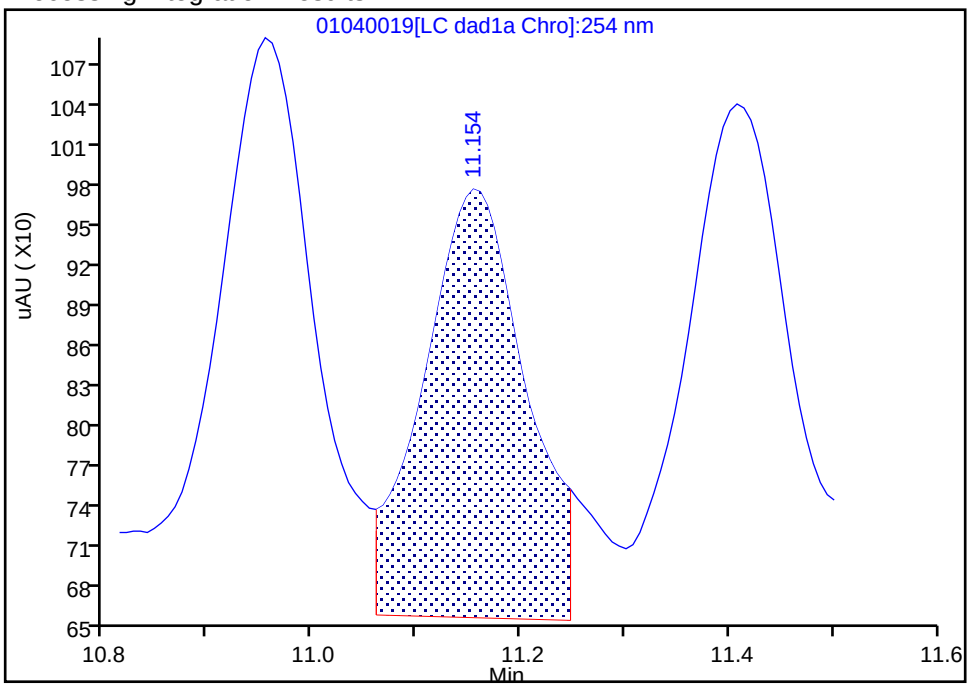
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

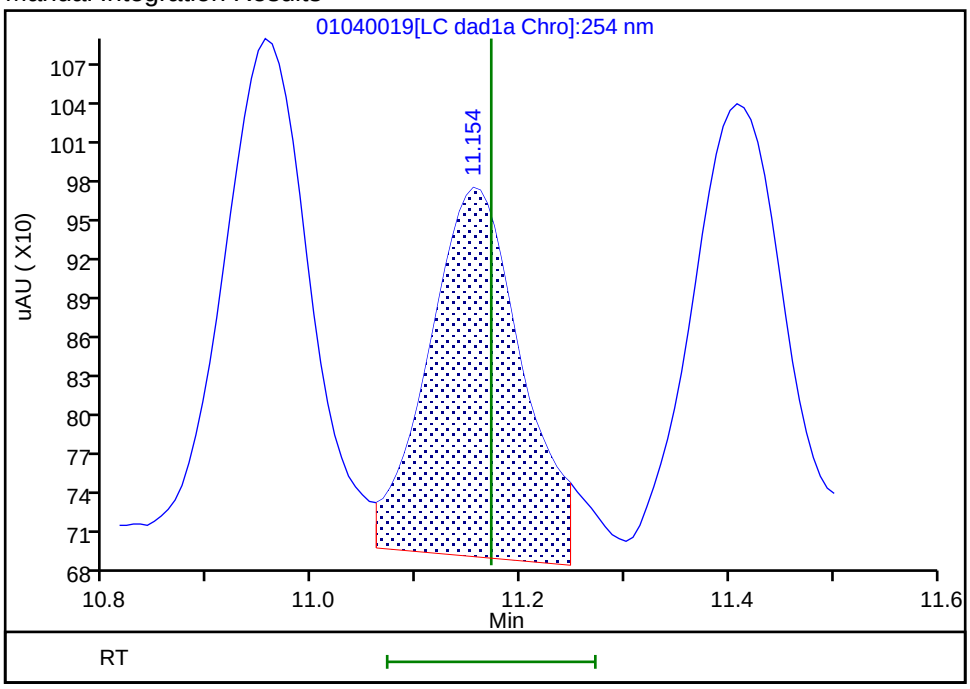
Processing Integration Results

RT: 11.15
Area: 2160
Amount: 0.013856
Amount Units: ug/mL



Manual Integration Results

RT: 11.15
Area: 1718
Amount: 0.011379
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

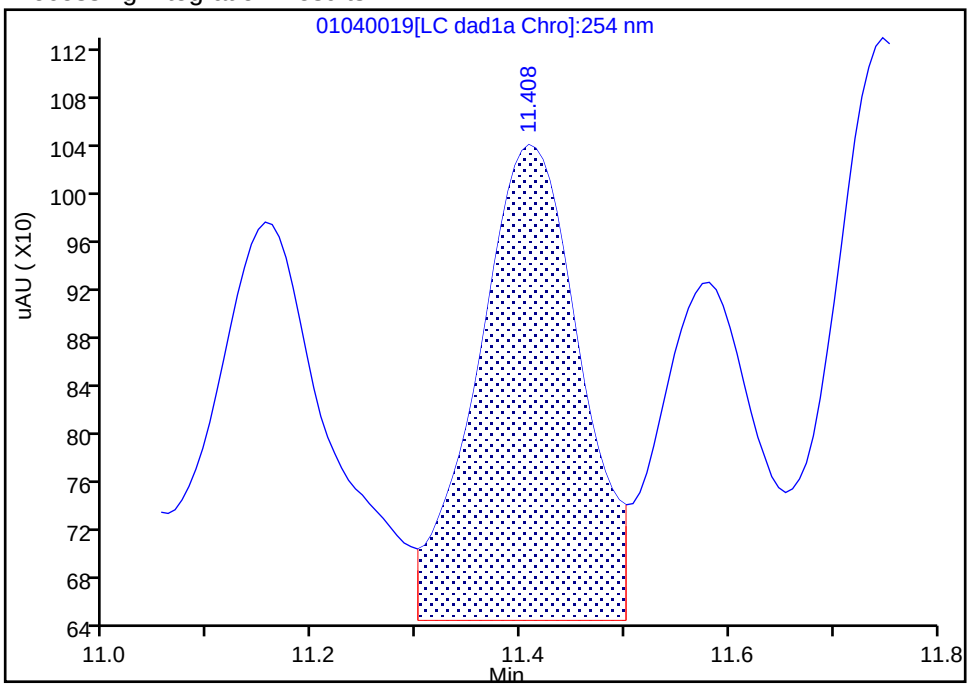
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

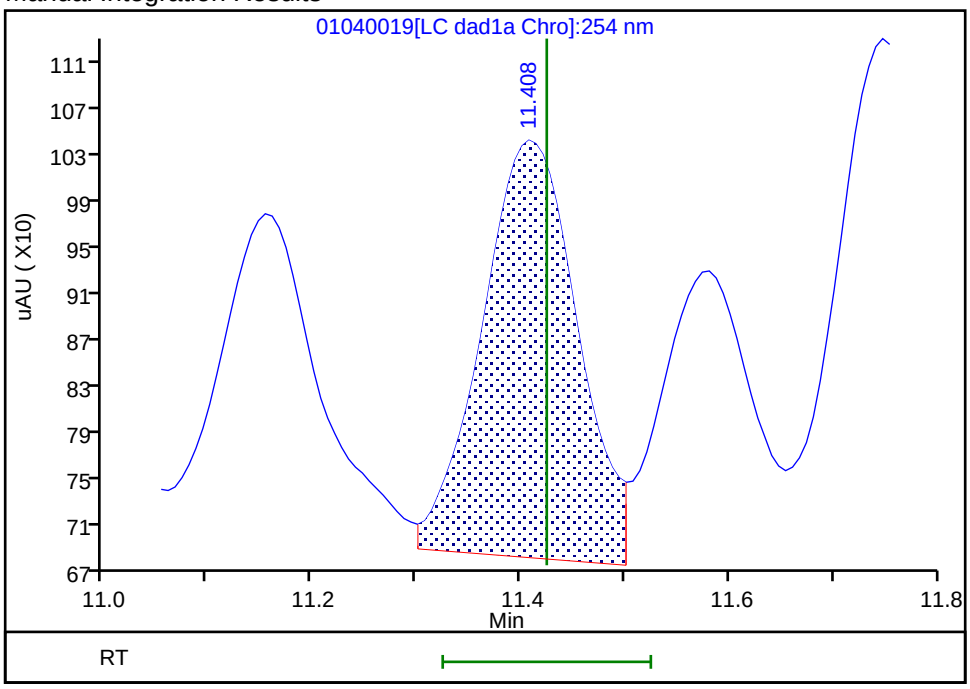
Processing Integration Results

RT: 11.41
Area: 2647
Amount: 0.012840
Amount Units: ug/mL



Manual Integration Results

RT: 11.41
Area: 2287
Amount: 0.011312
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

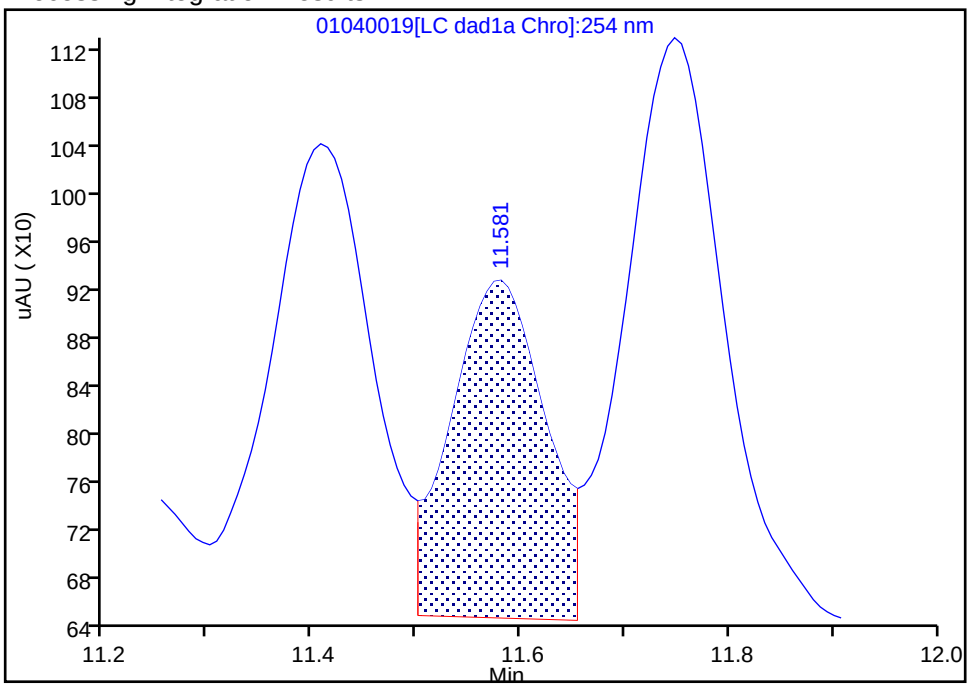
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

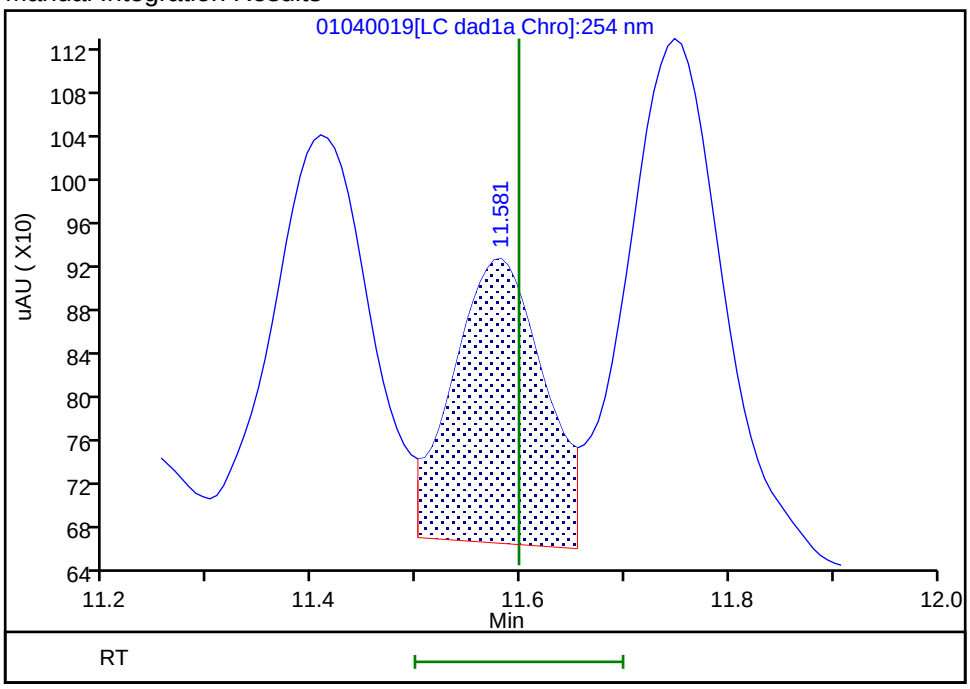
Processing Integration Results

RT: 11.58
Area: 1735
Amount: 0.011953
Amount Units: ug/mL



Manual Integration Results

RT: 11.58
Area: 1551
Amount: 0.010837
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

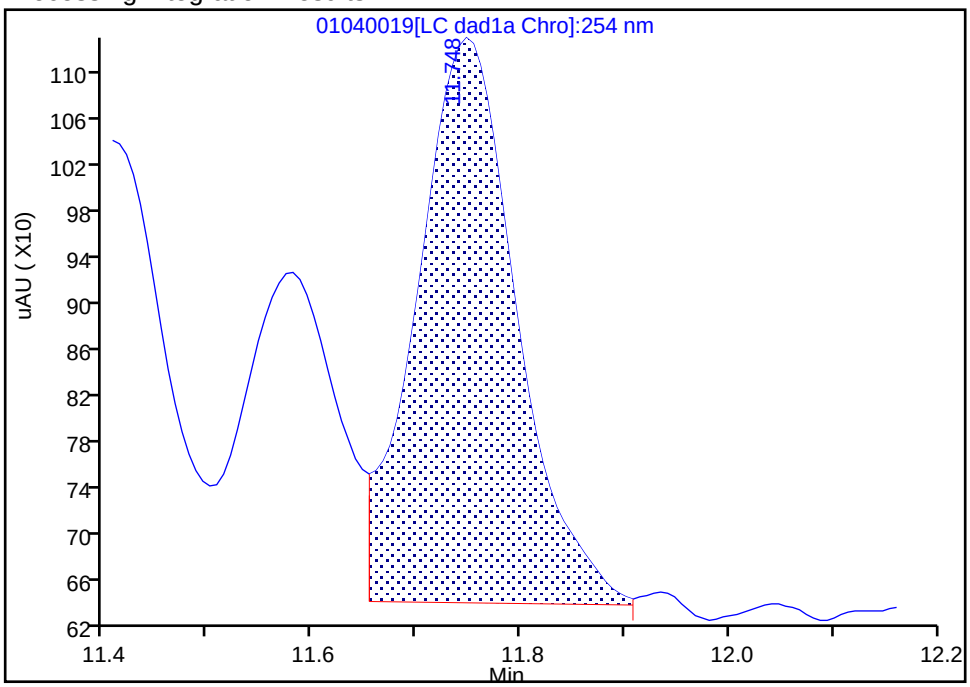
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

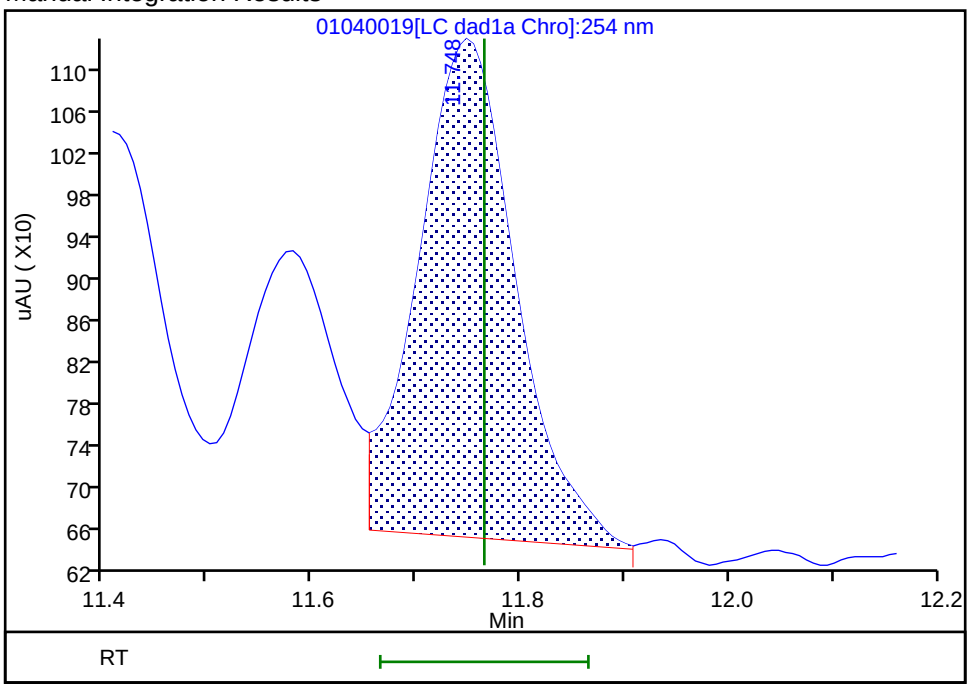
Processing Integration Results

RT: 11.75
Area: 3191
Amount: 0.010968
Amount Units: ug/mL



Manual Integration Results

RT: 11.75
Area: 3047
Amount: 0.010530
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:35

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

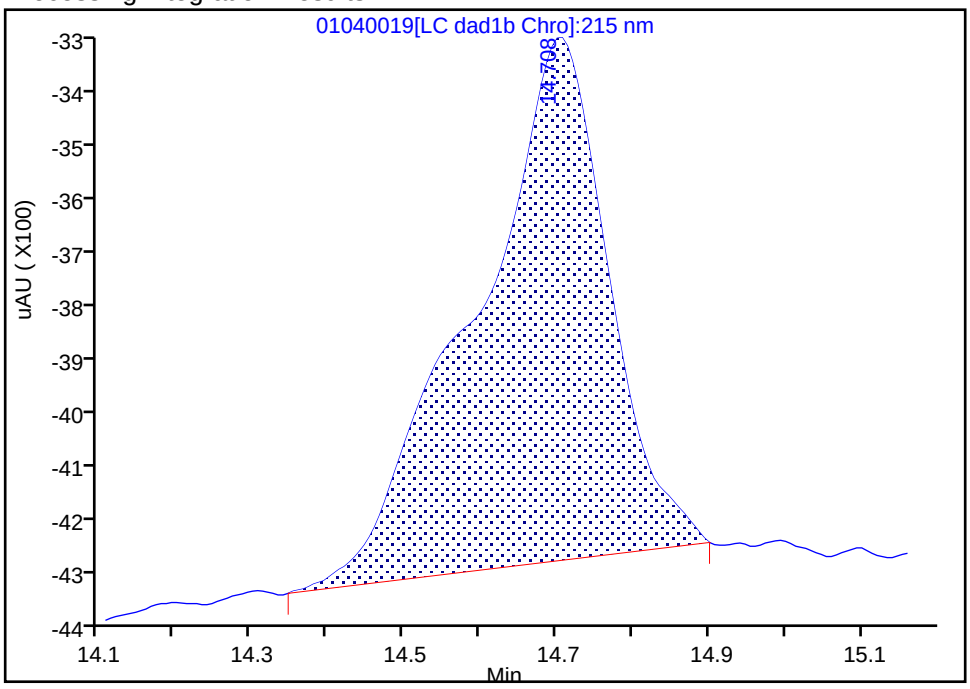
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d
Injection Date: 04-Jan-2022 21:31:24 Instrument ID: CHHPLC_X3
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

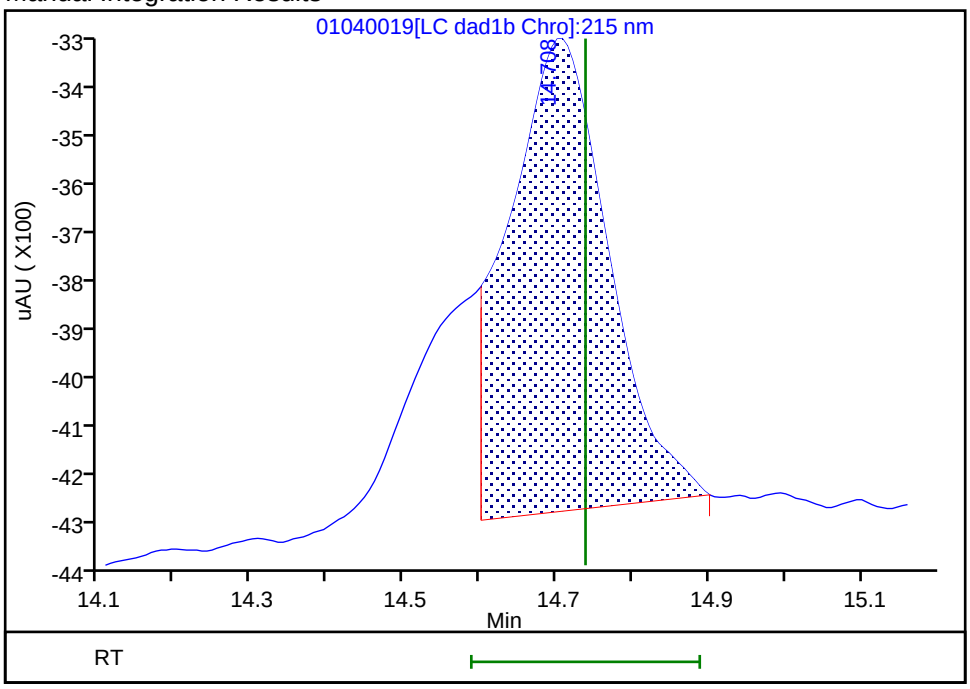
Processing Integration Results

RT: 14.71
Area: 11771
Amount: 0.142232
Amount Units: ug/mL



Manual Integration Results

RT: 14.71
Area: 8784
Amount: 0.102016
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:58
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Calibration / HMX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

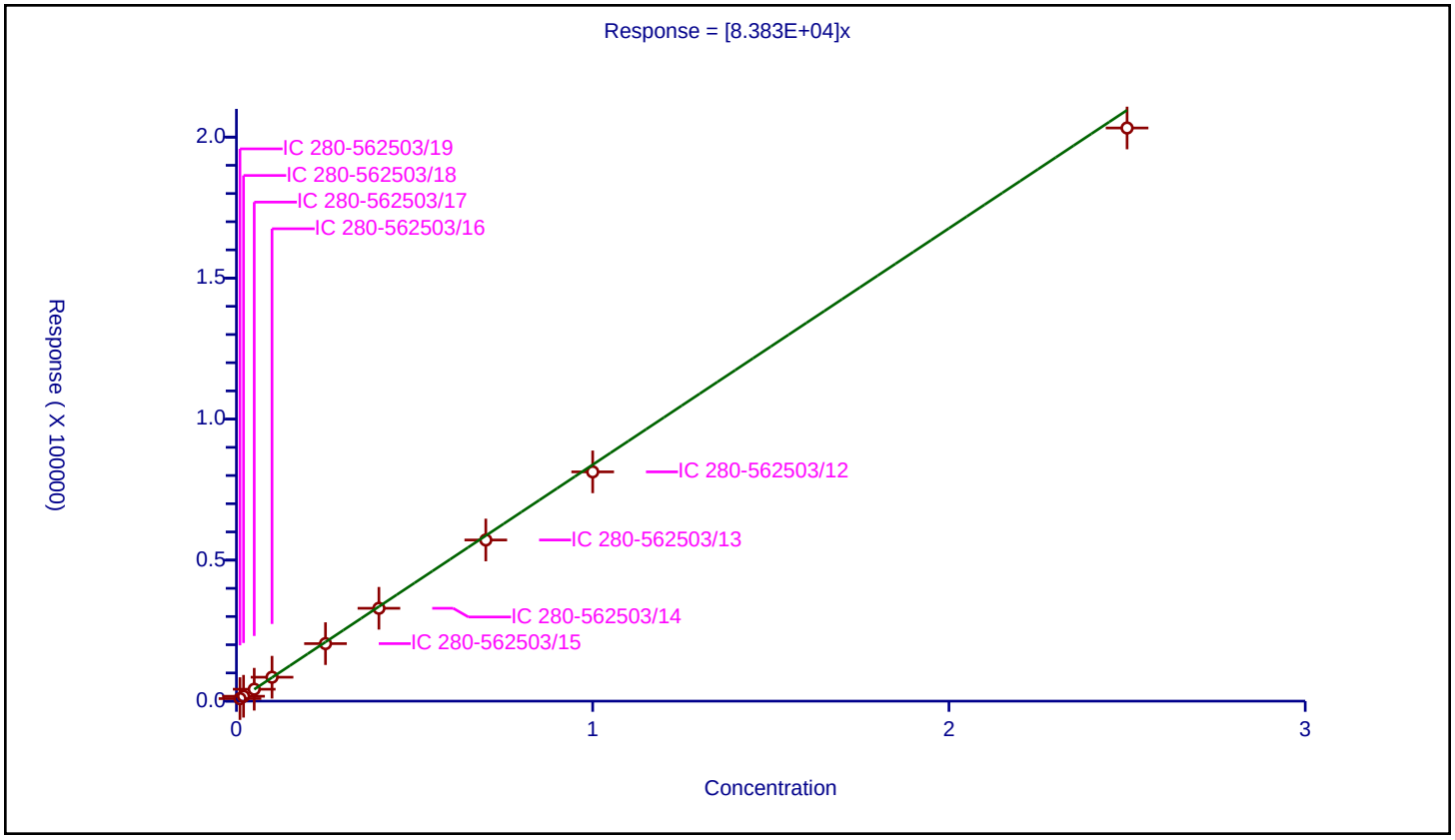
Curve Coefficients

Intercept:	0
Slope:	8.383E+04

Error Coefficients

Standard Error:	2490
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01	901.0			90100.0	Y
2	IC 280-562503/18	0.02	1735.0			86750.0	Y
3	IC 280-562503/17	0.05	4230.0			84600.0	Y
4	IC 280-562503/16	0.1	8489.0			84890.0	Y
5	IC 280-562503/15	0.25	20395.0			81580.0	Y
6	IC 280-562503/14	0.4	32925.0			82312.5	Y
7	IC 280-562503/13	0.7	57138.0			81625.714286	Y
8	IC 280-562503/12	1.0	81295.0			81295.0	Y
9	IC 280-562503/11	2.5	203229.0			81291.6	Y



Calibration / RDX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

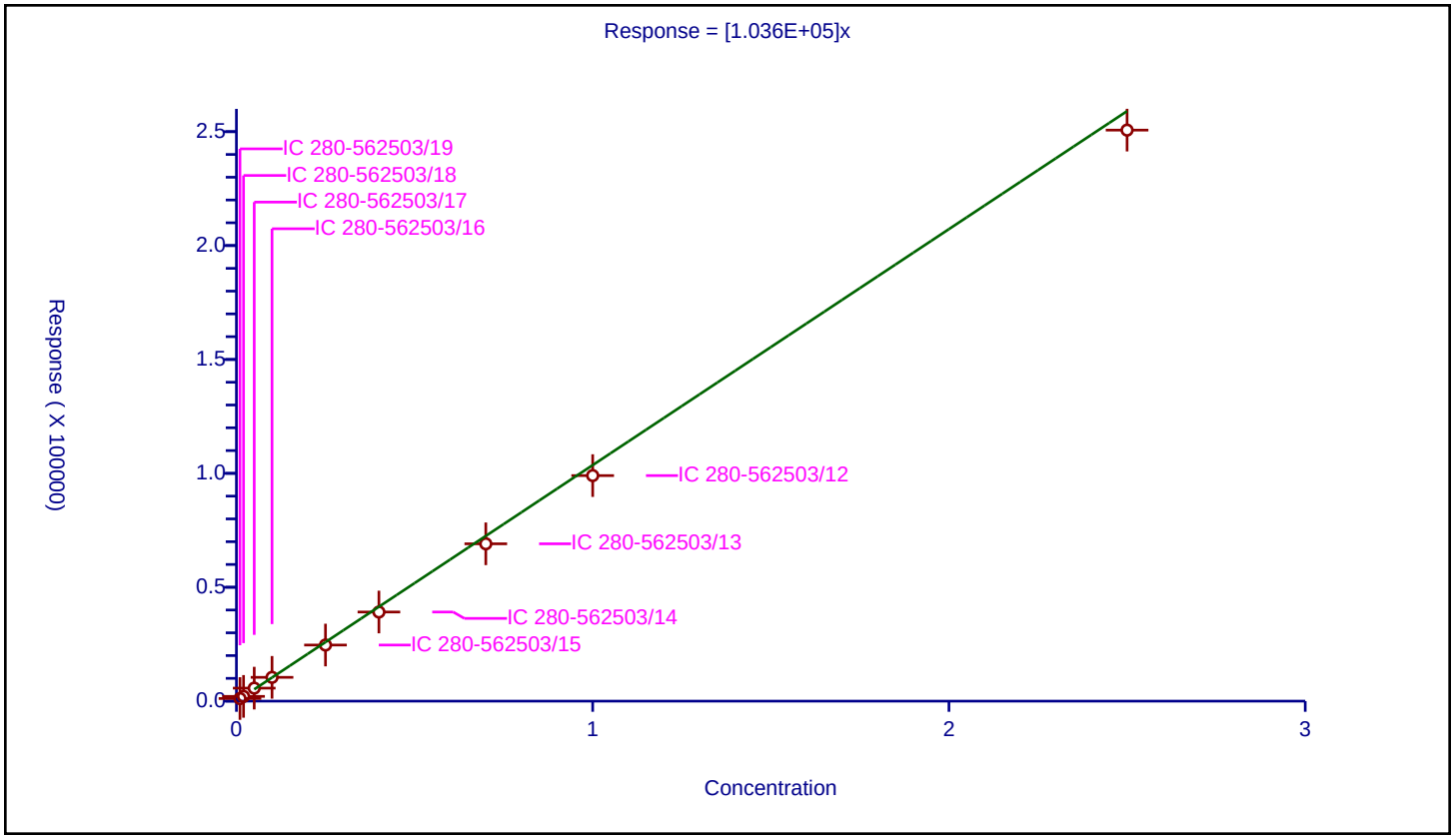
Curve Coefficients

Intercept:	0
Slope:	1.036E+05

Error Coefficients

Standard Error:	3710
Relative Standard Error:	6.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01	1152.0			115200.0	Y
2	IC 280-562503/18	0.02	2084.0			104200.0	Y
3	IC 280-562503/17	0.05	5715.0			114300.0	Y
4	IC 280-562503/16	0.1	10447.0			104470.0	Y
5	IC 280-562503/15	0.25	24635.0			98540.0	Y
6	IC 280-562503/14	0.4	39126.0			97815.0	Y
7	IC 280-562503/13	0.7	69068.0			98668.571429	Y
8	IC 280-562503/12	1.0	99016.0			99016.0	Y
9	IC 280-562503/11	2.5	250683.0			100273.2	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

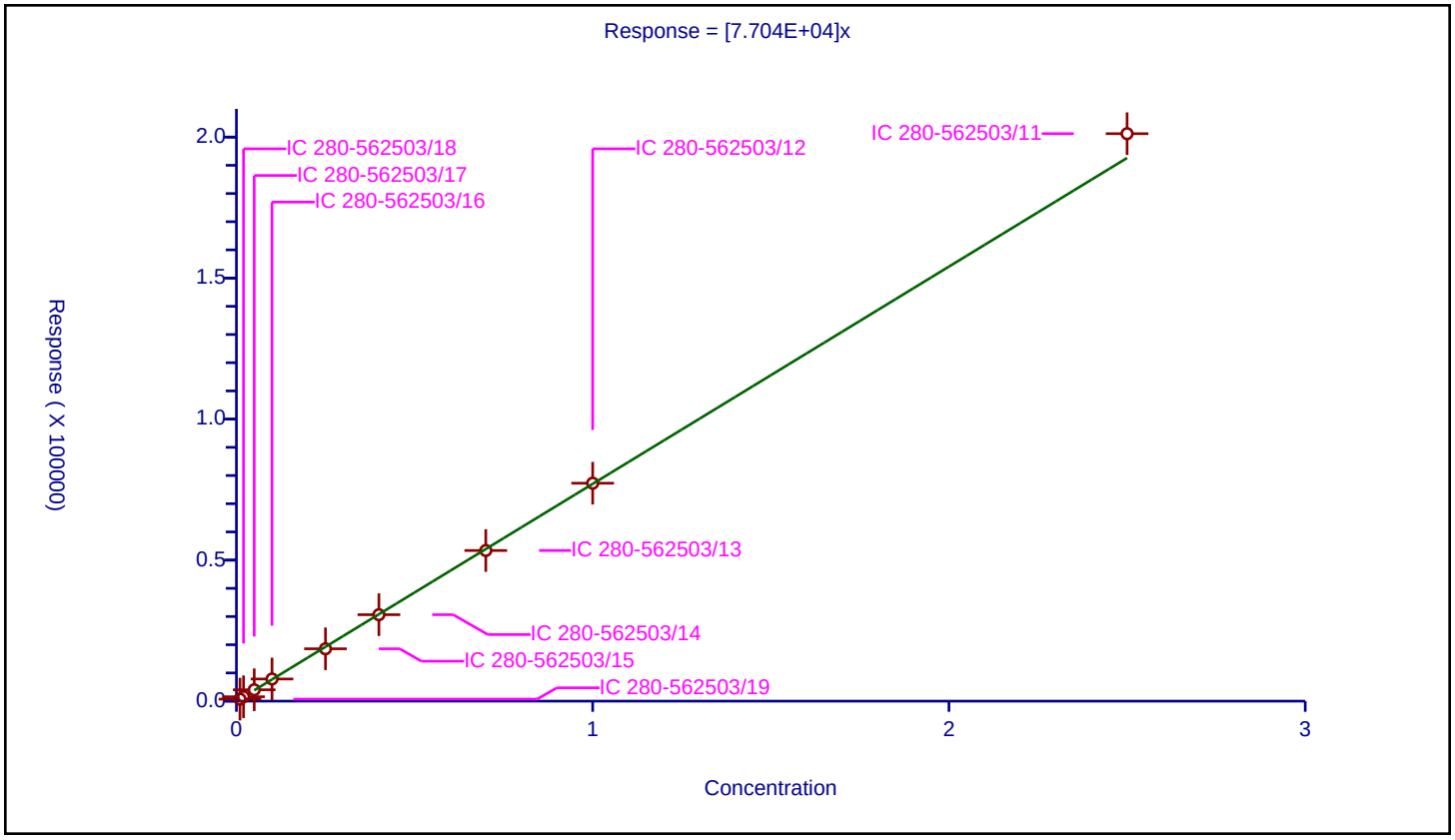
Curve Coefficients

Intercept:	0
Slope:	7.704E+04

Error Coefficients

Standard Error:	3060
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01	716.0			71600.0	Y
2	IC 280-562503/18	0.02	1554.0			77700.0	Y
3	IC 280-562503/17	0.05	4029.0			80580.0	Y
4	IC 280-562503/16	0.1	7855.0			78550.0	Y
5	IC 280-562503/15	0.25	18560.0			74240.0	Y
6	IC 280-562503/14	0.4	30649.0			76622.5	Y
7	IC 280-562503/13	0.7	53408.0			76297.142857	Y
8	IC 280-562503/12	1.0	77279.0			77279.0	Y
9	IC 280-562503/11	2.5	201210.0			80484.0	Y



Calibration / 1,2-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

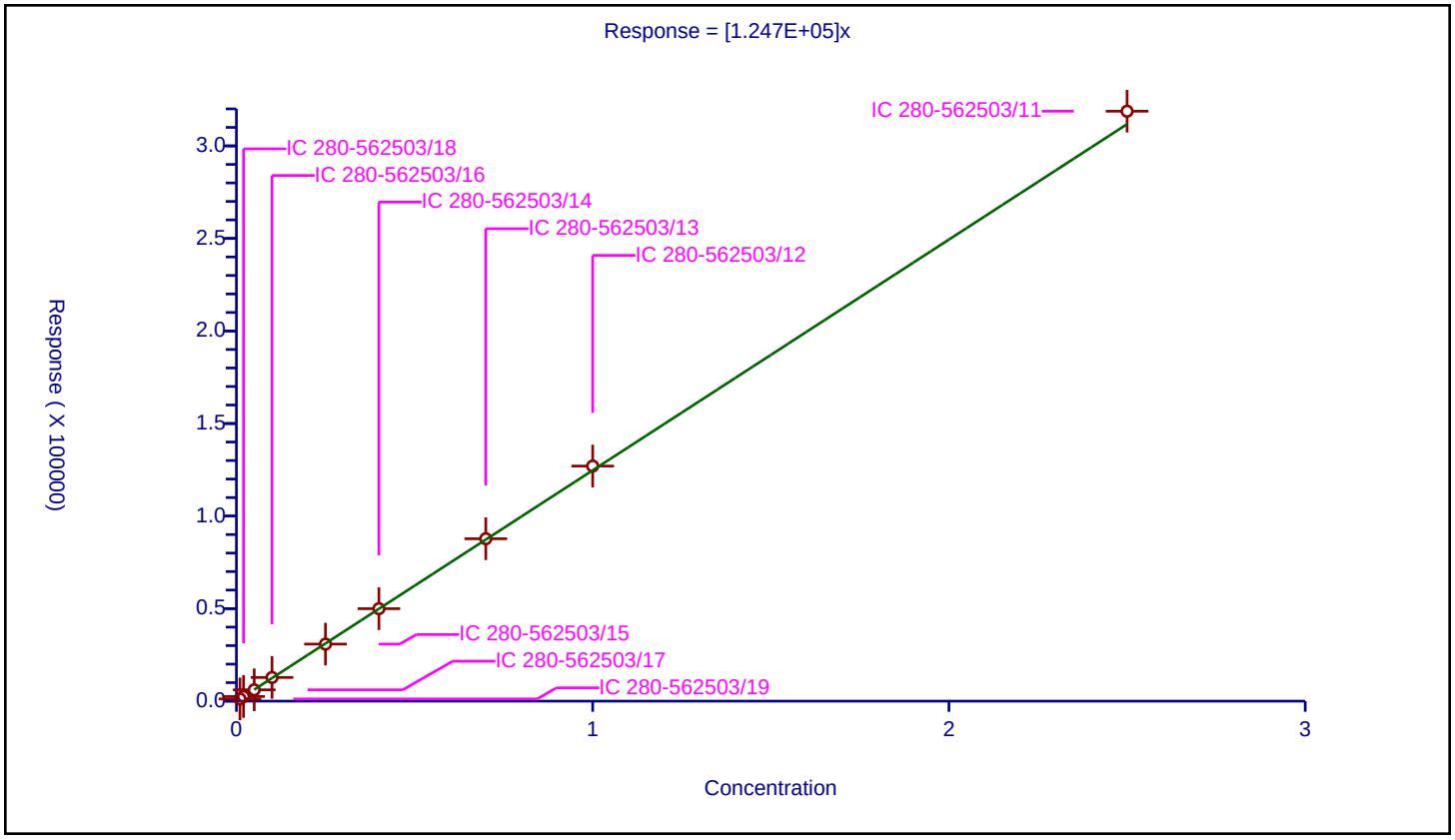
Curve Coefficients

Intercept:	0
Slope:	1.247E+05

Error Coefficients

Standard Error:	2620
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01	1188.0			118800.0	Y
2	IC 280-562503/18	0.02	2503.0			125150.0	Y
3	IC 280-562503/17	0.05	6127.0			122540.0	Y
4	IC 280-562503/16	0.1	12780.0			127800.0	Y
5	IC 280-562503/15	0.25	30811.0			123244.0	Y
6	IC 280-562503/14	0.4	49955.0			124887.5	Y
7	IC 280-562503/13	0.7	87746.0			125351.428571	Y
8	IC 280-562503/12	1.0	127011.0			127011.0	Y
9	IC 280-562503/11	2.5	318738.0			127495.2	Y



Calibration / 1,3,5-Trinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

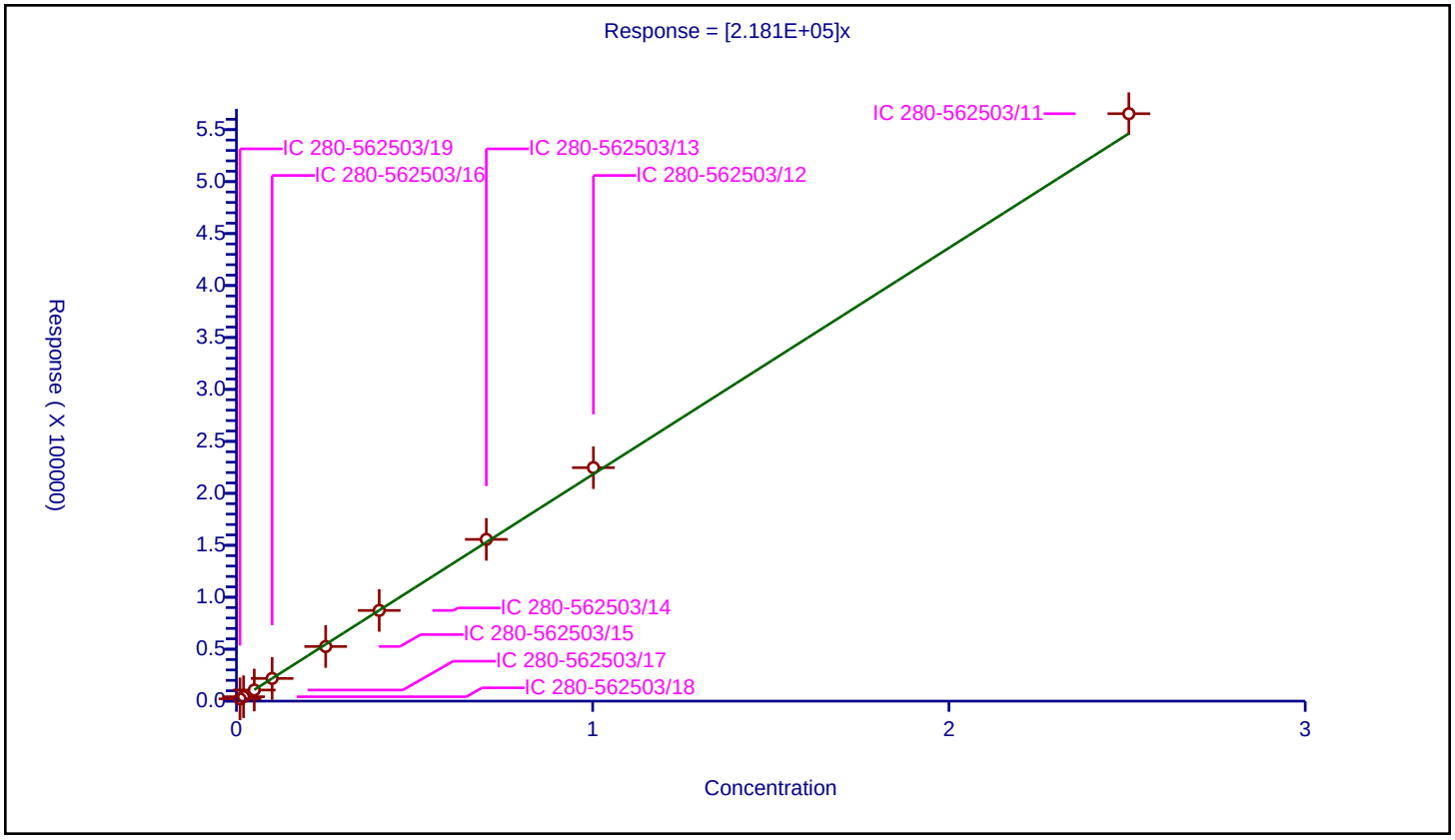
Curve Coefficients

Intercept:	0
Slope:	2.181E+05

Error Coefficients

Standard Error:	7180
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 280-562503/19	0.01002	2197.0			219261.477046	Y
2	IC 280-562503/18	0.02004	4249.0			212025.948104	Y
3	IC 280-562503/17	0.0501	10711.0			213792.41517	Y
4	IC 280-562503/16	0.1002	21856.0			218123.752495	Y
5	IC 280-562503/15	0.2505	52589.0			209936.127745	Y
6	IC 280-562503/14	0.4008	87295.0			217801.896208	Y
7	IC 280-562503/13	0.7014	155681.0			221957.513544	Y
8	IC 280-562503/12	1.002	224711.0			224262.47505	Y
9	IC 280-562503/11	2.505	565374.0			225698.203593	Y



Calibration / 1,3-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

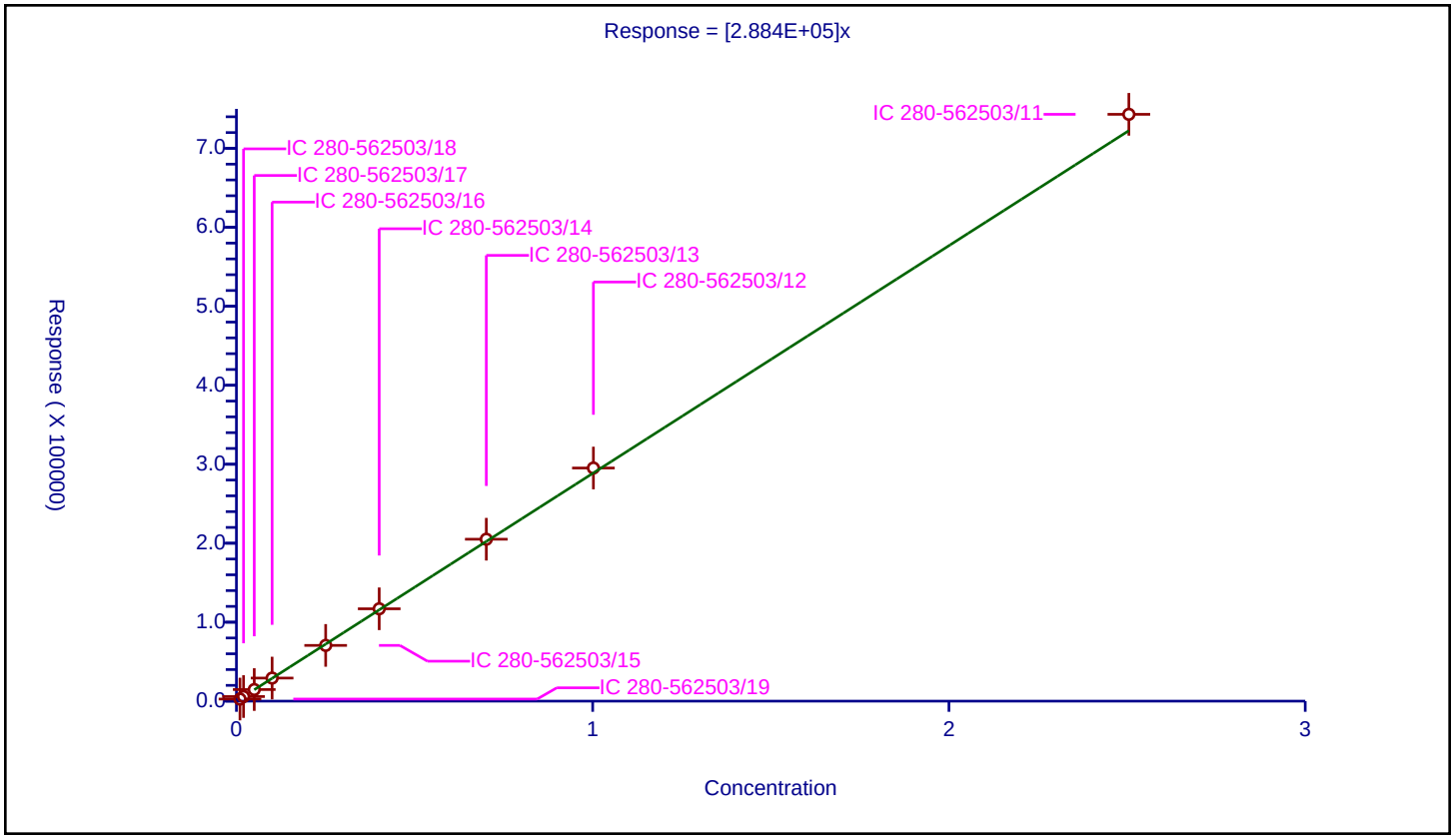
Curve Coefficients

Intercept:	0
Slope:	2.884E+05

Error Coefficients

Standard Error:	7740
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01002	2633.0			262774.451098	Y
2	IC 280-562503/18	0.02004	5833.0			291067.864271	Y
3	IC 280-562503/17	0.0501	14683.0			293073.852295	Y
4	IC 280-562503/16	0.1002	29215.0			291566.866267	Y
5	IC 280-562503/15	0.2505	70569.0			281712.57485	Y
6	IC 280-562503/14	0.4008	116963.0			291823.852295	Y
7	IC 280-562503/13	0.7014	205039.0			292328.200741	Y
8	IC 280-562503/12	1.002	295195.0			294605.788423	Y
9	IC 280-562503/11	2.505	743133.0			296659.88024	Y



Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

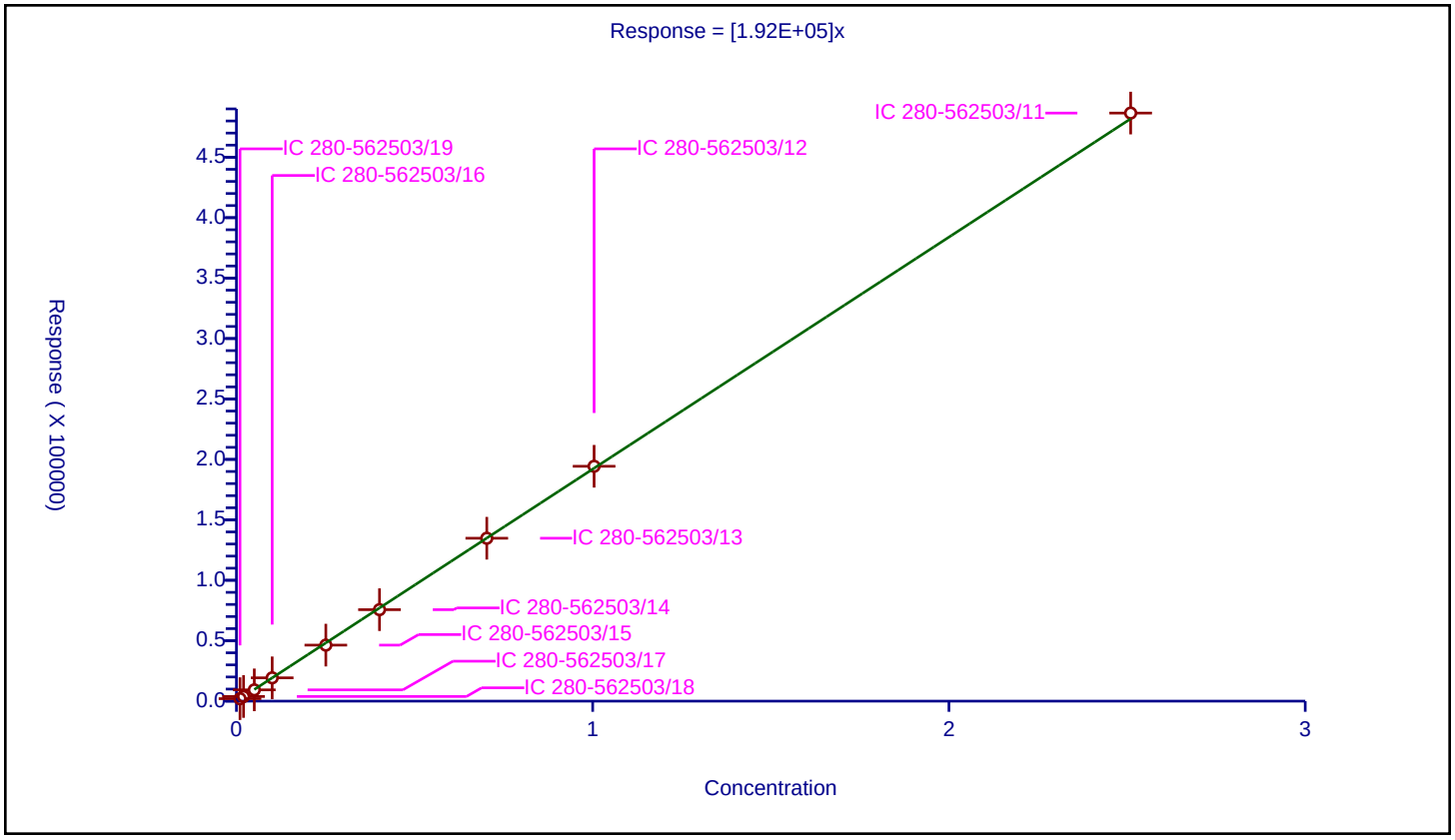
Curve Coefficients

Intercept:	0
Slope:	1.92E+05

Error Coefficients

Standard Error:	1950
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01004	2067.0			205876.494024	Y
2	IC 280-562503/18	0.02008	3845.0			191484.063745	Y
3	IC 280-562503/17	0.0502	9329.0			185836.653386	Y
4	IC 280-562503/16	0.1004	19287.0			192101.593625	Y
5	IC 280-562503/15	0.251	46348.0			184653.386454	Y
6	IC 280-562503/14	0.4016	75688.0			188466.135458	Y
7	IC 280-562503/13	0.7028	134777.0			191771.485487	Y
8	IC 280-562503/12	1.004	194325.0			193550.796813	Y
9	IC 280-562503/11	2.51	486534.0			193838.247012	Y



Calibration / Tetryl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

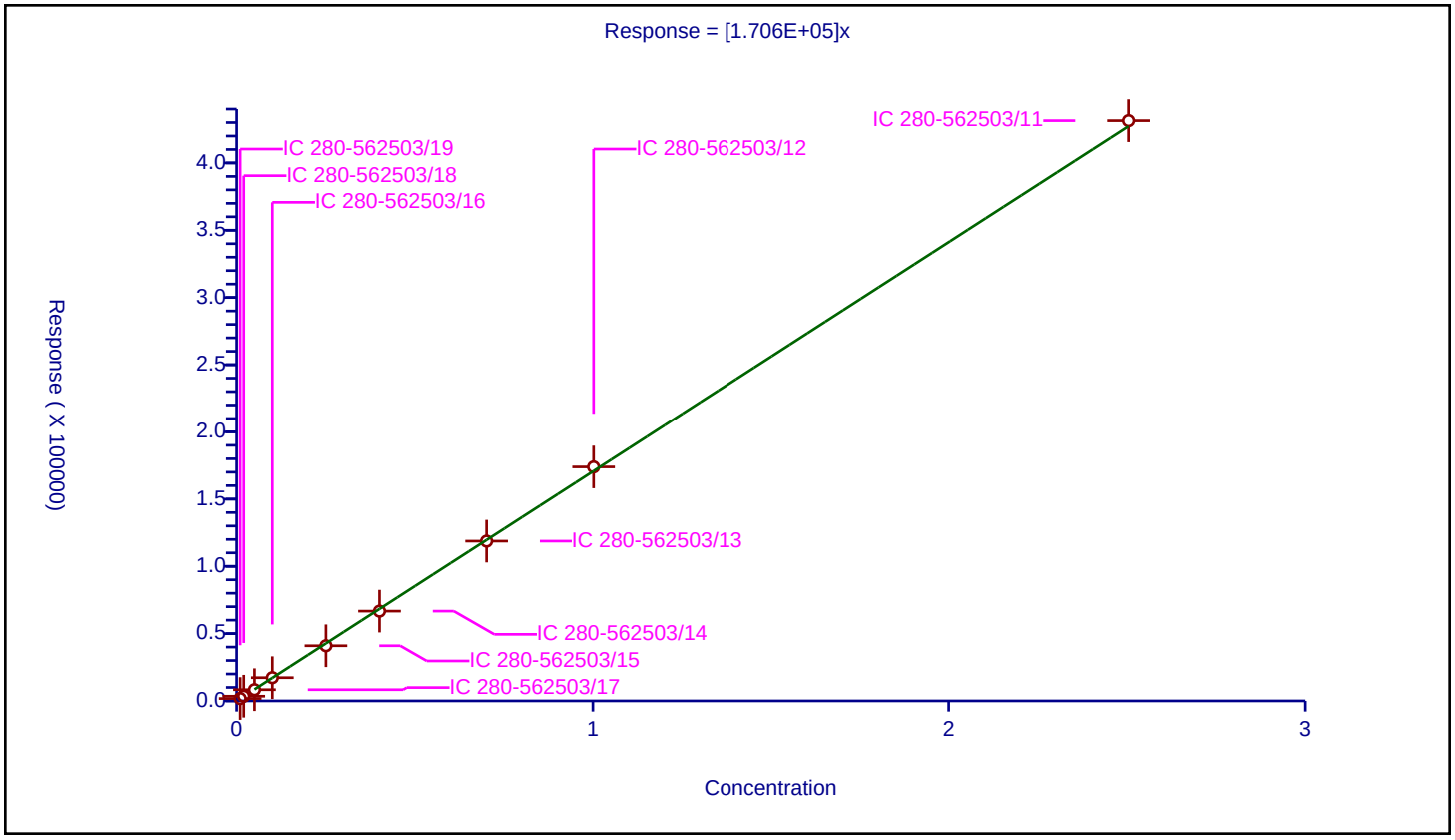
Curve Coefficients

Intercept:	0
Slope:	1.706E+05

Error Coefficients

Standard Error:	2030
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 280-562503/19	0.01002	1778.0			177445.10978	Y
2	IC 280-562503/18	0.02004	3498.0			174550.898204	Y
3	IC 280-562503/17	0.0501	8315.0			165968.063872	Y
4	IC 280-562503/16	0.1002	17238.0			172035.928144	Y
5	IC 280-562503/15	0.2505	40968.0			163544.91018	Y
6	IC 280-562503/14	0.4008	66706.0			166432.135729	Y
7	IC 280-562503/13	0.7014	118756.0			169312.802965	Y
8	IC 280-562503/12	1.002	173941.0			173593.812375	Y
9	IC 280-562503/11	2.505	431404.0			172217.165669	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

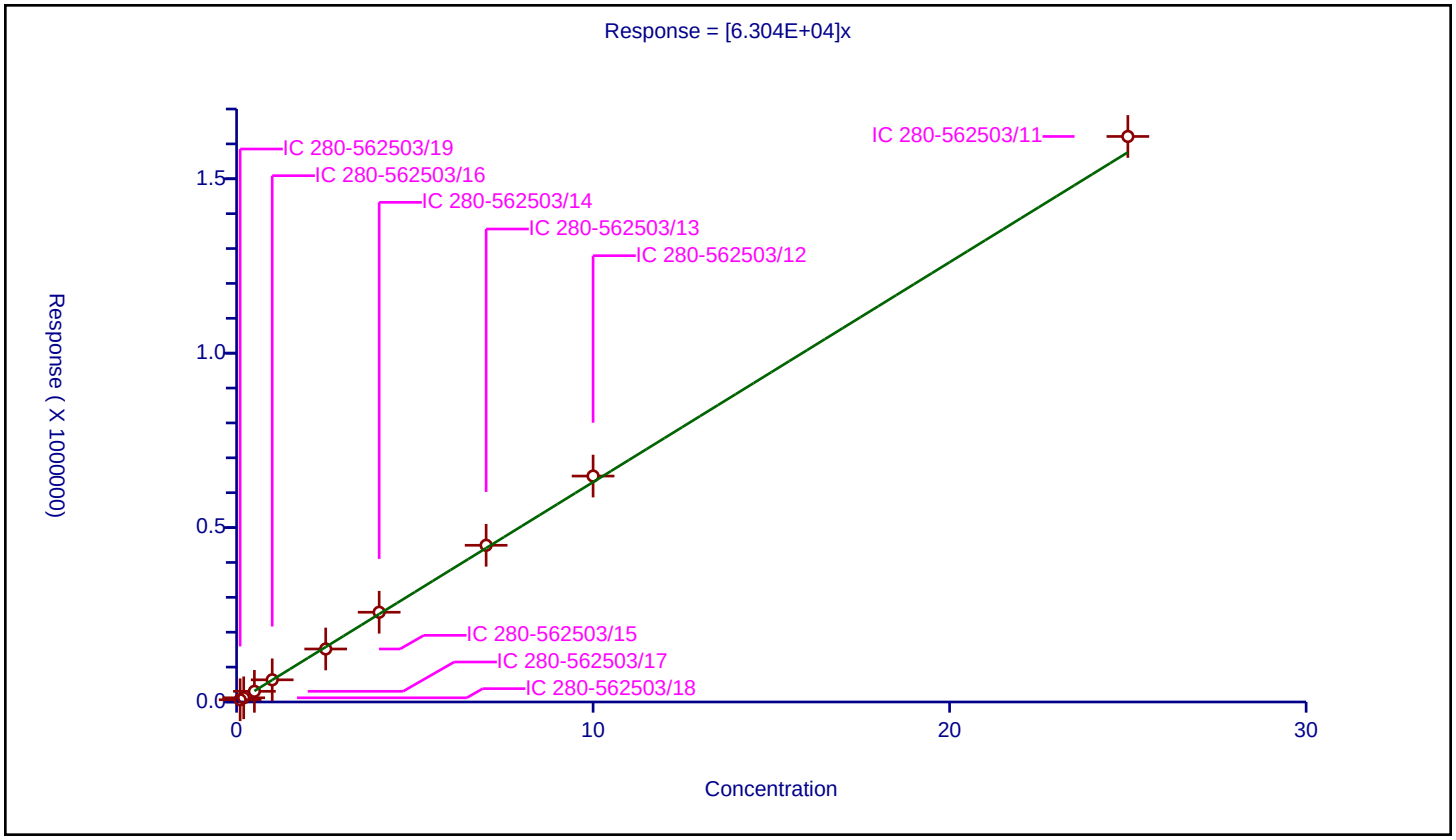
Curve Coefficients

Intercept:	0
Slope:	6.304E+04

Error Coefficients

Standard Error:	17600
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.1	6348.0			63480.0	Y
2	IC 280-562503/18	0.2	12008.0			60040.0	Y
3	IC 280-562503/17	0.5	30651.0			61302.0	Y
4	IC 280-562503/16	1.0	63595.0			63595.0	Y
5	IC 280-562503/15	2.5	151977.0			60790.8	Y
6	IC 280-562503/14	4.0	257287.0			64321.75	Y
7	IC 280-562503/13	7.0	449283.0			64183.285714	Y
8	IC 280-562503/12	10.0	647703.0			64770.3	Y
9	IC 280-562503/11	25.0	1621311.0			64852.44	Y



Calibration / 2,4,6-Trinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

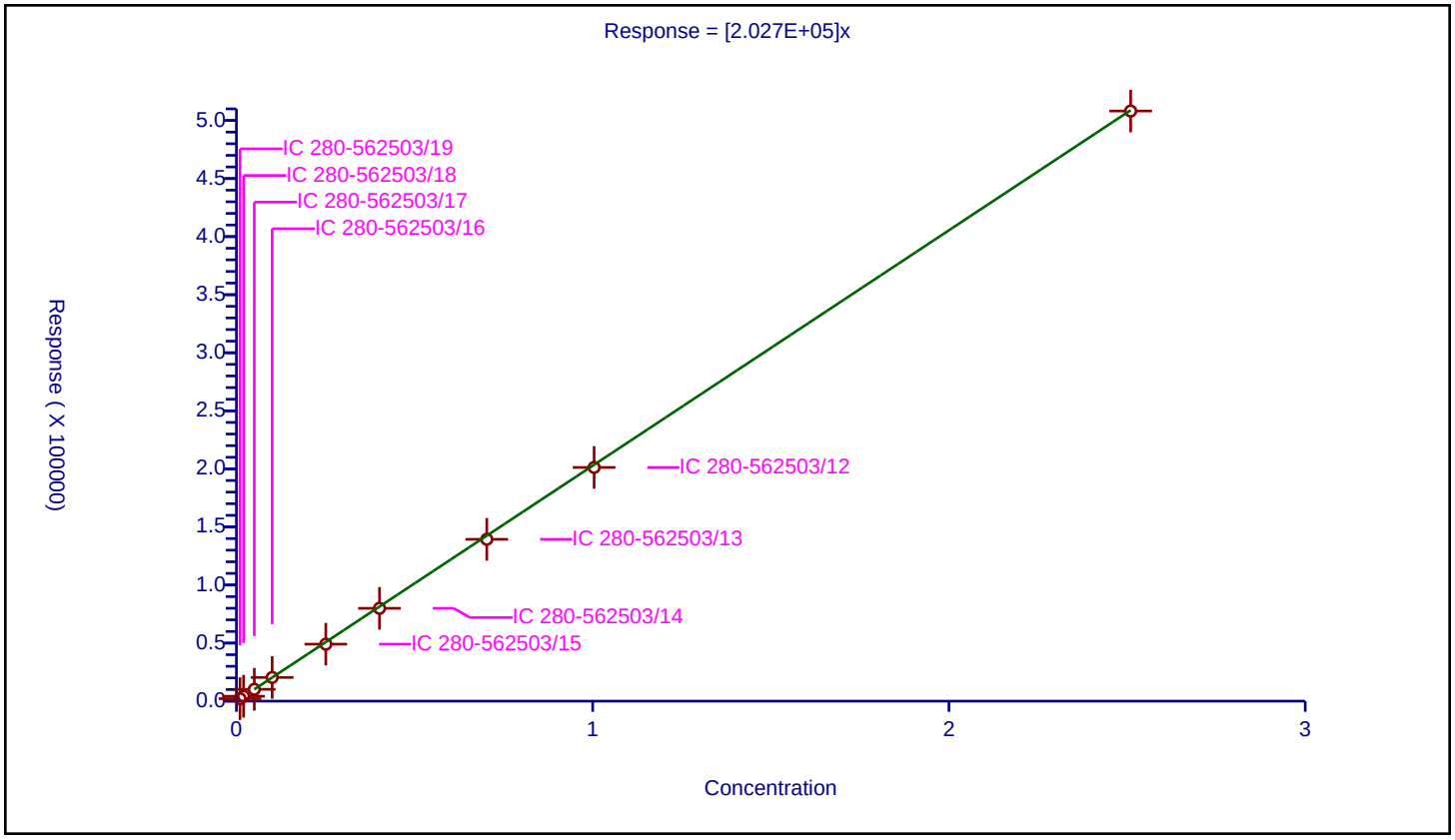
Curve Coefficients

Intercept:	0
Slope:	2.027E+05

Error Coefficients

Standard Error:	1610
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 280-562503/19	0.01004	2126.0			211752.988048	Y
2	IC 280-562503/18	0.02008	4227.0			210507.968127	Y
3	IC 280-562503/17	0.0502	10202.0			203227.091633	Y
4	IC 280-562503/16	0.1004	20408.0			203266.932271	Y
5	IC 280-562503/15	0.251	49067.0			195486.055777	Y
6	IC 280-562503/14	0.4016	79951.0			199081.175299	Y
7	IC 280-562503/13	0.7028	139377.0			198316.733068	Y
8	IC 280-562503/12	1.004	201237.0			200435.258964	Y
9	IC 280-562503/11	2.51	508173.0			202459.36255	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

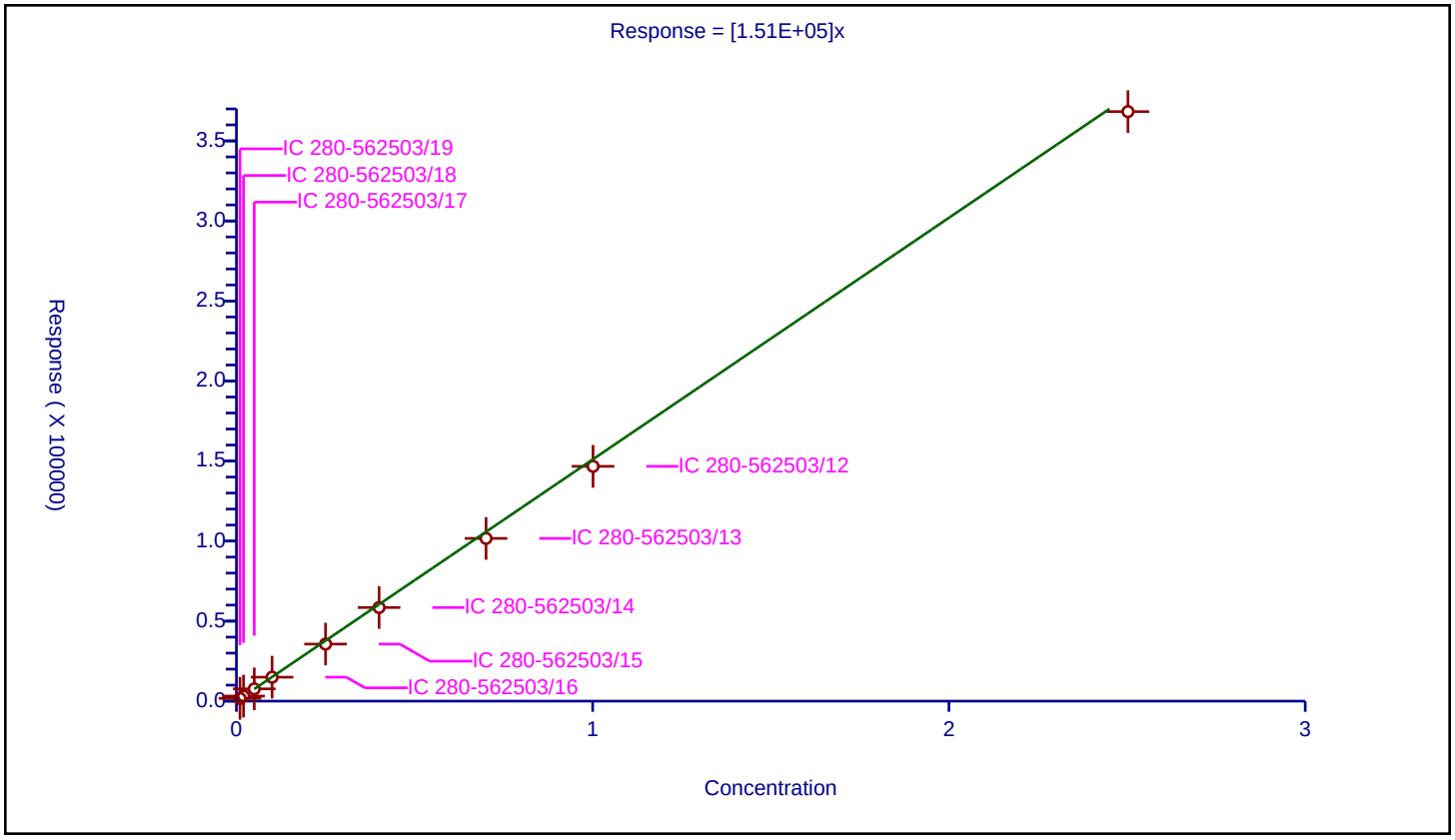
Curve Coefficients

Intercept:	0
Slope:	1.51E+05

Error Coefficients

Standard Error:	4130
Relative Standard Error:	5.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01001	1718.0			171628.371628	Y
2	IC 280-562503/18	0.02002	3150.0			157342.657343	Y
3	IC 280-562503/17	0.05005	7656.0			152967.032967	Y
4	IC 280-562503/16	0.1001	14975.0			149600.3996	Y
5	IC 280-562503/15	0.25025	35644.0			142433.566434	Y
6	IC 280-562503/14	0.4004	58489.0			146076.423576	Y
7	IC 280-562503/13	0.7007	101665.0			145090.623662	Y
8	IC 280-562503/12	1.001	146703.0			146556.443556	Y
9	IC 280-562503/11	2.5025	368296.0			147171.228771	Y



Calibration / 2-Amino-4,6-dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

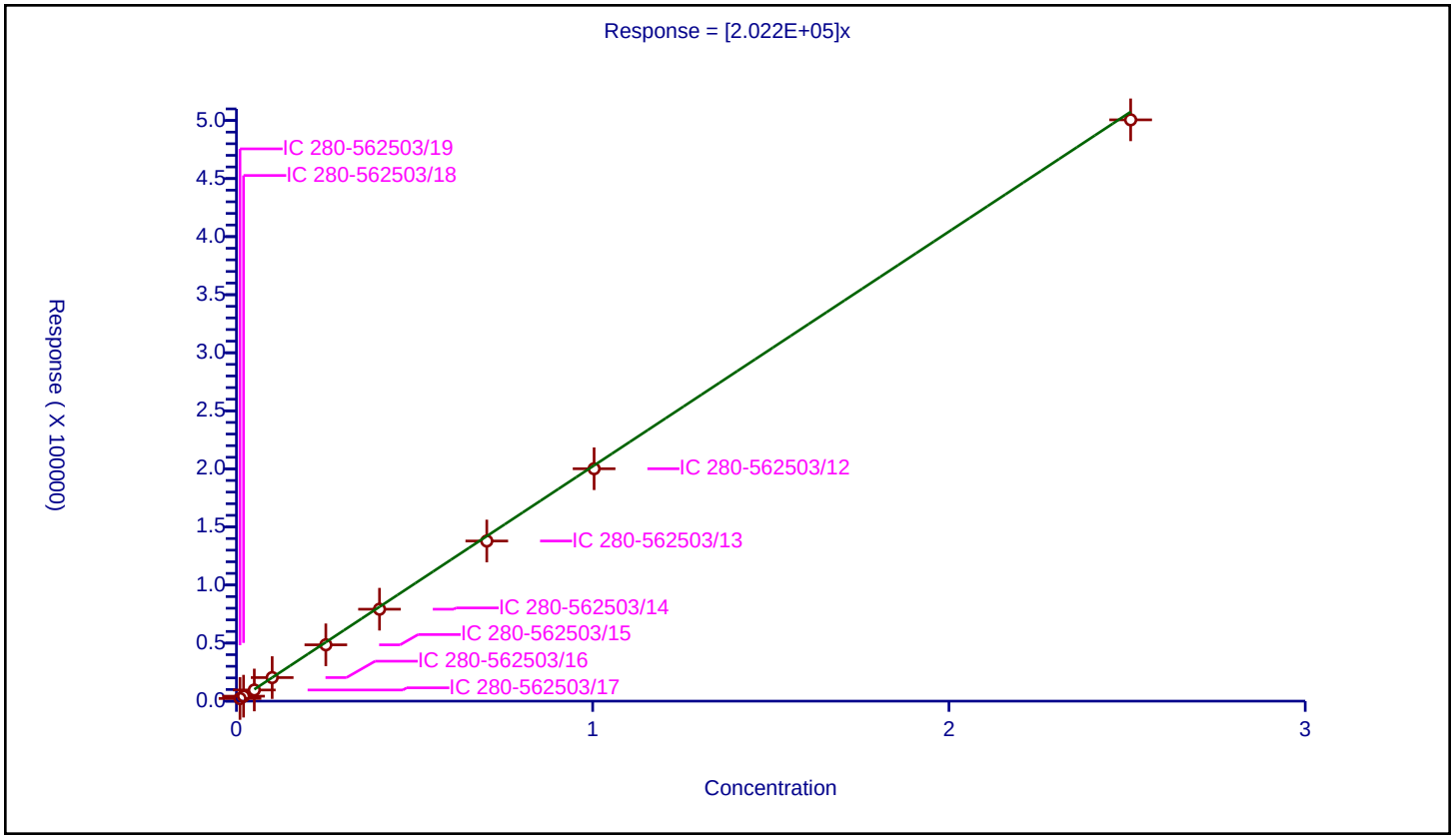
Curve Coefficients

Intercept:	0
Slope:	2.022E+05

Error Coefficients

Standard Error:	3210
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01004	2287.0			227788.844622	Y
2	IC 280-562503/18	0.02008	4282.0			213247.011952	Y
3	IC 280-562503/17	0.0502	9600.0			191235.059761	Y
4	IC 280-562503/16	0.1004	20280.0			201992.031873	Y
5	IC 280-562503/15	0.251	48486.0			193171.314741	Y
6	IC 280-562503/14	0.4016	79169.0			197133.964143	Y
7	IC 280-562503/13	0.7028	137894.0			196206.602163	Y
8	IC 280-562503/12	1.004	200129.0			199331.673307	Y
9	IC 280-562503/11	2.51	500581.0			199434.661355	Y



Calibration / 2,6-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

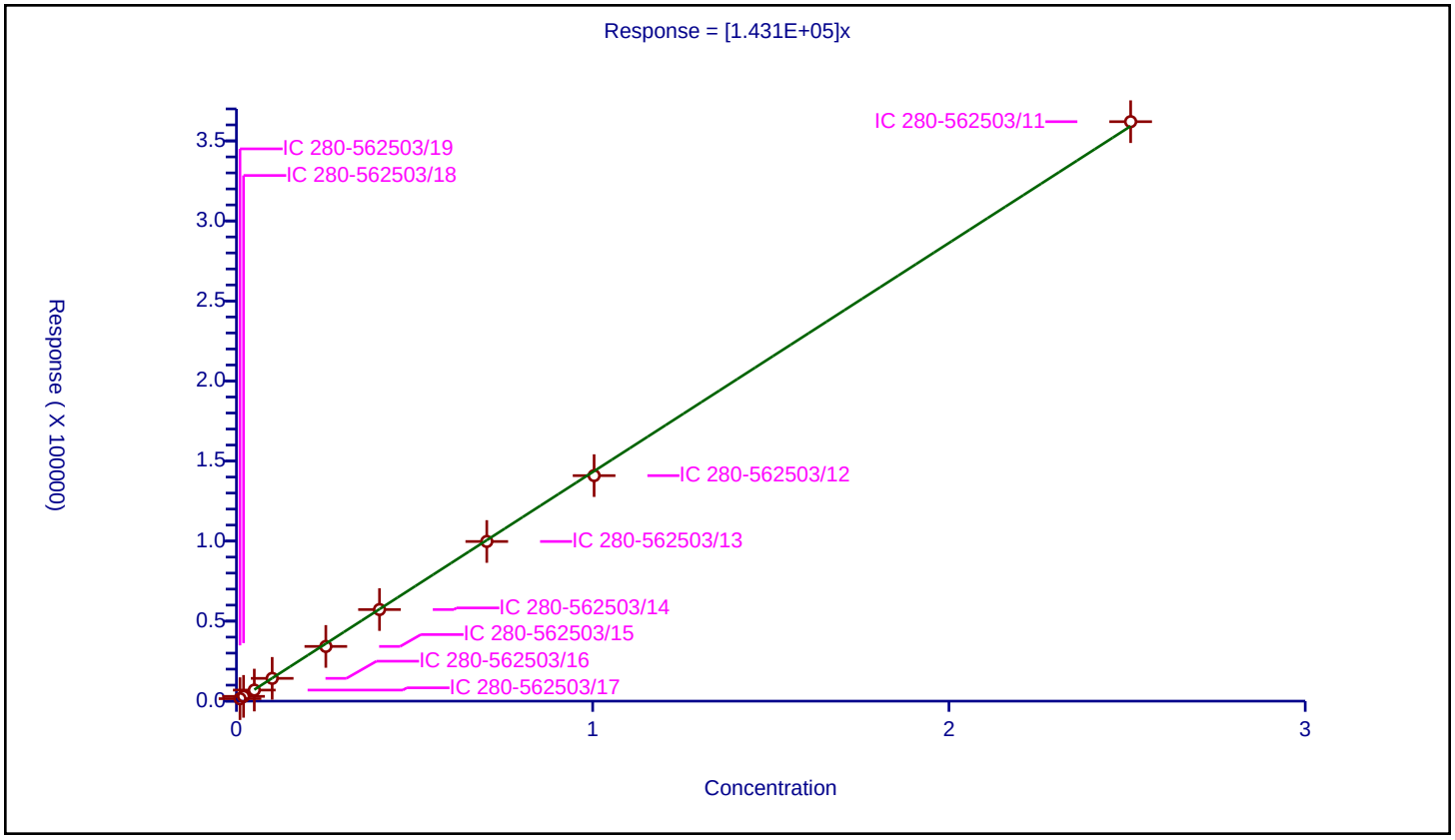
Curve Coefficients

Intercept:	0
Slope:	1.431E+05

Error Coefficients

Standard Error:	1560
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01004	1551.0			154482.071713	Y
2	IC 280-562503/18	0.02008	2993.0			149053.784861	Y
3	IC 280-562503/17	0.0502	6908.0			137609.561753	Y
4	IC 280-562503/16	0.1004	14234.0			141772.908367	Y
5	IC 280-562503/15	0.251	34177.0			136163.346614	Y
6	IC 280-562503/14	0.4016	57212.0			142460.159363	Y
7	IC 280-562503/13	0.7028	99747.0			141928.002277	Y
8	IC 280-562503/12	1.004	140901.0			140339.641434	Y
9	IC 280-562503/11	2.51	362011.0			144227.49004	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

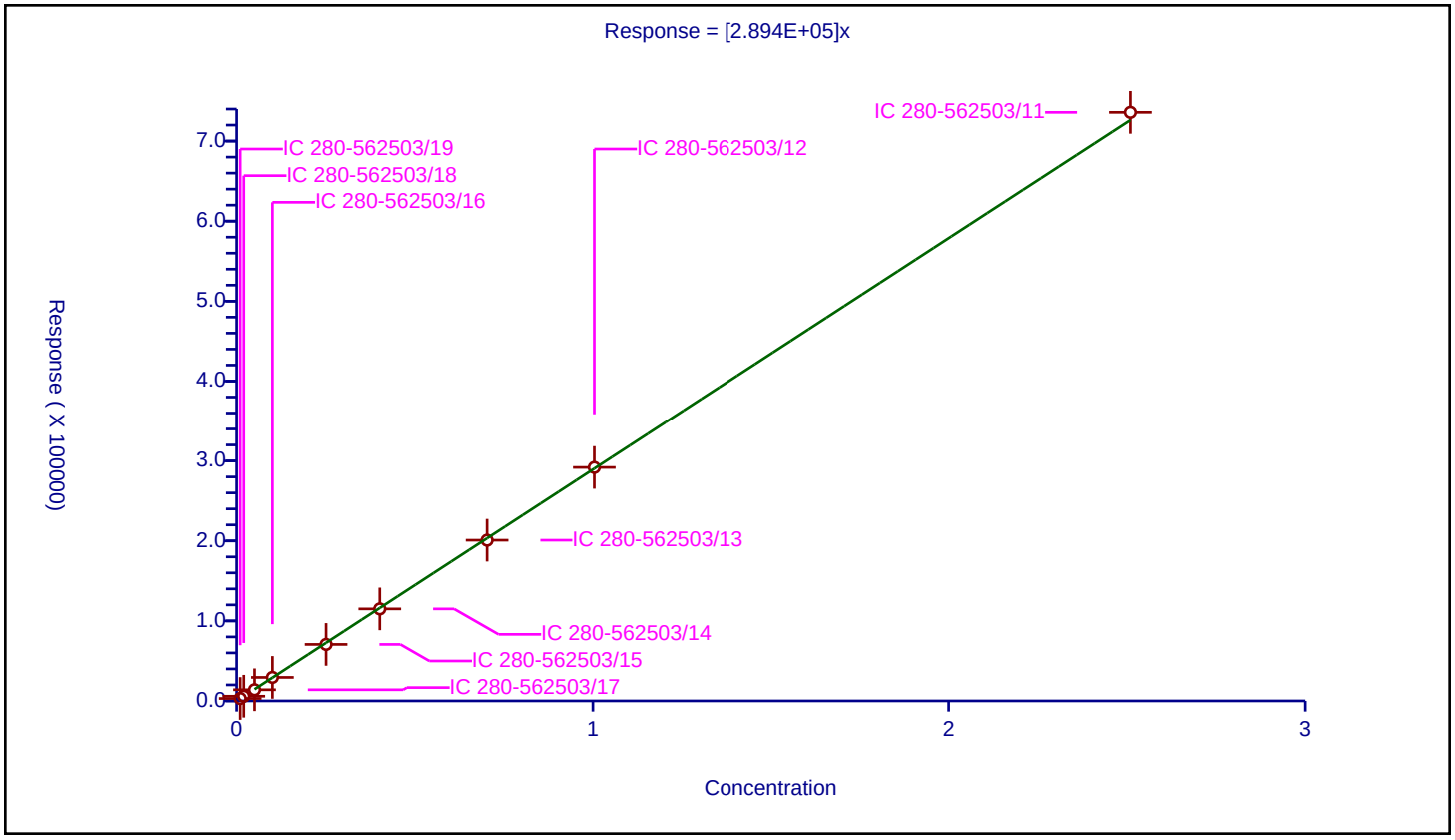
Curve Coefficients

Intercept:	0
Slope:	2.894E+05

Error Coefficients

Standard Error:	3650
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01004	3047.0			303486.055777	Y
2	IC 280-562503/18	0.02008	5890.0			293326.693227	Y
3	IC 280-562503/17	0.0502	13933.0			277549.800797	Y
4	IC 280-562503/16	0.1004	29355.0			292380.478088	Y
5	IC 280-562503/15	0.251	70605.0			281294.820717	Y
6	IC 280-562503/14	0.4016	115000.0			286354.581673	Y
7	IC 280-562503/13	0.7028	200883.0			285832.384747	Y
8	IC 280-562503/12	1.004	291912.0			290749.003984	Y
9	IC 280-562503/11	2.51	735887.0			293182.071713	Y



Calibration / o-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

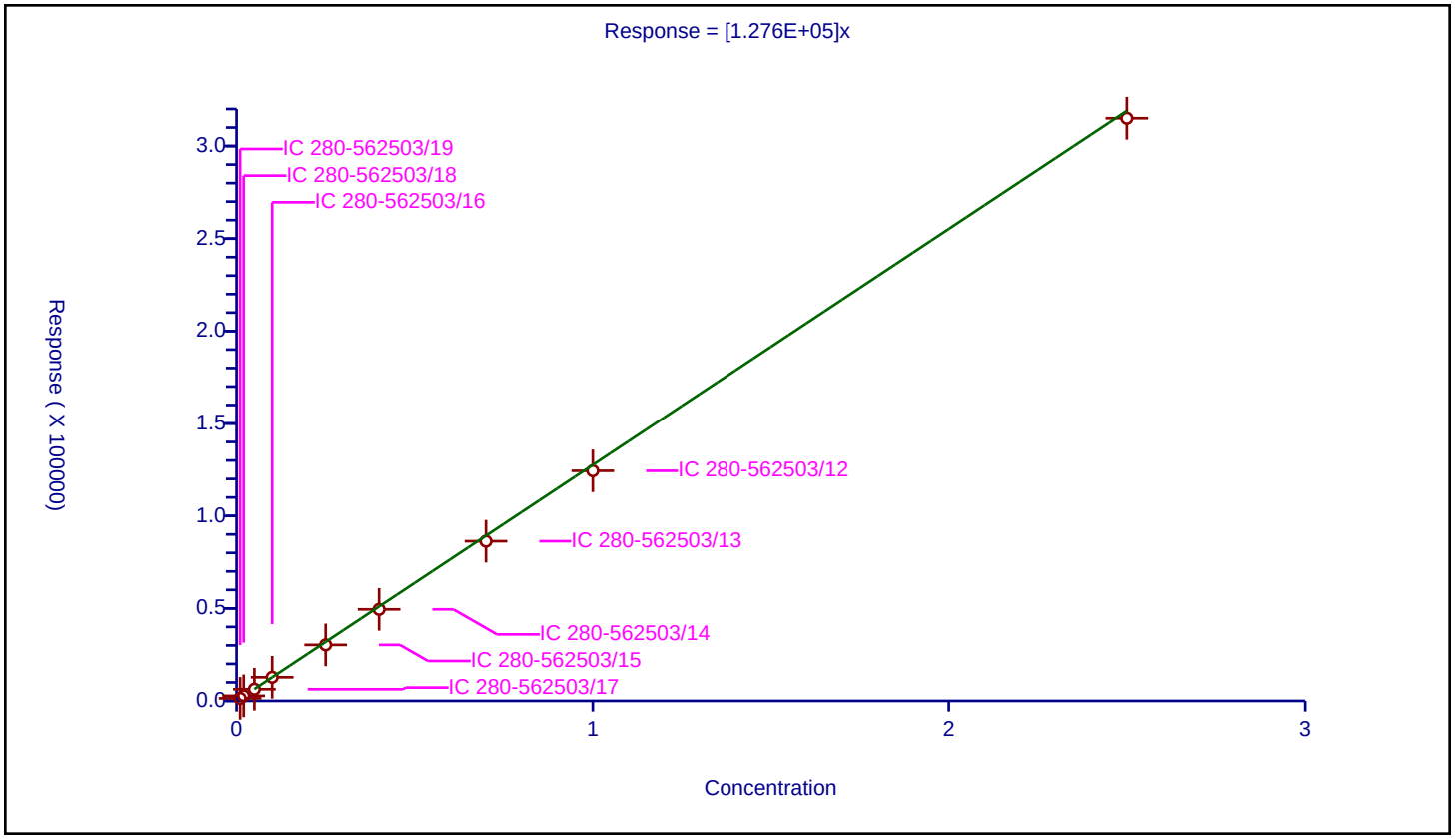
Curve Coefficients

Intercept:	0
Slope:	1.276E+05

Error Coefficients

Standard Error:	2250
Relative Standard Error:	4.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01	1387.0			138700.0	Y
2	IC 280-562503/18	0.02	2743.0			137150.0	Y
3	IC 280-562503/17	0.05	6314.0			126280.0	Y
4	IC 280-562503/16	0.1	12777.0			127770.0	Y
5	IC 280-562503/15	0.25	30280.0			121120.0	Y
6	IC 280-562503/14	0.4	49500.0			123750.0	Y
7	IC 280-562503/13	0.7	86333.0			123332.857143	Y
8	IC 280-562503/12	1.0	124418.0			124418.0	Y
9	IC 280-562503/11	2.5	315004.0			126001.6	Y



Calibration / p-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

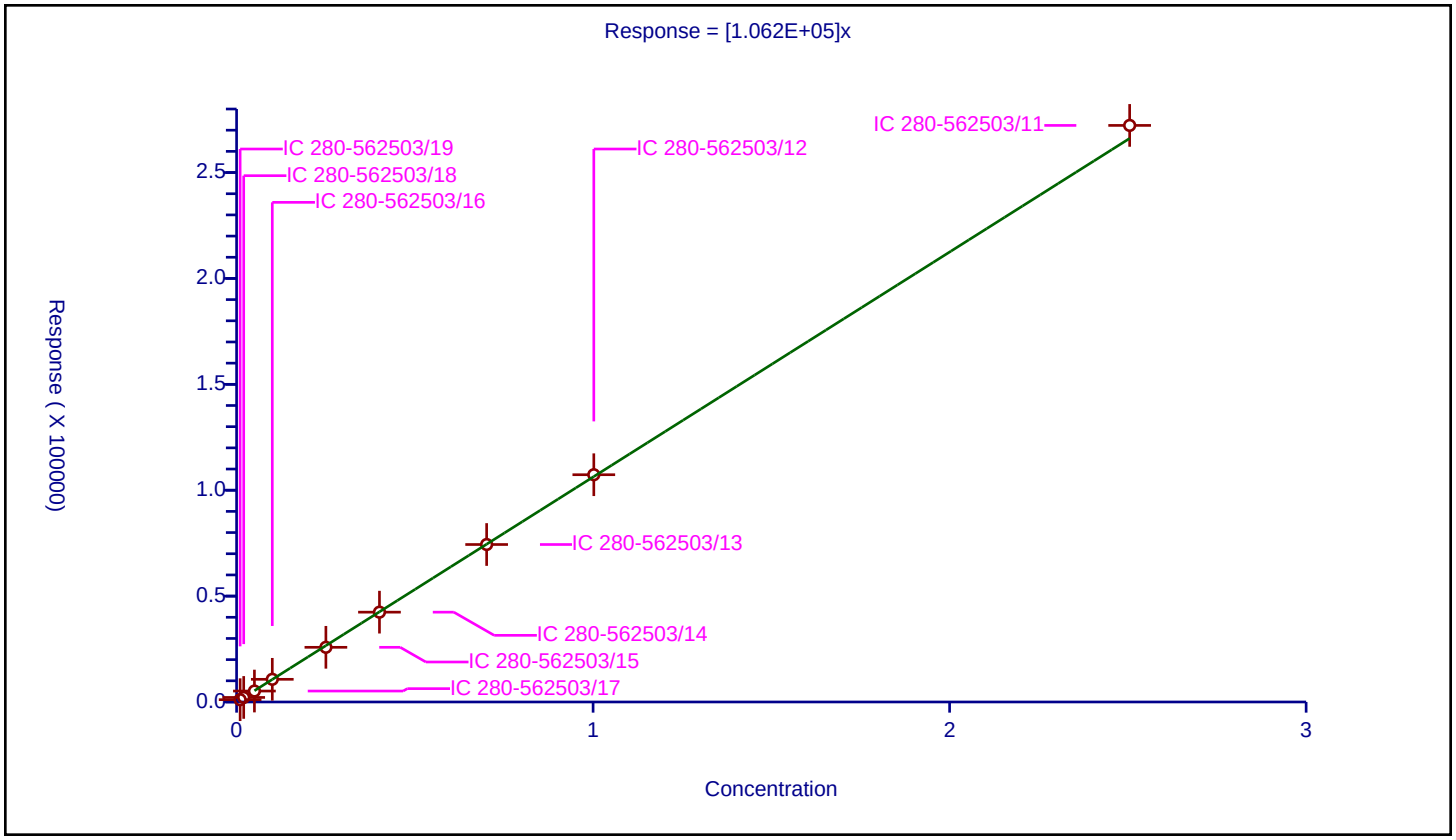
Curve Coefficients

Intercept:	0
Slope:	1.062E+05

Error Coefficients

Standard Error:	2210
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01002	1083.0			108083.832335	Y
2	IC 280-562503/18	0.02004	2151.0			107335.329341	Y
3	IC 280-562503/17	0.0501	5163.0			103053.892216	Y
4	IC 280-562503/16	0.1002	10715.0			106936.127745	Y
5	IC 280-562503/15	0.2505	25824.0			103089.820359	Y
6	IC 280-562503/14	0.4008	42415.0			105825.848303	Y
7	IC 280-562503/13	0.7014	74357.0			106012.261192	Y
8	IC 280-562503/12	1.002	107309.0			107094.810379	Y
9	IC 280-562503/11	2.505	272262.0			108687.42515	Y



Calibration / m-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

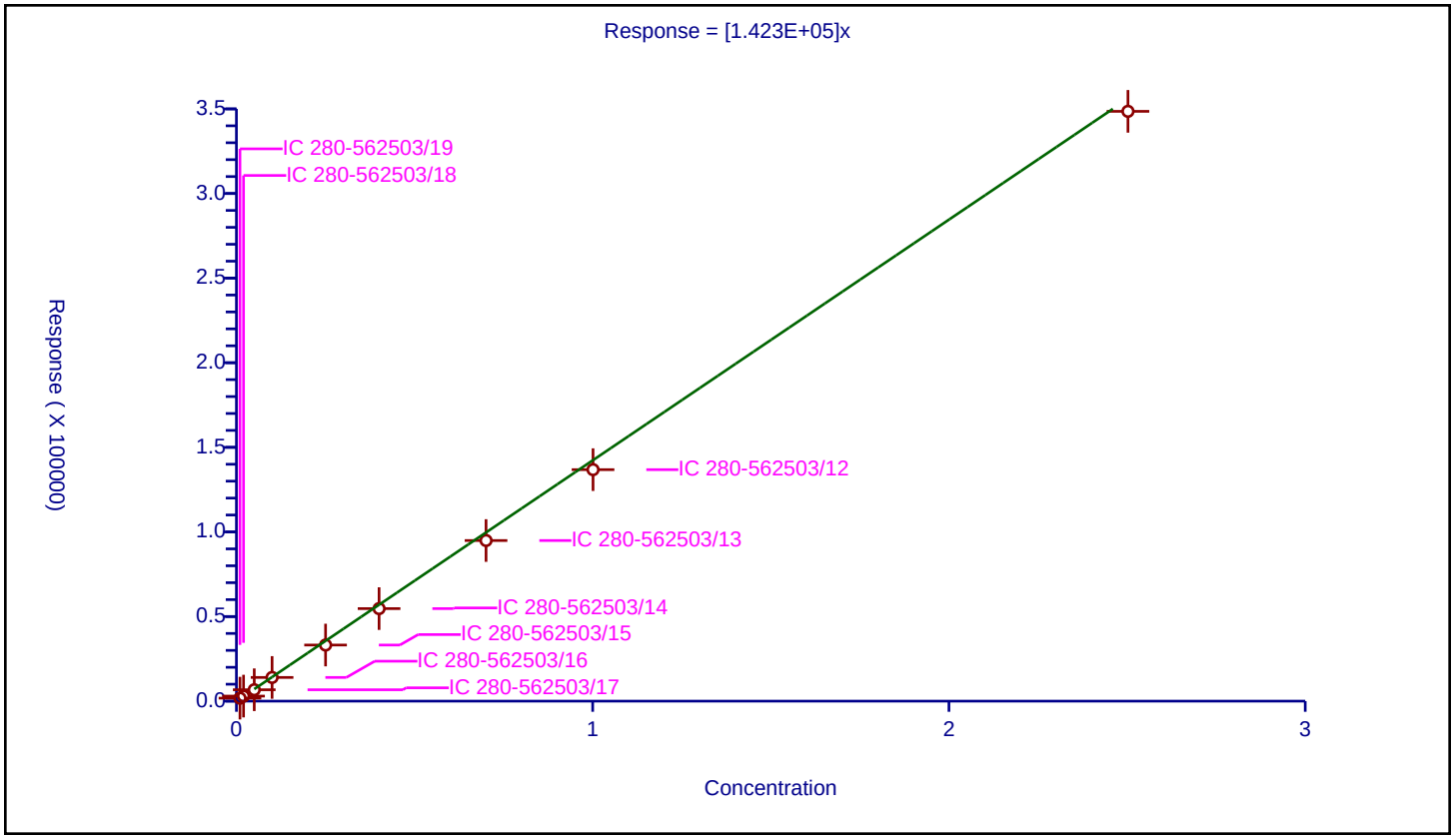
Curve Coefficients

Intercept:	0
Slope:	1.423E+05

Error Coefficients

Standard Error:	3900
Relative Standard Error:	9.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01001	1764.0			176223.776224	Y
2	IC 280-562503/18	0.02002	2989.0			149300.699301	Y
3	IC 280-562503/17	0.05005	6733.0			134525.474525	Y
4	IC 280-562503/16	0.1001	14003.0			139890.10989	Y
5	IC 280-562503/15	0.25025	33160.0			132507.492507	Y
6	IC 280-562503/14	0.4004	54695.0			136600.899101	Y
7	IC 280-562503/13	0.7007	94920.0			135464.535465	Y
8	IC 280-562503/12	1.001	136801.0			136664.335664	Y
9	IC 280-562503/11	2.5025	348555.0			139282.717283	Y



Calibration / PETN

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

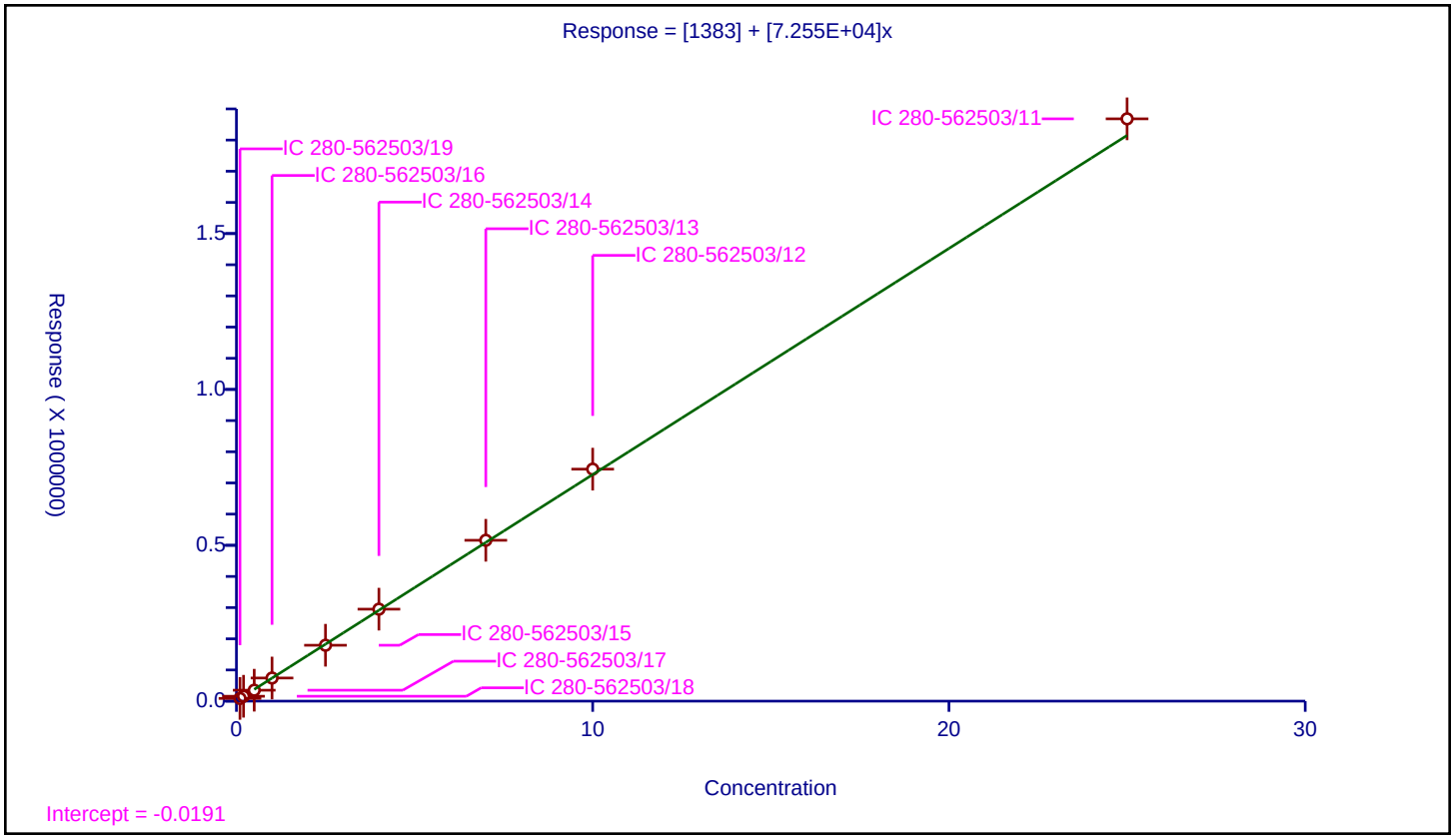
Curve Coefficients

Intercept:	1383
Slope:	7.255E+04

Error Coefficients

Standard Error:	21400
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.1	8784.0			87840.0	Y
2	IC 280-562503/18	0.2	15705.0			78525.0	Y
3	IC 280-562503/17	0.5	35084.0			70168.0	Y
4	IC 280-562503/16	1.0	74208.0			74208.0	Y
5	IC 280-562503/15	2.5	179275.0			71710.0	Y
6	IC 280-562503/14	4.0	295082.0			73770.5	Y
7	IC 280-562503/13	7.0	516042.0			73720.285714	Y
8	IC 280-562503/12	10.0	744274.0			74427.4	Y
9	IC 280-562503/11	25.0	1868141.0			74725.64	Y



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/05/2022 01:43 Calibration End Date: 01/05/2022 04:24 Calibration ID: 61347

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/37	01040037.D
Level 2	IC 280-562503/36	01040036.D
Level 3	IC 280-562503/35	01040035.D
Level 4	IC 280-562503/34	01040034.D
Level 5	IC 280-562503/33	01040033.D
Level 6	IC 280-562503/32	01040032.D
Level 7	IC 280-562503/31	01040031.D
Level 8	IC 280-562503/30	01040030.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
TNX	6.479	6.478	6.483	6.484	6.483	6.477	6.478	6.472			6.384 - 6.584	6.479
DNX	6.799	6.798	6.796	6.797	6.803	6.797	6.798	6.792			6.697 - 6.897	6.798
MNX	7.219	7.224	7.223	7.224	7.223	7.217	7.218	7.218			7.074 - 7.374	7.221

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/05/2022 01:43 Calibration End Date: 01/05/2022 04:24 Calibration ID: 61347

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/37	01040037.D
Level 2	IC 280-562503/36	01040036.D
Level 3	IC 280-562503/35	01040035.D
Level 4	IC 280-562503/34	01040034.D
Level 5	IC 280-562503/33	01040033.D
Level 6	IC 280-562503/32	01040032.D
Level 7	IC 280-562503/31	01040031.D
Level 8	IC 280-562503/30	01040030.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
TNX	179820 181618	180440 185306	179710 183906	170821 188038	Ave		181207.471				2.8		20.0			
DNX	140709 139048	139620 138881	139141 137206	129534 140763	Ave		138112.950				2.6		20.0			
MNX	130334 127284	125073 127309	123719 126586	118458 129201	Ave		125995.416				2.9		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/05/2022 01:43 Calibration End Date: 01/05/2022 04:24 Calibration ID: 61347

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/37	01040037.D
Level 2	IC 280-562503/36	01040036.D
Level 3	IC 280-562503/35	01040035.D
Level 4	IC 280-562503/34	01040034.D
Level 5	IC 280-562503/33	01040033.D
Level 6	IC 280-562503/32	01040032.D
Level 7	IC 280-562503/31	01040031.D
Level 8	IC 280-562503/30	01040030.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
TNX	Ave	3600 129844	9031 184090	17989 470565	42748	72720	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
DNX	Ave	2817 97314	6988 137343	13928 352260	32416	55675	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
MNX	Ave	3042 103999	7298 147726	14438 376943	34560	59416	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292	0.467

Curve Type Legend
Ave = Average

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040030.D				
Lims ID:	IC DMT 8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	05-Jan-2022 01:43:42	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 8				
Misc. Info.:	280-0107731-030				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Jan-2022 12:10:05	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1613				
First Level Reviewer: zhangji		Date:	05-Jan-2022 12:07:13		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.472	6.484	-0.012	470565	2.50	2.60	M
6 DNX	1	6.792	6.797	-0.005	352260	2.50	2.55	M
7 MNX	1	7.218	7.224	-0.006	376943	2.92	2.99	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 125.00 Units: uL

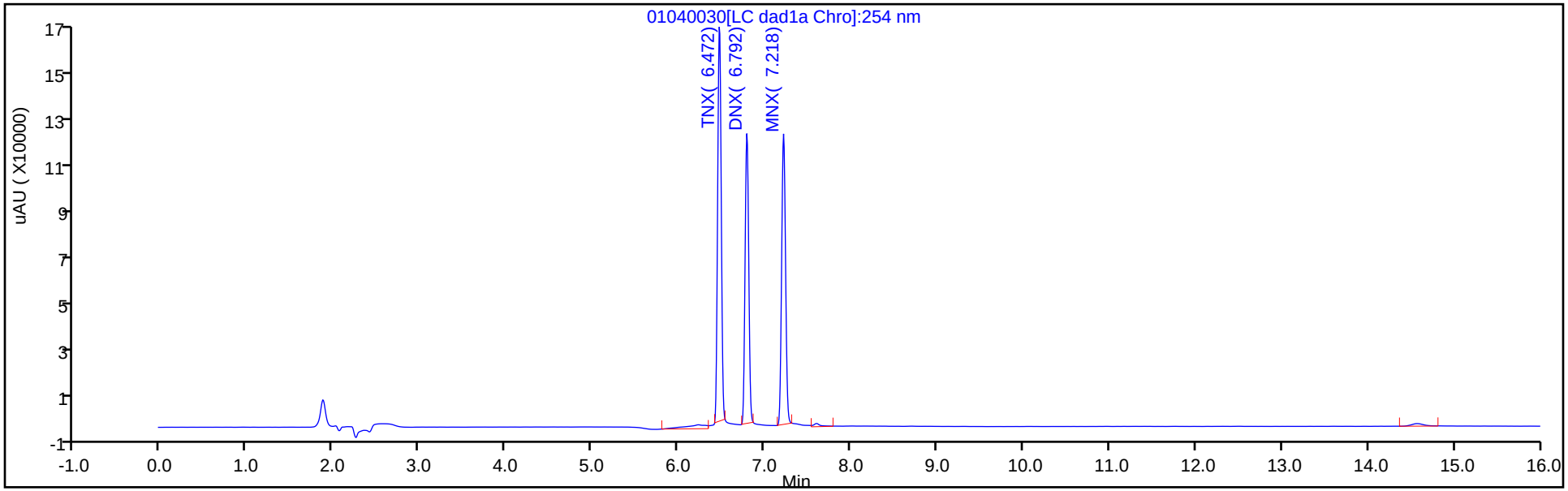
Report Date: 05-Jan-2022 12:10:05 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

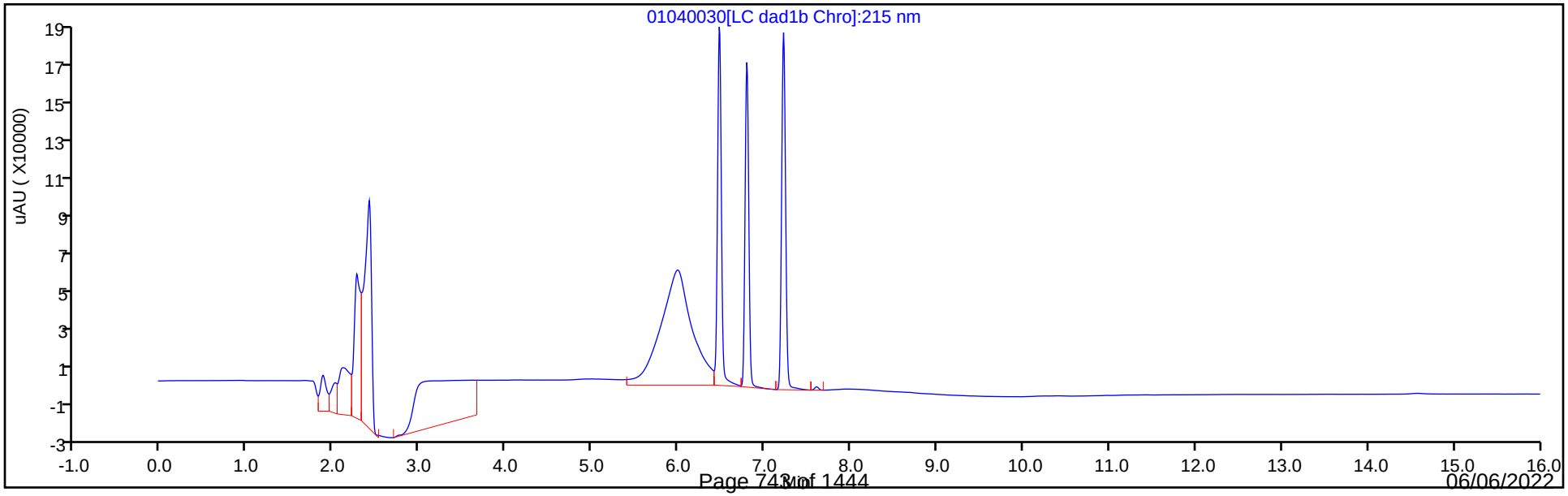
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040030.d

Injection Date:	05-Jan-2022 01:43:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 8			Worklist Smp#:	30
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

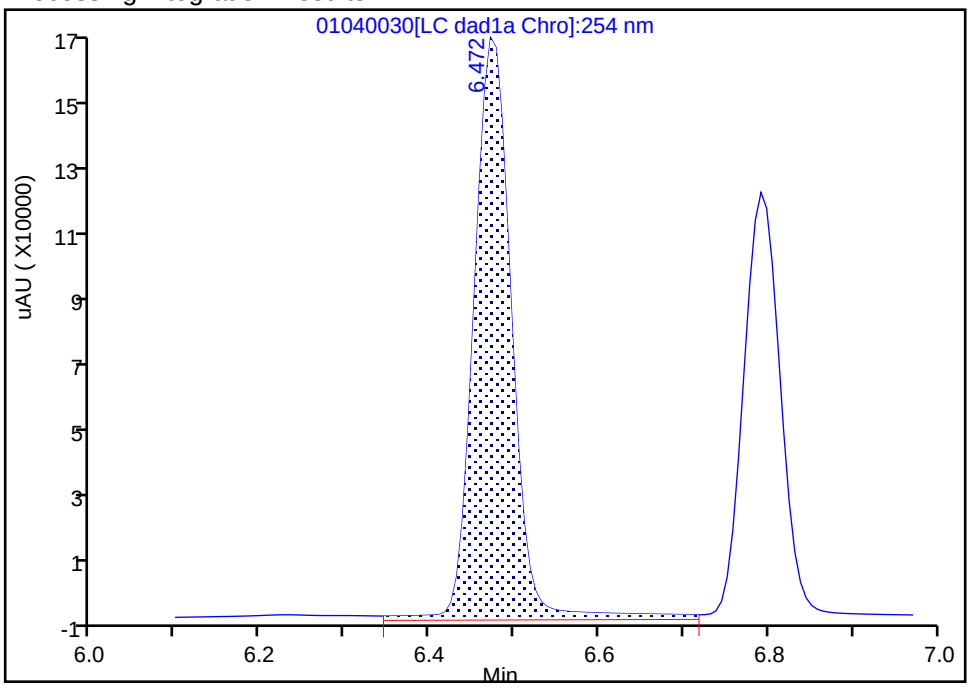
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040030.d				
Injection Date:	05-Jan-2022 01:43:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

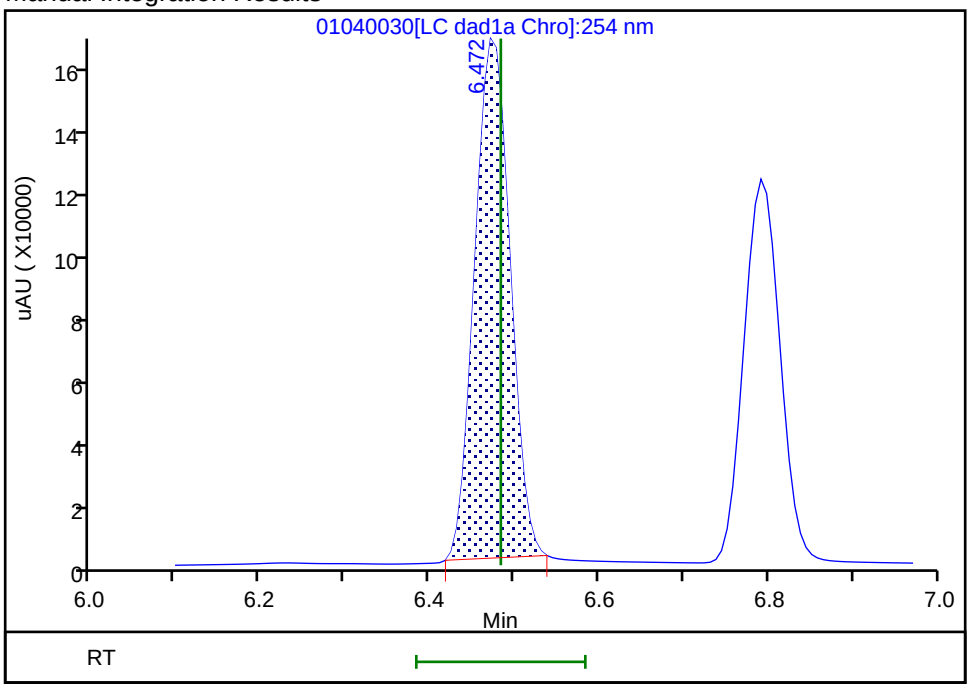
Processing Integration Results

RT: 6.47
Area: 518954
Amount: 2.391054
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 470565
Amount: 2.596830
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:05:51
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

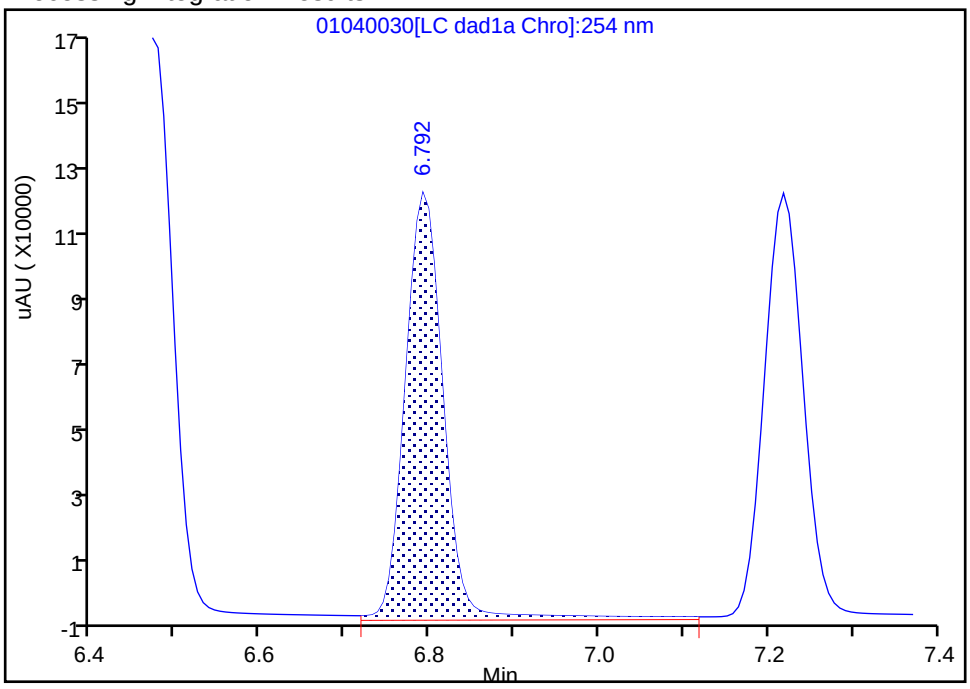
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040030.d				
Injection Date:	05-Jan-2022 01:43:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

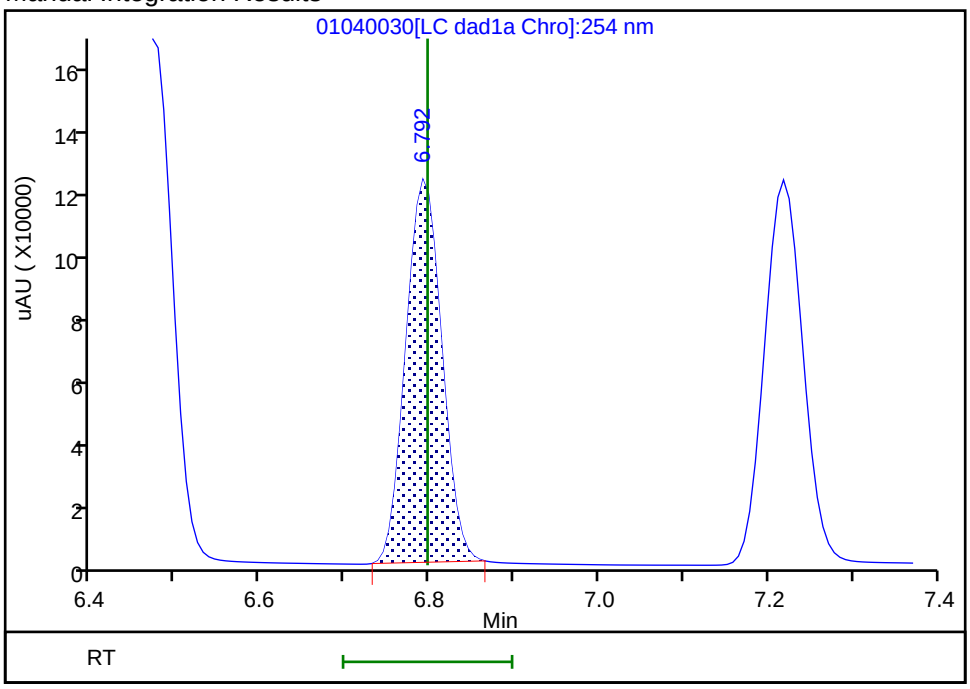
Processing Integration Results

RT: 6.79
Area: 385621
Amount: 2.575003
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 352260
Amount: 2.550521
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:08
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

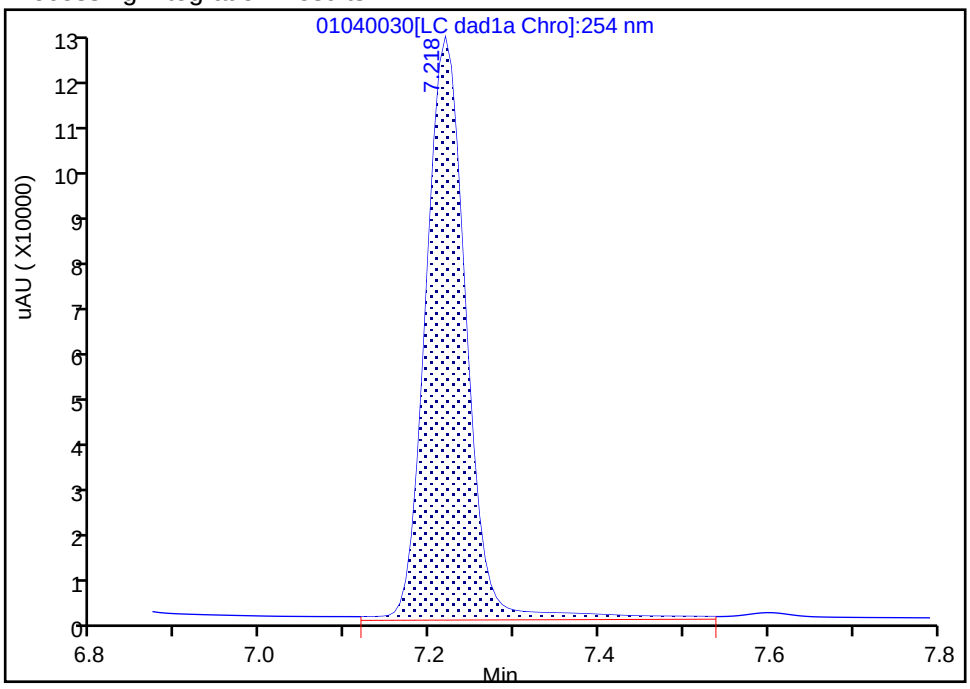
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040030.d				
Injection Date:	05-Jan-2022 01:43:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

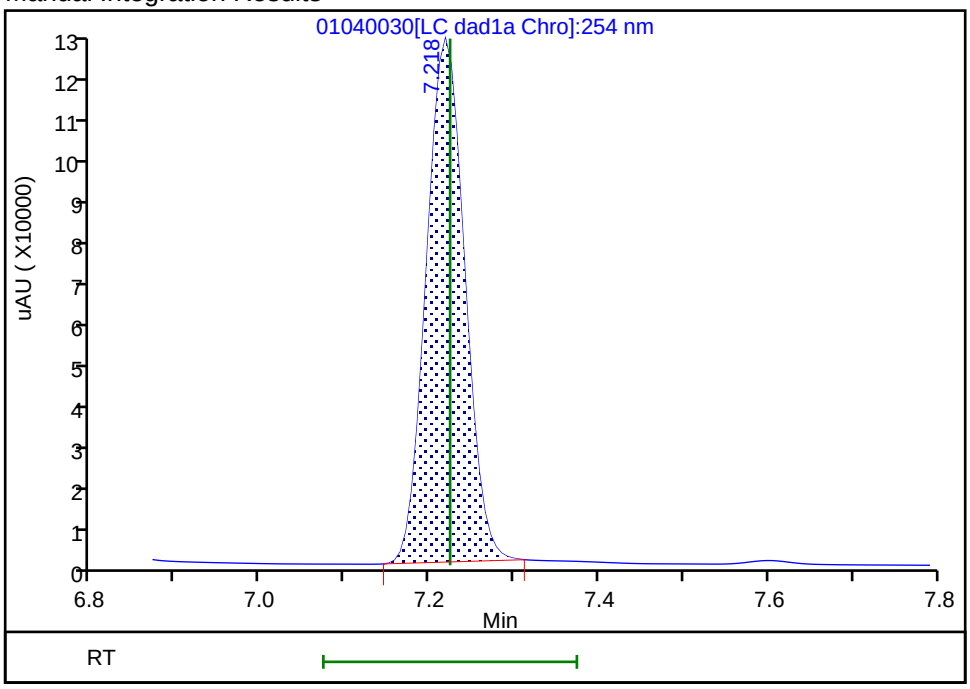
Processing Integration Results

RT: 7.22
Area: 403714
Amount: 3.070267
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 376943
Amount: 2.991720
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:12
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040031.D				
Lims ID:	IC DMT 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	05-Jan-2022 02:06:41	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 7				
Misc. Info.:	280-0107731-031				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Jan-2022 12:10:06	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1613				
First Level Reviewer: zhangji		Date:	05-Jan-2022 12:07:30		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.478	6.484	-0.006	184090	1.00	1.02	M
6 DNX	1	6.798	6.797	0.001	137343	1.00	0.99	M
7 MNX	1	7.218	7.224	-0.006	147726	1.17	1.17	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

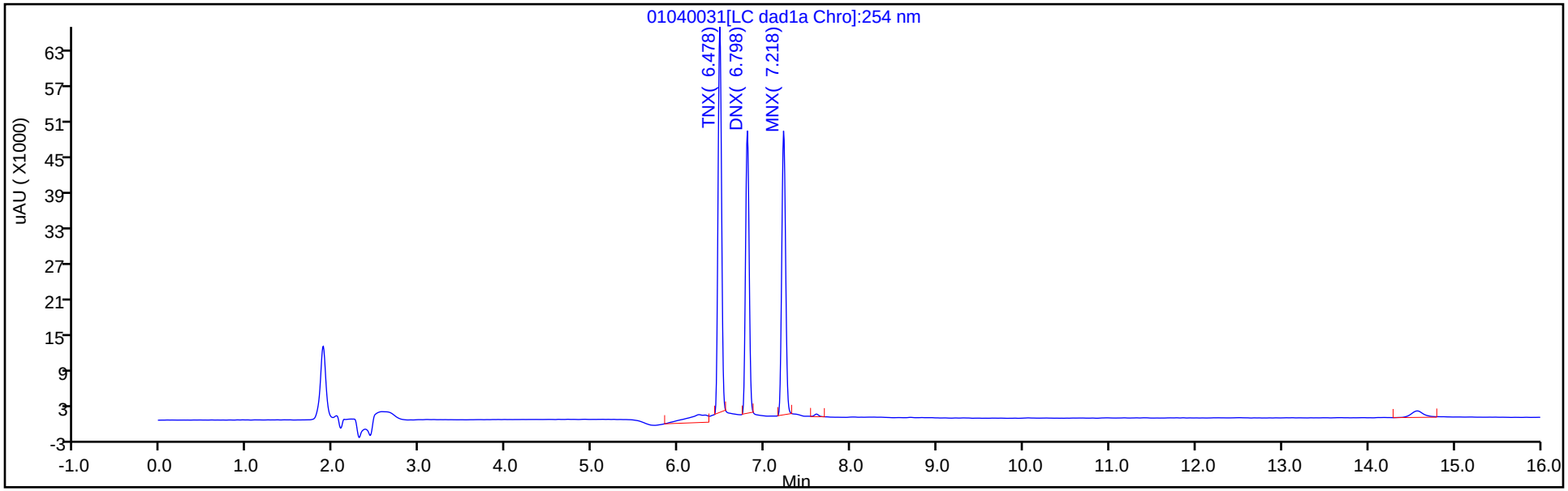
8330 DMT_00010 Amount Added: 50.00 Units: uL

Report Date: 05-Jan-2022 12:10:06 Chrom Revision: 2.3 03-Jan-2022 17:03:12

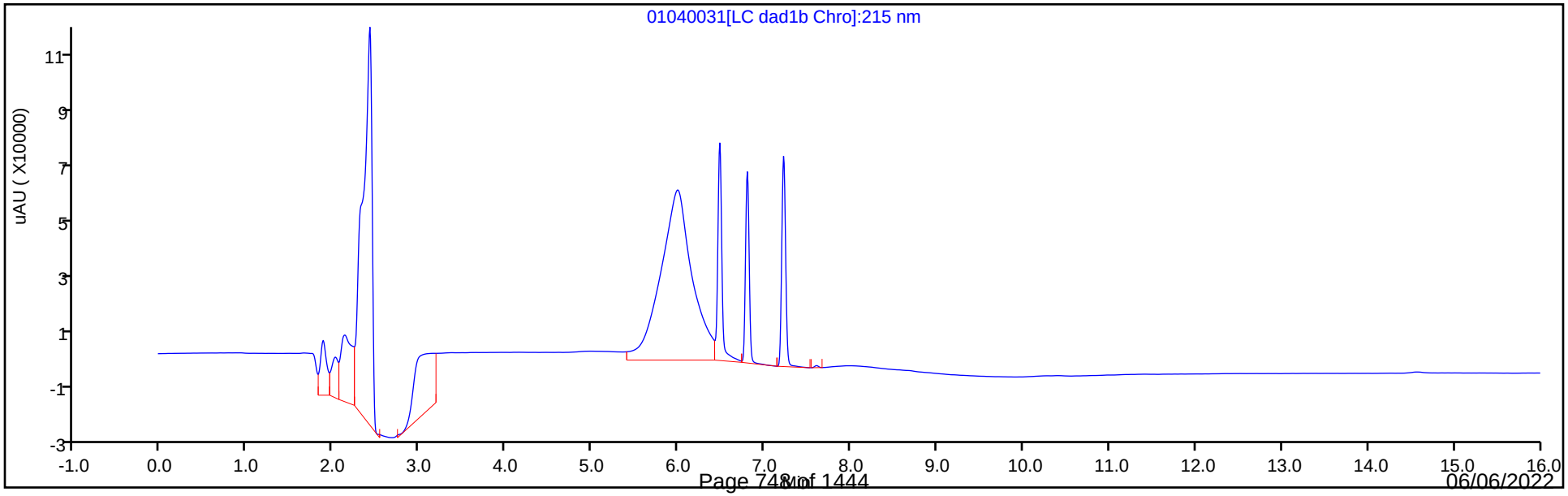
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d				
Injection Date:	05-Jan-2022 02:06:41	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 7			Worklist Smp#:	31
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	31
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

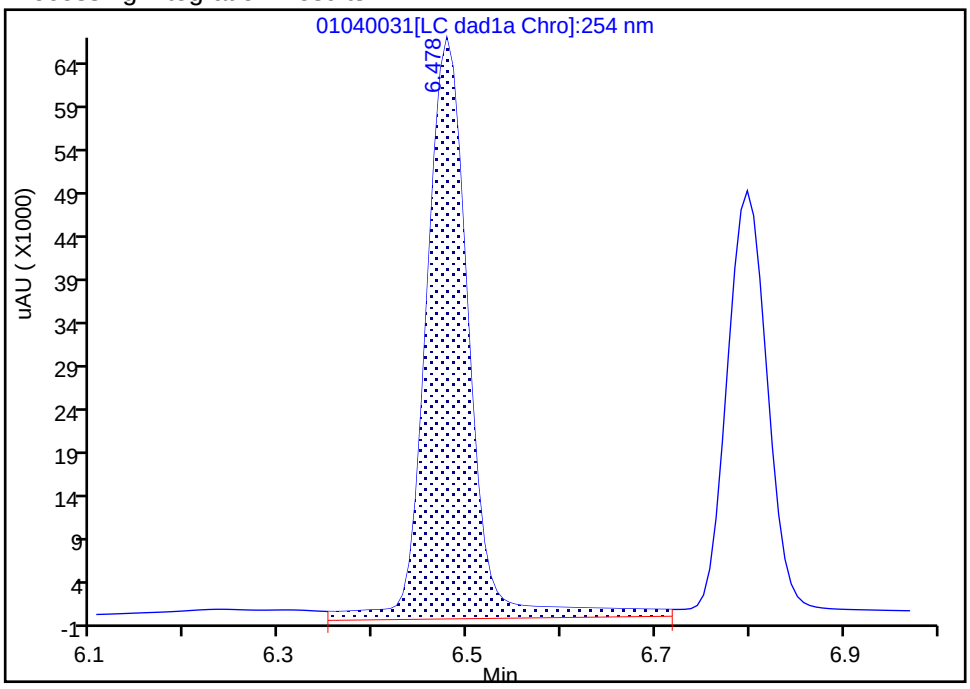
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d				
Injection Date:	05-Jan-2022 02:06:41	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 7				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

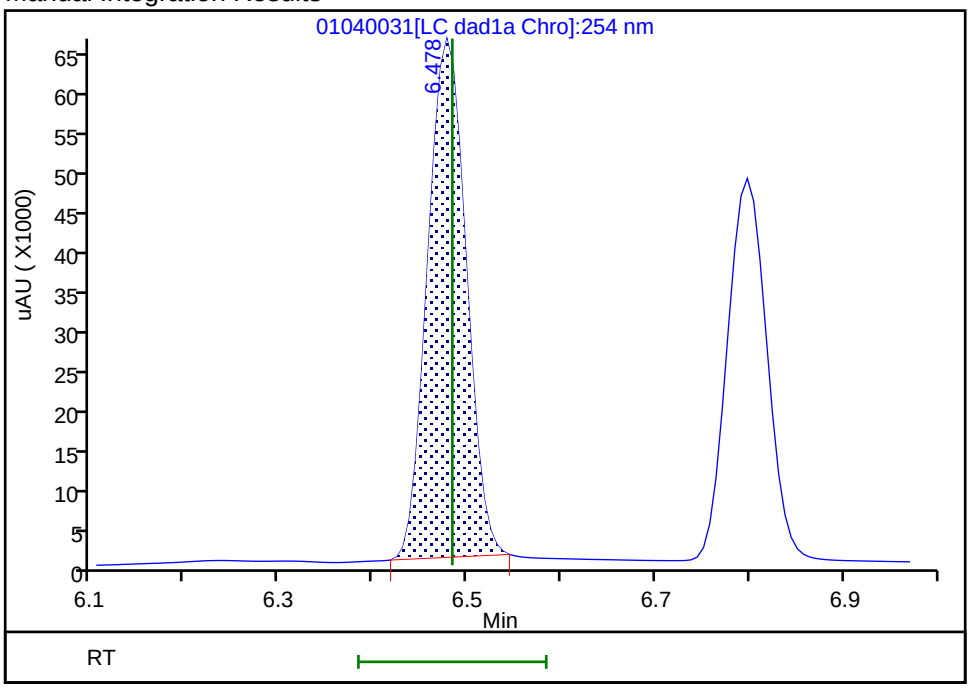
Processing Integration Results

RT: 6.48
Area: 210952
Amount: 0.982896
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 184090
Amount: 1.015907
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:22

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

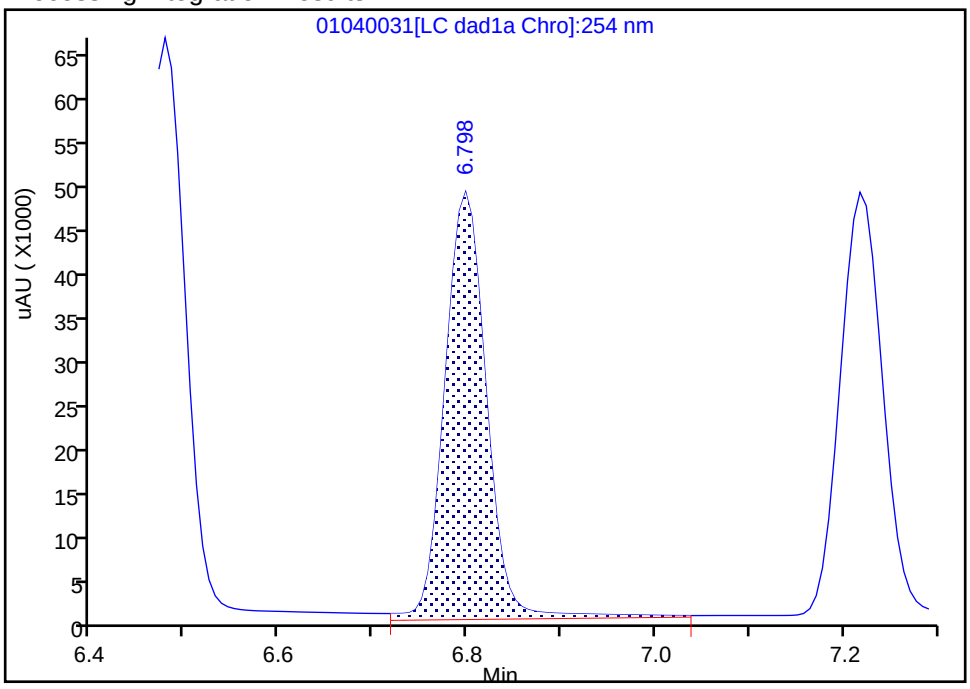
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d				
Injection Date:	05-Jan-2022 02:06:41	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 7				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

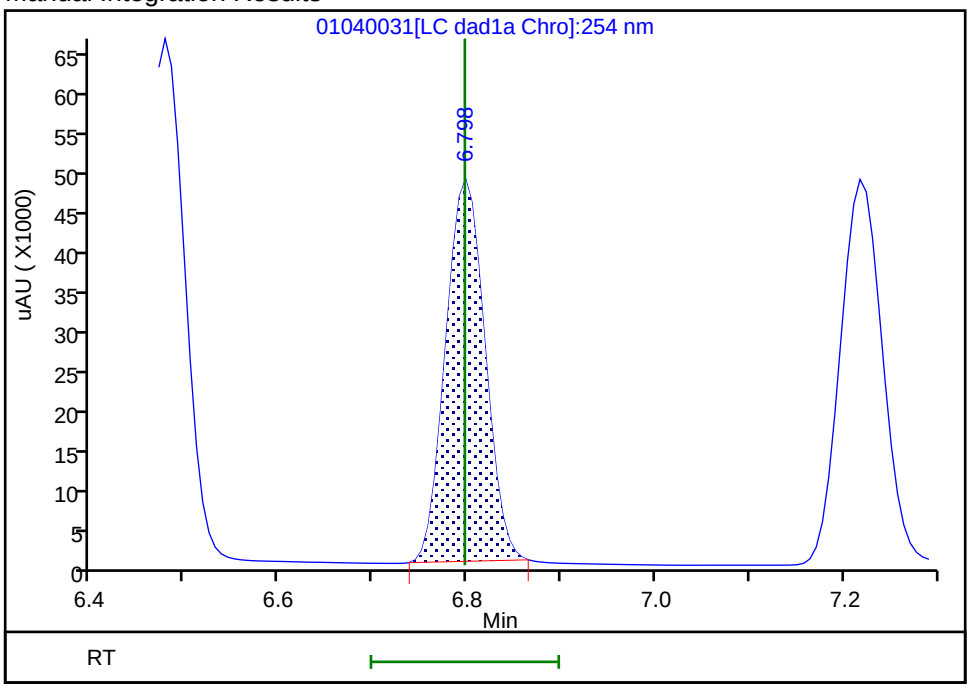
Processing Integration Results

RT: 6.80
Area: 149885
Amount: 1.012127
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 137343
Amount: 0.994425
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:25

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

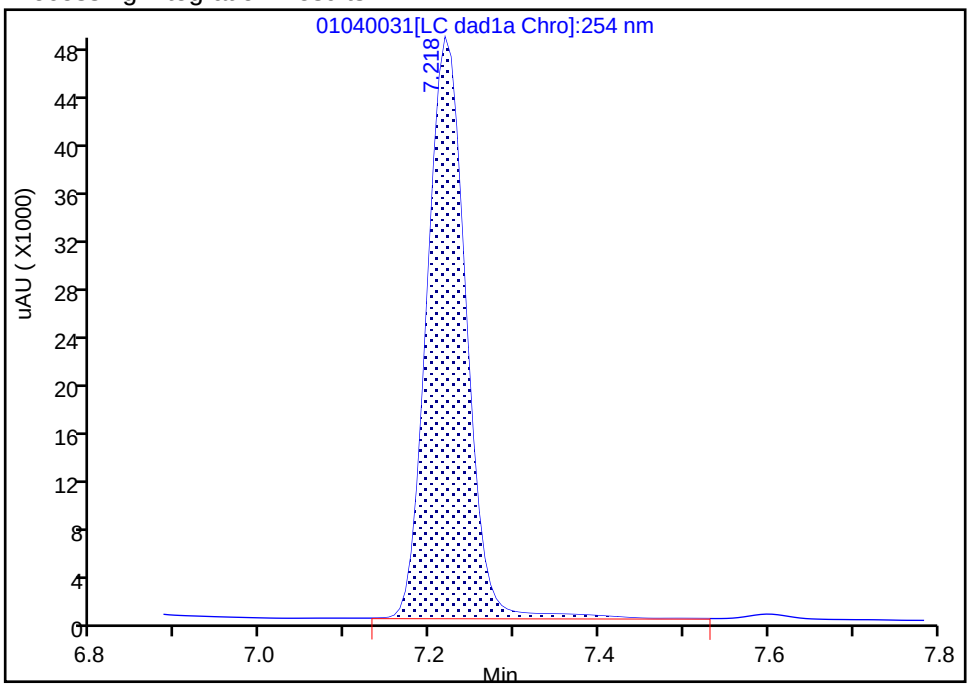
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d				
Injection Date:	05-Jan-2022 02:06:41	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 7				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

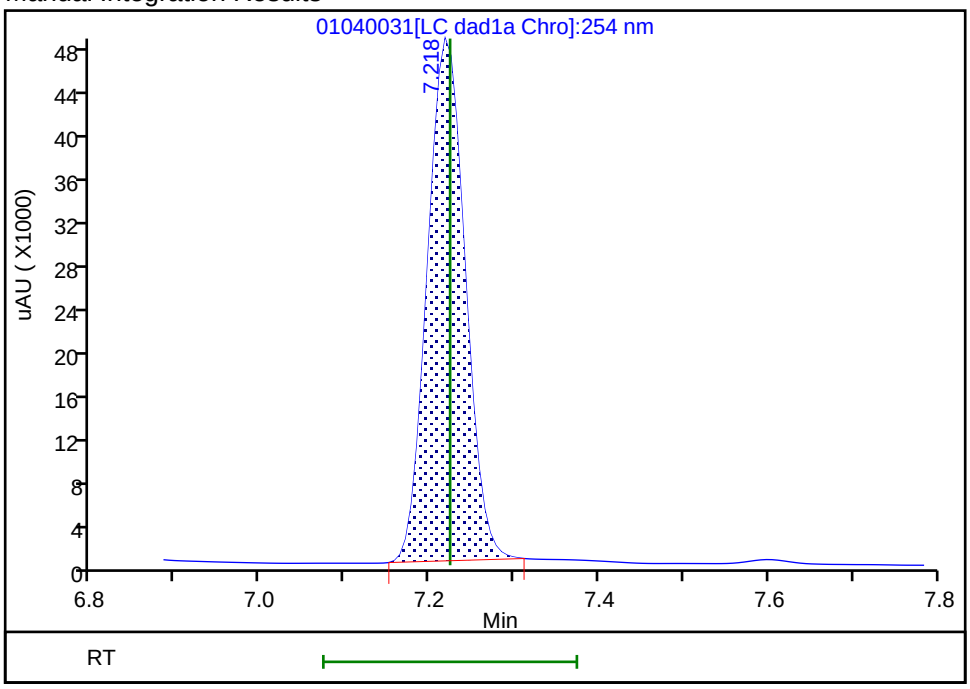
Processing Integration Results

RT: 7.22
Area: 153452
Amount: 1.177280
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 147726
Amount: 1.172471
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:29

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040032.D
Lims ID: IC DMT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 05-Jan-2022 02:29:42 ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 6
Misc. Info.: 280-0107731-032
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub17

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 05-Jan-2022 12:10:06 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1613

First Level Reviewer: zhangji Date: 05-Jan-2022 12:07:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.477	6.484	-0.007	129844	0.7007	0.7165	M
6 DNX	1	6.797	6.797	0.000	97314	0.7007	0.7046	M
7 MNX	1	7.217	7.224	-0.007	103999	0.8169	0.8254	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 35.00 Units: uL

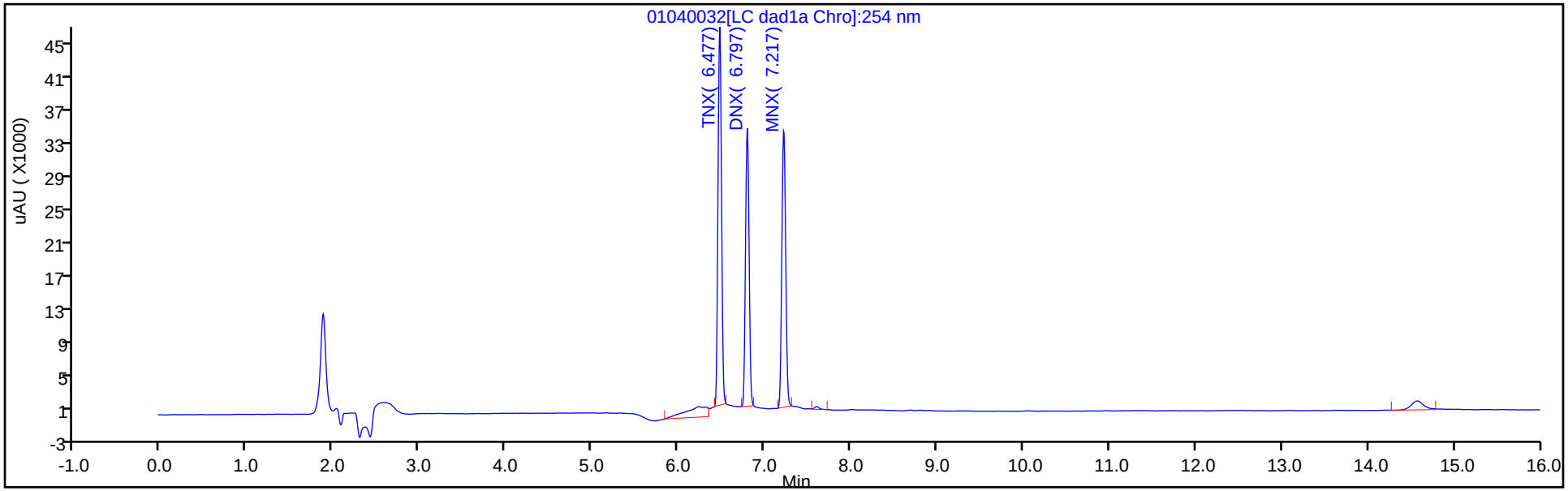
Report Date: 05-Jan-2022 12:10:06 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

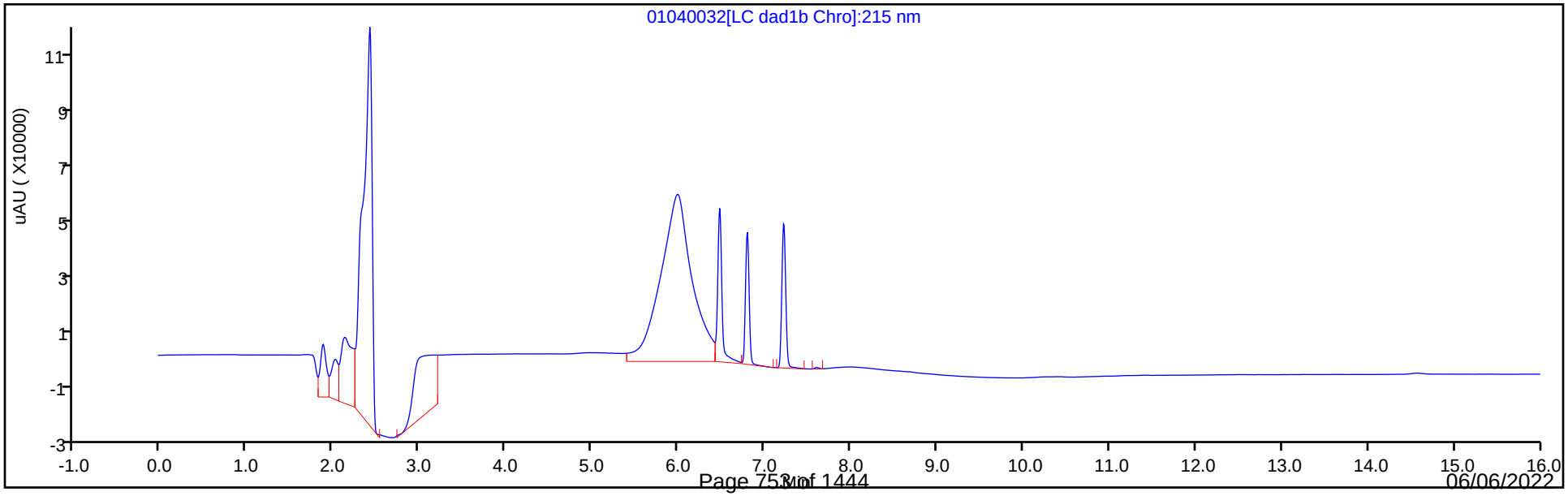
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d

Injection Date:	05-Jan-2022 02:29:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 6			Worklist Smp#:	32
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	32
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

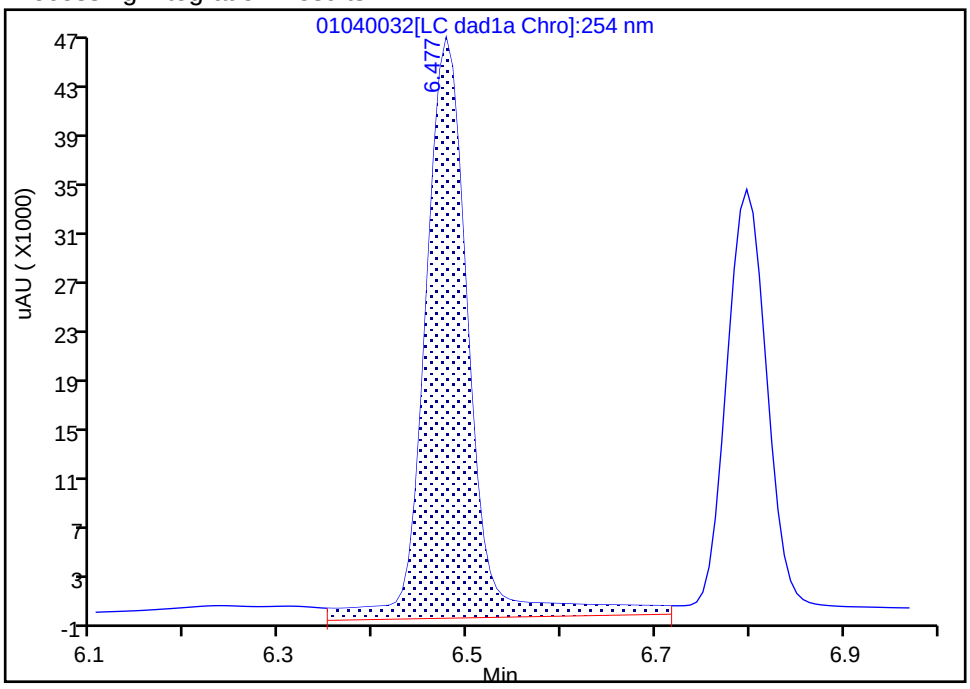
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d				
Injection Date:	05-Jan-2022 02:29:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 6				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

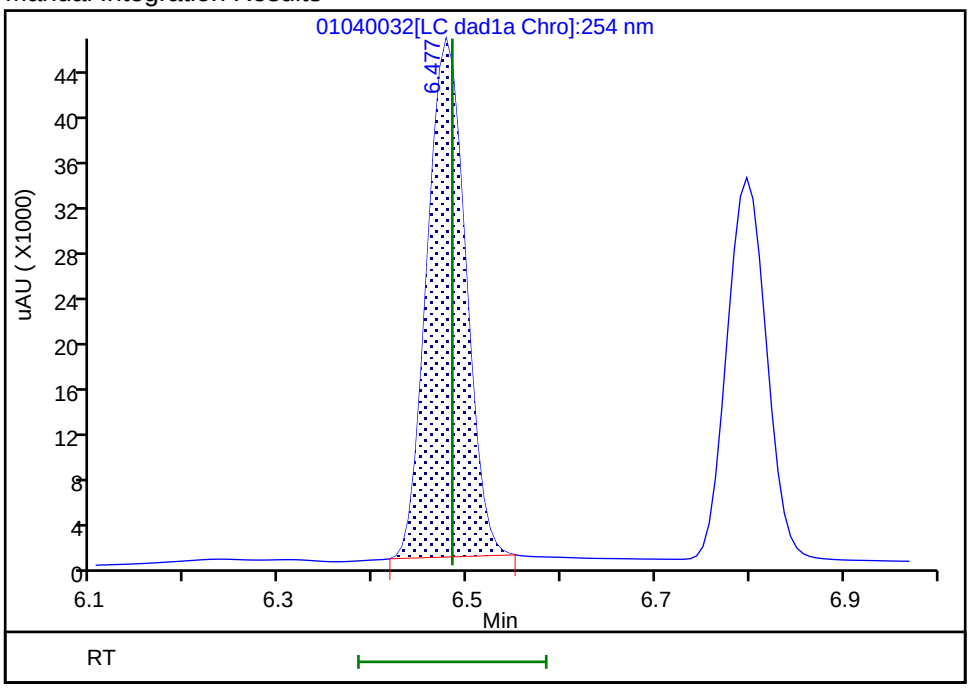
Processing Integration Results

RT: 6.48
Area: 152631
Amount: 0.722450
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 129844
Amount: 0.716549
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:40

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

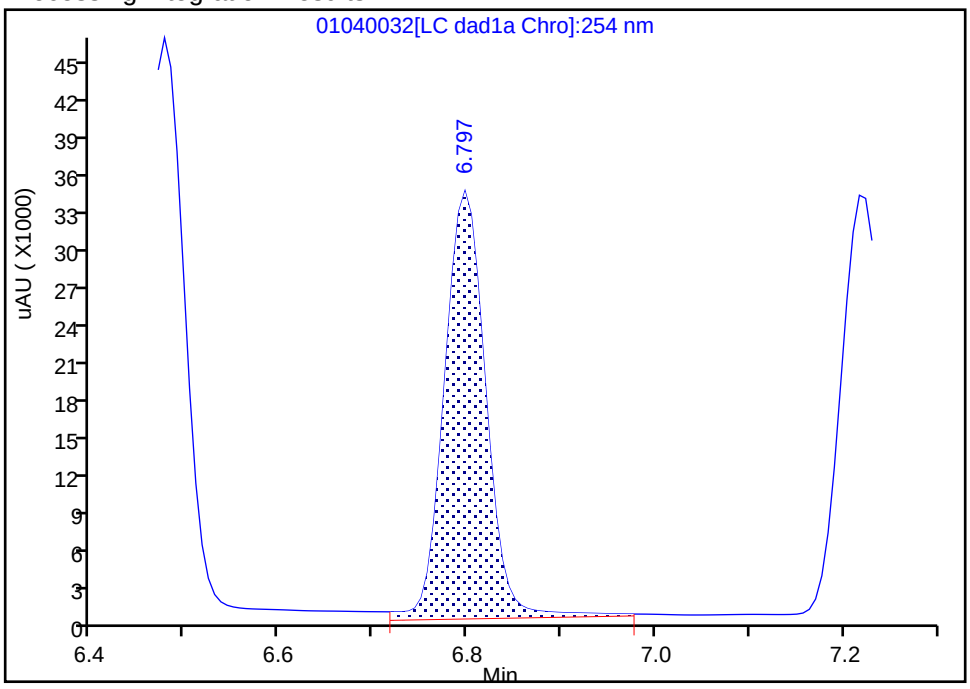
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d				
Injection Date:	05-Jan-2022 02:29:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 6				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

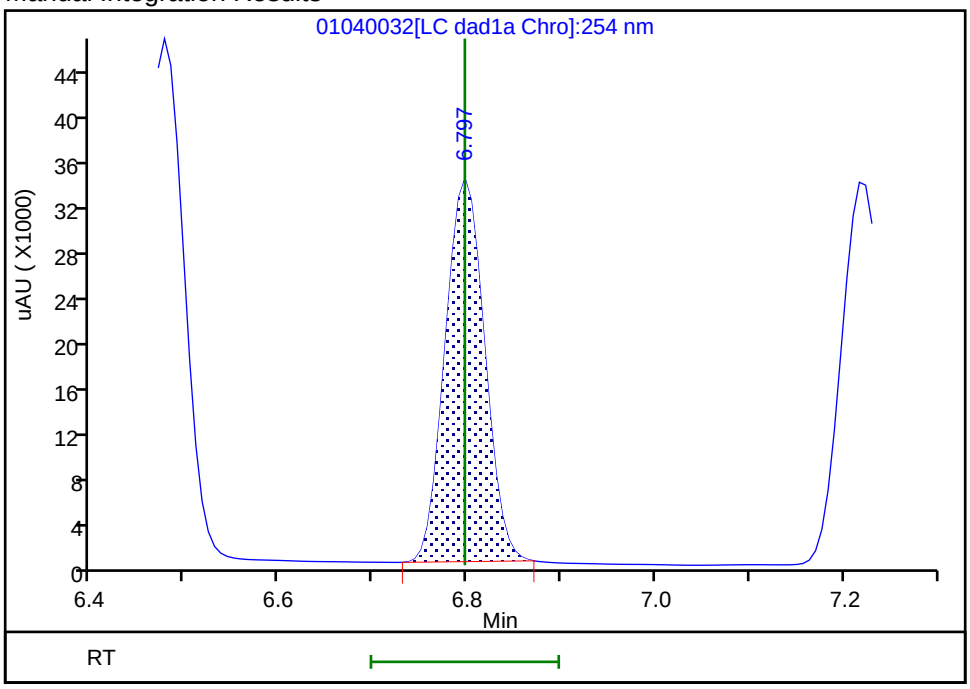
Processing Integration Results

RT: 6.80
Area: 105159
Amount: 0.717696
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 97314
Amount: 0.704597
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:43
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

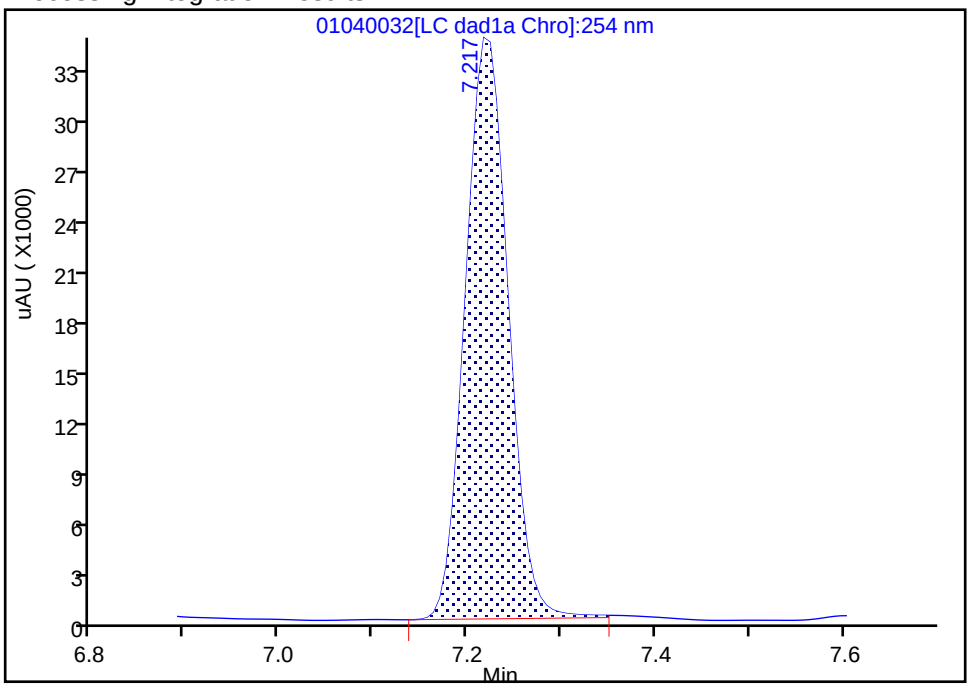
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d				
Injection Date:	05-Jan-2022 02:29:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 6				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

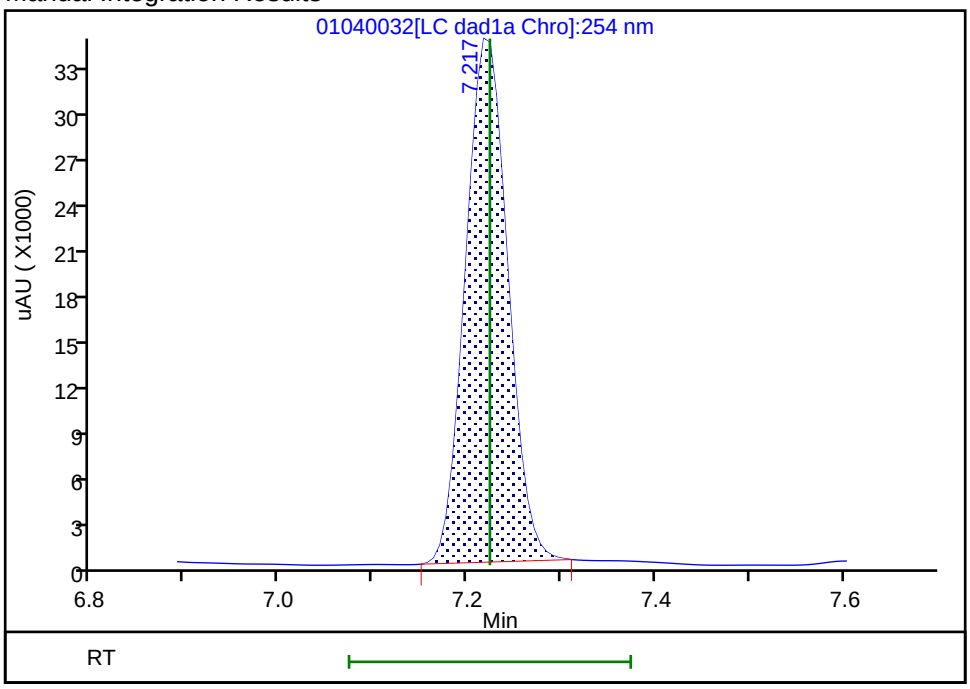
Processing Integration Results

RT: 7.22
Area: 105581
Amount: 0.816470
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 103999
Amount: 0.825419
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:26

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040033.D
Lims ID: IC DMT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 05-Jan-2022 02:52:35 ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 5
Misc. Info.: 280-0107731-033
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub17

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 05-Jan-2022 12:10:07 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1613

First Level Reviewer: zhangji Date: 05-Jan-2022 12:08:18

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.483	6.484	-0.001	72720	0.4004	0.4013	M
6 DNX	1	6.803	6.797	0.006	55675	0.4004	0.4031	M
7 MNX	1	7.223	7.224	-0.001	59416	0.4668	0.4716	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 20.00 Units: uL

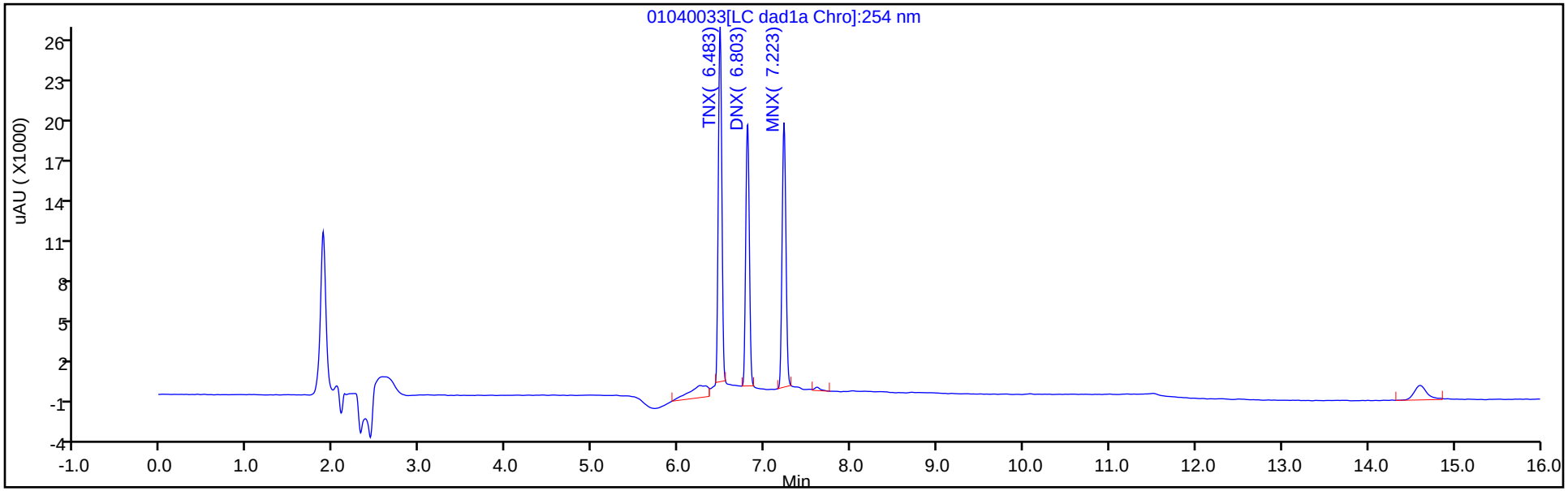
Report Date: 05-Jan-2022 12:10:07 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

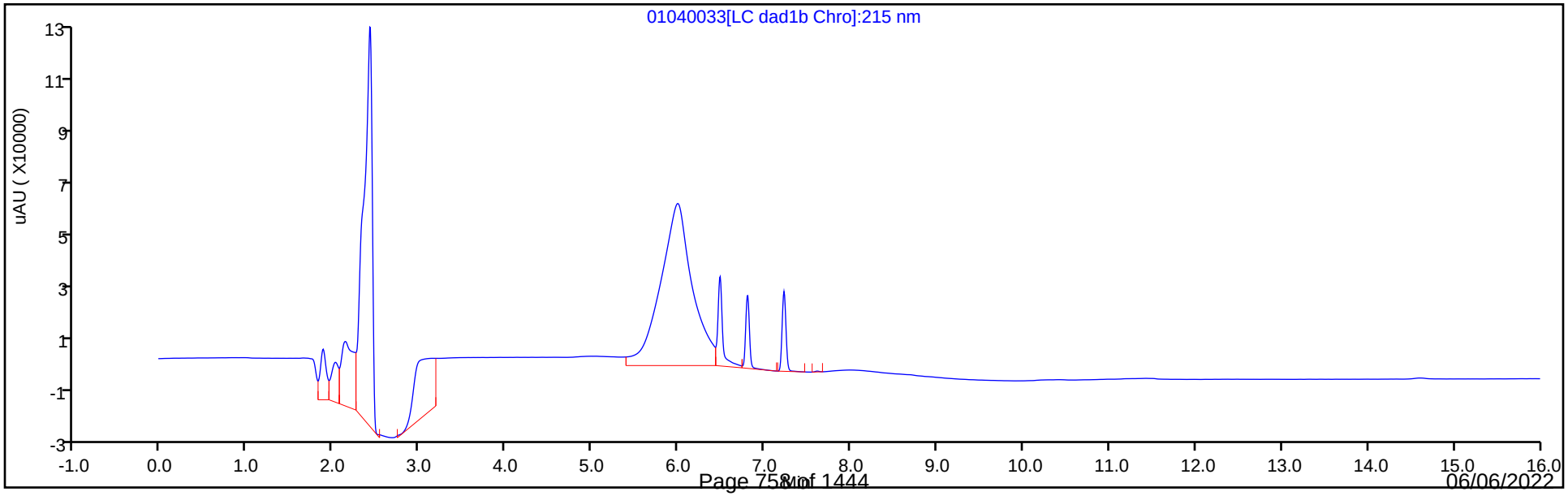
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d

Injection Date:	05-Jan-2022 02:52:35	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 5			Worklist Smp#:	33
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	33
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

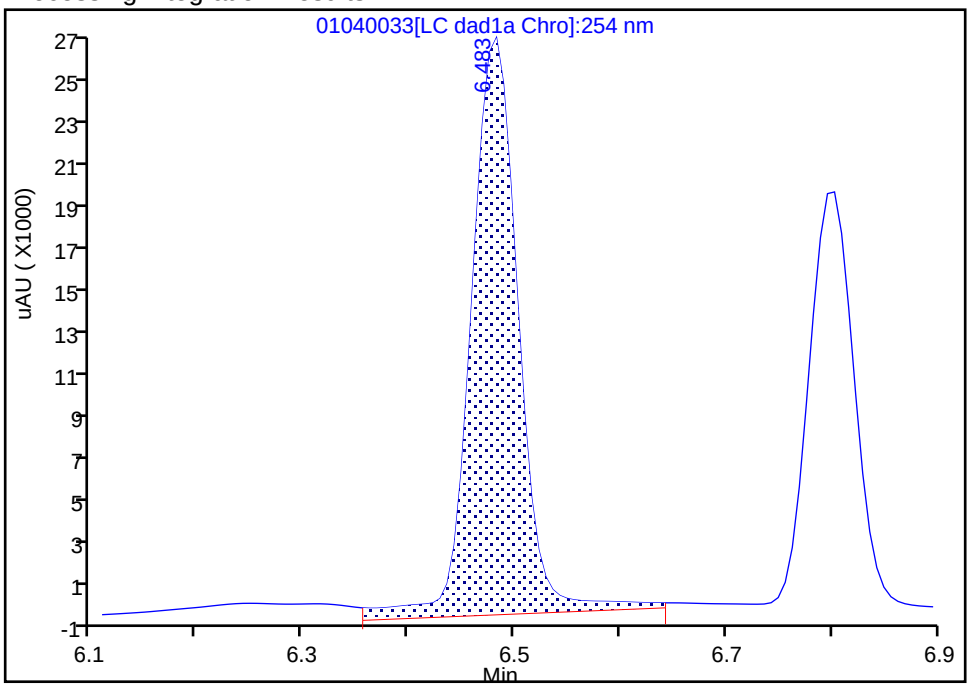
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d				
Injection Date:	05-Jan-2022 02:52:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 5				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

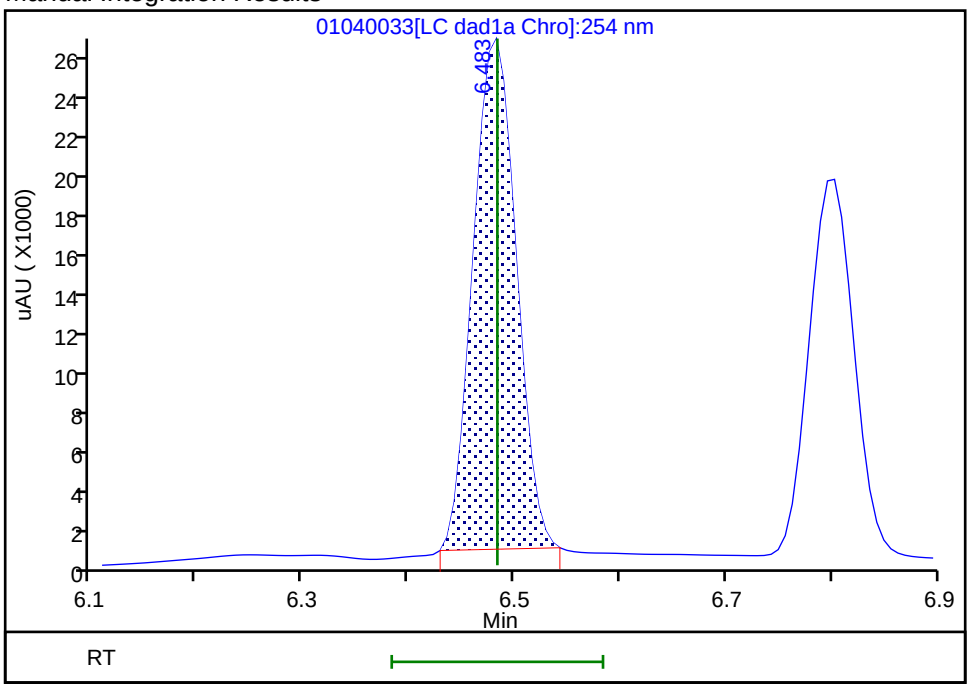
Processing Integration Results

RT: 6.48
Area: 83275
Amount: 0.401900
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 72720
Amount: 0.401308
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:54
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

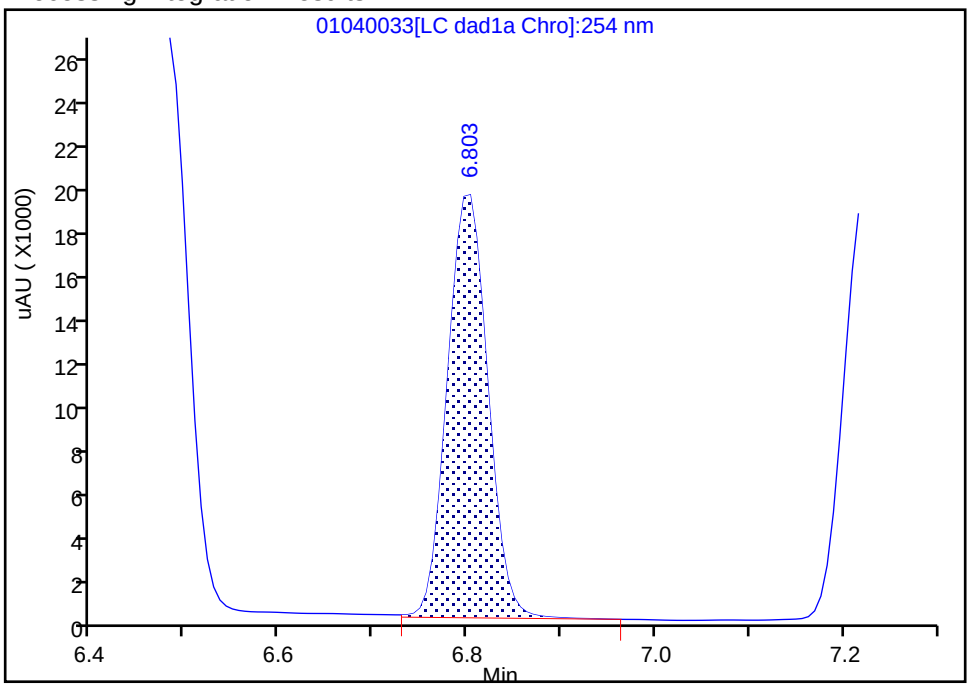
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d				
Injection Date:	05-Jan-2022 02:52:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 5				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

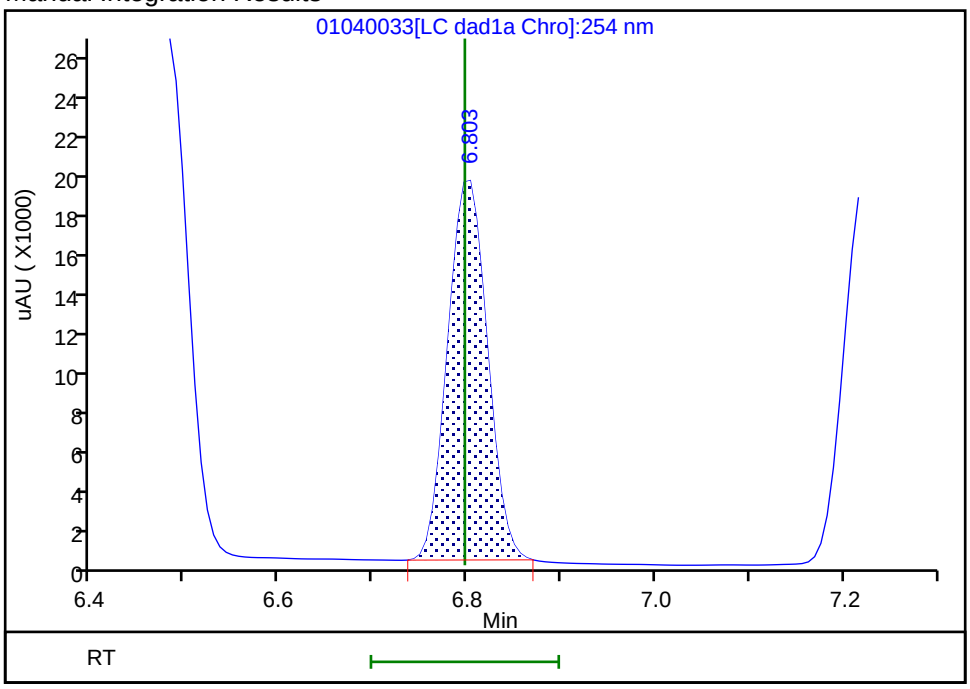
Processing Integration Results

RT: 6.80
Area: 57132
Amount: 0.393678
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 55675
Amount: 0.403112
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:58
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

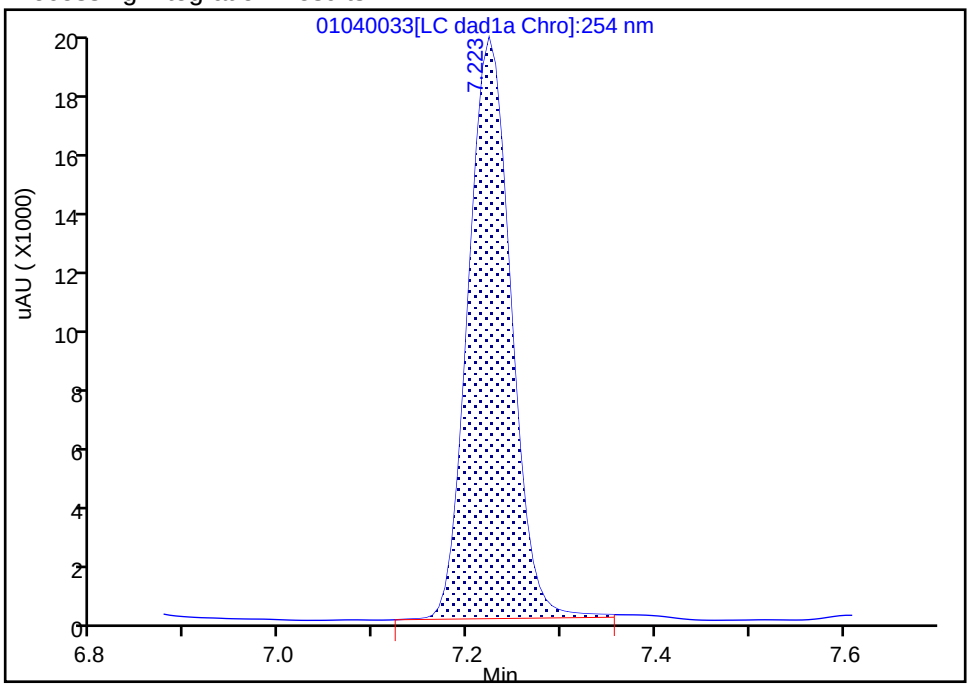
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d				
Injection Date:	05-Jan-2022 02:52:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 5				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

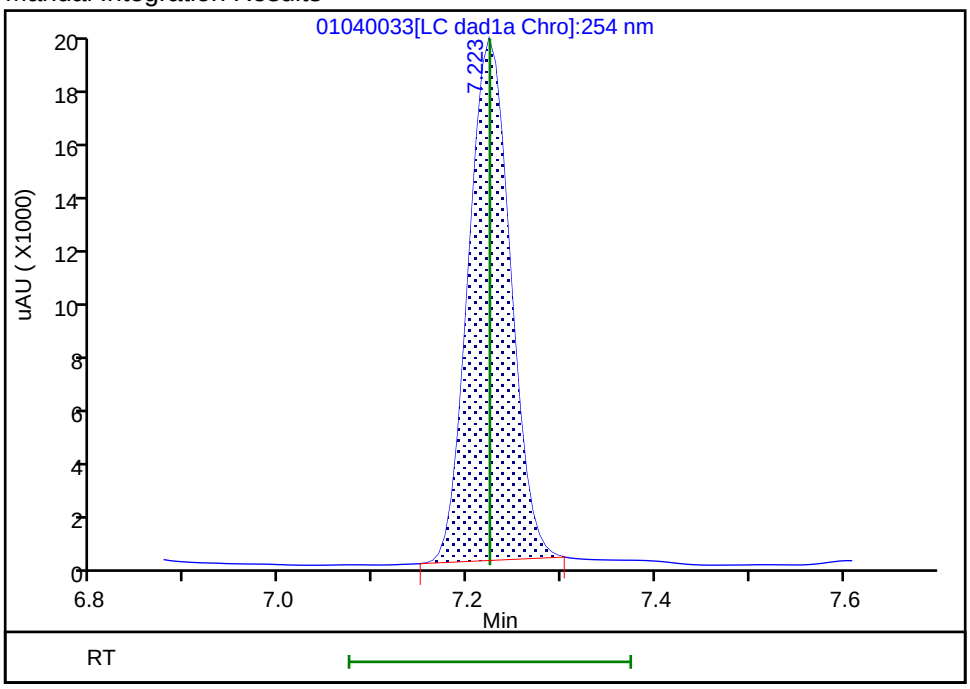
Processing Integration Results

RT: 7.22
Area: 60974
Amount: 0.470003
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 59416
Amount: 0.471573
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:17

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040034.D
Lims ID: IC DMT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 05-Jan-2022 03:15:30 ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 4
Misc. Info.: 280-0107731-034
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub17

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 05-Jan-2022 12:10:07 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1613

First Level Reviewer: zhangji Date: 05-Jan-2022 12:08:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.484	6.484	0.000	42748	0.2503	0.2359	M
6 DNX	1	6.797	6.797	0.000	32416	0.2503	0.2347	M
7 MNX	1	7.224	7.224	0.000	34560	0.2918	0.2743	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

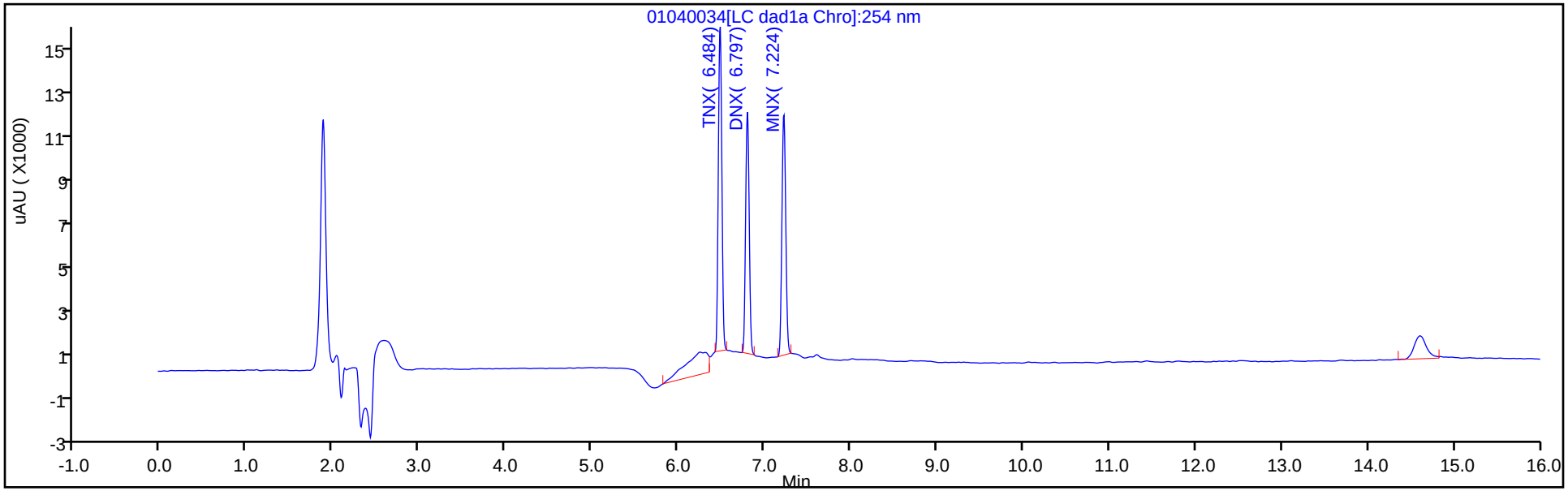
Report Date: 05-Jan-2022 12:10:07 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

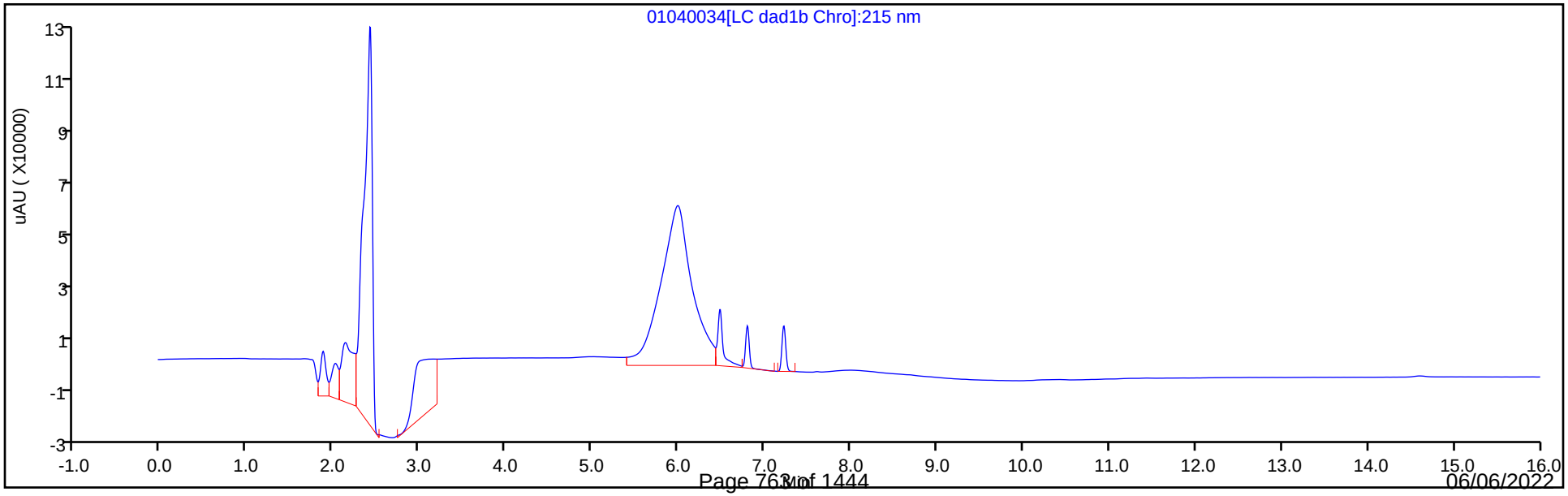
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d

Injection Date:	05-Jan-2022 03:15:30	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 4			Worklist Smp#:	34
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	34
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

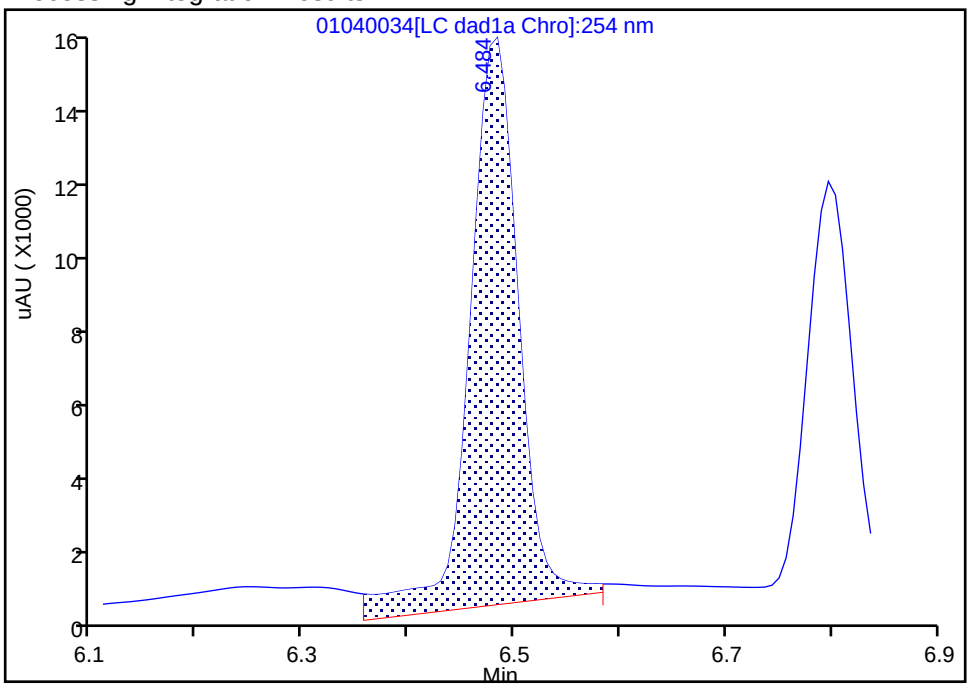
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d				
Injection Date:	05-Jan-2022 03:15:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

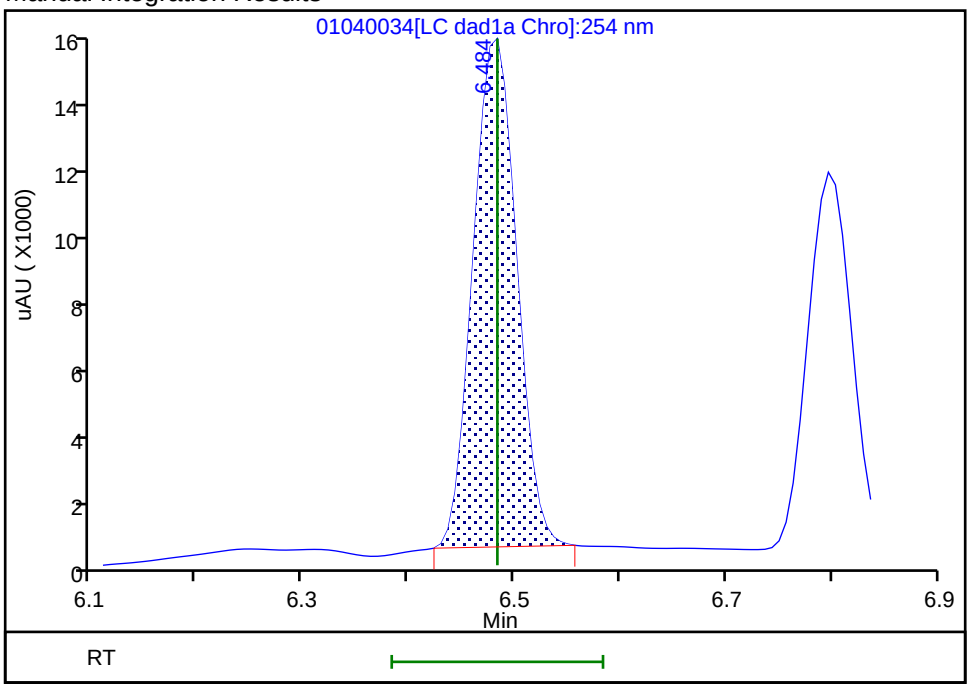
Processing Integration Results

RT: 6.48
Area: 50220
Amount: 0.246287
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 42748
Amount: 0.235906
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

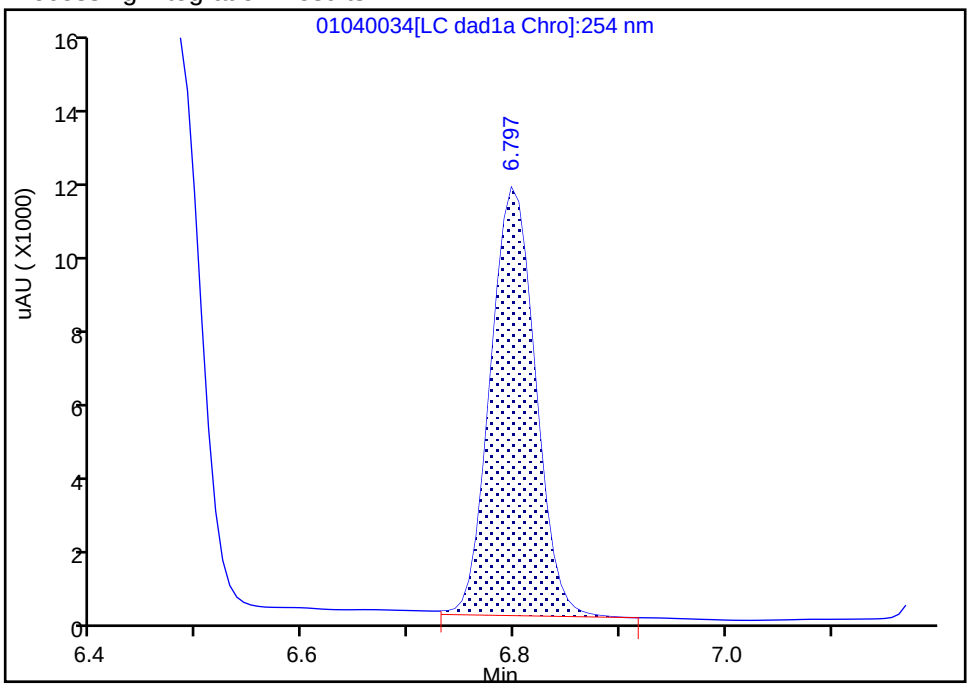
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d				
Injection Date:	05-Jan-2022 03:15:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

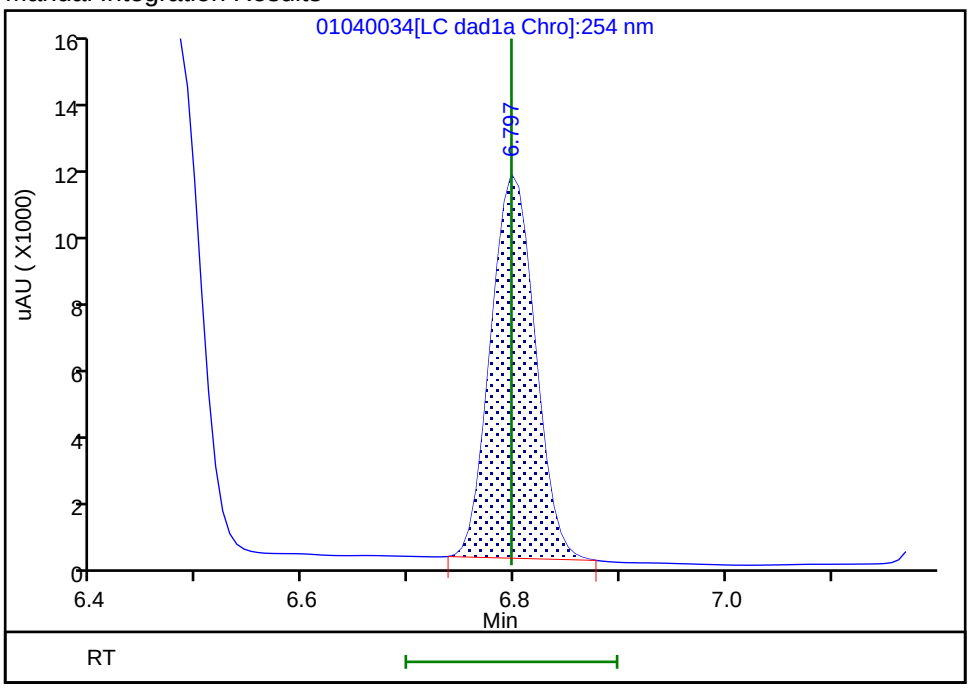
Processing Integration Results

RT: 6.80
Area: 33123
Amount: 0.228958
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 32416
Amount: 0.234706
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:39

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

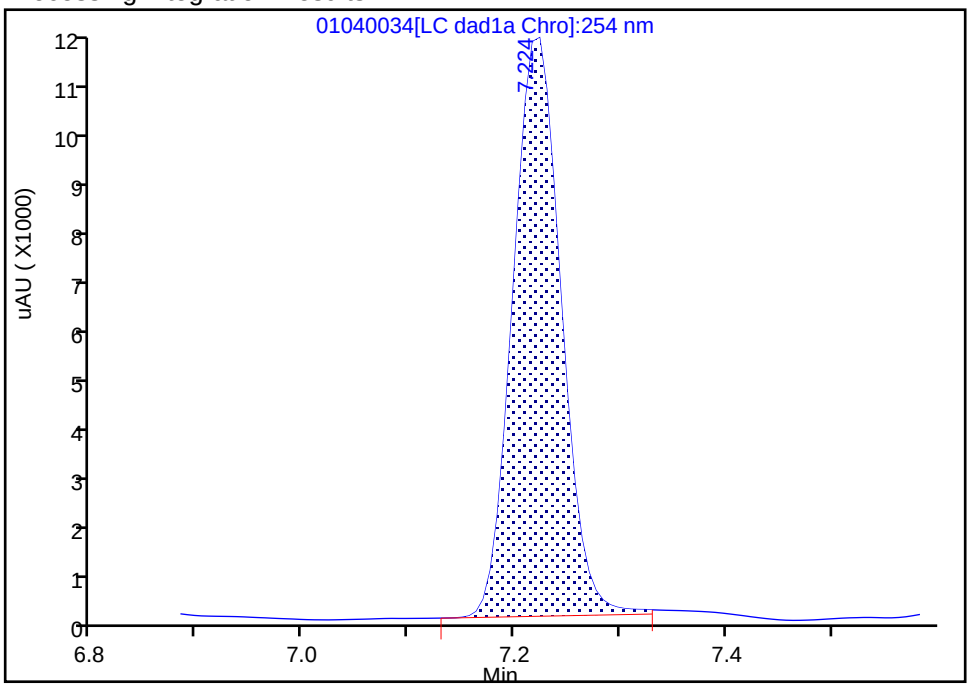
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d				
Injection Date:	05-Jan-2022 03:15:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

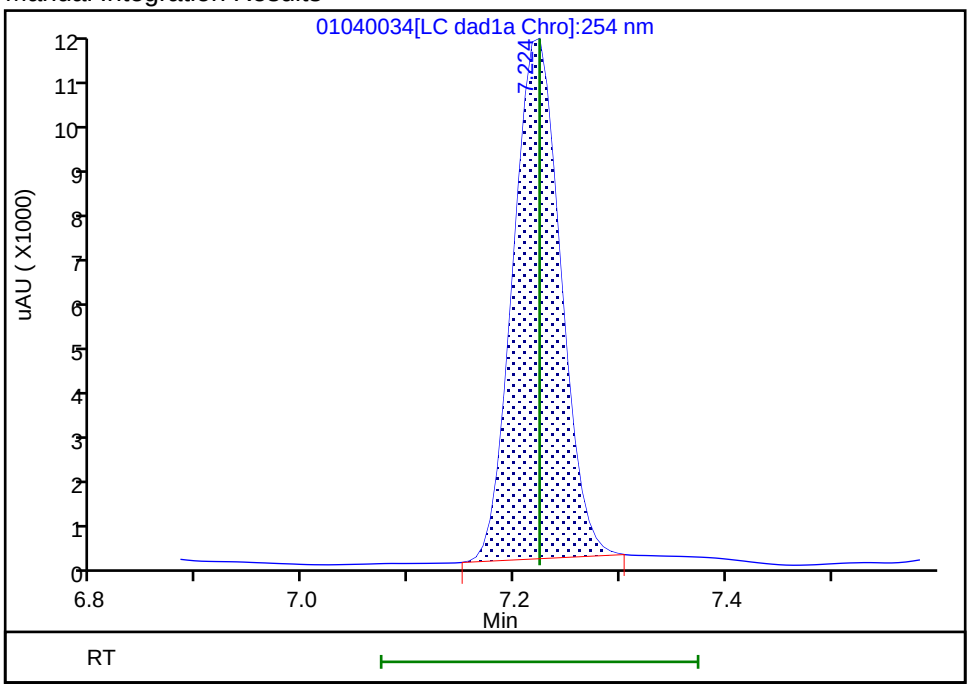
Processing Integration Results

RT: 7.22
Area: 35288
Amount: 0.273398
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 34560
Amount: 0.274296
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:43

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040035.D
Lims ID: IC DMT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 05-Jan-2022 03:38:24 ALS Bottle#: 35 Worklist Smp#: 35
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 3
Misc. Info.: 280-0107731-035
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub17

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 05-Jan-2022 12:10:07 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1613

First Level Reviewer: zhangji Date: 05-Jan-2022 12:08:58

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.483	6.484	-0.001	17989	0.1001	0.0993	M
6 DNX	1	6.796	6.797	-0.001	13928	0.1001	0.1008	M
7 MNX	1	7.223	7.224	-0.001	14438	0.1167	0.1146	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 5.00 Units: uL

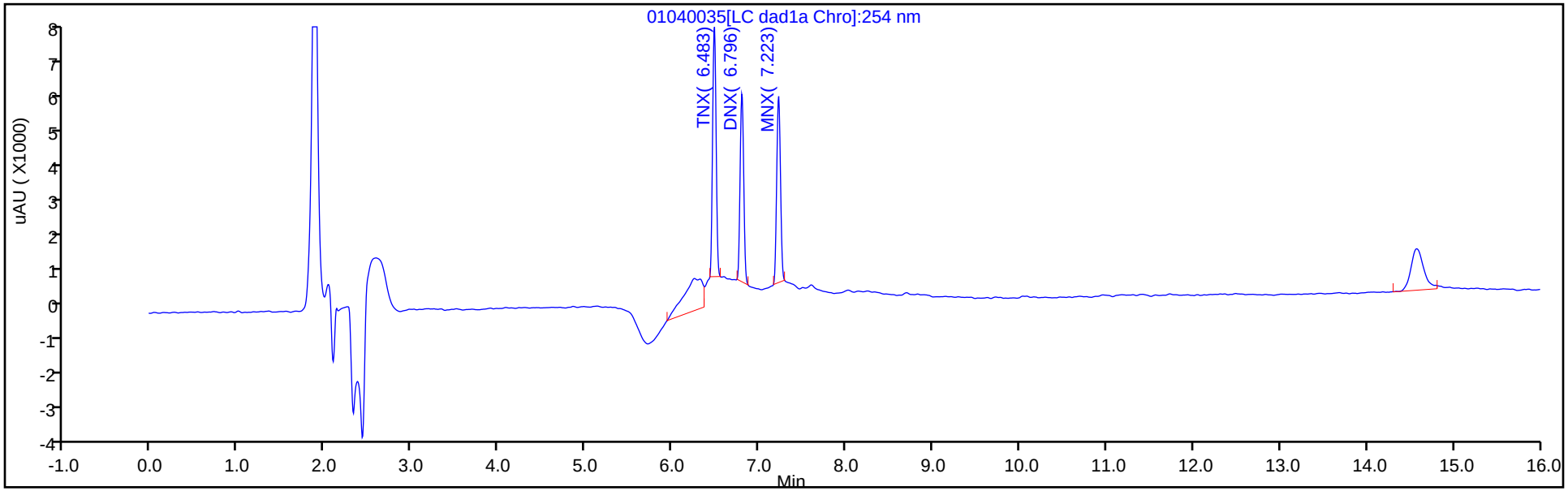
Report Date: 05-Jan-2022 12:10:08 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

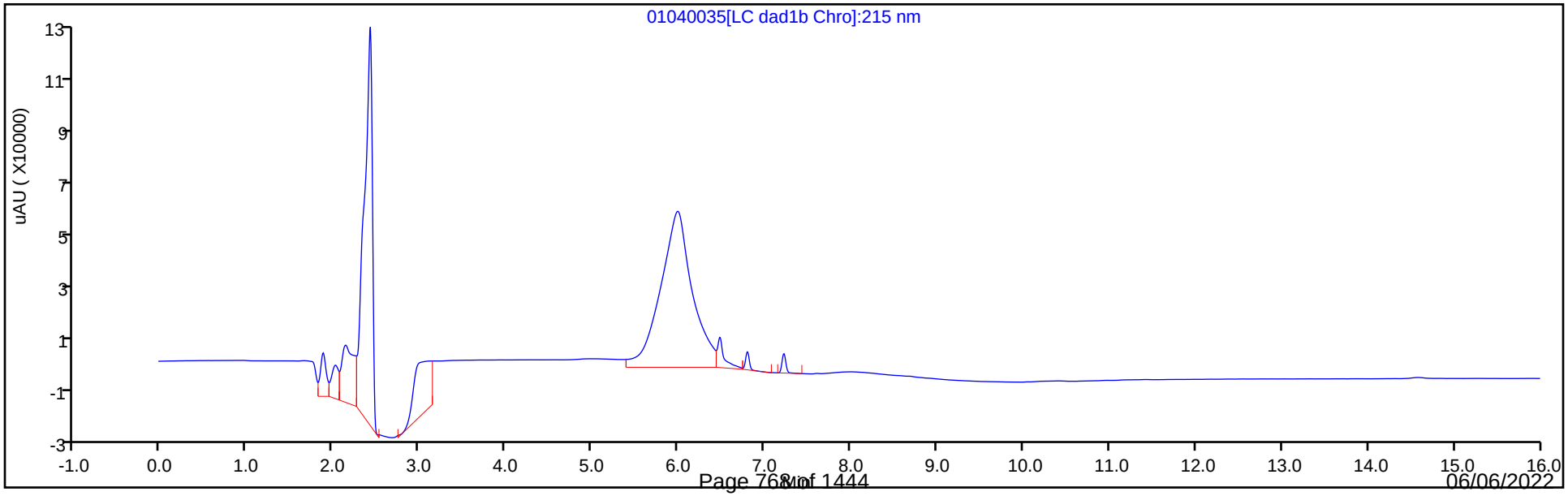
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d

Injection Date:	05-Jan-2022 03:38:24	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 3			Worklist Smp#:	35
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	35
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

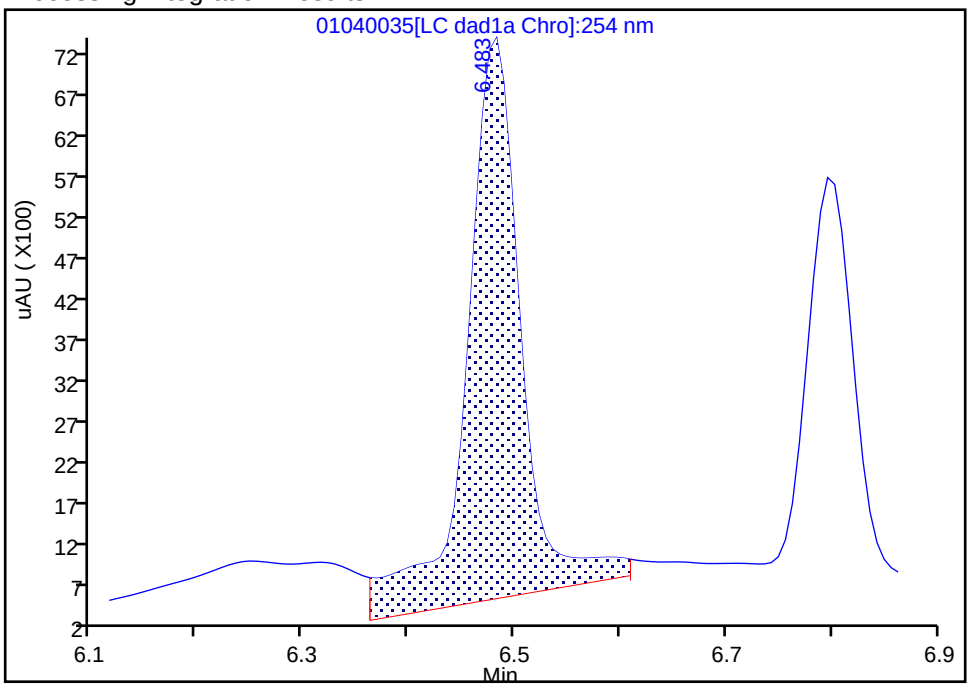
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d				
Injection Date:	05-Jan-2022 03:38:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

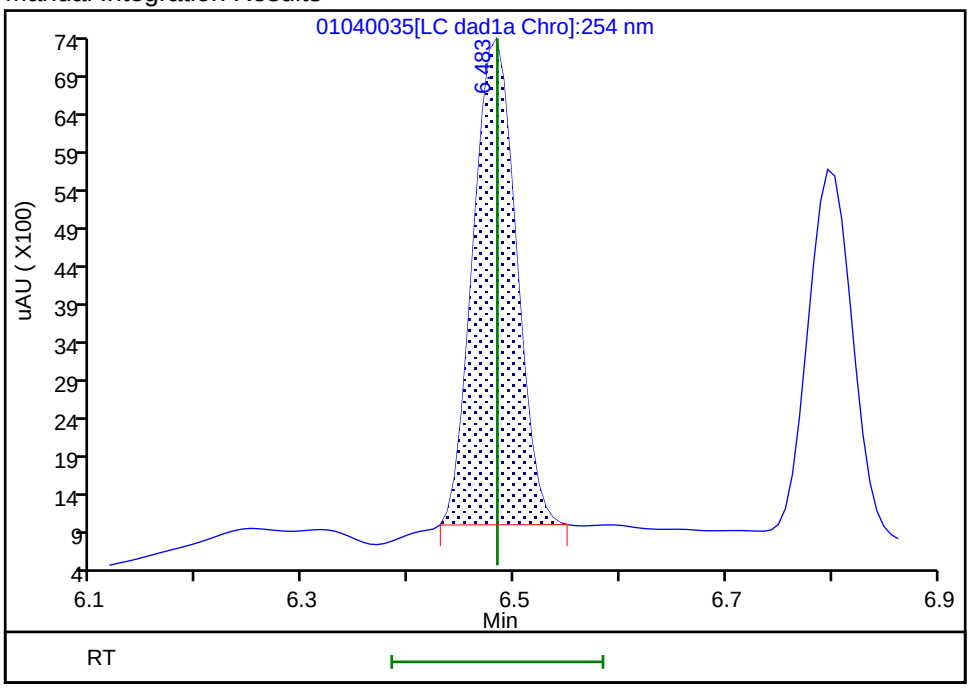
Processing Integration Results

RT: 6.48
Area: 24762
Amount: 0.123701
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 17989
Amount: 0.099273
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:50
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

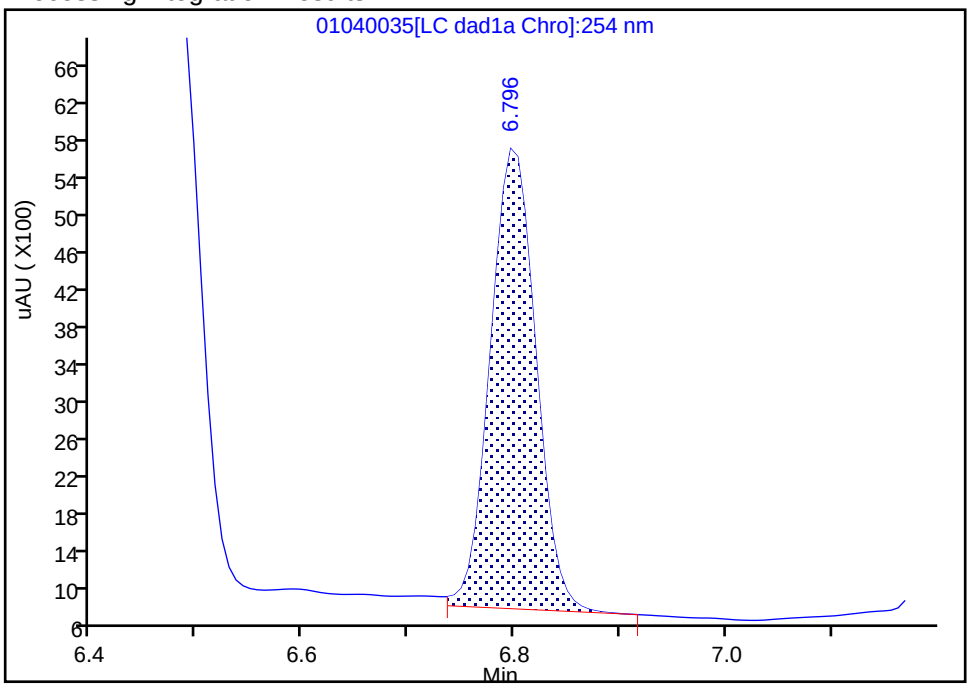
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d				
Injection Date:	05-Jan-2022 03:38:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

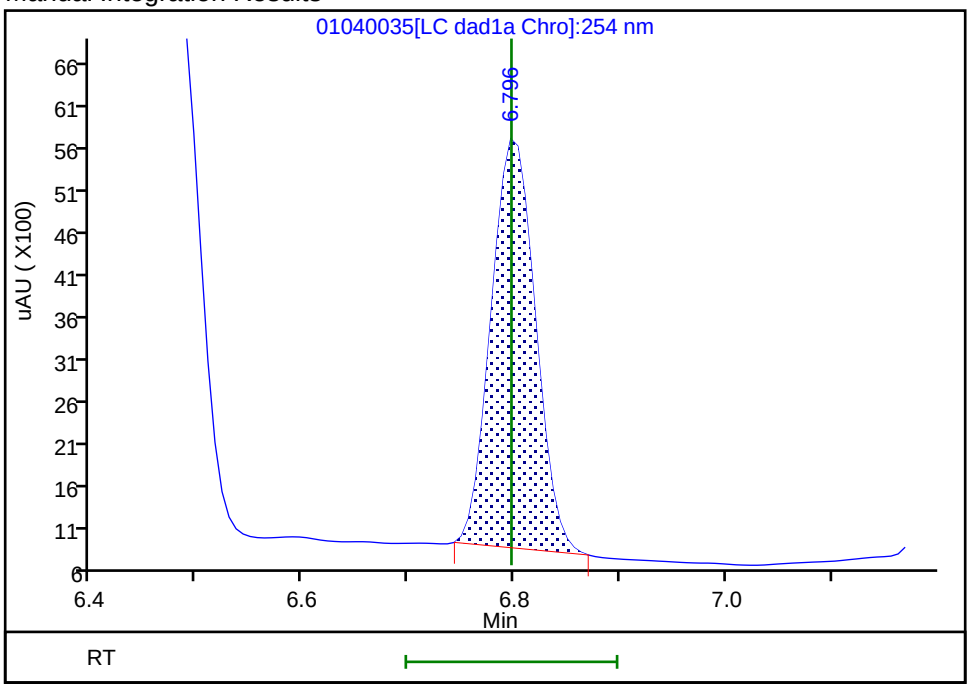
Processing Integration Results

RT: 6.80
Area: 14564
Amount: 0.100918
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 13928
Amount: 0.100845
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:53
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

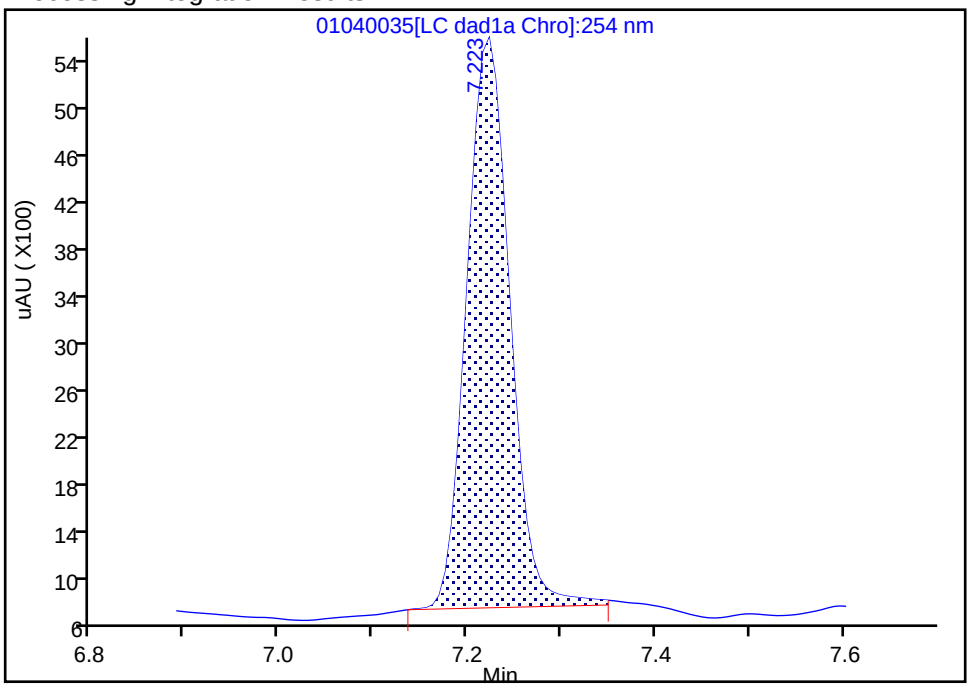
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d				
Injection Date:	05-Jan-2022 03:38:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

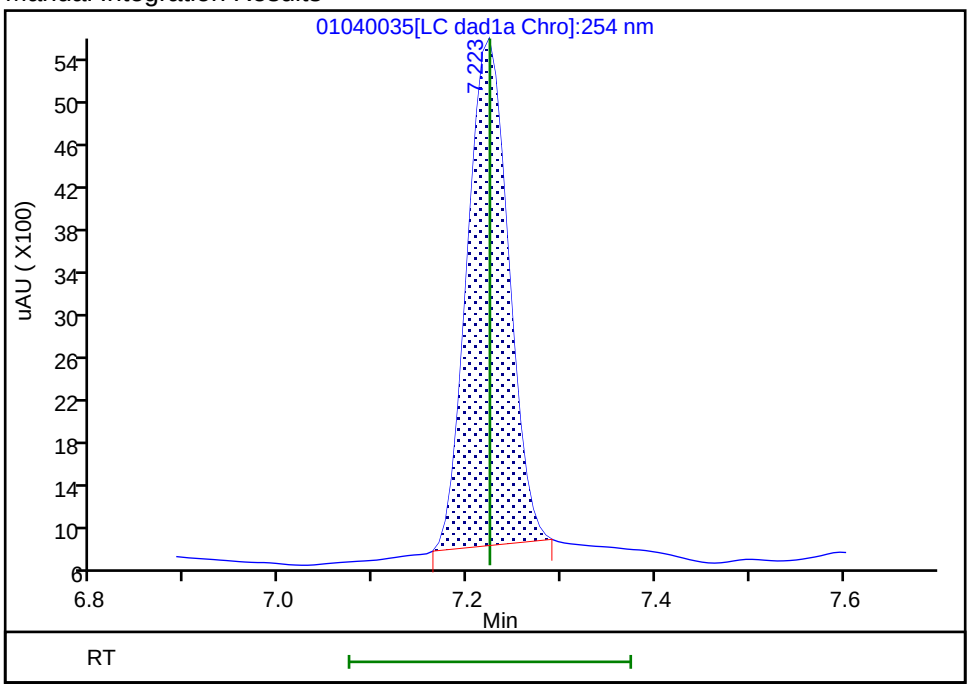
Processing Integration Results

RT: 7.22
Area: 15316
Amount: 0.118950
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 14438
Amount: 0.114591
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:56

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040036.D
Lims ID: IC DMT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 05-Jan-2022 04:01:20 ALS Bottle#: 36 Worklist Smp#: 36
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 2
Misc. Info.: 280-0107731-036
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub17

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 05-Jan-2022 12:10:08 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1613

First Level Reviewer: zhangji Date: 05-Jan-2022 12:09:13

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.478	6.484	-0.006	9031	0.0501	0.0498	M
6 DNX	1	6.798	6.797	0.001	6988	0.0501	0.0506	M
7 MNX	1	7.224	7.224	0.000	7298	0.0584	0.0579	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 2.50 Units: uL

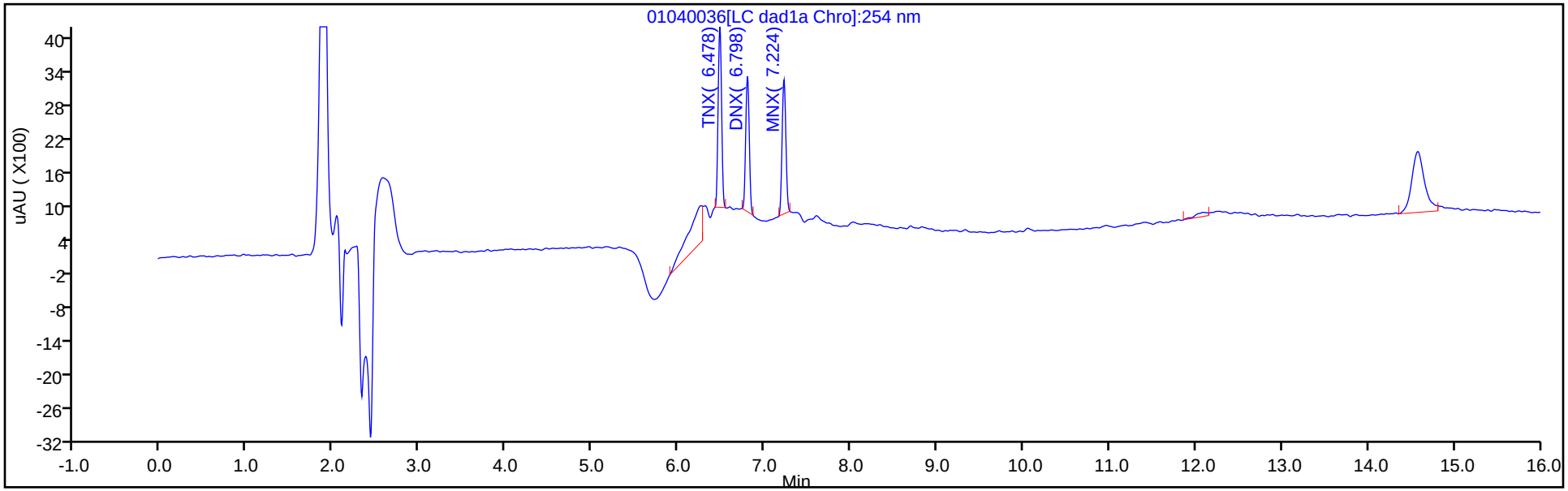
Report Date: 05-Jan-2022 12:10:08 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

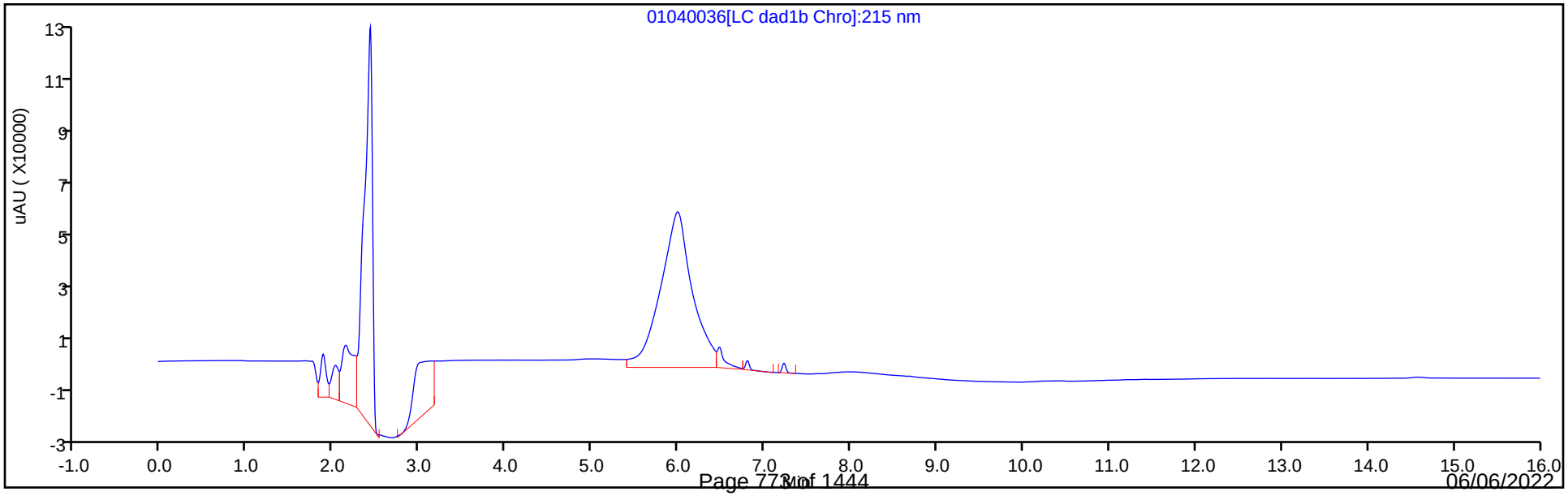
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040036.d

Injection Date:	05-Jan-2022 04:01:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 2			Worklist Smp#:	36
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	36
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

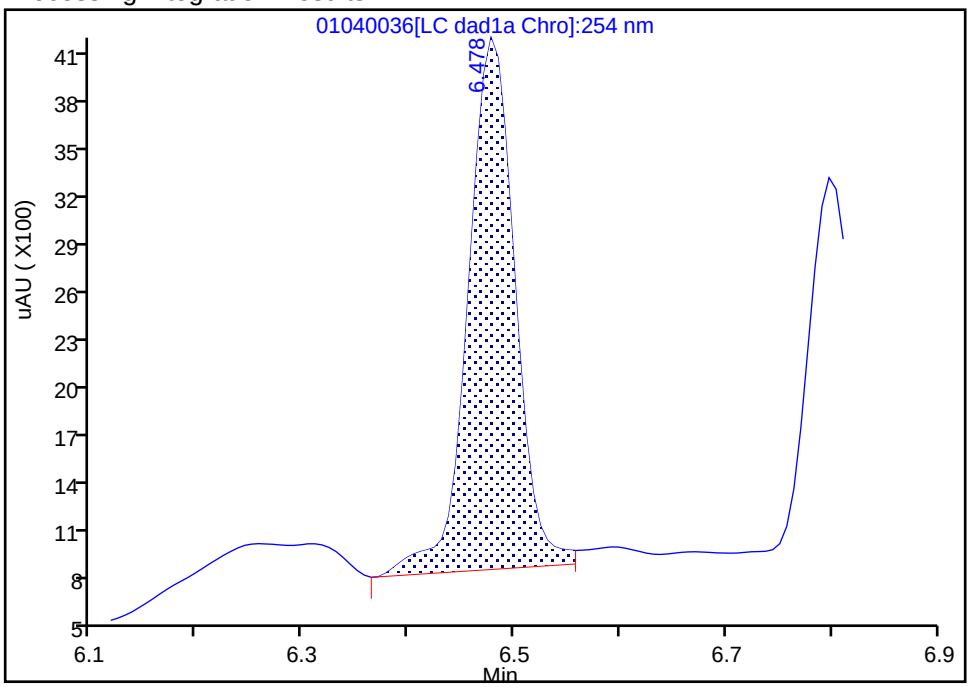
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040036.d				
Injection Date:	05-Jan-2022 04:01:20	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

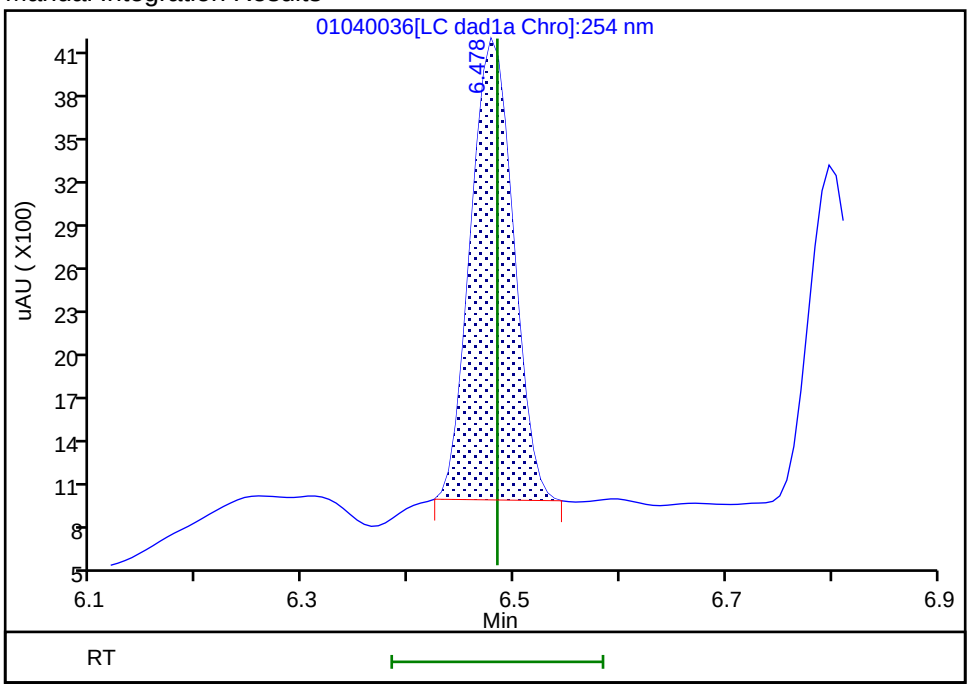
Processing Integration Results

RT: 6.48
Area: 10352
Amount: 0.053996
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 9031
Amount: 0.049838
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:04

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

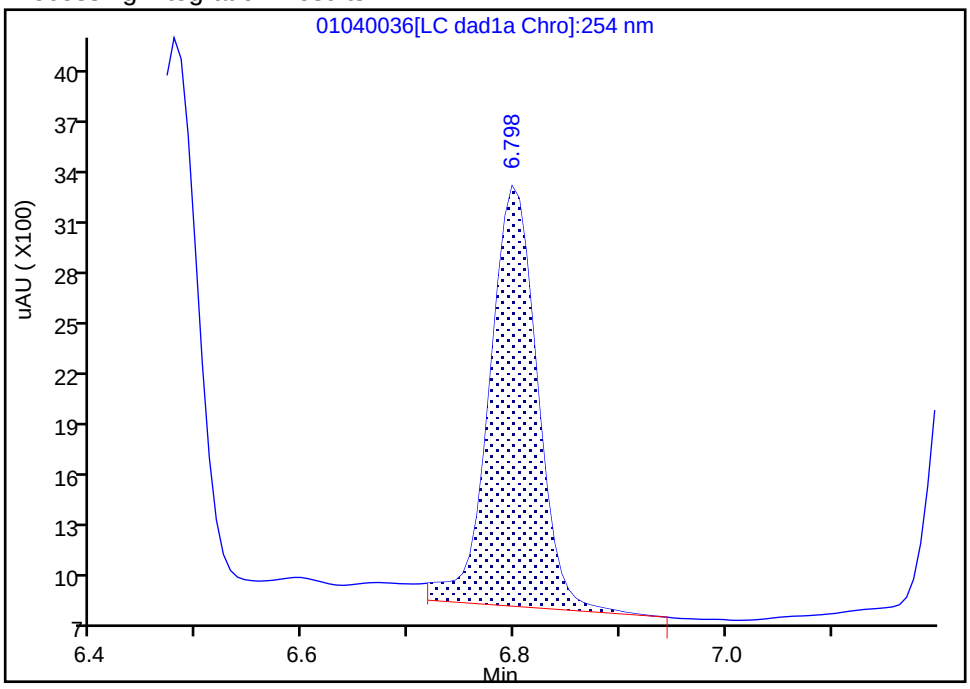
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040036.d				
Injection Date:	05-Jan-2022 04:01:20	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

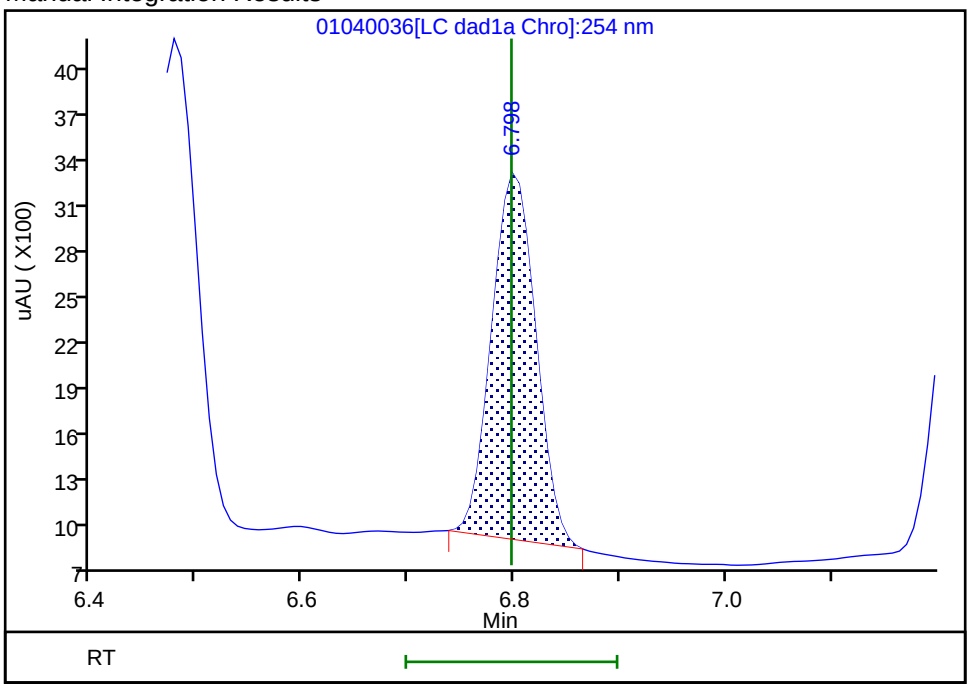
Processing Integration Results

RT: 6.80
Area: 7841
Amount: 0.054633
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 6988
Amount: 0.050596
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:07
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

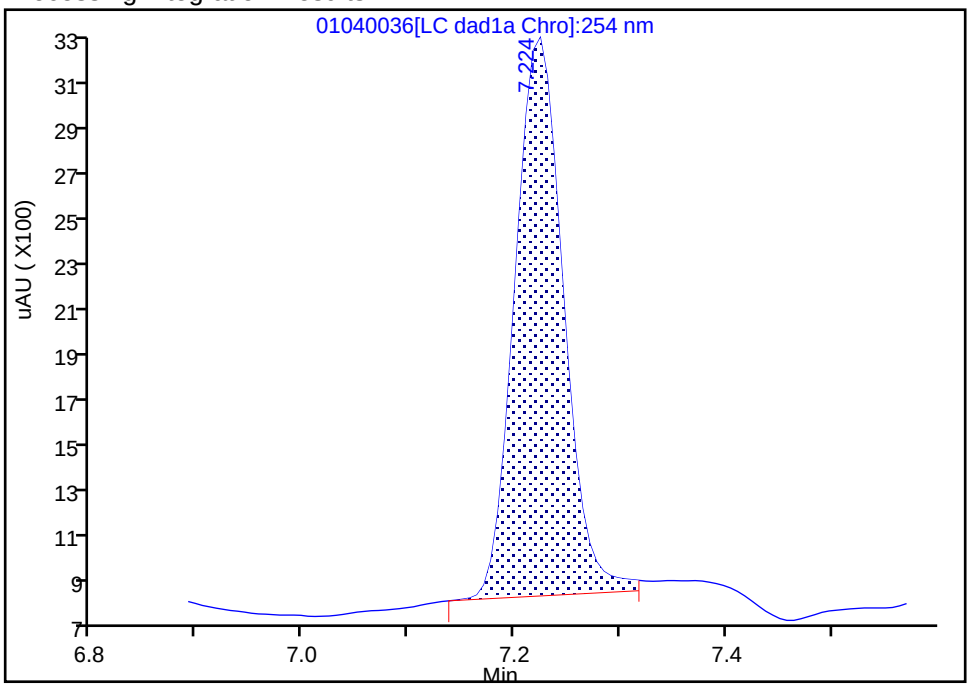
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040036.d				
Injection Date:	05-Jan-2022 04:01:20	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

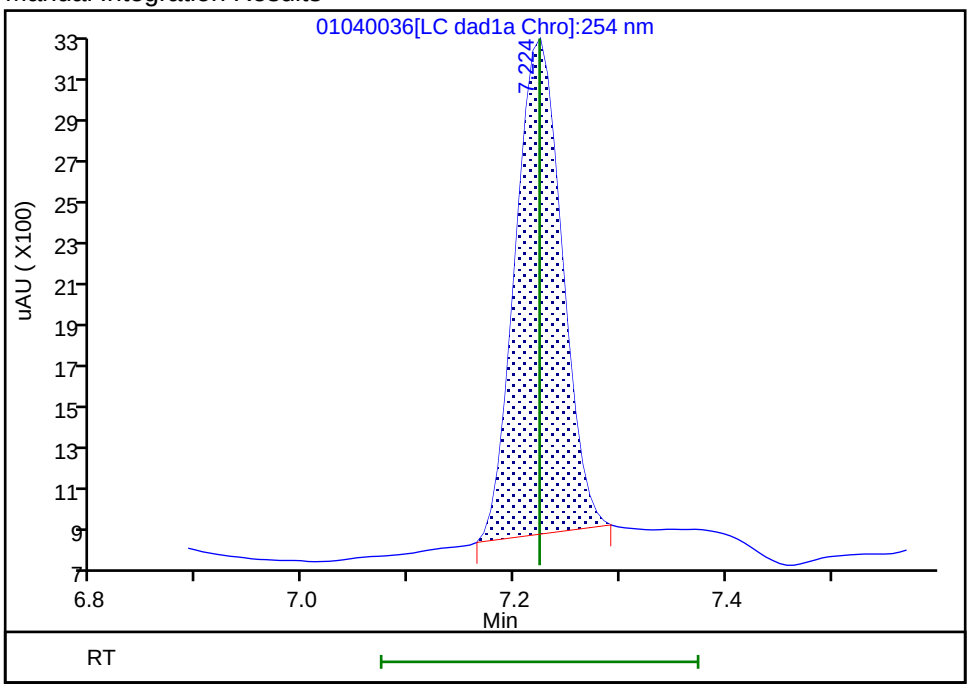
Processing Integration Results

RT: 7.22
Area: 7737
Amount: 0.060531
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 7298
Amount: 0.057923
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:11

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Lims ID:	IC DMT 1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	05-Jan-2022 04:24:15	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 1				
Misc. Info.:	280-0107731-037				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Jan-2022 12:10:08	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1613				
First Level Reviewer: zhangji		Date:	05-Jan-2022 12:09:28		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.479	6.484	-0.005	3600	0.0200	0.0199	M
6 DNX	1	6.799	6.797	0.002	2817	0.0200	0.0204	M
7 MNX	1	7.219	7.224	-0.005	3042	0.0233	0.0241	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 1.00 Units: uL

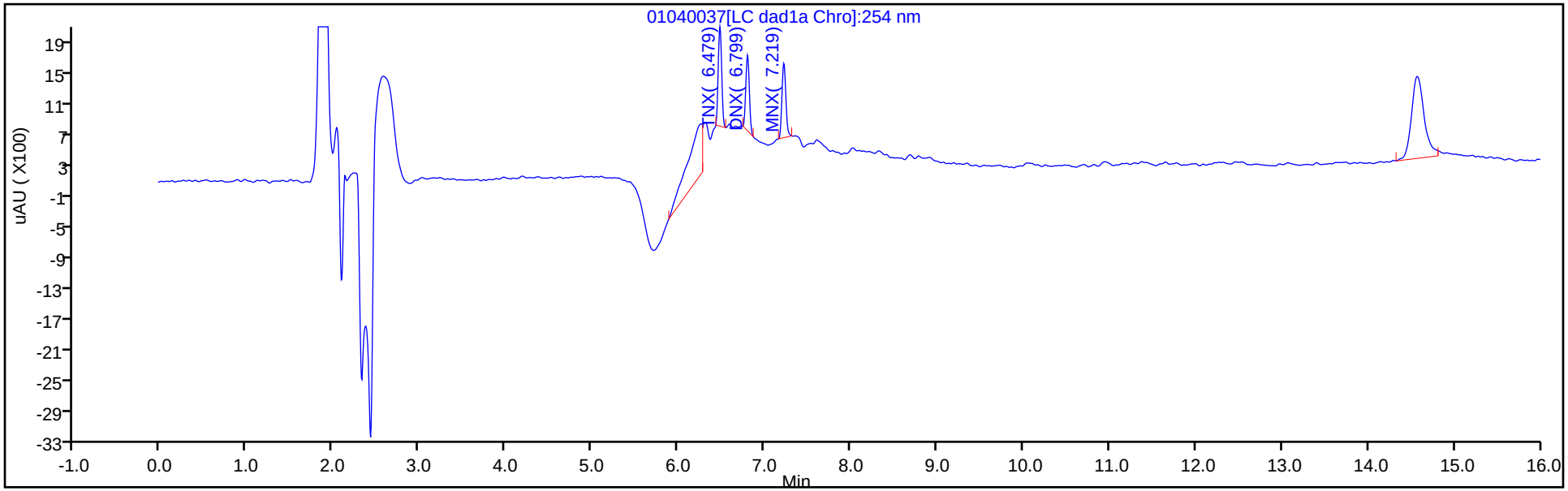
Report Date: 05-Jan-2022 12:10:09 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

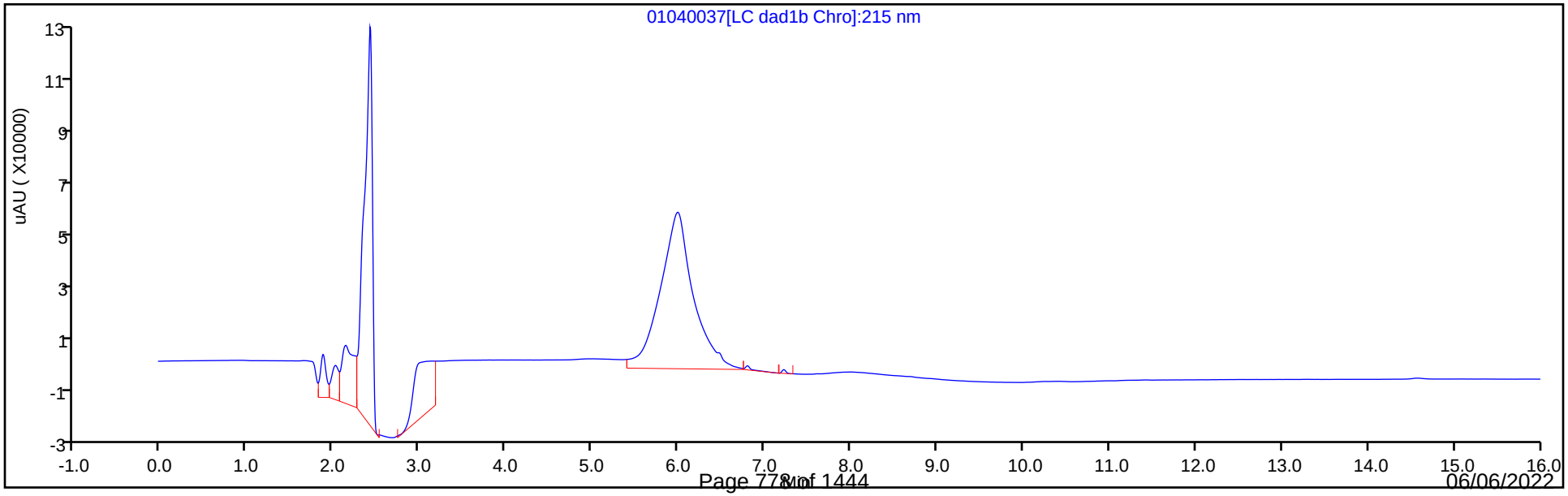
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d

Injection Date:	05-Jan-2022 04:24:15	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 1			Worklist Smp#:	37
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	37
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

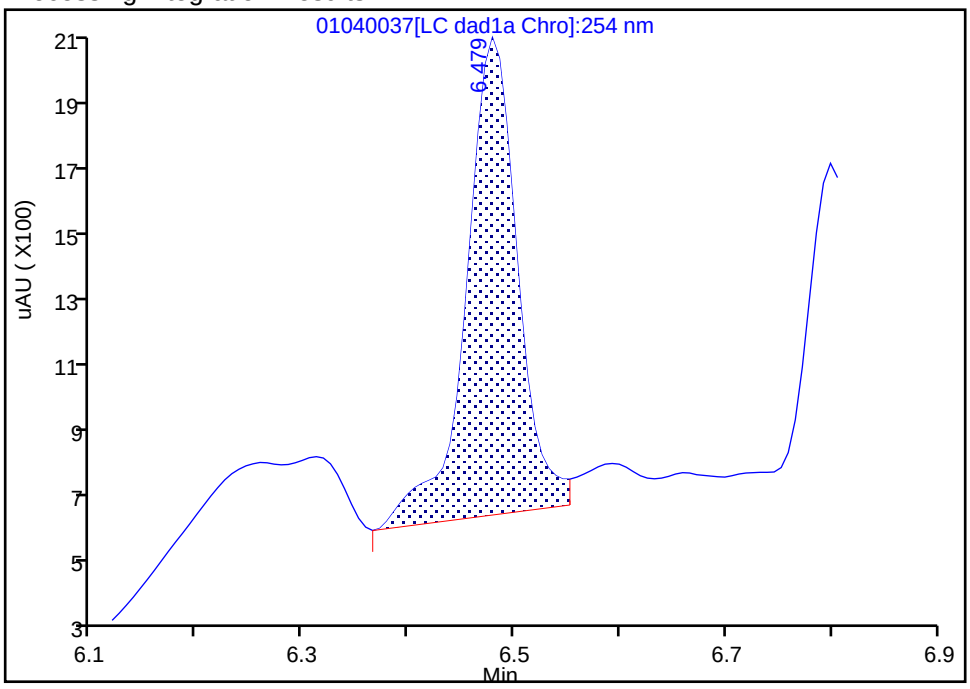
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d				
Injection Date:	05-Jan-2022 04:24:15	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

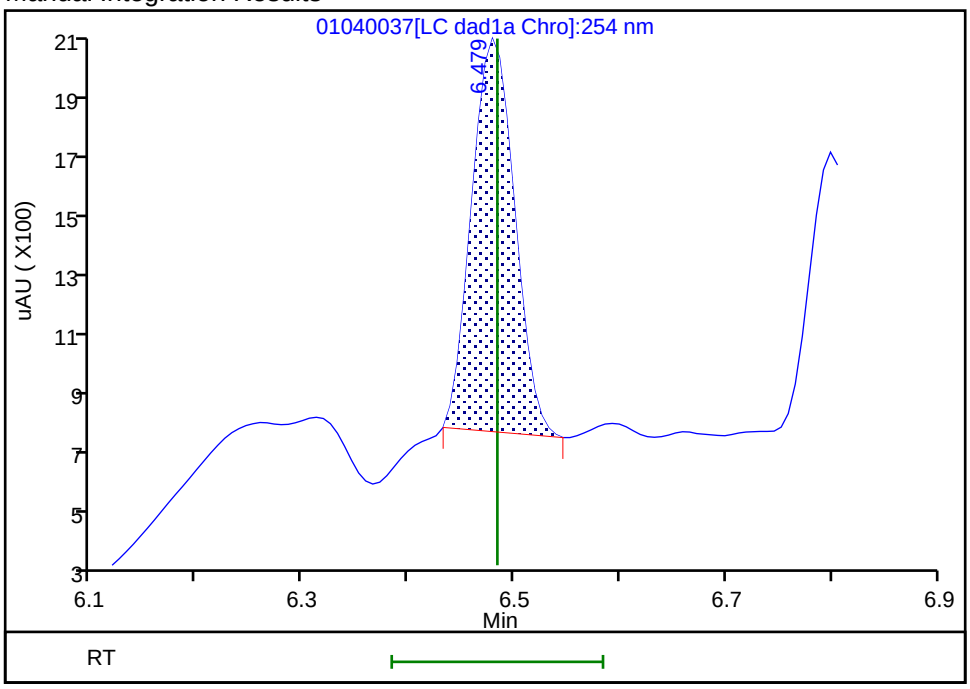
Processing Integration Results

RT: 6.48
Area: 4755
Amount: 0.025236
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 3600
Amount: 0.019867
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:20

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

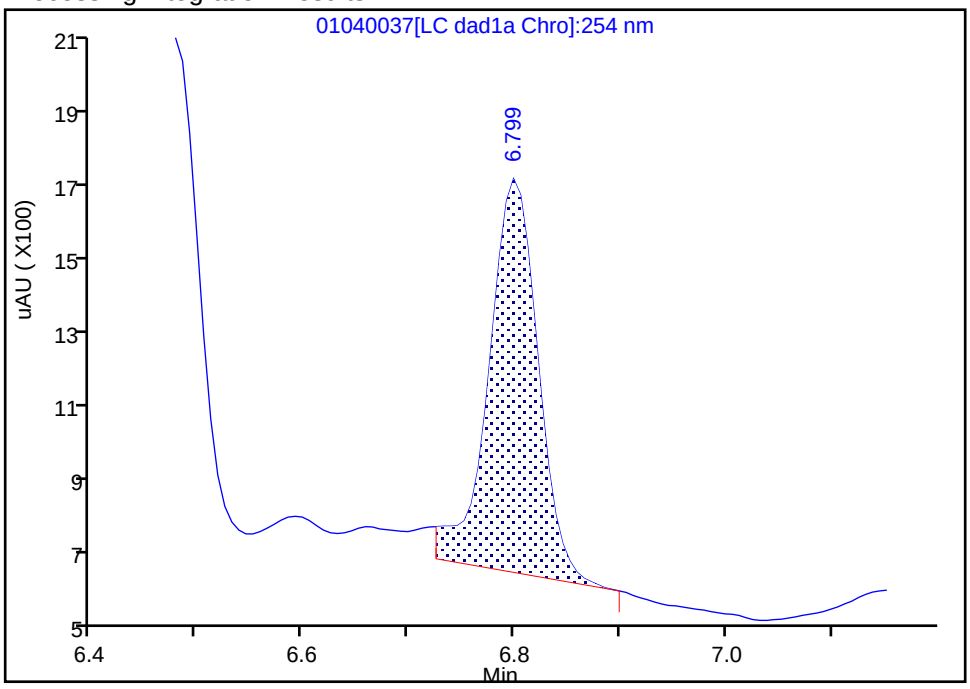
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d				
Injection Date:	05-Jan-2022 04:24:15	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

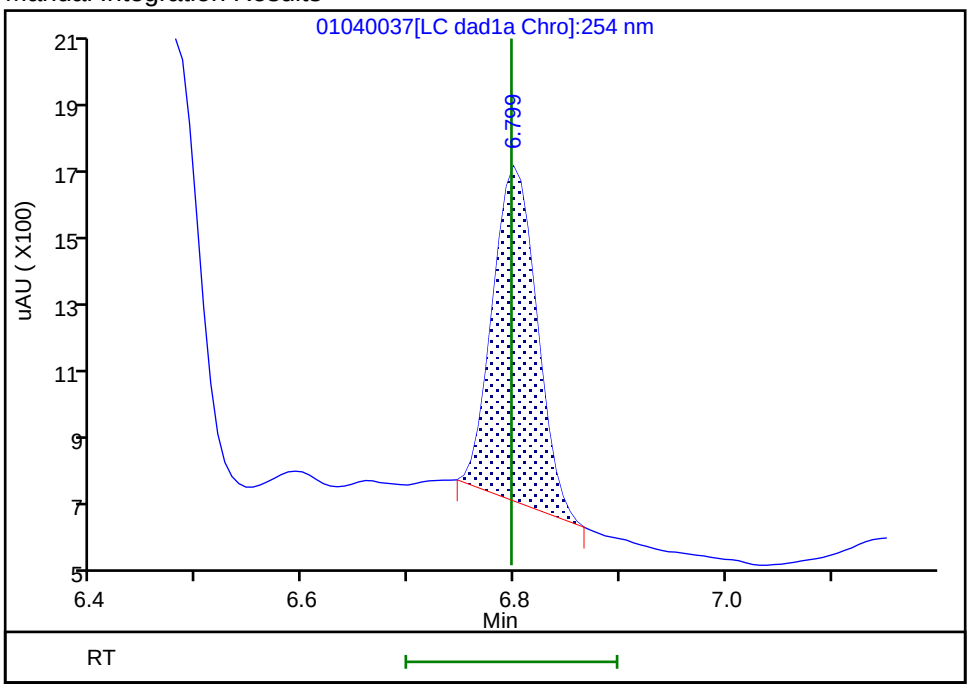
Processing Integration Results

RT: 6.80
Area: 3342
Amount: 0.023637
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 2817
Amount: 0.020396
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:23

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

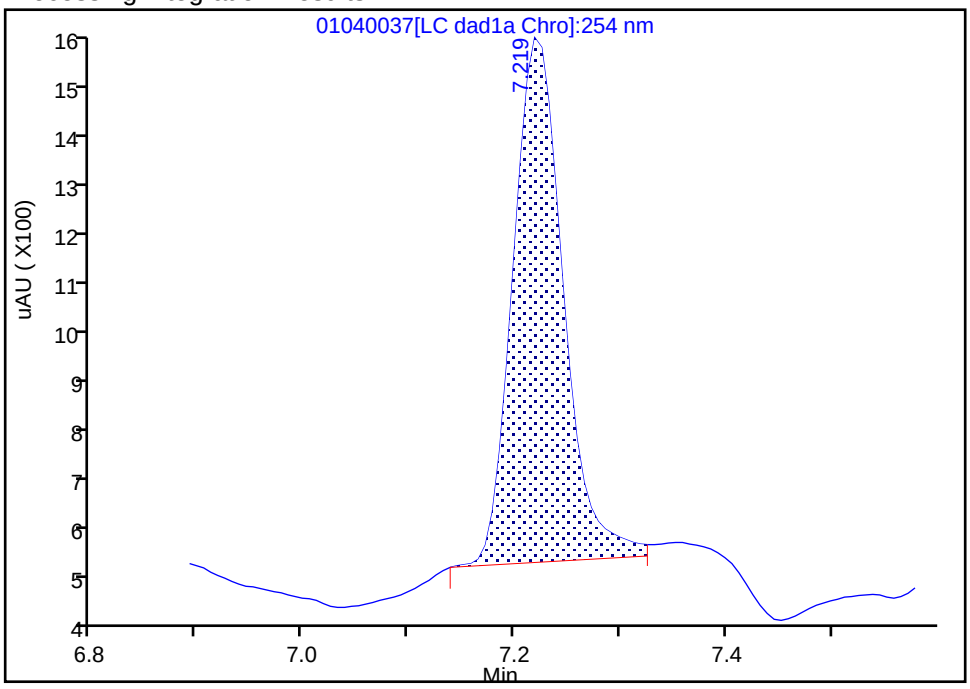
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d				
Injection Date:	05-Jan-2022 04:24:15	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

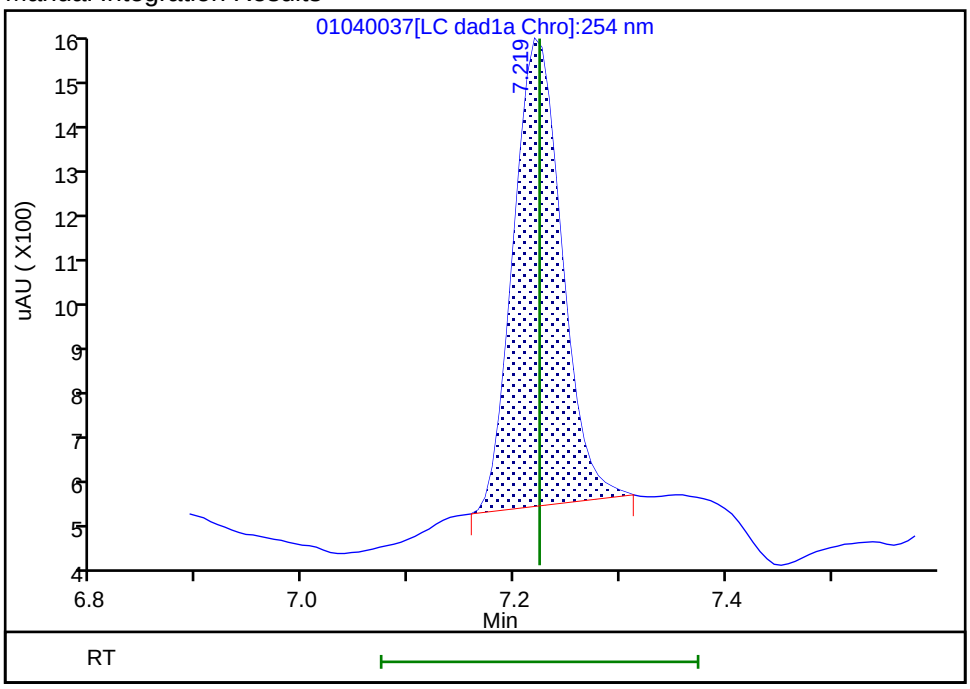
Processing Integration Results

RT: 7.22
Area: 3207
Amount: 0.025276
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 3042
Amount: 0.024144
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:26

Audit Action: Manually Integrated Audit Reason: Baseline

Calibration / TNX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

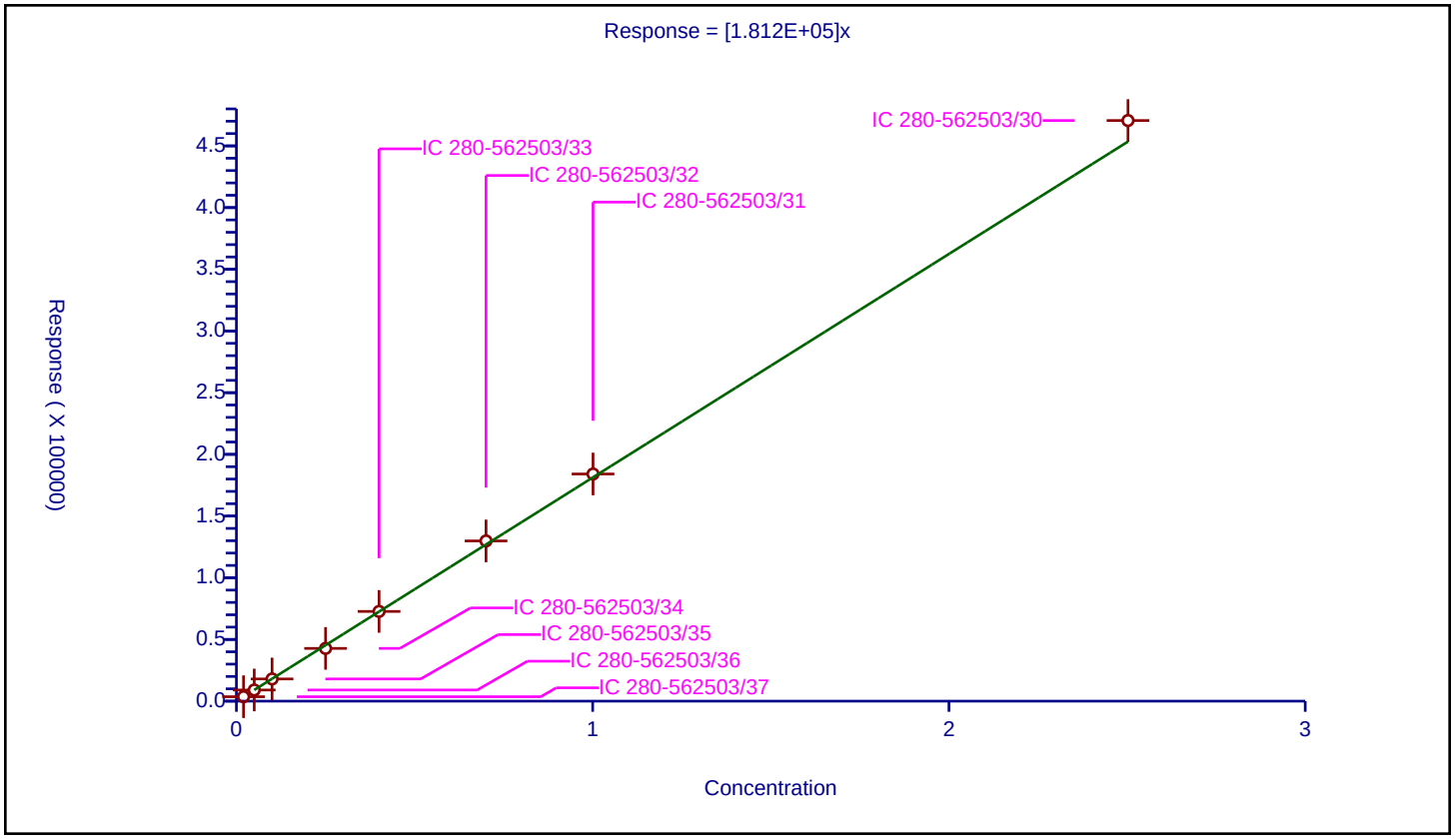
Curve Coefficients

Intercept:	0
Slope:	1.812E+05

Error Coefficients

Standard Error:	6700
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/37	0.02002	3600.0			179820.17982	Y
2	IC 280-562503/36	0.05005	9031.0			180439.56044	Y
3	IC 280-562503/35	0.1001	17989.0			179710.28971	Y
4	IC 280-562503/34	0.25025	42748.0			170821.178821	Y
5	IC 280-562503/33	0.4004	72720.0			181618.381618	Y
6	IC 280-562503/32	0.7007	129844.0			185306.122449	Y
7	IC 280-562503/31	1.001	184090.0			183906.093906	Y
8	IC 280-562503/30	2.5025	470565.0			188037.962038	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

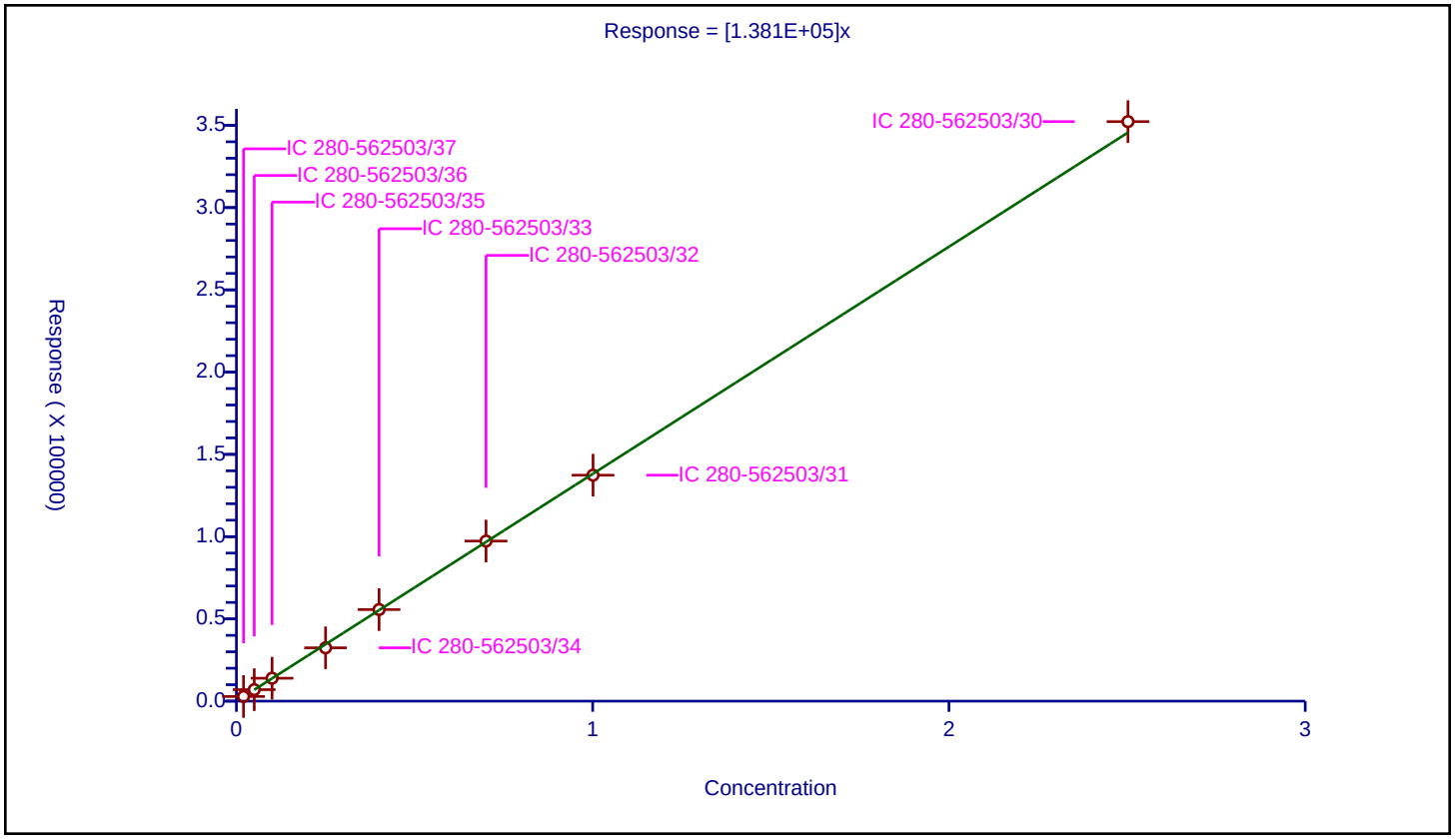
Curve Coefficients

Intercept:	0
Slope:	1.381E+05

Error Coefficients

Standard Error:	2670
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/37	0.02002	2817.0			140709.290709	Y
2	IC 280-562503/36	0.05005	6988.0			139620.37962	Y
3	IC 280-562503/35	0.1001	13928.0			139140.859141	Y
4	IC 280-562503/34	0.25025	32416.0			129534.465534	Y
5	IC 280-562503/33	0.4004	55675.0			139048.451548	Y
6	IC 280-562503/32	0.7007	97314.0			138881.118881	Y
7	IC 280-562503/31	1.001	137343.0			137205.794206	Y
8	IC 280-562503/30	2.5025	352260.0			140763.236763	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

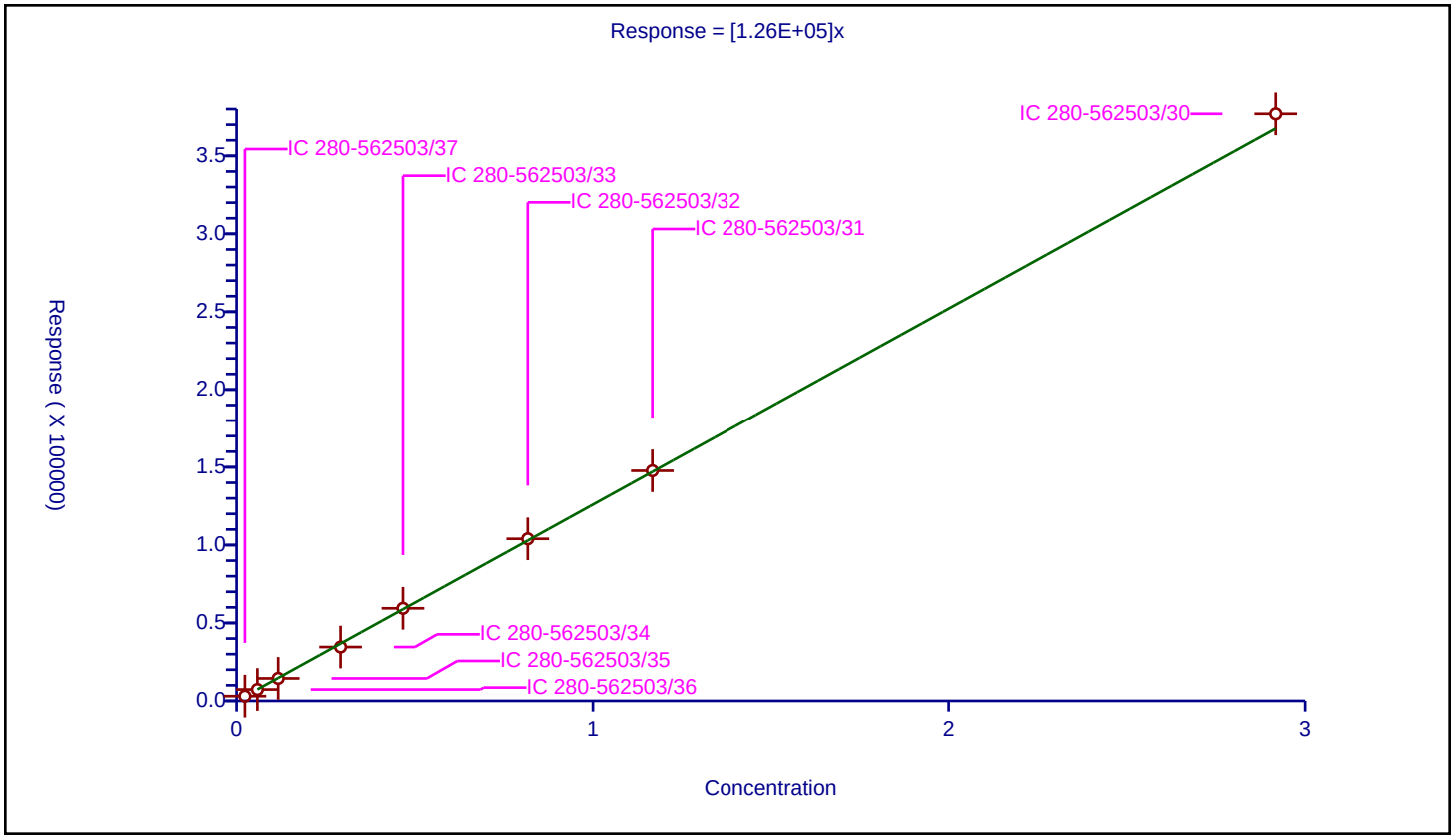
Curve Coefficients

Intercept:	0
Slope:	1.26E+05

Error Coefficients

Standard Error:	3670
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/37	0.02334	3042.0			130334.190231	Y
2	IC 280-562503/36	0.05835	7298.0			125072.836332	Y
3	IC 280-562503/35	0.1167	14438.0			123718.937446	Y
4	IC 280-562503/34	0.29175	34560.0			118457.583548	Y
5	IC 280-562503/33	0.4668	59416.0			127283.633248	Y
6	IC 280-562503/32	0.8169	103999.0			127309.340189	Y
7	IC 280-562503/31	1.167	147726.0			126586.118252	Y
8	IC 280-562503/30	2.9175	376943.0			129200.685518	Y



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/18	03020018.D
Level 2	IC 280-567560/17	03020017.D
Level 3	IC 280-567560/16	03020016.D
Level 4	IC 280-567560/15	03020015.D
Level 5	IC 280-567560/14	03020014.D
Level 6	IC 280-567560/13	03020013.D
Level 7	IC 280-567560/12	03020012.D
Level 8	IC 280-567560/11	03020011.D
Level 9	IC 280-567560/10	03020010.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
HMX	6.887	6.896	6.894	6.896	6.889	6.880	6.863	6.860	6.791		6.739 - 7.039	6.873
Picric acid		7.863	7.767	7.696	7.602	7.527	7.430	7.346	7.231		7.452 - 7.752	7.558
RDX	9.114	9.129	9.120	9.129	9.115	9.100	9.083	9.066	8.985		8.965 - 9.265	9.093
Nitrobenzene	12.047	12.069	12.073	12.069	12.062	12.060	12.036	12.020	11.925		11.912 - 12.212	12.040
1,3-Dinitrobenzene	15.627	15.642	15.647	15.642	15.635	15.627	15.616	15.600	15.525		15.485 - 15.785	15.618
Nitroglycerin	16.054	16.062	16.073	16.062	16.055	16.054	16.050	16.033	15.971		15.905 - 16.205	16.046
2-Nitrotoluene	16.807	16.829	16.833	16.829	16.822	16.820	16.810	16.793	16.725		16.672 - 16.972	16.808
4-Nitrotoluene	17.147	17.129	17.147	17.136	17.129	17.127	17.123	17.100	17.018		16.979 - 17.279	17.117
4-Amino-2,6-dinitrotoluene	17.734	17.756	17.773	17.756	17.755	17.747	17.736	17.720	17.651		17.605 - 17.905	17.736
3-Nitrotoluene	18.094	18.116	18.120	18.109	18.102	18.100	18.090	18.073	18.005		17.952 - 18.252	18.090
2-Amino-4,6-dinitrotoluene	18.754	18.762	18.773	18.749	18.742	18.740	18.730	18.706	18.725		18.592 - 18.892	18.742
1,3,5-Trinitrobenzene	18.947	18.956	18.973	18.956	18.949	18.947	18.936	18.920	18.851		18.799 - 19.099	18.937
2,6-Dinitrotoluene	20.260	20.262	20.267	20.256	20.255	20.254	20.243	20.233	20.171		20.105 - 20.405	20.245
2,4-Dinitrotoluene	20.674	20.716	20.767	20.756	20.762	20.760	20.750	20.733	20.671		20.612 - 20.912	20.732
Tetryl	24.514	24.496	24.500	24.483	24.489	24.494	24.483	24.466	24.425		24.339 - 24.639	24.483
2,4,6-Trinitrotoluene	25.274	25.269	25.274	25.256	25.262	25.267	25.257	25.246	25.198		25.112 - 25.412	25.256
PETN	26.220	26.223	26.220	26.209	26.215	26.220	26.217	26.206	26.185		26.065 - 26.365	26.213
1,2-Dinitrobenzene	13.260	13.282	13.287	13.282	13.282	13.274	13.256	13.240	13.158		13.132 - 13.432	13.258

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/18	03020018.D
Level 2	IC 280-567560/17	03020017.D
Level 3	IC 280-567560/16	03020016.D
Level 4	IC 280-567560/15	03020015.D
Level 5	IC 280-567560/14	03020014.D
Level 6	IC 280-567560/13	03020013.D
Level 7	IC 280-567560/12	03020012.D
Level 8	IC 280-567560/11	03020011.D
Level 9	IC 280-567560/10	03020010.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
HMX	204000 153272 187359	156350 157048	161060 156446	161090 158593	Ave		166135.268				10.5		20.0			
Picric acid	137152 100000	115050 145895	127120 147056	140090 150719	Ave		132885.214				13.3		20.0			
RDX	209700 185668 192949	185950 191778	200560 191473	197500 193402	Ave		194331.017				3.8		20.0			
Nitrobenzene	387450 359546 376404	332968 370117	381454 369358	371225 366118	Ave		368293.361				4.2		20.0			
1,3-Dinitrobenzene	594910 544854 583320	531088 563411	602415 562742	594182 568076	Ave		571666.383				4.2		20.0			
Nitroglycerin	106640 123863 126320	108750 129921	119788 126936	133241 127202	Ave		122517.801				7.5		20.0			
2-Nitrotoluene	249100 224884 232108	230350 232660	241140 230763	238570 232476	Ave		234672.317				3.1		20.0			
4-Nitrotoluene	219860 201816 215781	203493 209224	211477 208958	215818 210922	Ave		210816.657				2.8		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
4-Amino-2,6-dinitrotoluene	260739 258018 268817	263287 267340	268232 265560	271888 269422	Lin2	-62.900141	267244.423							1.0000		0.9900
3-Nitrotoluene	254046 256344 271648	240010 266386	267473 265219	269510 267544	Lin2	-189.49318	266002.360							0.9990		0.9900
2-Amino-4,6-dinitrotoluene	369024 350637 335952	343576 365448	369761 366702	370299 373422	Ave		360535.698				3.8		20.0			
1,3,5-Trinitrobenzene	393912 409485 468023	347804 424182	425928 421012	424291 424539	Ave		415464.126				7.7		20.0			
2,6-Dinitrotoluene	269323 256928 267124	260608 264846	274044 264869	265807 267408	Ave		265661.838				1.8		20.0			
2,4-Dinitrotoluene	1185259 555279 545162	839791 549871	675657 543624	639313 546924	Lin2	6399.59049	541564.591							0.9990		0.9900
Tetryl	471257 308379 316049	345958 315734	361477 313195	331218 316267	Ave		342170.507				15.0		20.0			
2,4,6-Trinitrotoluene	370518 363896 385306	324054 376581	369641 378025	370568 384024	Ave		369179.221				5.0		20.0			
PETN	108420 131804 136767	109615 136247	134164 135887	134076 136984	Ave		129329.182				9.0		20.0			
1,2-Dinitrobenzene	246100 244792 252426	240450 249510	257280 250511	254990 251717	Ave		249752.937				2.1		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/18	03020018.D
Level 2	IC 280-567560/17	03020017.D
Level 3	IC 280-567560/16	03020016.D
Level 4	IC 280-567560/15	03020015.D
Level 5	IC 280-567560/14	03020014.D
Level 6	IC 280-567560/13	03020013.D
Level 7	IC 280-567560/12	03020012.D
Level 8	IC 280-567560/11	03020011.D
Level 9	IC 280-567560/10	03020010.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
HMX	Ave	2040 62819	3127 109512	8053 158593	16109 468398	38318	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	 58358	2301 102939	6356 150719	14009 250000	34288	 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	2097 76711	3719 134031	10028 193402	19750 482372	46417	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	3890 148639	6686 259585	19149 367582	37271 944774	90246	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
1,3-Dinitrobenzene	Ave	5961 225815	10643 394707	30181 569212	59537 1461217	136486	0.0100 0.401	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251
Nitroglycerin	Ave	10664 519683	21750 888552	59894 1272015	133241 3158004	309657	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	2491 93064	4607 161534	12057 232476	23857 580270	56221	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	2203 83857	4078 146563	10595 211344	21625 540531	50555	0.0100 0.401	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251
4-Amino-2,6-dinitrotoluene	Lin2	2610 107043	5271 186078	13425 269691	27216 672715	64569	0.0100 0.400	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250
3-Nitrotoluene	Lin2	2543 106661	4805 185839	13387 267812	26978 679800	64150	0.0100 0.400	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	3705 146764	6899 257718	18562 374916	37178 843240	88010	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
1,3,5-Trinitrobenzene	Ave	3947 170012	6970 295298	21339 425388	42514 1172398	102576	0.0100 0.401	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251
2,6-Dinitrotoluene	Ave	2704	5233	13757	26687	64489	0.0100	0.0201	0.0502	0.100	0.251

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

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
		106362	186150	268478	670482		0.402	0.703	1.00	2.51	
2,4-Dinitrotoluene	Lin2	11900 220828	16863 382059	33918 549112	64187 1368356	139375	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
Tetryl	Ave	4722 126546	6933 219675	18110 316900	33188 791703	77249	0.0100 0.401	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251
2,4,6-Trinitrotoluene	Ave	3720 151235	6507 265676	18556 385560	37205 967117	91338	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
PETN	Ave	10842 544987	21923 951206	67082 1369840	134076 3419168	329509	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	2461 99804	4809 175358	12864 251717	25499 631065	61198	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020010.D
Lims ID: IC INT/ADD 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 02-Mar-2022 21:22:03 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 9
Misc. Info.: 280-0108949-010
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:12 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:05:51

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.071	4.142	-0.071	1053484	2.50	2.59	M
2 2,4-diamino-6-nitrotoluene	1	4.698	4.669	0.029	475027	2.50	2.09	M
5 HMX	1	6.791	6.889	-0.098	468398	2.50	2.82	
7 2,4,6-Trinitrophenol	1	7.231	7.602	-0.371	250000	2.50	1.88	
8 RDX	1	8.985	9.115	-0.130	482372	2.50	2.48	
9 Nitrobenzene	1	11.925	12.062	-0.137	944774	2.51	2.57	
$ 10 1,2-Dinitrobenzene	1	13.158	13.282	-0.124	631065	2.50	2.53	
11 3,5-Dinitroaniline	1	15.151	15.269	-0.118	1039131	2.50	2.53	
12 1,3-Dinitrobenzene	1	15.525	15.635	-0.110	1461217	2.51	2.56	
13 Nitroglycerin	2	15.971	16.055	-0.084	3158004	25.0	25.8	
14 o-Nitrotoluene	1	16.725	16.822	-0.097	580270	2.50	2.47	
16 p-Nitrotoluene	1	17.018	17.129	-0.111	540531	2.51	2.56	
17 4-Amino-2,6-dinitrotoluene	1	17.651	17.755	-0.104	672715	2.50	2.52	
18 m-Nitrotoluene	1	18.005	18.102	-0.097	679800	2.50	2.56	
19 2-Amino-4,6-dinitrotoluene	1	18.725	18.742	-0.017	843240	2.51	2.34	M
20 1,3,5-Trinitrobenzene	1	18.851	18.949	-0.098	1172398	2.51	2.82	M
21 2,6-Dinitrotoluene	1	20.171	20.255	-0.084	670482	2.51	2.52	
22 2,4-Dinitrotoluene	1	20.671	20.762	-0.091	1368356	2.51	2.51	
23 Tetryl	1	24.425	24.489	-0.064	791703	2.51	2.31	
24 2,4,6-Trinitrotoluene	1	25.198	25.262	-0.064	967117	2.51	2.62	
25 PETN	2	26.185	26.215	-0.030	3419168	25.0	26.4	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added: 250.00	Units: uL
8330_ADDs_00031	Amount Added: 125.00	Units: uL

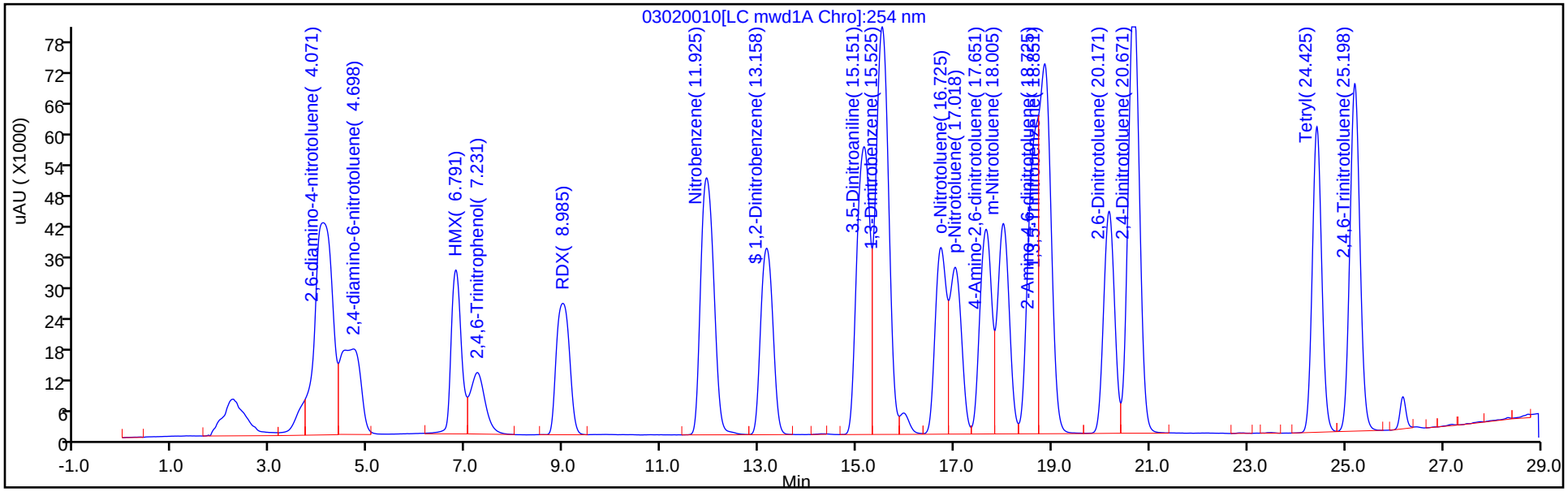
Report Date: 03-Mar-2022 12:49:12 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

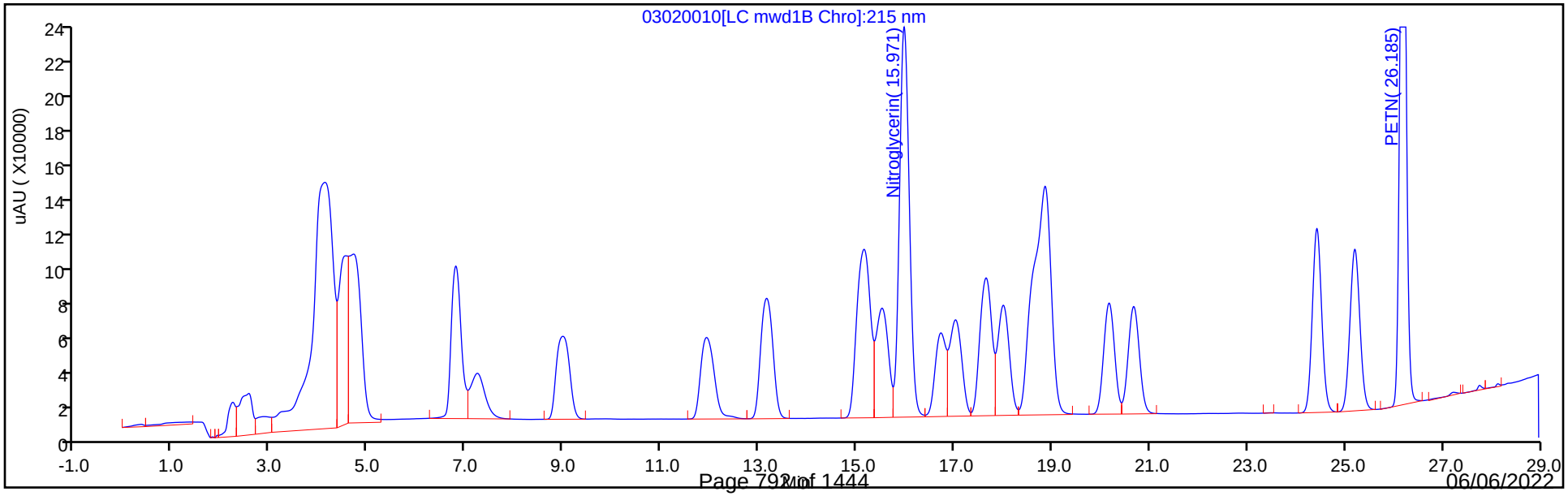
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020010.D

Injection Date:	02-Mar-2022 21:22:03	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 9			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

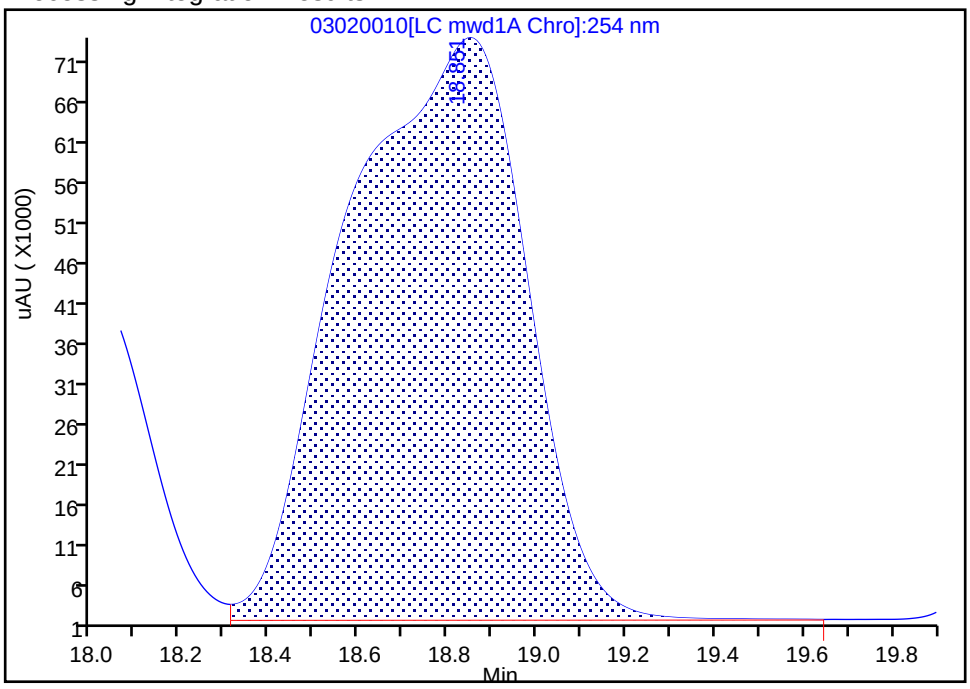
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020010.D
Injection Date: 02-Mar-2022 21:22:03 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 9
Client ID:
Operator ID: JZ ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

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

Signal: 1

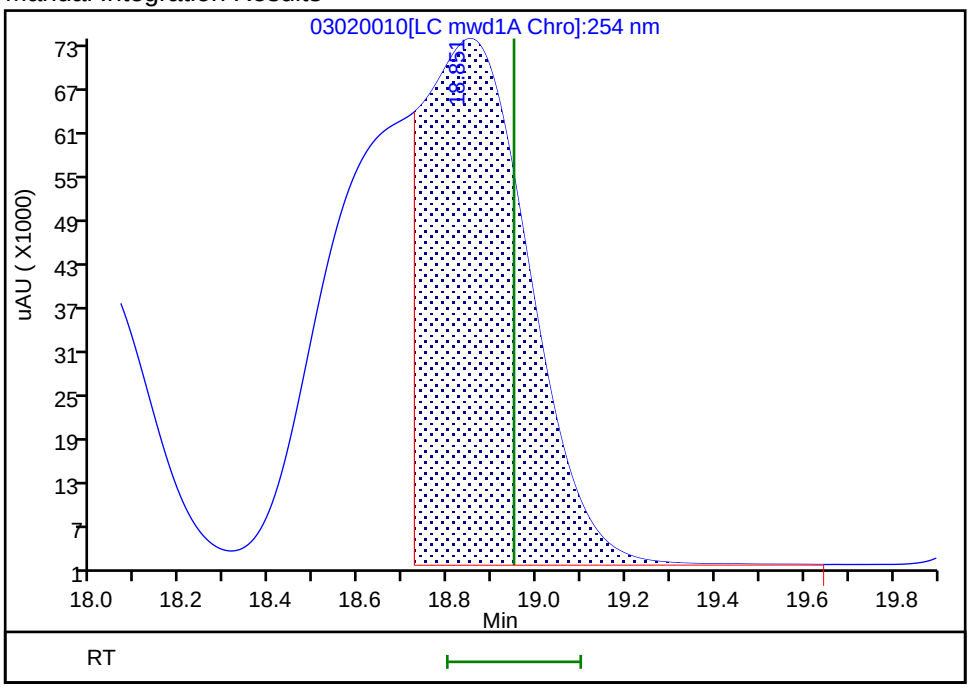
Processing Integration Results

RT: 18.85
Area: 2015640
Amount: 4.231891
Amount Units: ug/ml



Manual Integration Results

RT: 18.85
Area: 1172398
Amount: 2.821899
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:08:36
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020011.D
Lims ID: IC INT/ADD 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 02-Mar-2022 21:57:13 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 8
Misc. Info.: 280-0108949-011
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:13 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:09:27

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	4.093	4.142	-0.049	386260	1.00	0.9503	M
2 2,4-diamino-6-nitrotoluene	1	4.713	4.669	0.044	247885	1.00	1.09	M
5 HMX	1	6.860	6.889	-0.029	158593	1.00	0.9546	
7 2,4,6-Trinitrophenol	1	7.346	7.602	-0.256	150719	1.00	1.13	
8 RDX	1	9.066	9.115	-0.049	193402	1.00	1.00	
9 Nitrobenzene	1	12.020	12.062	-0.042	367582	1.00	1.00	
$ 10 1,2-Dinitrobenzene	1	13.240	13.282	-0.042	251717	1.00	1.01	
11 3,5-Dinitroaniline	1	15.226	15.269	-0.043	419224	1.00	1.02	
12 1,3-Dinitrobenzene	1	15.600	15.635	-0.035	569212	1.00	1.00	
13 Nitroglycerin	2	16.033	16.055	-0.022	1272015	10.0	10.4	
14 o-Nitrotoluene	1	16.793	16.822	-0.029	232476	1.00	0.99	
16 p-Nitrotoluene	1	17.100	17.129	-0.029	211344	1.00	1.00	
17 4-Amino-2,6-dinitrotoluene	1	17.720	17.755	-0.035	269691	1.00	1.01	
18 m-Nitrotoluene	1	18.073	18.102	-0.029	267812	1.00	1.01	
19 2-Amino-4,6-dinitrotoluene	1	18.706	18.742	-0.036	374916	1.00	1.04	
20 1,3,5-Trinitrobenzene	1	18.920	18.949	-0.029	425388	1.00	1.02	
21 2,6-Dinitrotoluene	1	20.233	20.255	-0.022	268478	1.00	1.01	
22 2,4-Dinitrotoluene	1	20.733	20.762	-0.029	549112	1.00	1.00	
23 Tetryl	1	24.466	24.489	-0.023	316900	1.00	0.9261	
24 2,4,6-Trinitrotoluene	1	25.246	25.262	-0.016	385560	1.00	1.04	
25 PETN	2	26.206	26.215	-0.009	1369840	10.0	10.6	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added: 100.00	Units: uL
8330_ADDs_00031	Amount Added: 50.00	Units: uL

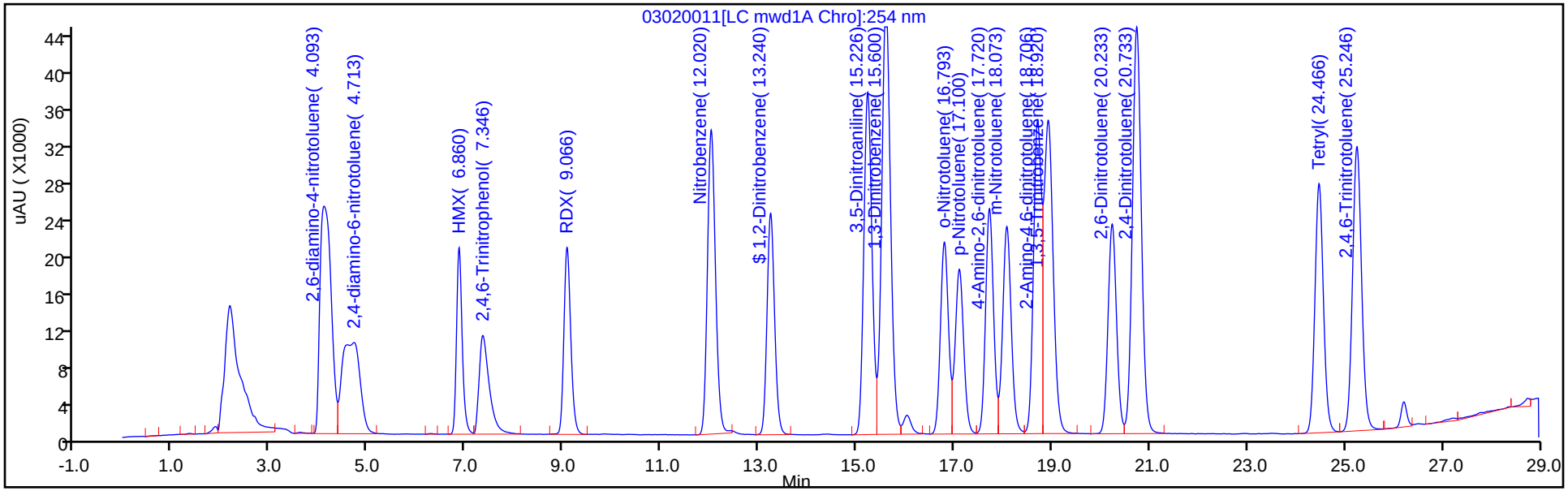
Report Date: 03-Mar-2022 12:49:13 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

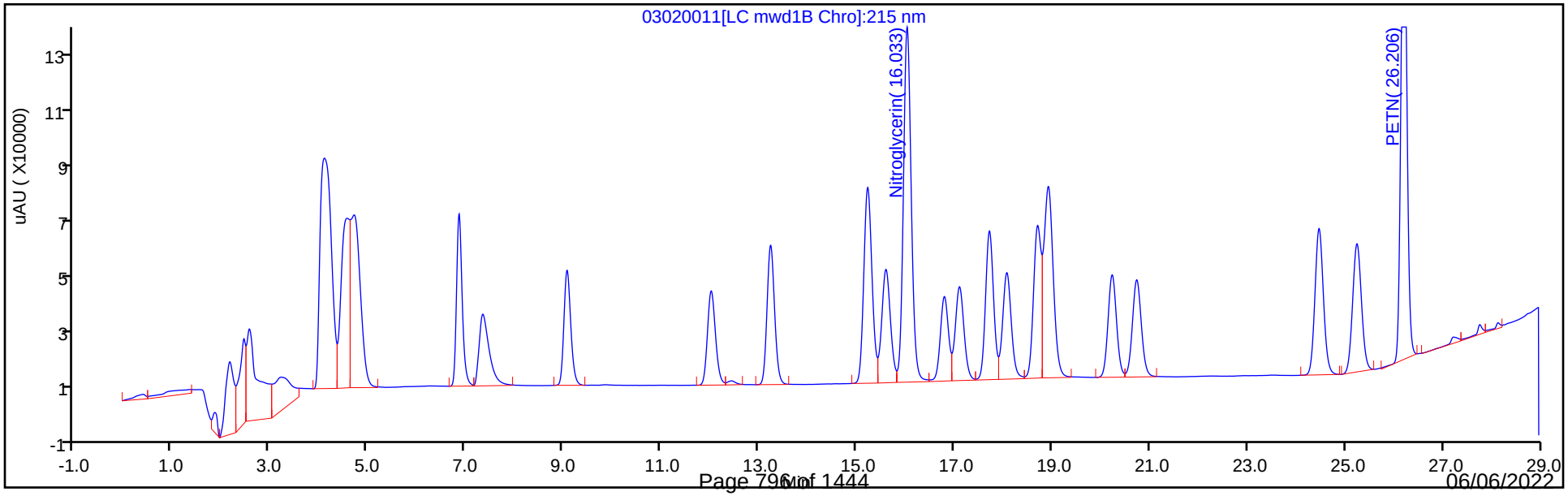
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020011.D

Injection Date:	02-Mar-2022 21:57:13	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 8			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020012.D
Lims ID: IC INT/ADD 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 02-Mar-2022 22:32:16 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 7
Misc. Info.: 280-0108949-012
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:14 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:09:45

	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	4.110	4.142	-0.032	273235	0.7000	0.6722	M
	2 2,4-diamino-6-nitrotoluene	1	4.710	4.669	0.041	172644	0.7000	0.7557	M
	5 HMX	1	6.863	6.889	-0.026	109512	0.7000	0.6592	
	7 2,4,6-Trinitrophenol	1	7.430	7.602	-0.172	102939	0.7000	0.7746	
	8 RDX	1	9.083	9.115	-0.032	134031	0.7000	0.6897	
	9 Nitrobenzene	1	12.036	12.062	-0.026	259585	0.7028	0.7048	
$	10 1,2-Dinitrobenzene	1	13.256	13.282	-0.026	175358	0.7000	0.7021	
	11 3,5-Dinitroaniline	1	15.243	15.269	-0.026	294648	0.7000	0.7162	
	12 1,3-Dinitrobenzene	1	15.616	15.635	-0.019	394707	0.7014	0.6904	
	13 Nitroglycerin	2	16.050	16.055	-0.005	888552	7.00	7.25	
	14 o-Nitrotoluene	1	16.810	16.822	-0.012	161534	0.7000	0.6883	
	16 p-Nitrotoluene	1	17.123	17.129	-0.006	146563	0.7014	0.6952	
	17 4-Amino-2,6-dinitrotoluene	1	17.736	17.755	-0.019	186078	0.7007	0.6965	
	18 m-Nitrotoluene	1	18.090	18.102	-0.012	185839	0.7007	0.6993	
	19 2-Amino-4,6-dinitrotoluene	1	18.730	18.742	-0.012	257718	0.7028	0.7148	
	20 1,3,5-Trinitrobenzene	1	18.936	18.949	-0.013	295298	0.7014	0.7108	
	21 2,6-Dinitrotoluene	1	20.243	20.255	-0.012	186150	0.7028	0.7007	
	22 2,4-Dinitrotoluene	1	20.750	20.762	-0.012	382059	0.7028	0.6937	
	23 Tetryl	1	24.483	24.489	-0.006	219675	0.7014	0.6420	
	24 2,4,6-Trinitrotoluene	1	25.257	25.262	-0.005	265676	0.7028	0.7196	
	25 PETN	2	26.217	26.215	0.002	951206	7.00	7.35	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added:	70.00	Units: uL
8330_ADDs_00031	Amount Added:	35.00	Units: uL

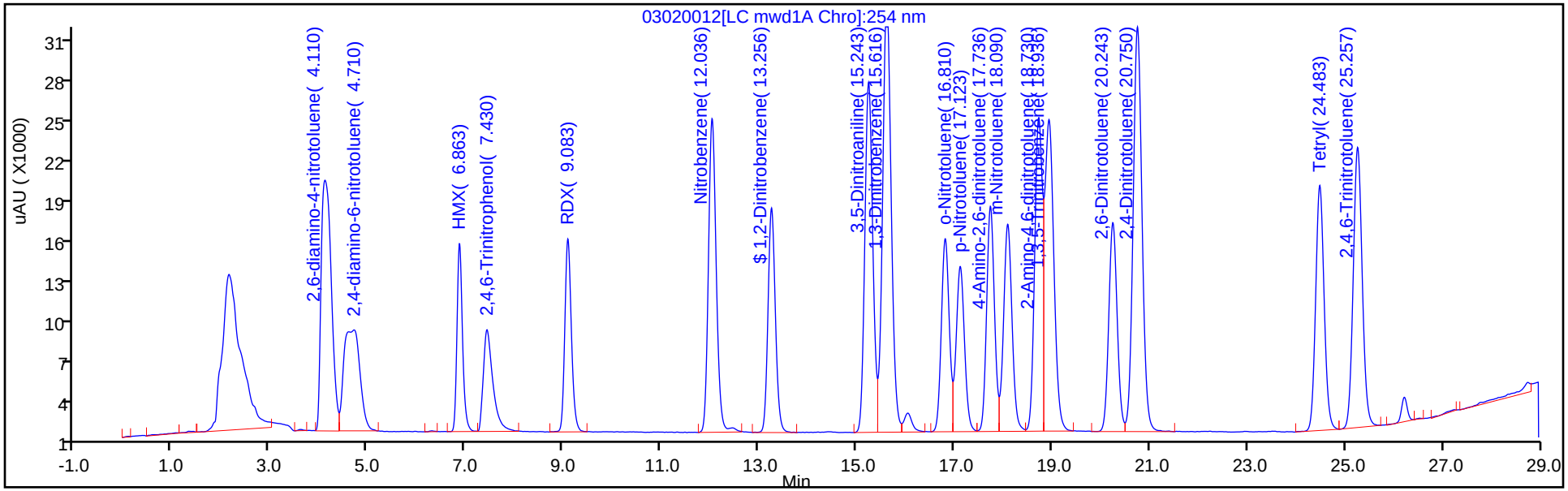
Report Date: 03-Mar-2022 12:49:14 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

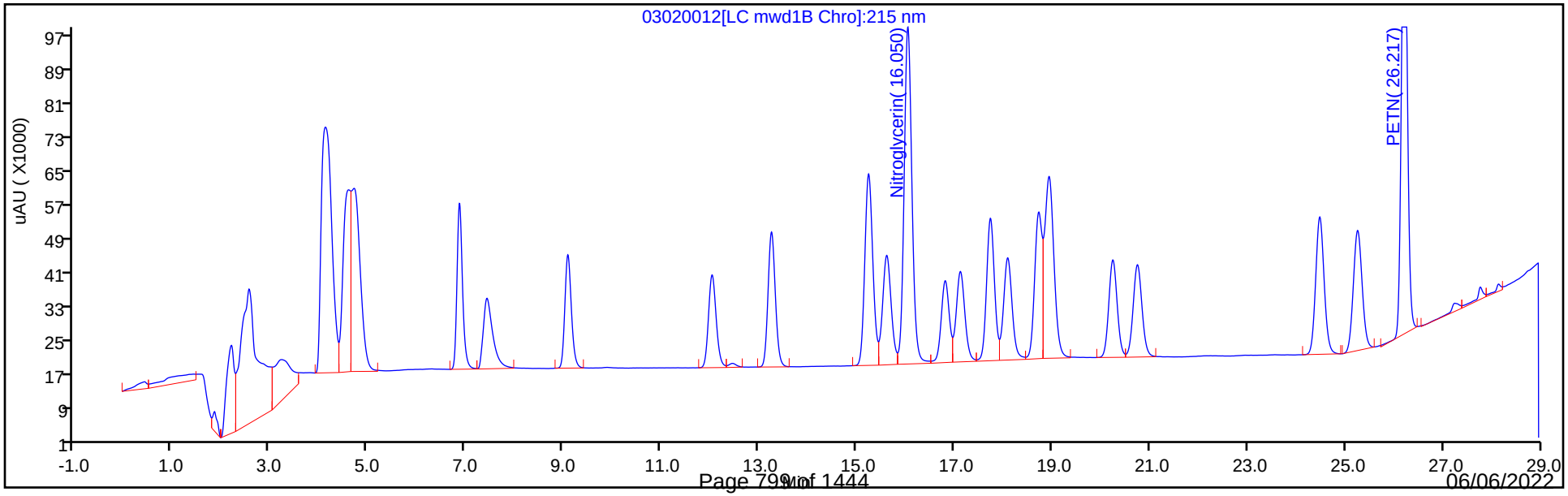
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020012.D

Injection Date:	02-Mar-2022 22:32:16	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 7			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020013.D
Lims ID: IC INT/ADD 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 02-Mar-2022 23:07:23 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 6
Misc. Info.: 280-0108949-013
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:14 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.127	4.142	-0.015	147662	0.4000	0.3633	
2 2,4-diamino-6-nitrotoluene	1	4.700	4.669	0.031	93419	0.4000	0.4055	
5 HMX	1	6.880	6.889	-0.009	62819	0.4000	0.3781	
7 2,4,6-Trinitrophenol	1	7.527	7.602	-0.075	58358	0.4000	0.4392	
8 RDX	1	9.100	9.115	-0.015	76711	0.4000	0.3947	
9 Nitrobenzene	1	12.060	12.062	-0.002	148639	0.4016	0.4036	
$ 10 1,2-Dinitrobenzene	1	13.274	13.282	-0.008	99804	0.4000	0.3996	
11 3,5-Dinitroaniline	1	15.260	15.269	-0.009	157805	0.4000	0.3835	
12 1,3-Dinitrobenzene	1	15.627	15.635	-0.008	225815	0.4008	0.3950	
13 Nitroglycerin	2	16.054	16.055	-0.001	519683	4.00	4.24	
14 o-Nitrotoluene	1	16.820	16.822	-0.002	93064	0.4000	0.3966	
16 p-Nitrotoluene	1	17.127	17.129	-0.002	83857	0.4008	0.3978	
17 4-Amino-2,6-dinitrotoluene	1	17.747	17.755	-0.008	107043	0.4004	0.4008	
18 m-Nitrotoluene	1	18.100	18.102	-0.002	106661	0.4004	0.4017	
19 2-Amino-4,6-dinitrotoluene	1	18.740	18.742	-0.002	146764	0.4016	0.4071	
20 1,3,5-Trinitrobenzene	1	18.947	18.949	-0.002	170012	0.4008	0.4092	
21 2,6-Dinitrotoluene	1	20.254	20.255	-0.001	106362	0.4016	0.4004	
22 2,4-Dinitrotoluene	1	20.760	20.762	-0.002	220828	0.4016	0.3959	
23 Tetryl	1	24.494	24.489	0.005	126546	0.4008	0.3698	
24 2,4,6-Trinitrotoluene	1	25.267	25.262	0.005	151235	0.4016	0.4097	
25 PETN	2	26.220	26.215	0.005	544987	4.00	4.21	

Reagents:

8330IntermStk_00070 Amount Added: 40.00 Units: uL
8330_ADDs_00031 Amount Added: 20.00 Units: uL

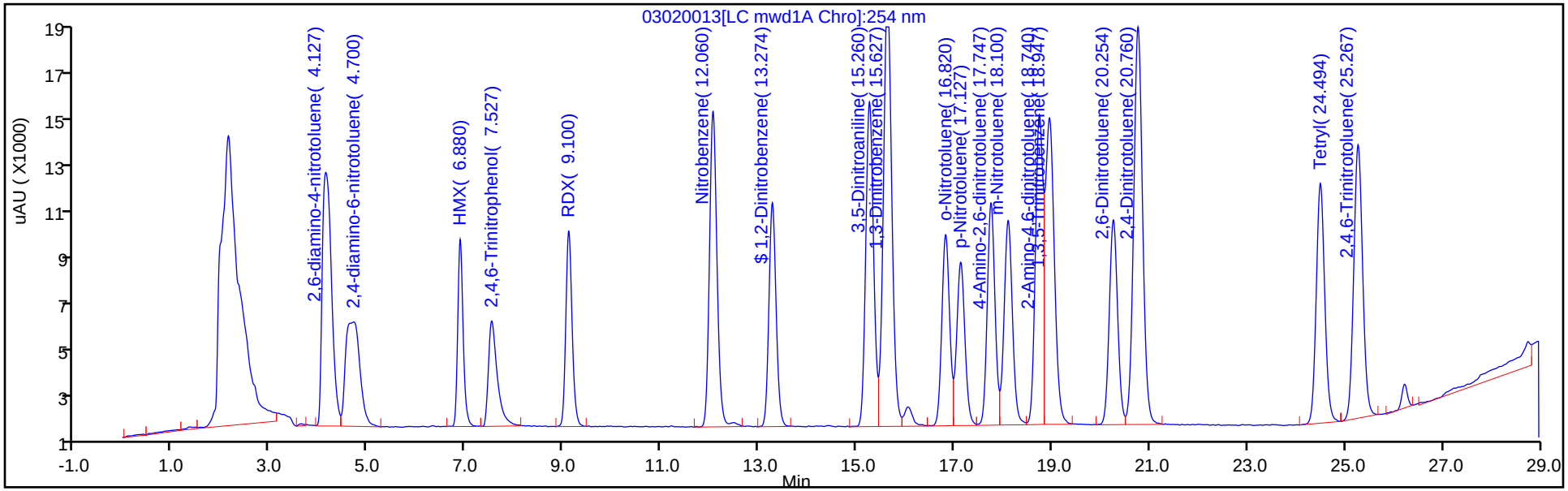
Report Date: 03-Mar-2022 12:49:14 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

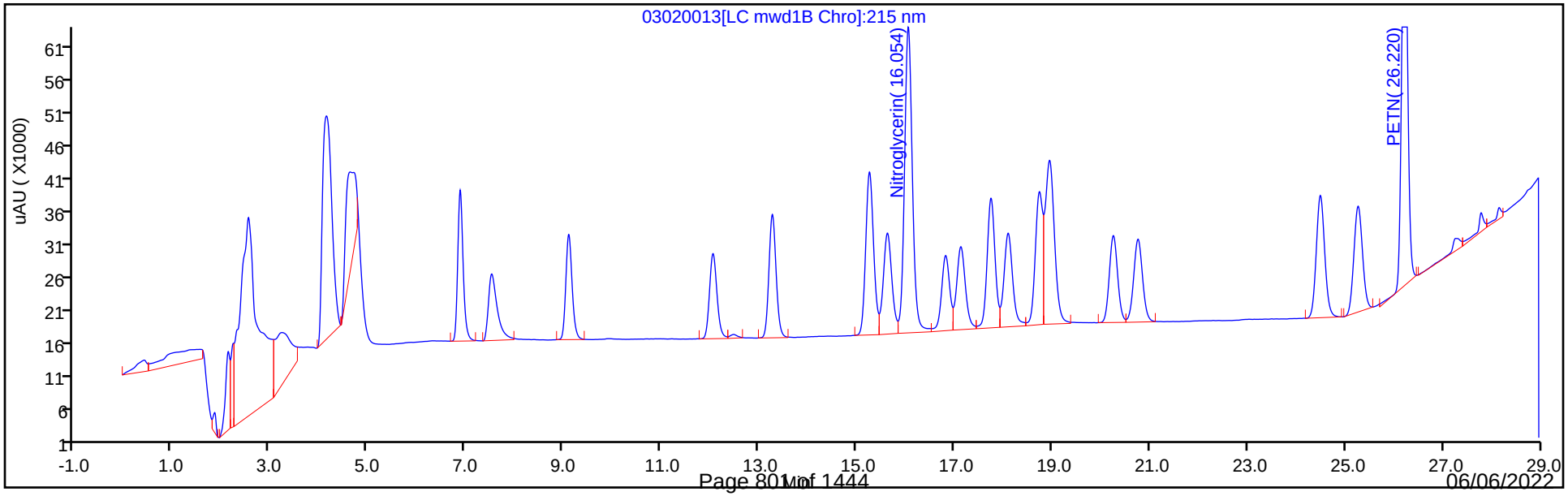
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020013.D

Injection Date:	02-Mar-2022 23:07:23	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 6			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020014.D
Lims ID: IC INT/ADD 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 02-Mar-2022 23:42:39 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 5
Misc. Info.: 280-0108949-014
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:15 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:06:29

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	4.142	4.142	0.000	96596	0.2500	0.2377	
2 2,4-diamino-6-nitrotoluene	1	4.669	4.669	0.000	59944	0.2500	0.2576	
5 HMX	1	6.889	6.889	0.000	38318	0.2500	0.2306	
7 2,4,6-Trinitrophenol	1	7.602	7.602	0.000	34288	0.2500	0.2580	
8 RDX	1	9.115	9.115	0.000	46417	0.2500	0.2389	
9 Nitrobenzene	1	12.062	12.062	0.000	90246	0.2510	0.2450	
$ 10 1,2-Dinitrobenzene	1	13.282	13.282	0.000	61198	0.2500	0.2450	
11 3,5-Dinitroaniline	1	15.269	15.269	0.000	102787	0.2500	0.2497	
12 1,3-Dinitrobenzene	1	15.635	15.635	0.000	136486	0.2505	0.2388	
13 Nitroglycerin	2	16.055	16.055	0.000	309657	2.50	2.53	
14 o-Nitrotoluene	1	16.822	16.822	0.000	56221	0.2500	0.2396	
16 p-Nitrotoluene	1	17.129	17.129	0.000	50555	0.2505	0.2398	
17 4-Amino-2,6-dinitrotoluene	1	17.755	17.755	0.000	64569	0.2503	0.2418	
18 m-Nitrotoluene	1	18.102	18.102	0.000	64150	0.2503	0.2419	
19 2-Amino-4,6-dinitrotoluene	1	18.742	18.742	0.000	88010	0.2510	0.2441	
20 1,3,5-Trinitrobenzene	1	18.949	18.949	0.000	102576	0.2505	0.2469	
21 2,6-Dinitrotoluene	1	20.255	20.255	0.000	64489	0.2510	0.2427	
22 2,4-Dinitrotoluene	1	20.762	20.762	0.000	139375	0.2510	0.2455	
23 Tetryl	1	24.489	24.489	0.000	77249	0.2505	0.2258	
24 2,4,6-Trinitrotoluene	1	25.262	25.262	0.000	91338	0.2510	0.2474	
25 PETN	2	26.215	26.215	0.000	329509	2.50	2.55	

QC Flag Legend
Processing Flags

Reagents:

8330IntermStk_00070	Amount Added:	25.00	Units: uL
8330_ADDs_00031	Amount Added:	12.50	Units: uL

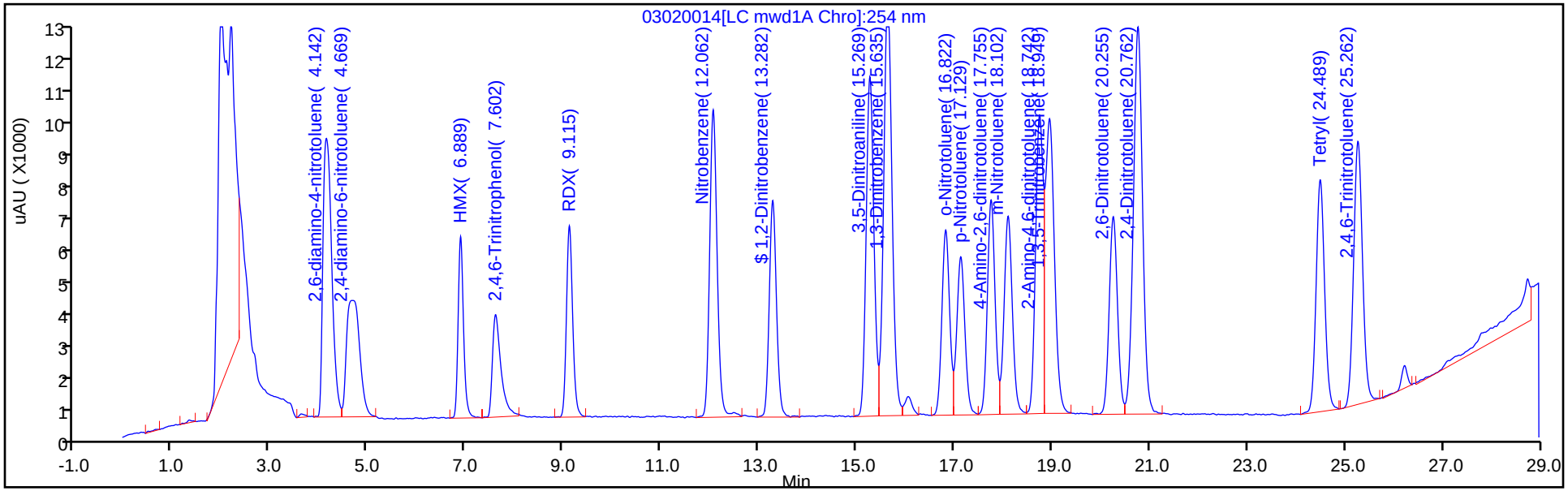
Report Date: 03-Mar-2022 12:49:15 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

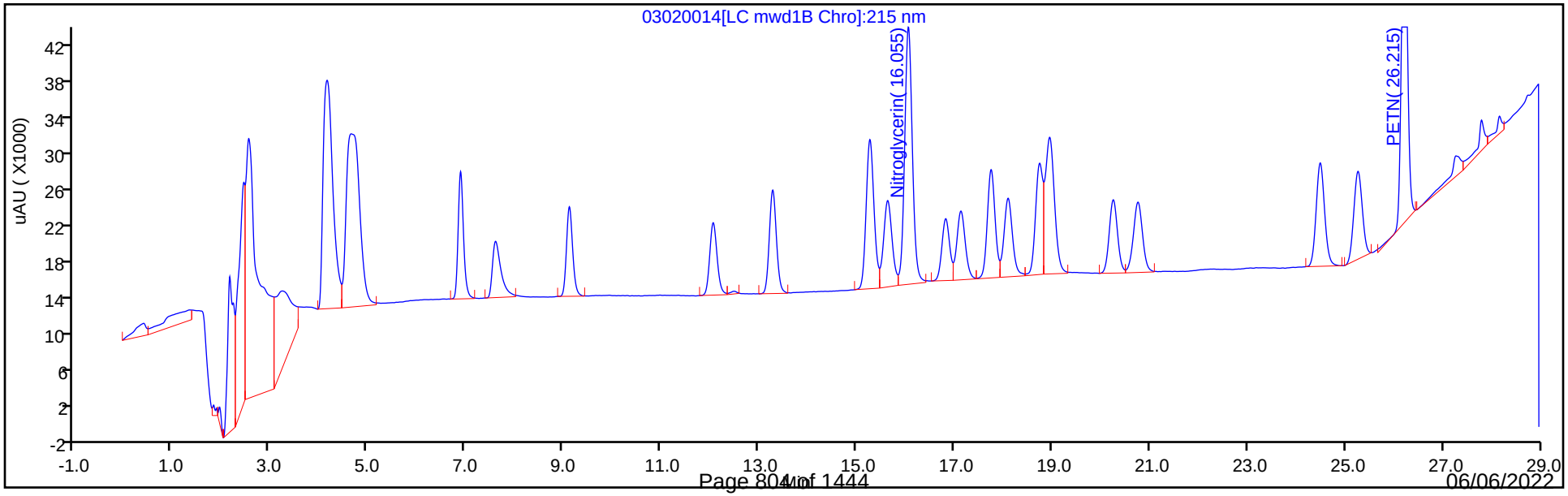
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020014.D

Injection Date:	02-Mar-2022 23:42:39	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 5			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020015.D
Lims ID: IC INT/ADD 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Mar-2022 00:17:55 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 4
Misc. Info.: 280-0108949-015
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:16 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:12:37

	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	4.149	4.142	0.007	41030	0.1000	0.1009	
	2 2,4-diamino-6-nitrotoluene	1	4.669	4.669	0.000	24932	0.1000	0.1028	
	5 HMX	1	6.896	6.889	0.007	16109	0.1000	0.0970	
	7 2,4,6-Trinitrophenol	1	7.696	7.602	0.094	14009	0.1000	0.1054	
	8 RDX	1	9.129	9.115	0.014	19750	0.1000	0.1016	
	9 Nitrobenzene	1	12.069	12.062	0.007	37271	0.1004	0.1012	
$	10 1,2-Dinitrobenzene	1	13.282	13.282	0.000	25499	0.1000	0.1021	
	11 3,5-Dinitroaniline	1	15.276	15.269	0.007	42107	0.1000	0.1022	
	12 1,3-Dinitrobenzene	1	15.642	15.635	0.007	59537	0.1002	0.1041	
	13 Nitroglycerin	2	16.062	16.055	0.007	133241	1.00	1.09	
	14 o-Nitrotoluene	1	16.829	16.822	0.007	23857	0.1000	0.1017	
	16 p-Nitrotoluene	1	17.136	17.129	0.007	21625	0.1002	0.1026	
	17 4-Amino-2,6-dinitrotoluene	1	17.756	17.755	0.001	27216	0.1001	0.1021	
	18 m-Nitrotoluene	1	18.109	18.102	0.007	26978	0.1001	0.1021	
	19 2-Amino-4,6-dinitrotoluene	1	18.749	18.742	0.007	37178	0.1004	0.1031	
	20 1,3,5-Trinitrobenzene	1	18.956	18.949	0.007	42514	0.1002	0.1023	
	21 2,6-Dinitrotoluene	1	20.256	20.255	0.001	26687	0.1004	0.1005	
	22 2,4-Dinitrotoluene	1	20.756	20.762	-0.006	64187	0.1004	0.1067	
	23 Tetryl	1	24.483	24.489	-0.006	33188	0.1002	0.0970	
	24 2,4,6-Trinitrotoluene	1	25.256	25.262	-0.006	37205	0.1004	0.1008	
	25 PETN	2	26.209	26.215	-0.006	134076	1.00	1.04	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added:	10.00	Units: uL
8330_ADDs_00031	Amount Added:	5.00	Units: uL

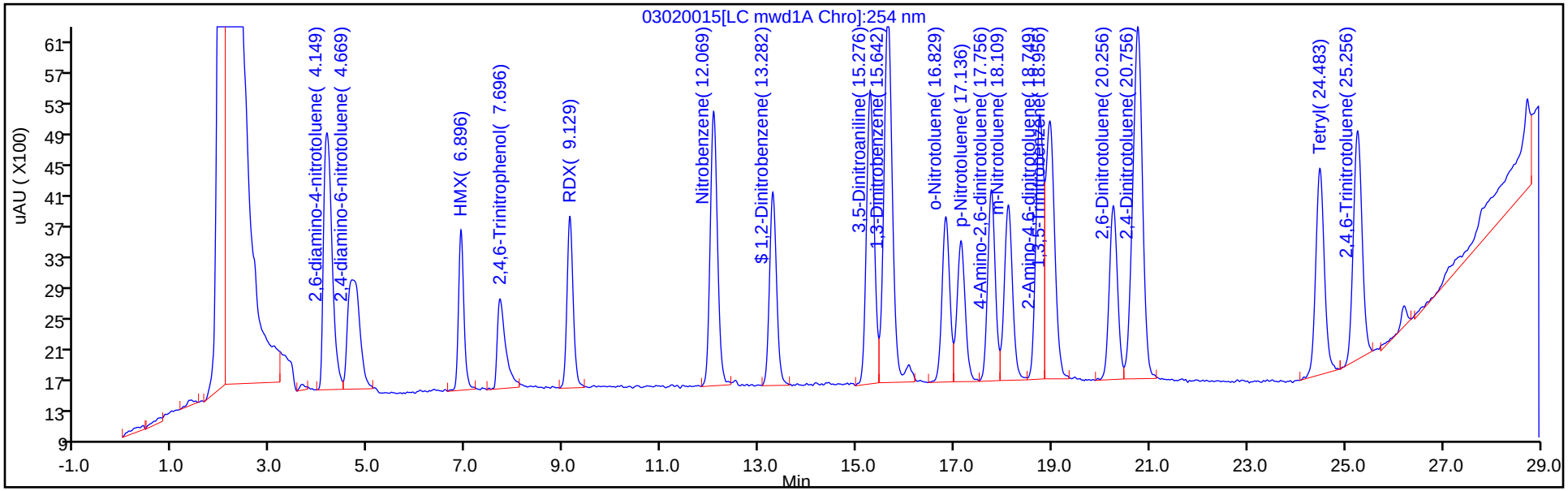
Report Date: 03-Mar-2022 12:49:16 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

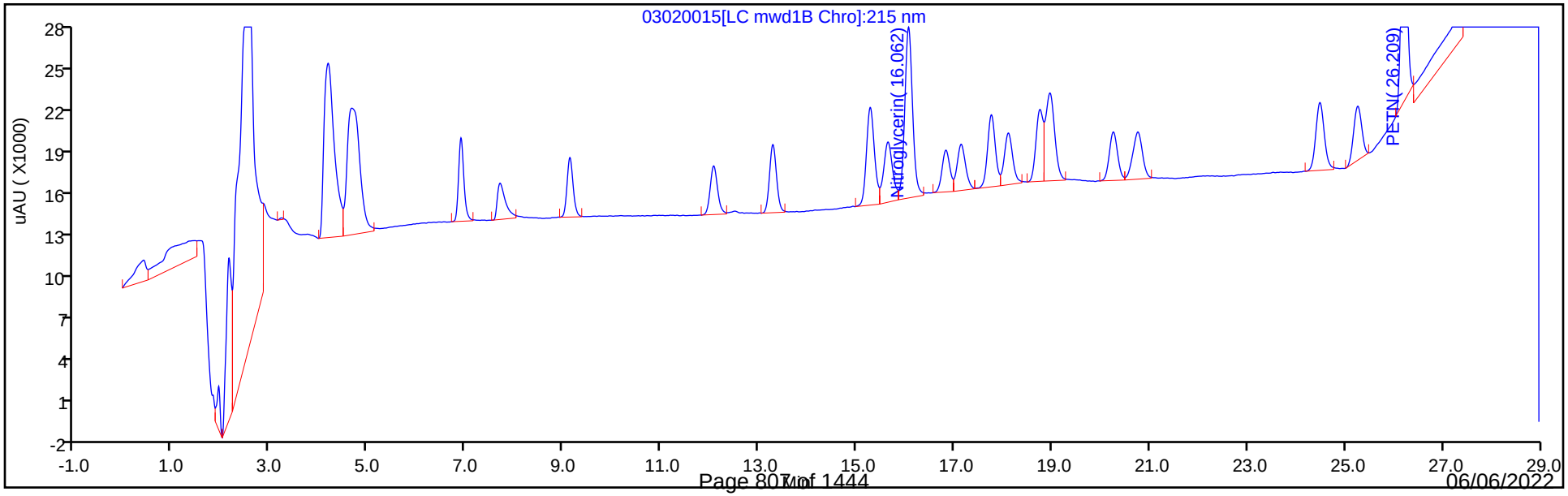
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020015.D

Injection Date:	03-Mar-2022 00:17:55	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 4			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

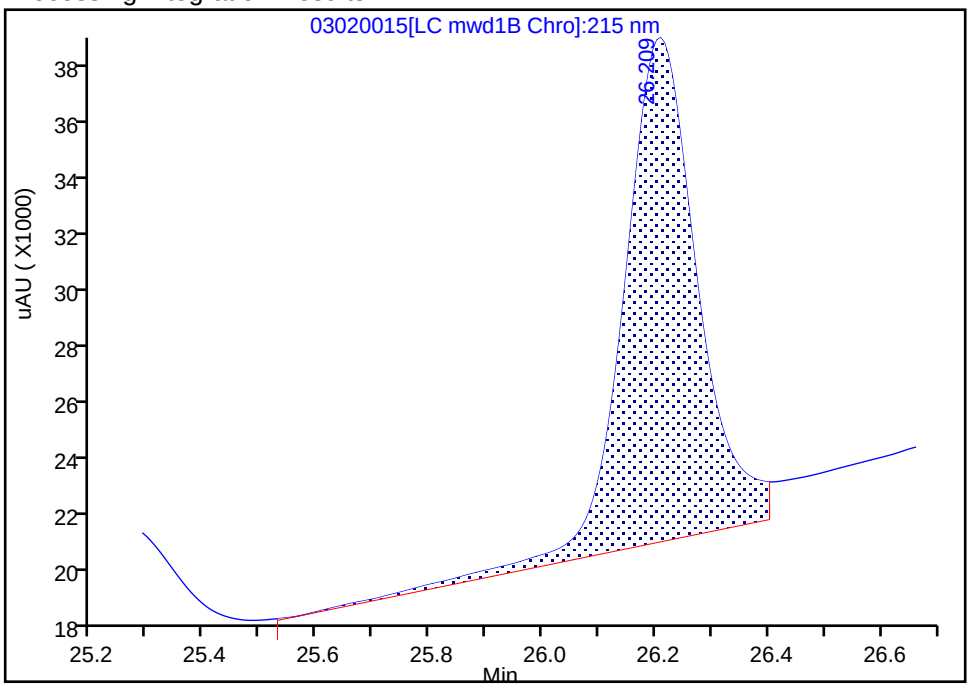
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020015.D
Injection Date: 03-Mar-2022 00:17:55 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 4
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

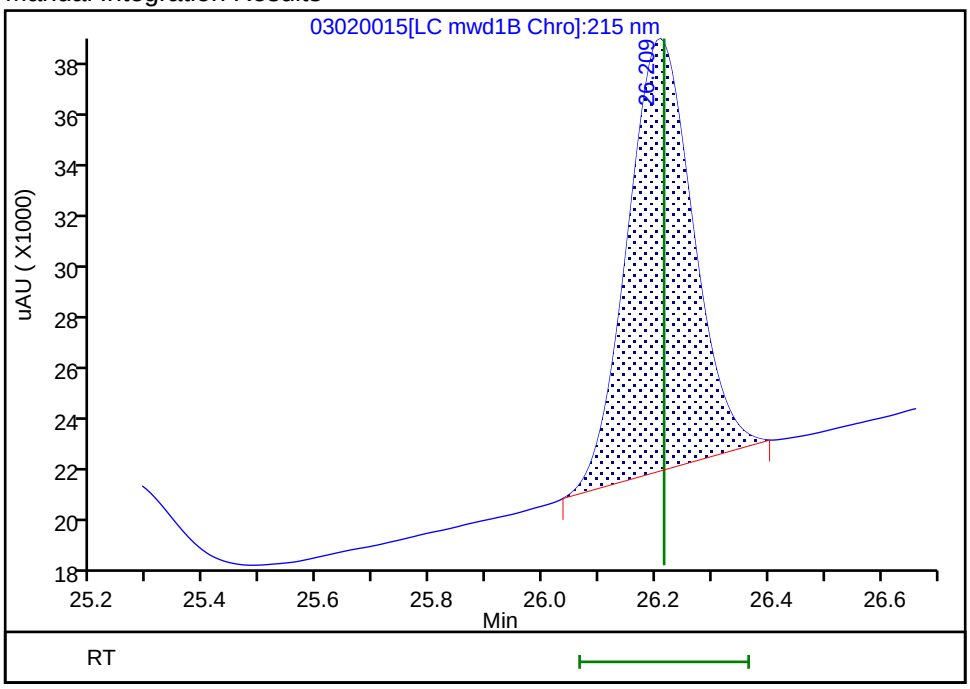
Processing Integration Results

RT: 26.21
Area: 159234
Amount: 1.166681
Amount Units: ug/ml



Manual Integration Results

RT: 26.21
Area: 134076
Amount: 1.036703
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:35
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020016.D
Lims ID: IC INT/ADD 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 03-Mar-2022 00:53:03 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 3
Misc. Info.: 280-0108949-016
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:16 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:09:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.154	4.142	0.012	21526	0.0500	0.0530	
2 2,4-diamino-6-nitrotoluene	1	4.674	4.669	0.005	12869	0.0500	0.0495	
5 HMX	1	6.894	6.889	0.005	8053	0.0500	0.0485	
7 2,4,6-Trinitrophenol	1	7.767	7.602	0.165	6356	0.0500	0.0478	
8 RDX	1	9.120	9.115	0.005	10028	0.0500	0.0516	
9 Nitrobenzene	1	12.073	12.062	0.011	19149	0.0502	0.0520	
$ 10 1,2-Dinitrobenzene	1	13.287	13.282	0.005	12864	0.0500	0.0515	
11 3,5-Dinitroaniline	1	15.287	15.269	0.018	20966	0.0500	0.0508	
12 1,3-Dinitrobenzene	1	15.647	15.635	0.012	30181	0.0501	0.0528	
13 Nitroglycerin	2	16.073	16.055	0.018	59894	0.5000	0.4889	M
14 o-Nitrotoluene	1	16.833	16.822	0.011	12057	0.0500	0.0514	
16 p-Nitrotoluene	1	17.147	17.129	0.018	10595	0.0501	0.0503	
17 4-Amino-2,6-dinitrotoluene	1	17.773	17.755	0.018	13425	0.0501	0.0505	
18 m-Nitrotoluene	1	18.120	18.102	0.018	13387	0.0501	0.0510	
19 2-Amino-4,6-dinitrotoluene	1	18.773	18.742	0.031	18562	0.0502	0.0515	
20 1,3,5-Trinitrobenzene	1	18.973	18.949	0.024	21339	0.0501	0.0514	
21 2,6-Dinitrotoluene	1	20.267	20.255	0.012	13757	0.0502	0.0518	
22 2,4-Dinitrotoluene	1	20.767	20.762	0.005	33918	0.0502	0.0508	
23 Tetryl	1	24.500	24.489	0.011	18110	0.0501	0.0529	
24 2,4,6-Trinitrotoluene	1	25.274	25.262	0.012	18556	0.0502	0.0503	
25 PETN	2	26.220	26.215	0.005	67082	0.5000	0.5187	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added:	5.00	Units: uL
8330_ADDs_00031	Amount Added:	2.50	Units: uL

Report Date: 03-Mar-2022 12:49:17 Chrom Revision: 2.3 16-Feb-2022 17:52:00

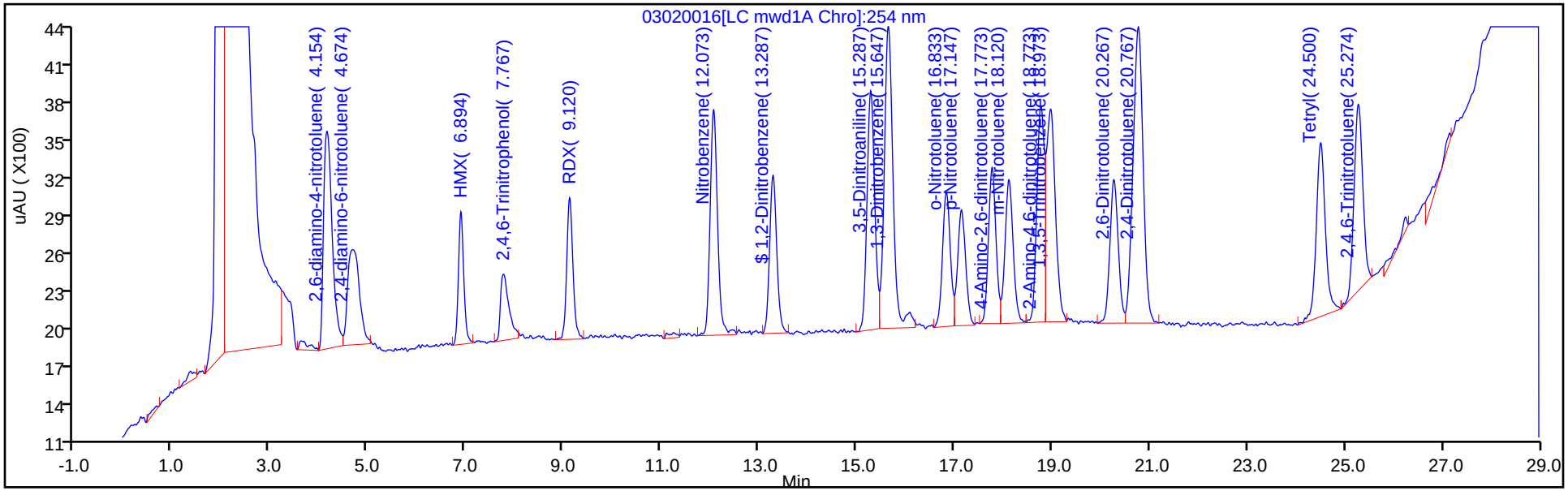
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020016.D

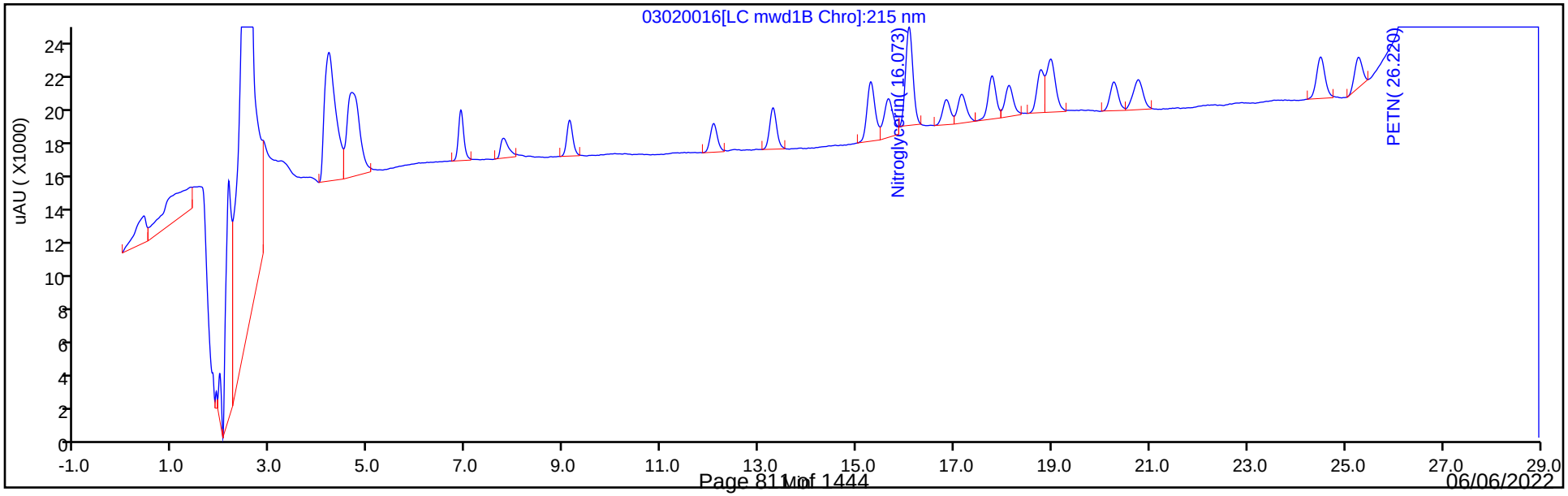
Injection Date:	03-Mar-2022 00:53:03	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 3			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

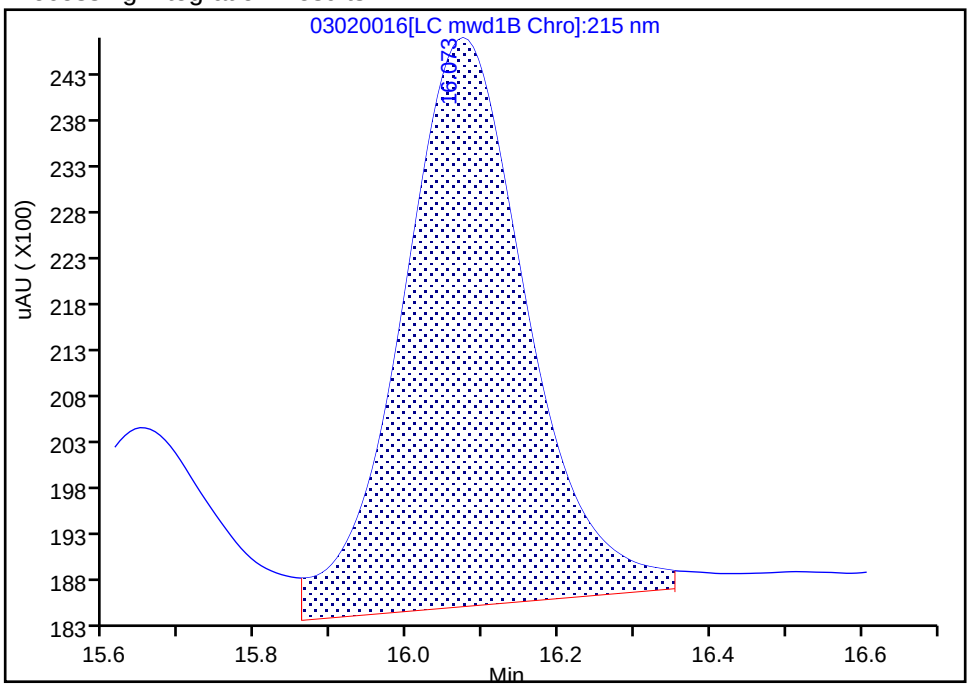
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020016.D
Injection Date: 03-Mar-2022 00:53:03 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

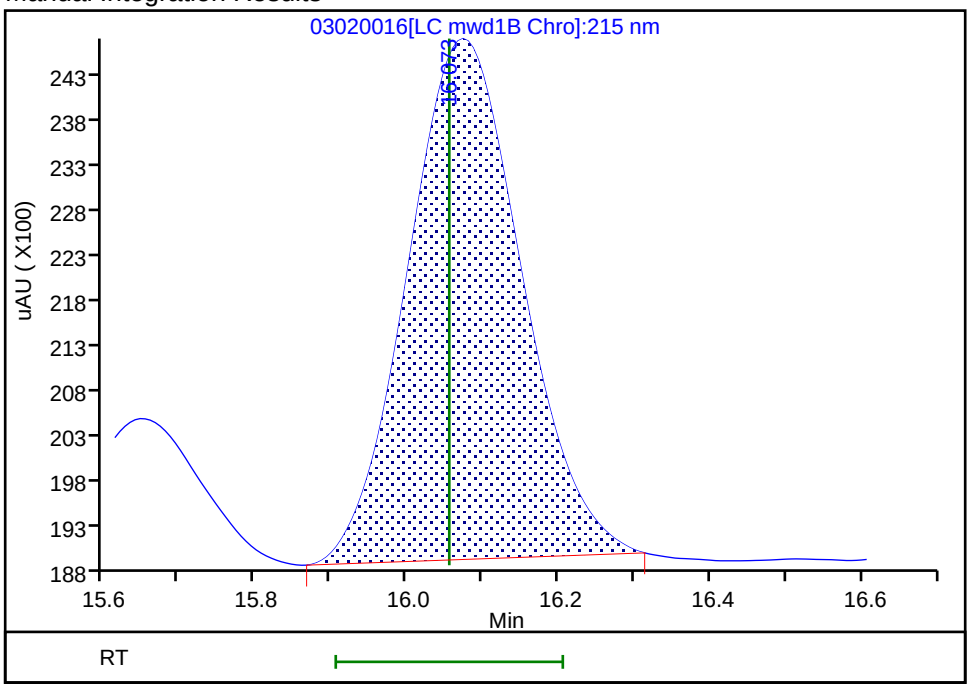
Processing Integration Results

RT: 16.07
Area: 70358
Amount: 0.563571
Amount Units: ug/ml



Manual Integration Results

RT: 16.07
Area: 59894
Amount: 0.488860
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:24
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

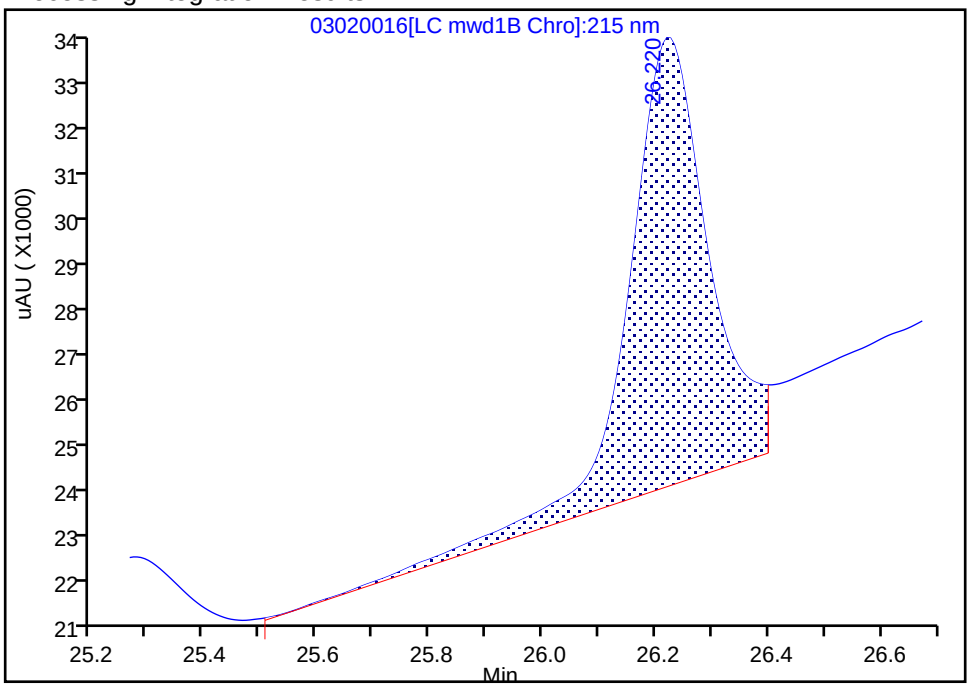
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020016.D
Injection Date: 03-Mar-2022 00:53:03 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

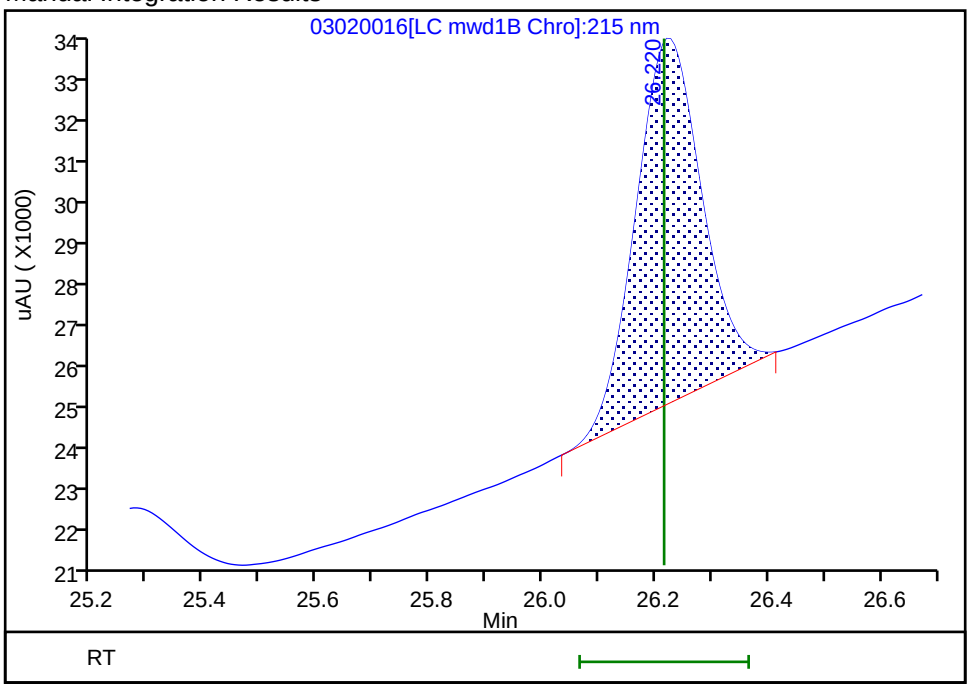
Processing Integration Results

RT: 26.22
Area: 91339
Amount: 0.654475
Amount Units: ug/ml



Manual Integration Results

RT: 26.22
Area: 67082
Amount: 0.518692
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:20
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D
Lims ID: IC INT/ADD 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Mar-2022 01:28:22 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 2
Misc. Info.: 280-0108949-017
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:17 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:10:52

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.169	4.142	0.027	9145	0.0200	0.0225	
2 2,4-diamino-6-nitrotoluene	1	4.716	4.669	0.047	5618	0.0200	0.0175	
5 HMX	1	6.896	6.889	0.007	3127	0.0200	0.0188	
7 2,4,6-Trinitrophenol	1	7.863	7.602	0.261	2301	0.0200	0.0173	
8 RDX	1	9.129	9.115	0.014	3719	0.0200	0.0191	
9 Nitrobenzene	1	12.069	12.062	0.007	6686	0.0201	0.0182	
$ 10 1,2-Dinitrobenzene	1	13.282	13.282	0.000	4809	0.0200	0.0193	
11 3,5-Dinitroaniline	1	15.282	15.269	0.013	7621	0.0200	0.0183	
12 1,3-Dinitrobenzene	1	15.642	15.635	0.007	10643	0.0200	0.0186	
13 Nitroglycerin	2	16.062	16.055	0.007	21750	0.2000	0.1775	M
14 o-Nitrotoluene	1	16.829	16.822	0.007	4607	0.0200	0.0196	
16 p-Nitrotoluene	1	17.129	17.129	0.000	4078	0.0200	0.0193	
17 4-Amino-2,6-dinitrotoluene	1	17.756	17.755	0.001	5271	0.0200	0.0200	
18 m-Nitrotoluene	1	18.116	18.102	0.014	4805	0.0200	0.0188	
19 2-Amino-4,6-dinitrotoluene	1	18.762	18.742	0.020	6899	0.0201	0.0191	M
20 1,3,5-Trinitrobenzene	1	18.956	18.949	0.007	6970	0.0200	0.0168	M
21 2,6-Dinitrotoluene	1	20.262	20.255	0.007	5233	0.0201	0.0197	
22 2,4-Dinitrotoluene	1	20.716	20.762	-0.046	16863	0.0201	0.0193	
23 Tetryl	1	24.496	24.489	0.007	6933	0.0200	0.0203	
24 2,4,6-Trinitrotoluene	1	25.269	25.262	0.007	6507	0.0201	0.0176	
25 PETN	2	26.223	26.215	0.008	21923	0.2000	0.1695	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added:	2.00	Units: uL
8330_ADDs_00031	Amount Added:	1.00	Units: uL

Report Date: 03-Mar-2022 12:49:17 Chrom Revision: 2.3 16-Feb-2022 17:52:00

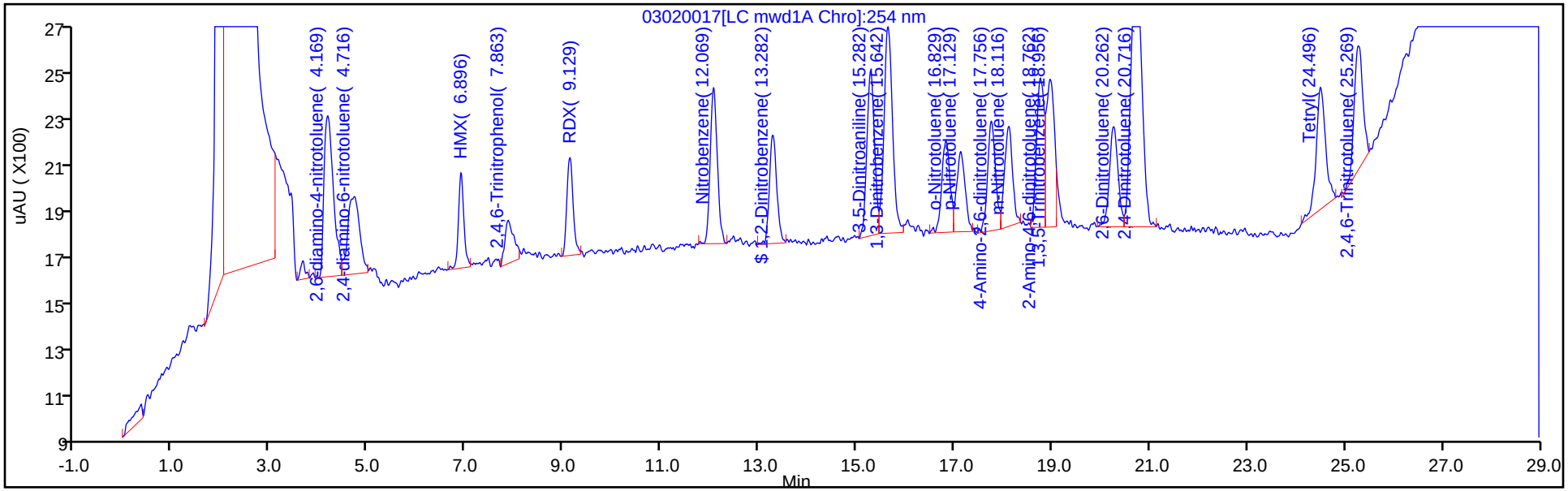
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D

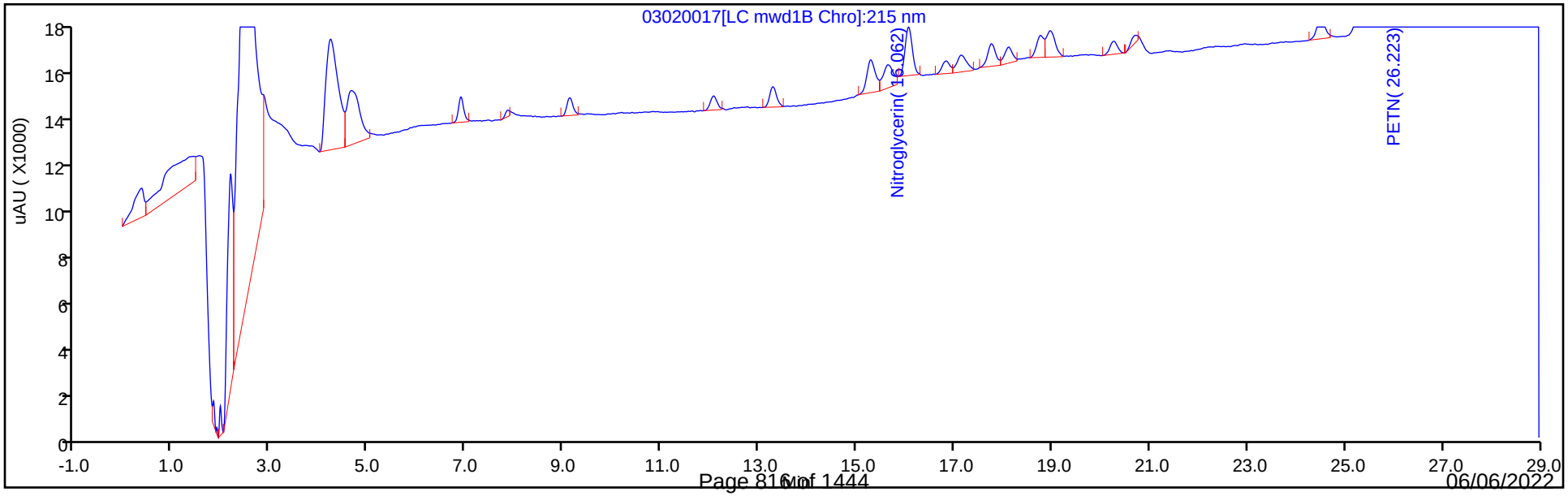
Injection Date:	03-Mar-2022 01:28:22	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 2			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

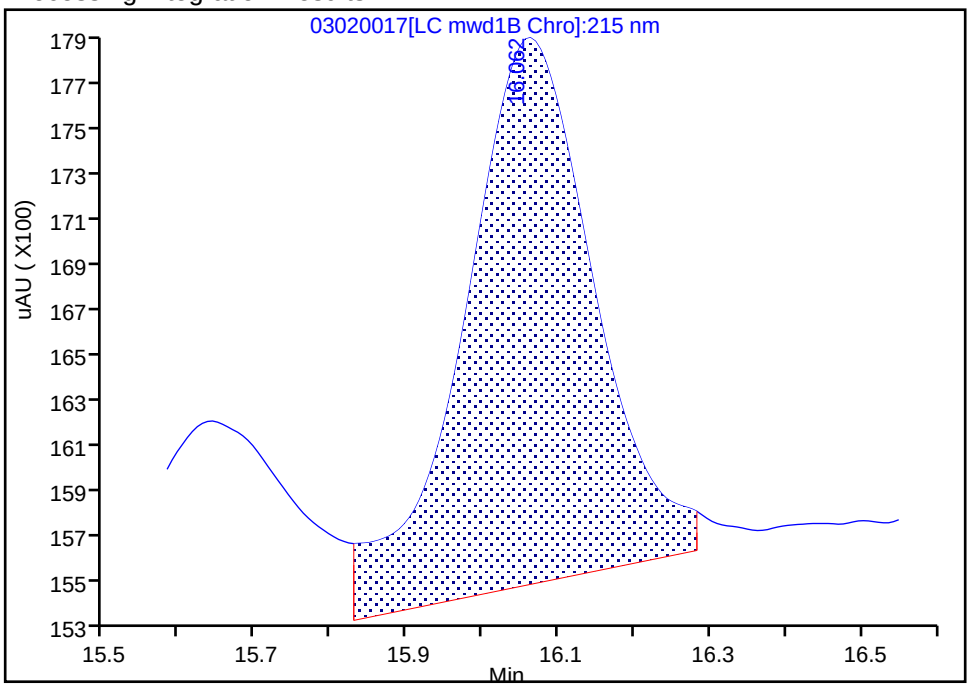
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D
Injection Date: 03-Mar-2022 01:28:22 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

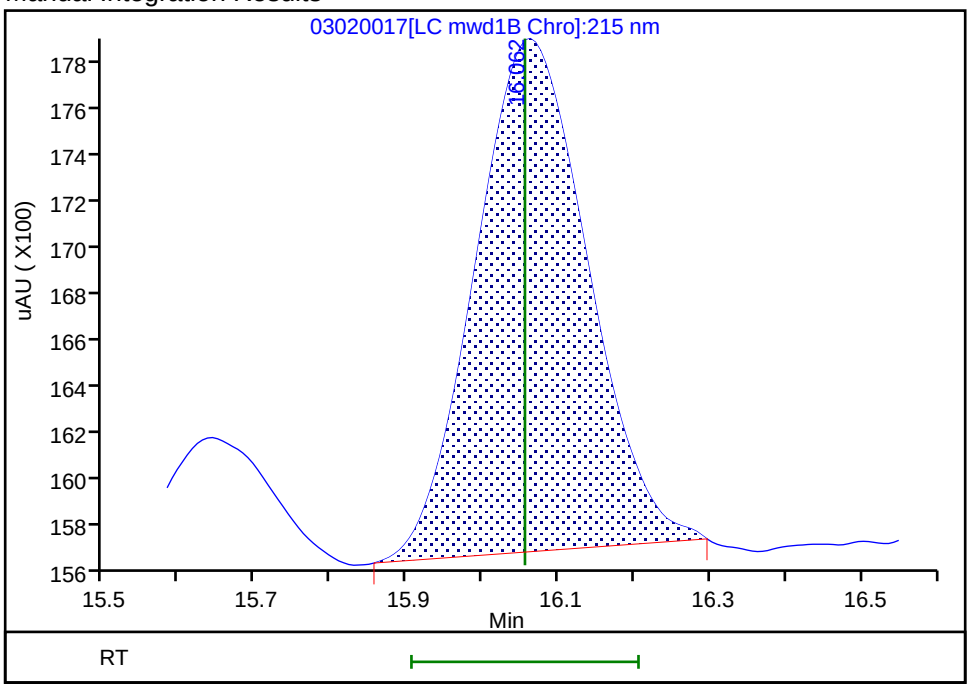
Processing Integration Results

RT: 16.06
Area: 28042
Amount: 0.218500
Amount Units: ug/ml



Manual Integration Results

RT: 16.06
Area: 21750
Amount: 0.177525
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:09
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

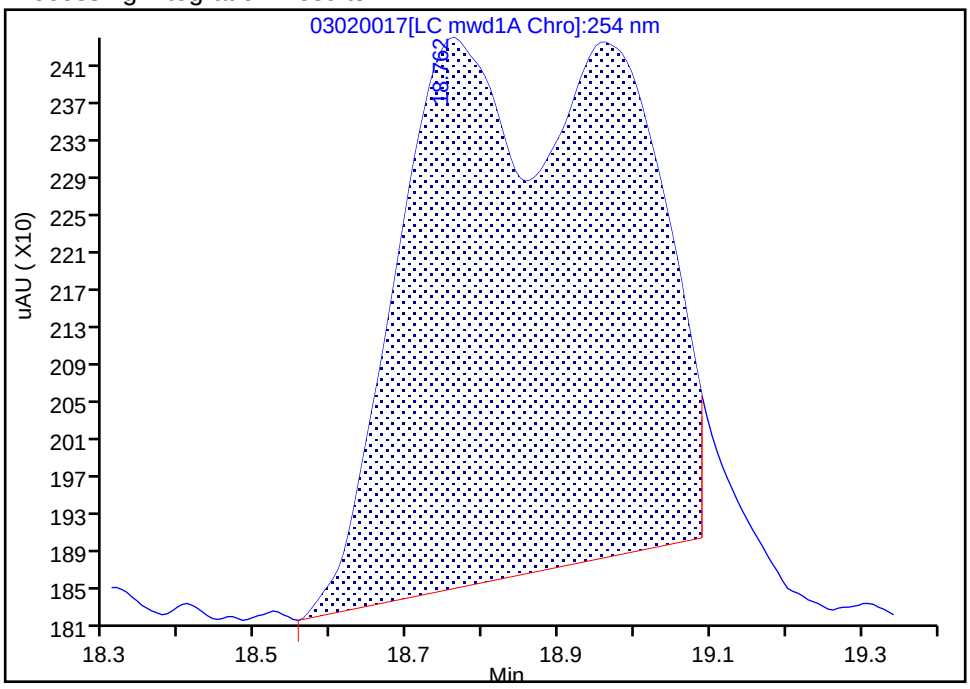
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D				
Injection Date:	03-Mar-2022 01:28:22	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT/ADD 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

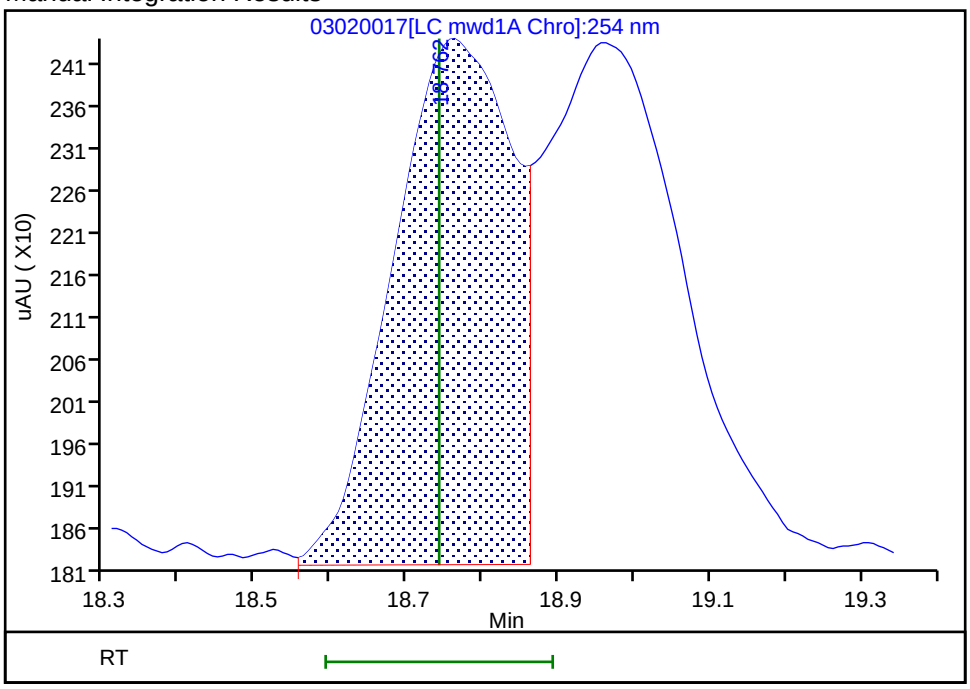
Processing Integration Results

RT: 18.76
Area: 12210
Amount: 0.025658
Amount Units: ug/ml



Manual Integration Results

RT: 18.76
Area: 6899
Amount: 0.019135
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:10:14
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

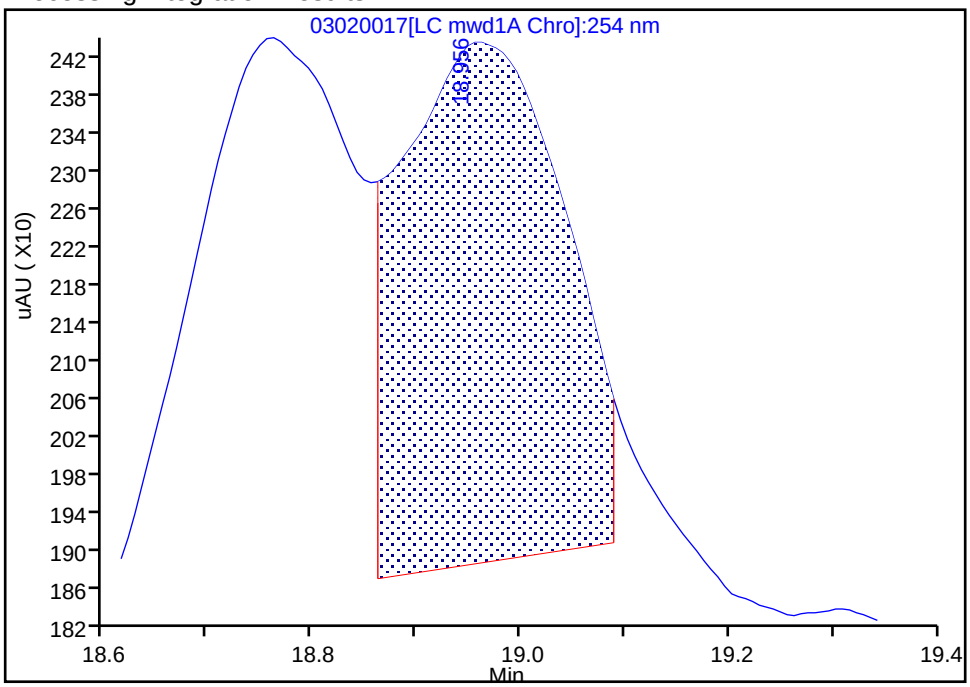
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D
Injection Date: 03-Mar-2022 01:28:22 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

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

Signal: 1

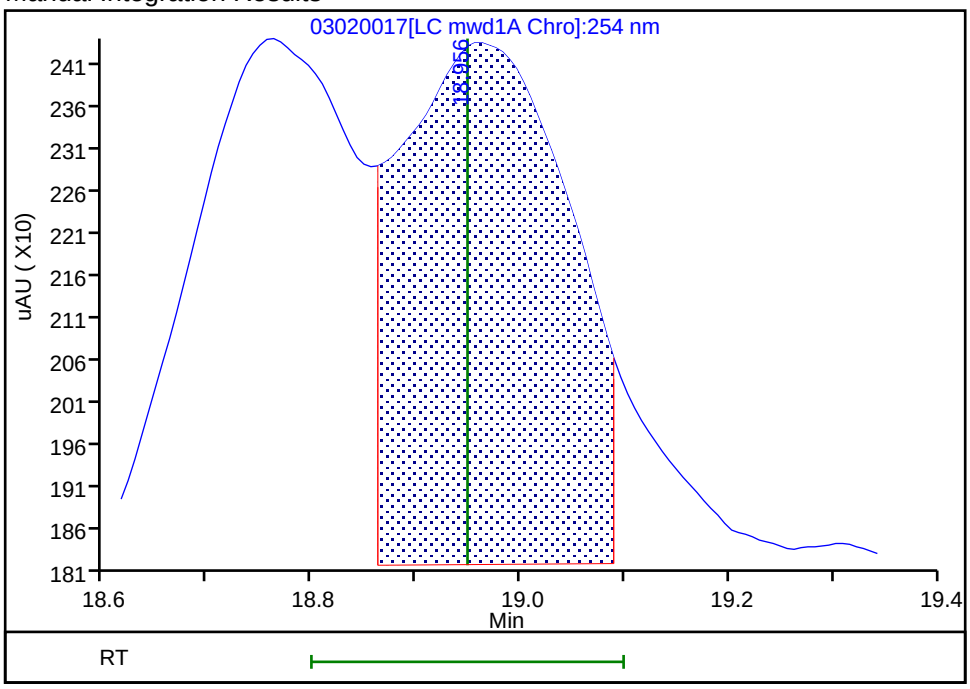
Processing Integration Results

RT: 18.96
Area: 5936
Amount: 0.014418
Amount Units: ug/ml



Manual Integration Results

RT: 18.96
Area: 6970
Amount: 0.016776
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:10:14
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

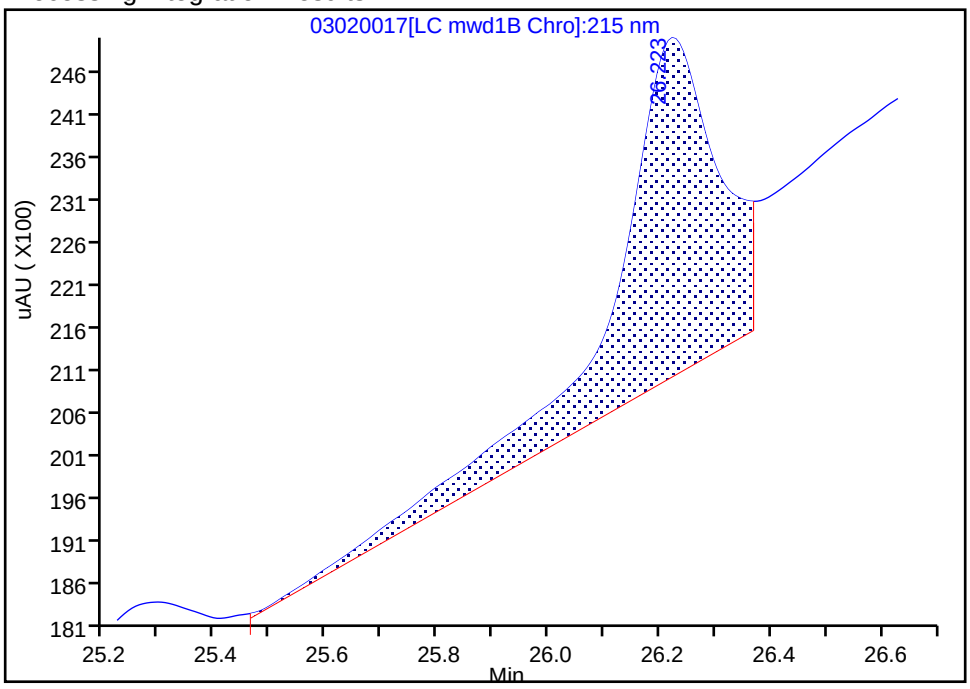
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D
Injection Date: 03-Mar-2022 01:28:22 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

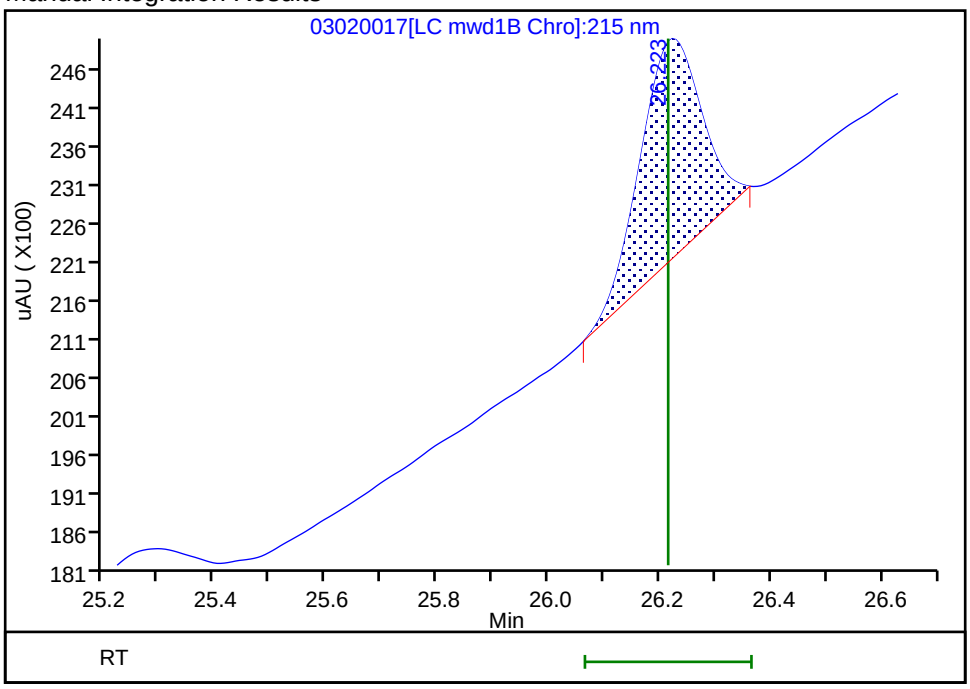
Processing Integration Results

RT: 26.22
Area: 51157
Amount: 0.330478
Amount Units: ug/ml



Manual Integration Results

RT: 26.22
Area: 21923
Amount: 0.169513
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:13
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Lims ID: IC INT/ADD 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Mar-2022 02:03:29 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 1
Misc. Info.: 280-0108949-018
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:18 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:07:10

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	4.174	4.142	0.032	6283	0.0100	0.0155	
2 2,4-diamino-6-nitrotoluene	1	4.714	4.669	0.045	4064	0.0100	0.0106	
5 HMX	1	6.887	6.889	-0.002	2040	0.0100	0.0123	
7 2,4,6-Trinitrophenol	1		7.602			ND	ND	
8 RDX	1	9.114	9.115	-0.001	2097	0.0100	0.0108	
9 Nitrobenzene	1	12.047	12.062	-0.015	3890	0.0100	0.0106	
$ 10 1,2-Dinitrobenzene	1	13.260	13.282	-0.022	2461	0.0100	0.009854	
11 3,5-Dinitroaniline	1	15.287	15.269	0.018	4362	0.0100	0.0104	
12 1,3-Dinitrobenzene	1	15.627	15.635	-0.008	5961	0.0100	0.0104	
13 Nitroglycerin	2	16.054	16.055	-0.001	10664	0.1000	0.0870	M
14 o-Nitrotoluene	1	16.807	16.822	-0.015	2491	0.0100	0.0106	
16 p-Nitrotoluene	1	17.147	17.129	0.018	2203	0.0100	0.0104	
17 4-Amino-2,6-dinitrotoluene	1	17.734	17.755	-0.021	2610	0.0100	0.0100	
18 m-Nitrotoluene	1	18.094	18.102	-0.008	2543	0.0100	0.0103	
19 2-Amino-4,6-dinitrotoluene	1	18.754	18.742	0.012	3705	0.0100	0.0103	M
20 1,3,5-Trinitrobenzene	1	18.947	18.949	-0.002	3947	0.0100	0.009500	Ma
21 2,6-Dinitrotoluene	1	20.260	20.255	0.005	2704	0.0100	0.0102	
22 2,4-Dinitrotoluene	1	20.674	20.762	-0.088	11900	0.0100	0.0102	
23 Tetryl	1	24.514	24.489	0.025	4722	0.0100	0.0138	
24 2,4,6-Trinitrotoluene	1	25.274	25.262	0.012	3720	0.0100	0.0101	
25 PETN	2	26.220	26.215	0.005	10842	0.1000	0.0838	M

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00070	Amount Added:	1.00	Units: uL
8330_ADDs_00031	Amount Added:	0.50	Units: uL

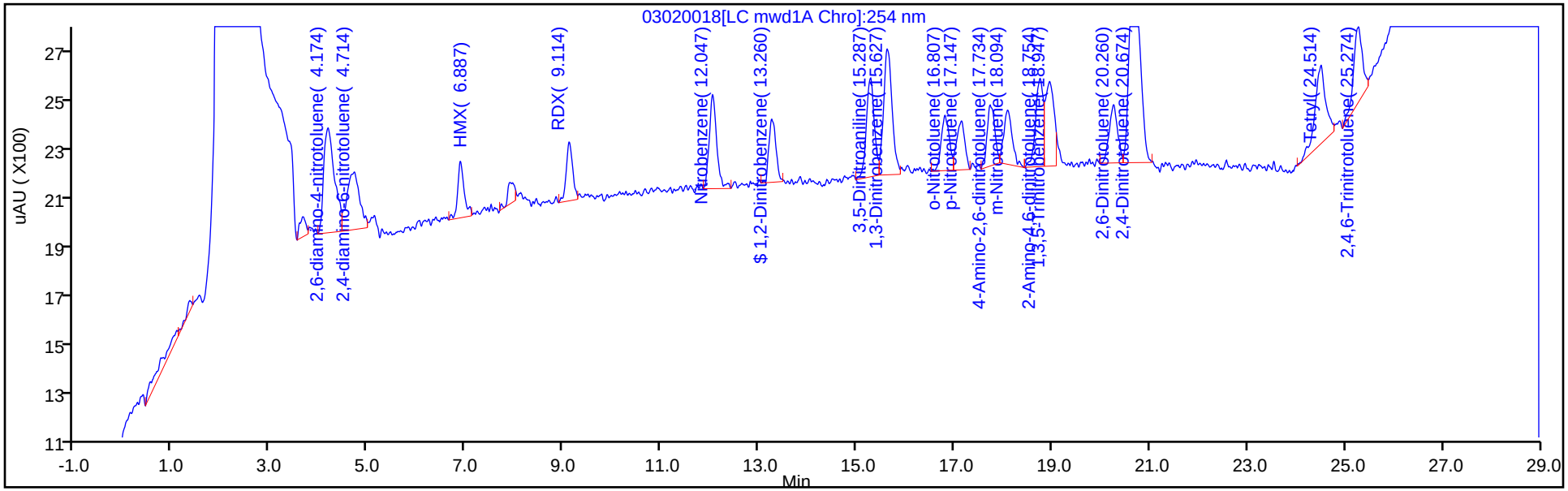
Report Date: 03-Mar-2022 12:49:18 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

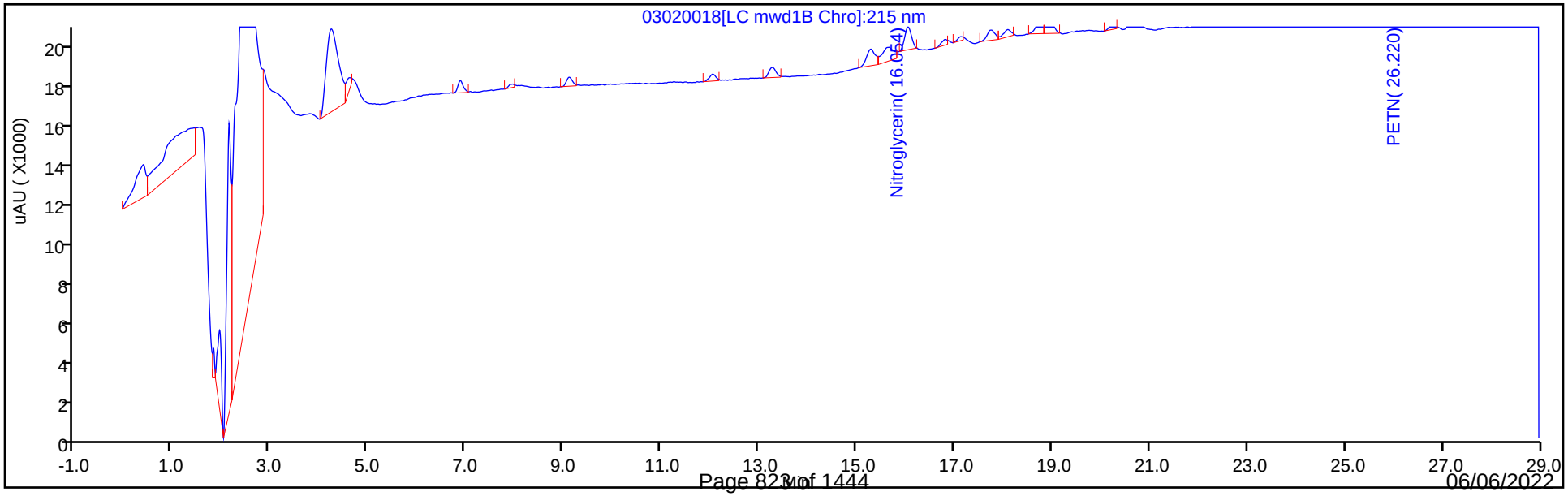
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D

Injection Date:	03-Mar-2022 02:03:29	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 1			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

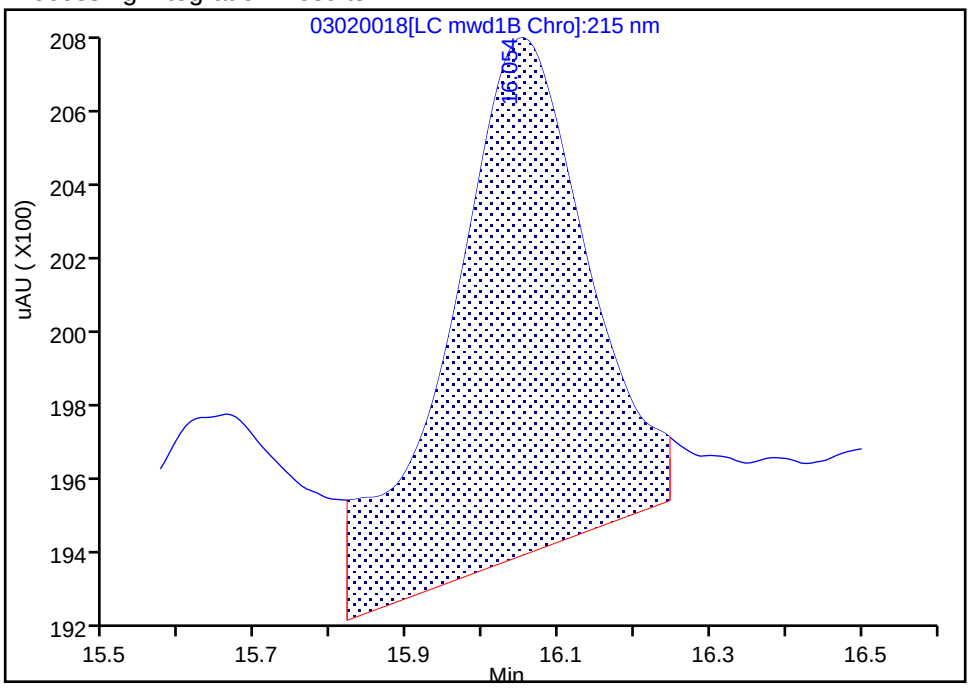
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Injection Date: 03-Mar-2022 02:03:29 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

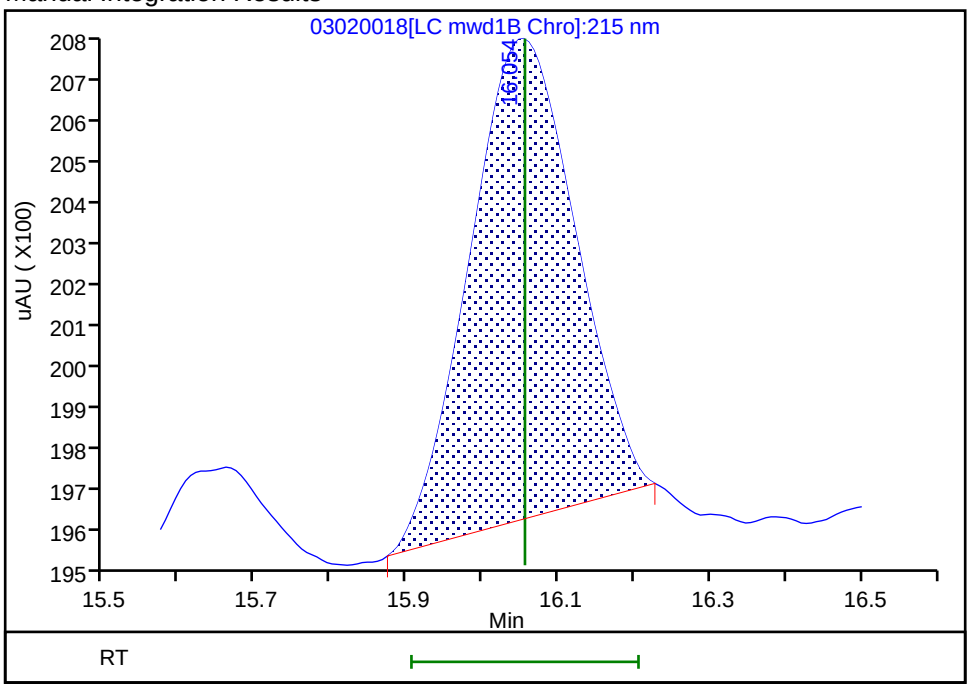
Processing Integration Results

RT: 16.05
Area: 17086
Amount: 0.126120
Amount Units: ug/ml



Manual Integration Results

RT: 16.05
Area: 10664
Amount: 0.087040
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:01
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

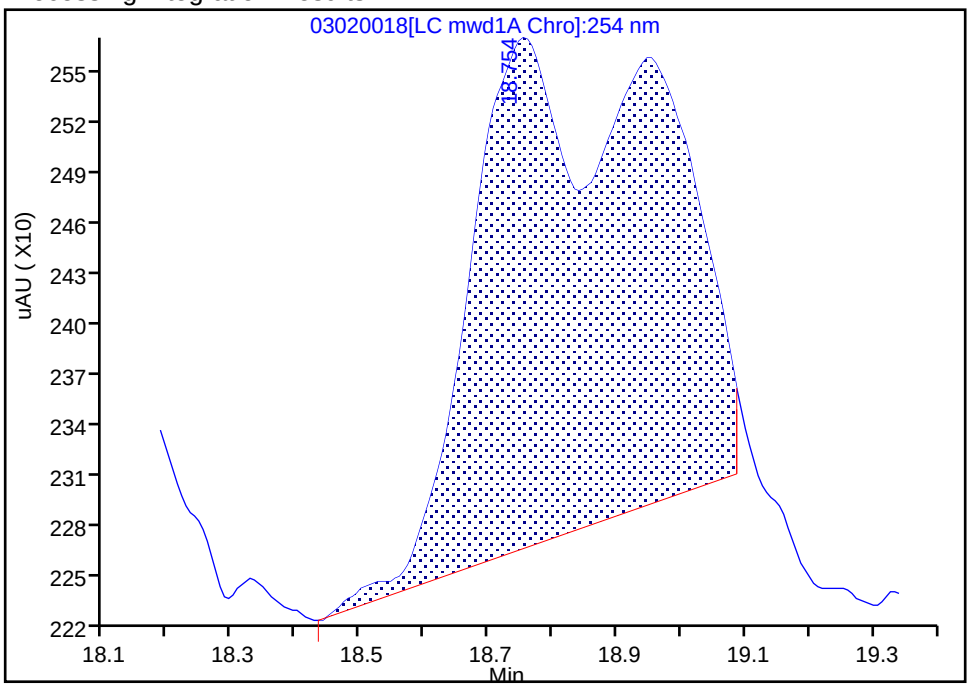
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Injection Date: 03-Mar-2022 02:03:29 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

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

Signal: 1

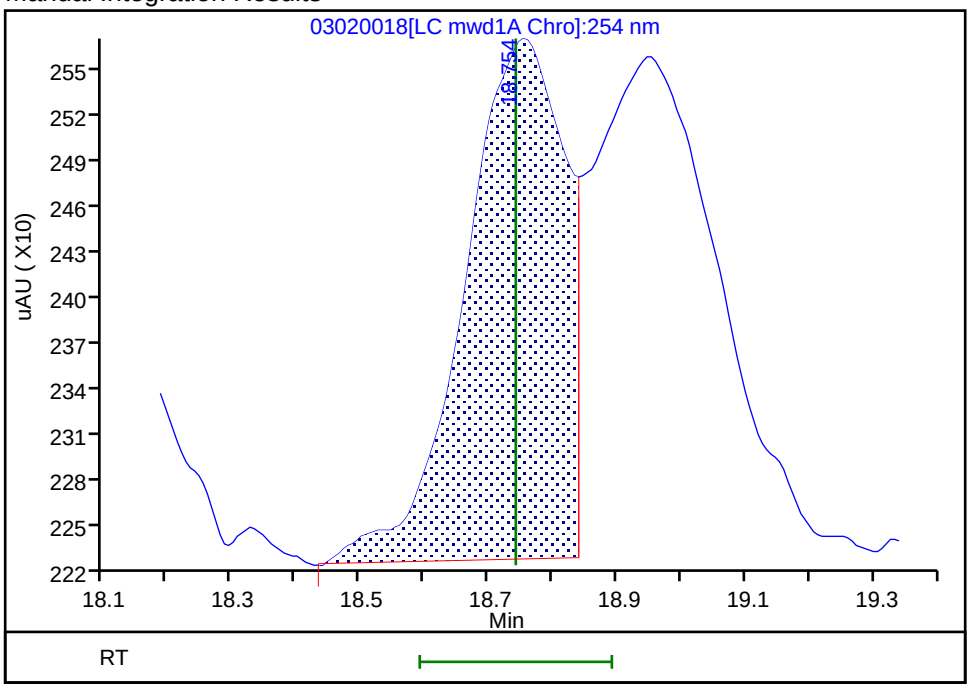
Processing Integration Results

RT: 18.75
Area: 6109
Amount: 0.012300
Amount Units: ug/ml



Manual Integration Results

RT: 18.75
Area: 3705
Amount: 0.010276
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:11:46
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

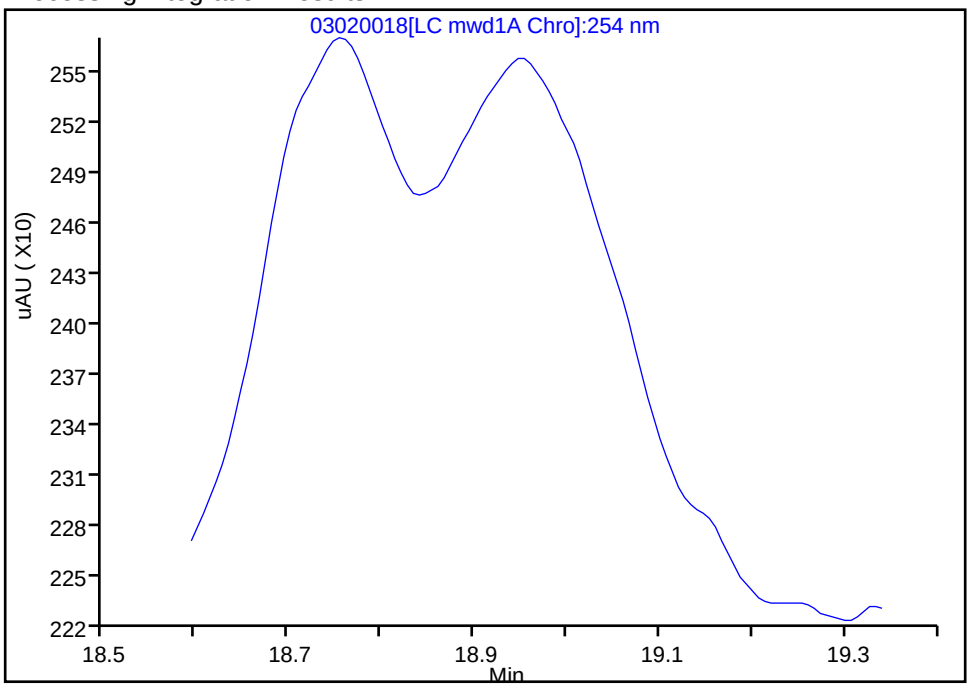
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D				
Injection Date:	03-Mar-2022 02:03:29	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT/ADD 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

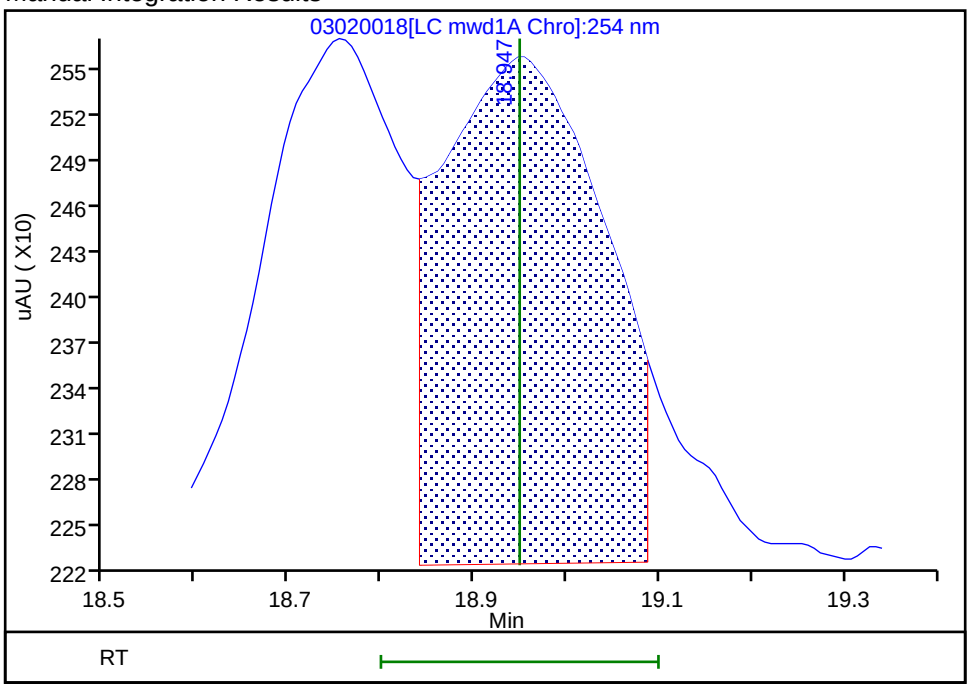
Not Detected
Expected RT: 18.95

Processing Integration Results



Manual Integration Results

RT: 18.95
Area: 3947
Amount: 0.009500
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:11:46
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

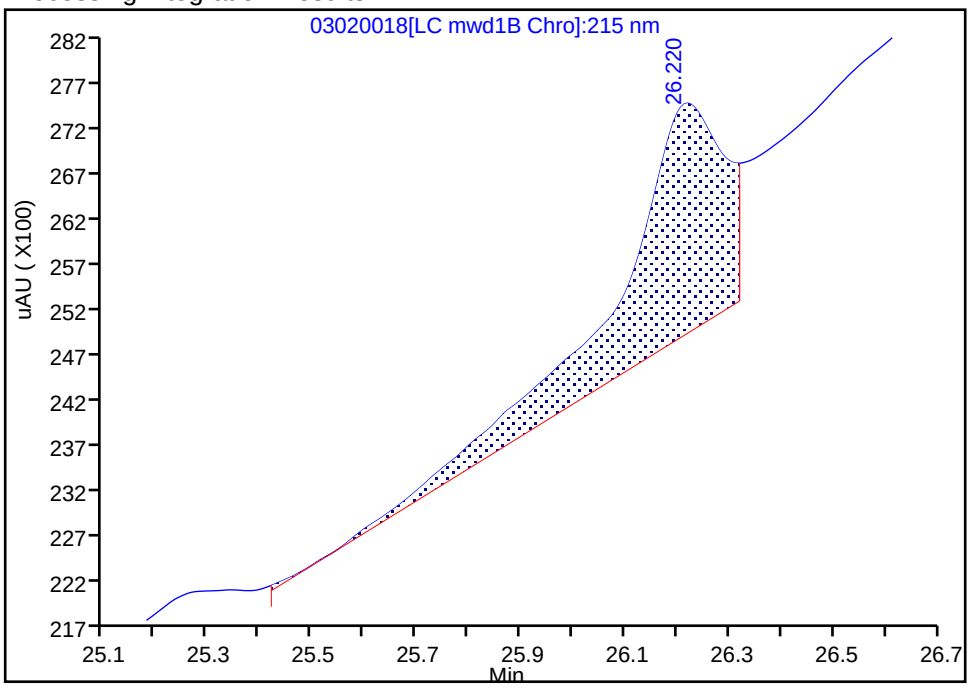
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Injection Date: 03-Mar-2022 02:03:29 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

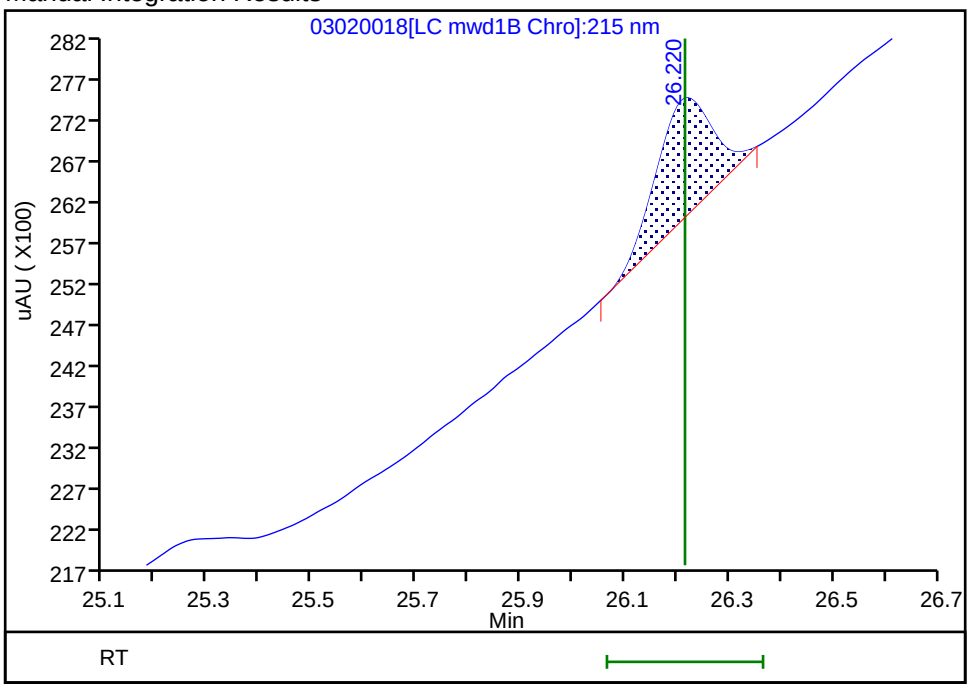
Processing Integration Results

RT: 26.22
Area: 35507
Amount: 0.096197
Amount Units: ug/ml



Manual Integration Results

RT: 26.22
Area: 10842
Amount: 0.083833
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:11:57
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Calibration / HMX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

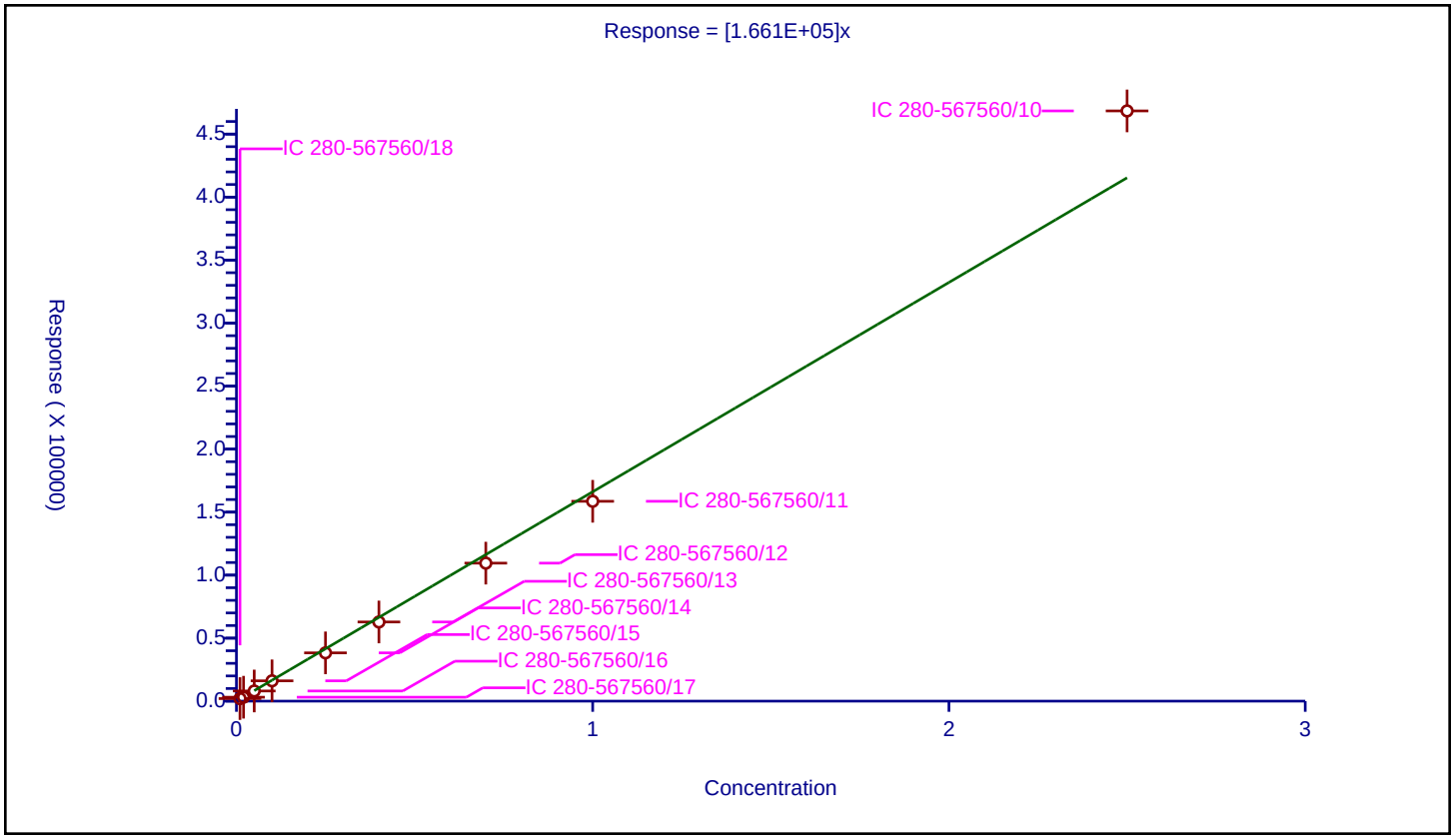
Curve Coefficients

Intercept:	0
Slope:	1.661E+05

Error Coefficients

Standard Error:	19200
Relative Standard Error:	10.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01	2040.0			204000.0	Y
2	IC 280-567560/17	0.02	3127.0			156350.0	Y
3	IC 280-567560/16	0.05	8053.0			161060.0	Y
4	IC 280-567560/15	0.1	16109.0			161090.0	Y
5	IC 280-567560/14	0.25	38318.0			153272.0	Y
6	IC 280-567560/13	0.4	62819.0			157047.5	Y
7	IC 280-567560/12	0.7	109512.0			156445.714286	Y
8	IC 280-567560/11	1.0	158593.0			158593.0	Y
9	IC 280-567560/10	2.5	468398.0			187359.2	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

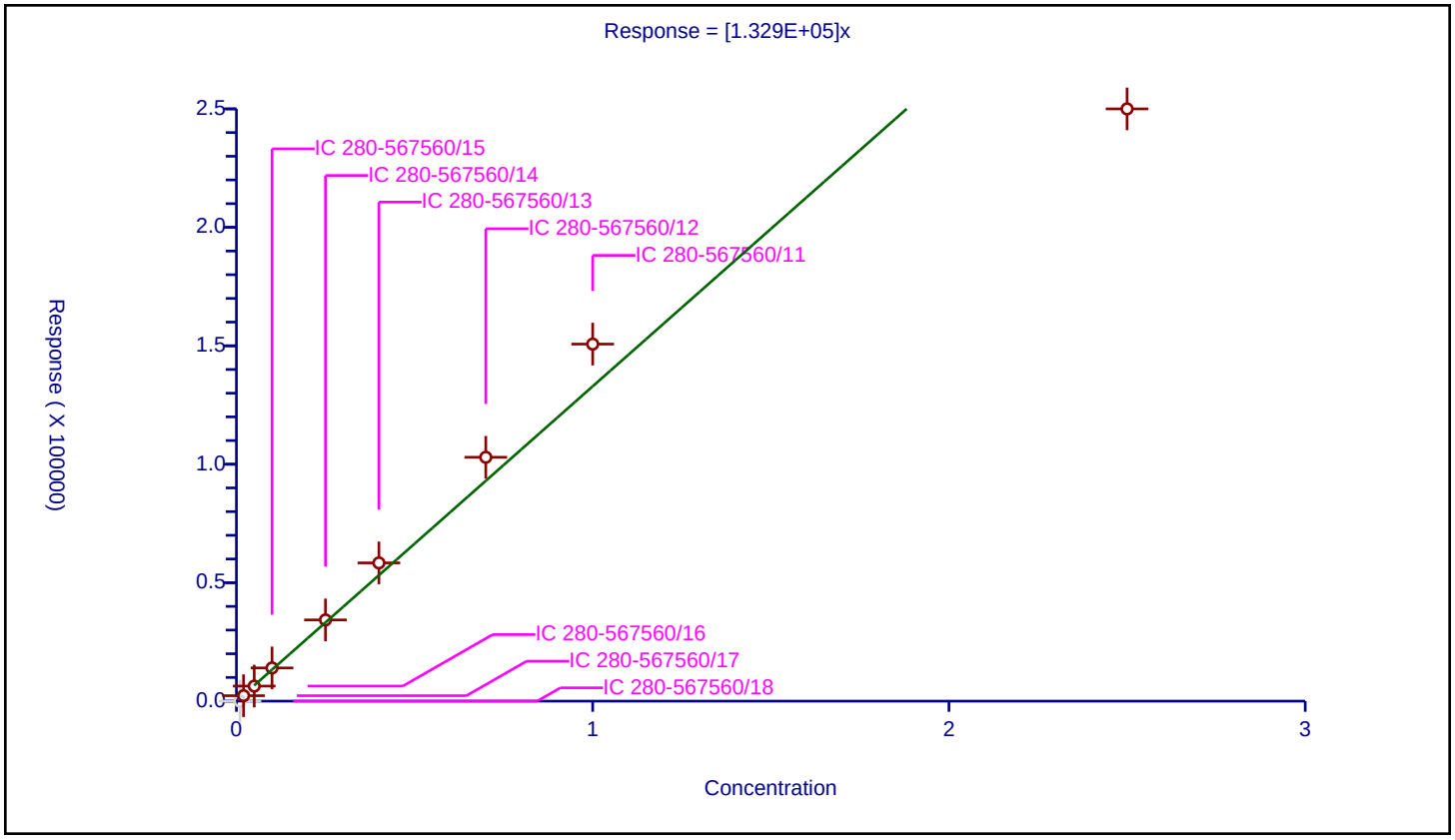
Curve Coefficients

Intercept:	0
Slope:	1.329E+05

Error Coefficients

Standard Error:	32100
Relative Standard Error:	13.3
Correlation Coefficient:	0.955
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01	0.0			0.0	N
2	IC 280-567560/17	0.02	2301.0			115050.0	Y
3	IC 280-567560/16	0.05	6356.0			127120.0	Y
4	IC 280-567560/15	0.1	14009.0			140090.0	Y
5	IC 280-567560/14	0.25	34288.0			137152.0	Y
6	IC 280-567560/13	0.4	58358.0			145895.0	Y
7	IC 280-567560/12	0.7	102939.0			147055.714286	Y
8	IC 280-567560/11	1.0	150719.0			150719.0	Y
9	IC 280-567560/10	2.5	250000.0			100000.0	Y



Calibration / RDX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

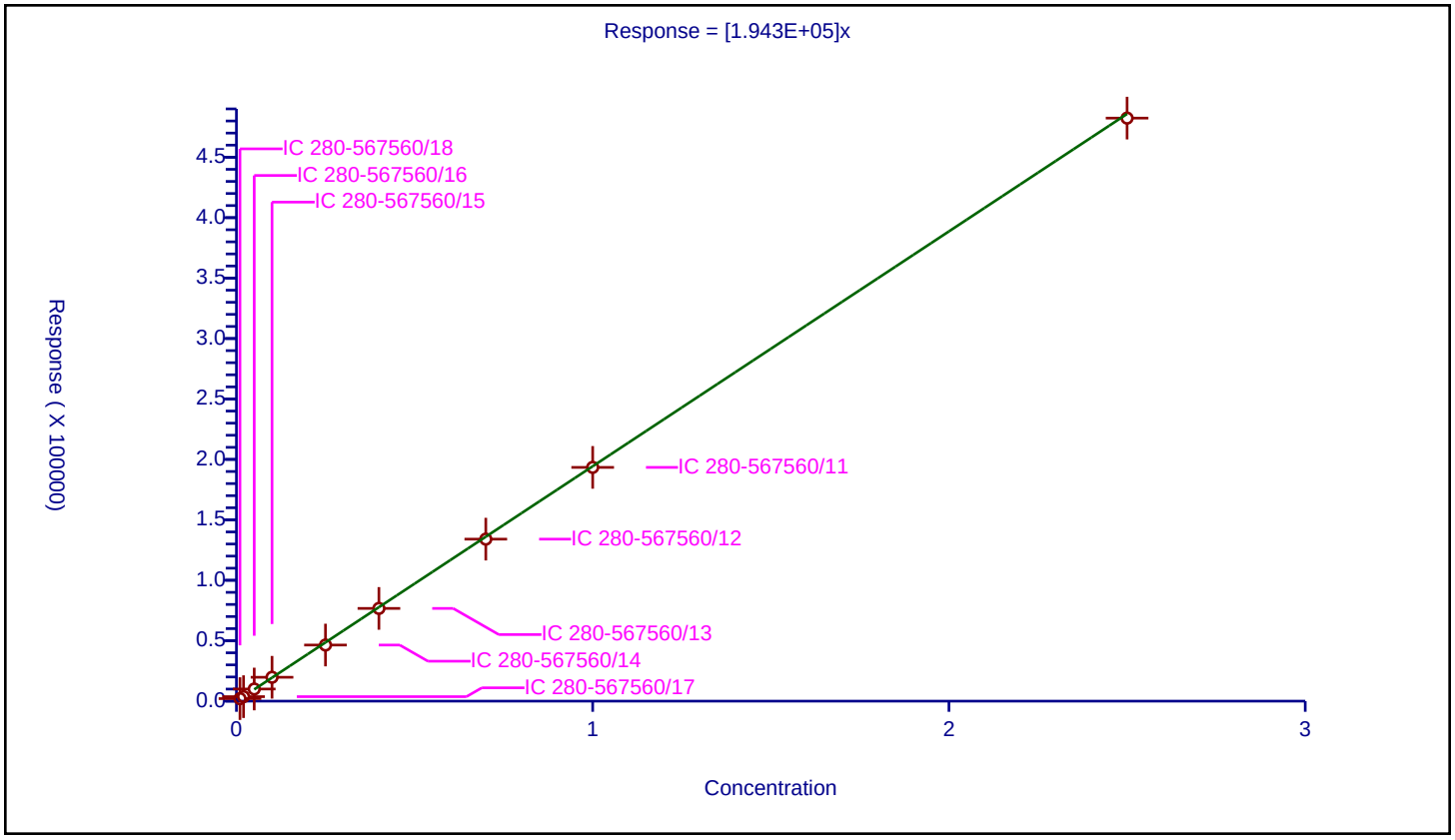
Curve Coefficients

Intercept:	0
Slope:	1.943E+05

Error Coefficients

Standard Error:	1690
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 280-567560/18	0.01	2097.0			209700.0	Y
2	IC 280-567560/17	0.02	3719.0			185950.0	Y
3	IC 280-567560/16	0.05	10028.0			200560.0	Y
4	IC 280-567560/15	0.1	19750.0			197500.0	Y
5	IC 280-567560/14	0.25	46417.0			185668.0	Y
6	IC 280-567560/13	0.4	76711.0			191777.5	Y
7	IC 280-567560/12	0.7	134031.0			191472.857143	Y
8	IC 280-567560/11	1.0	193402.0			193402.0	Y
9	IC 280-567560/10	2.5	482372.0			192948.8	Y



Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

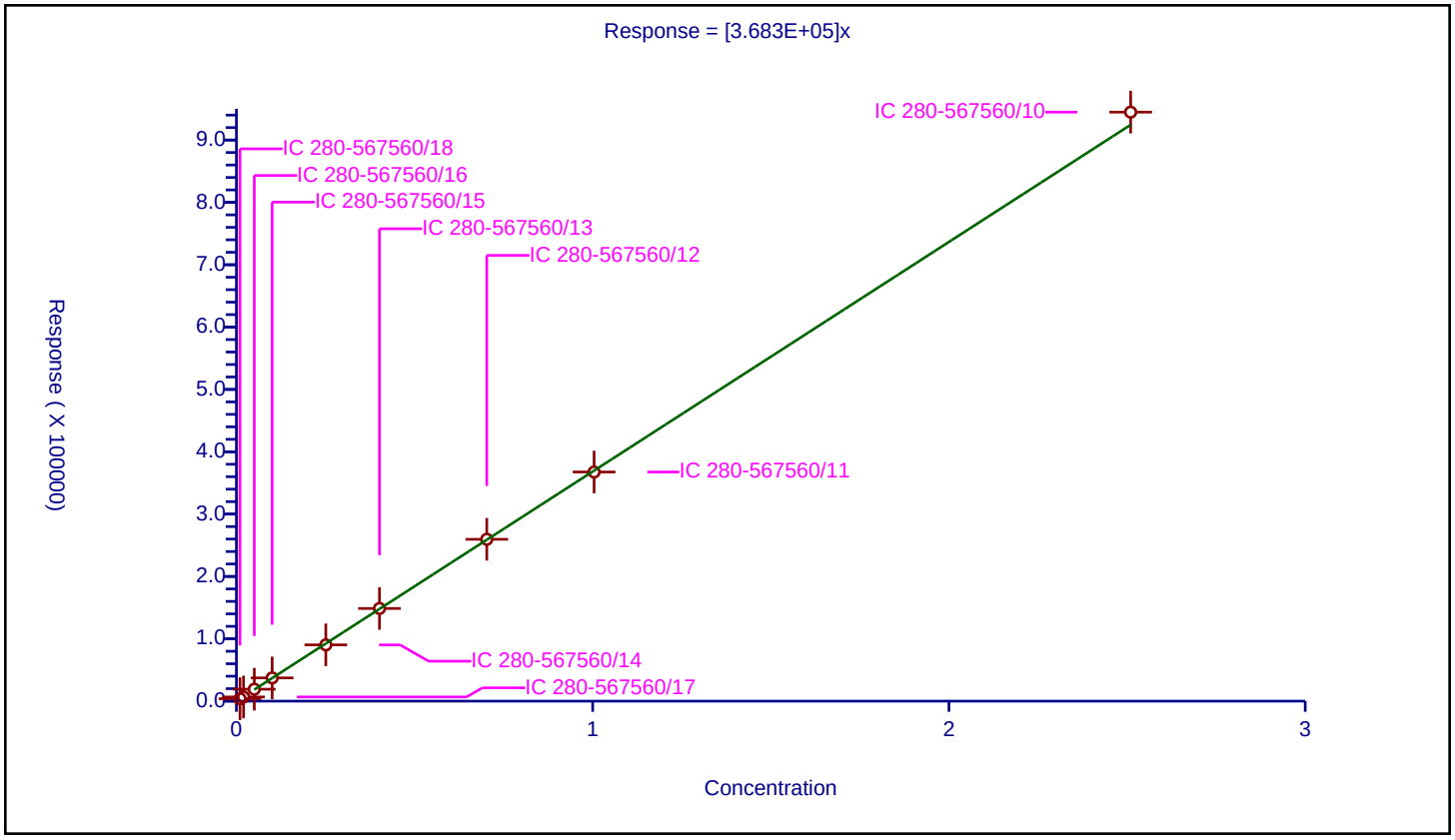
Curve Coefficients

Intercept:	0
Slope:	3.683E+05

Error Coefficients

Standard Error:	7300
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01004	3890.0			387450.199203	Y
2	IC 280-567560/17	0.02008	6686.0			332968.12749	Y
3	IC 280-567560/16	0.0502	19149.0			381454.183267	Y
4	IC 280-567560/15	0.1004	37271.0			371225.099602	Y
5	IC 280-567560/14	0.251	90246.0			359545.816733	Y
6	IC 280-567560/13	0.4016	148639.0			370117.031873	Y
7	IC 280-567560/12	0.7028	259585.0			369358.281161	Y
8	IC 280-567560/11	1.004	367582.0			366117.52988	Y
9	IC 280-567560/10	2.51	944774.0			376403.984064	Y



Calibration / 1,2-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

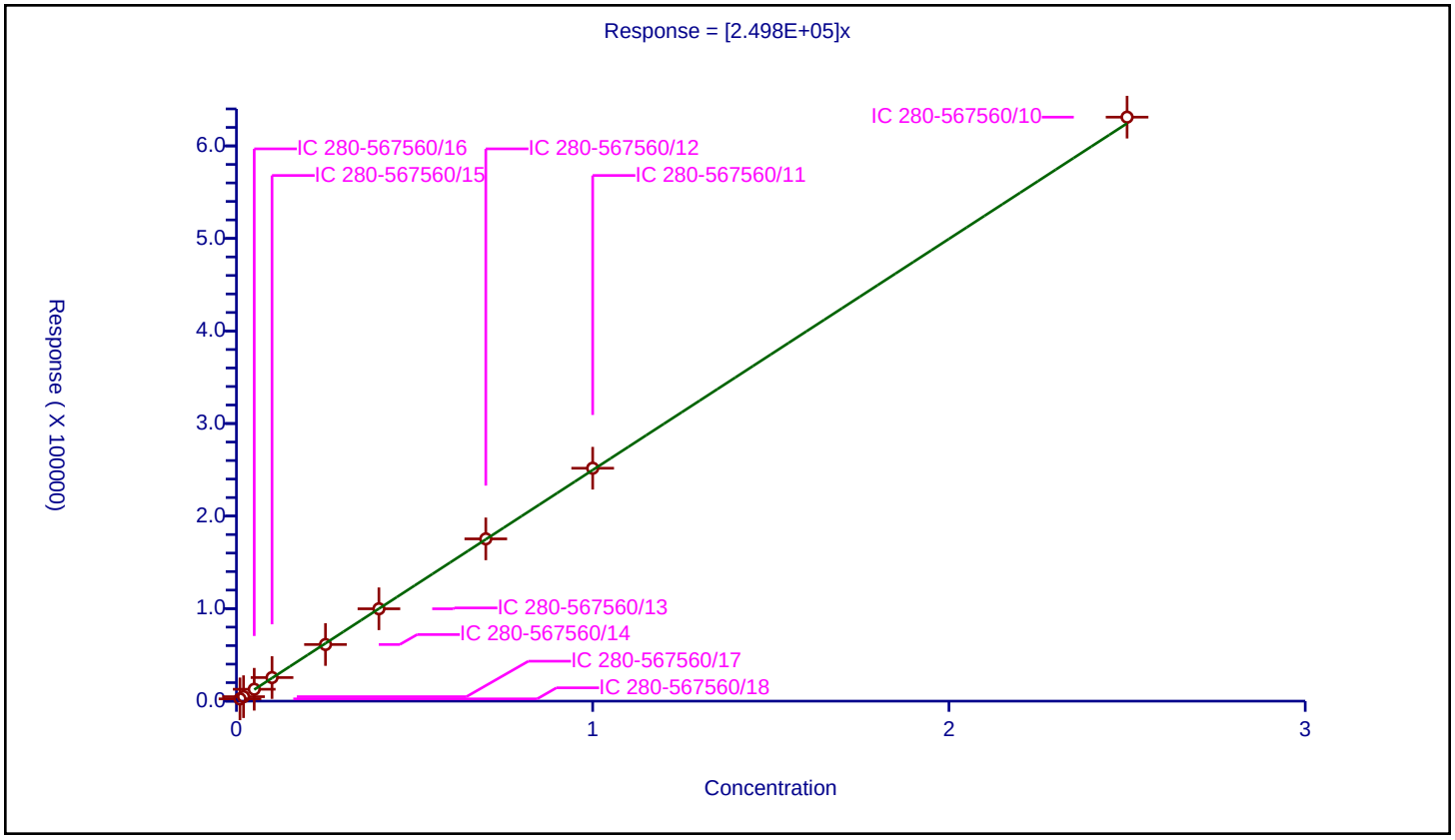
Curve Coefficients

Intercept:	0
Slope:	2.498E+05

Error Coefficients

Standard Error:	2520
Relative Standard Error:	2.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01	2461.0			246100.0	Y
2	IC 280-567560/17	0.02	4809.0			240450.0	Y
3	IC 280-567560/16	0.05	12864.0			257280.0	Y
4	IC 280-567560/15	0.1	25499.0			254990.0	Y
5	IC 280-567560/14	0.25	61198.0			244792.0	Y
6	IC 280-567560/13	0.4	99804.0			249510.0	Y
7	IC 280-567560/12	0.7	175358.0			250511.428571	Y
8	IC 280-567560/11	1.0	251717.0			251717.0	Y
9	IC 280-567560/10	2.5	631065.0			252426.0	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

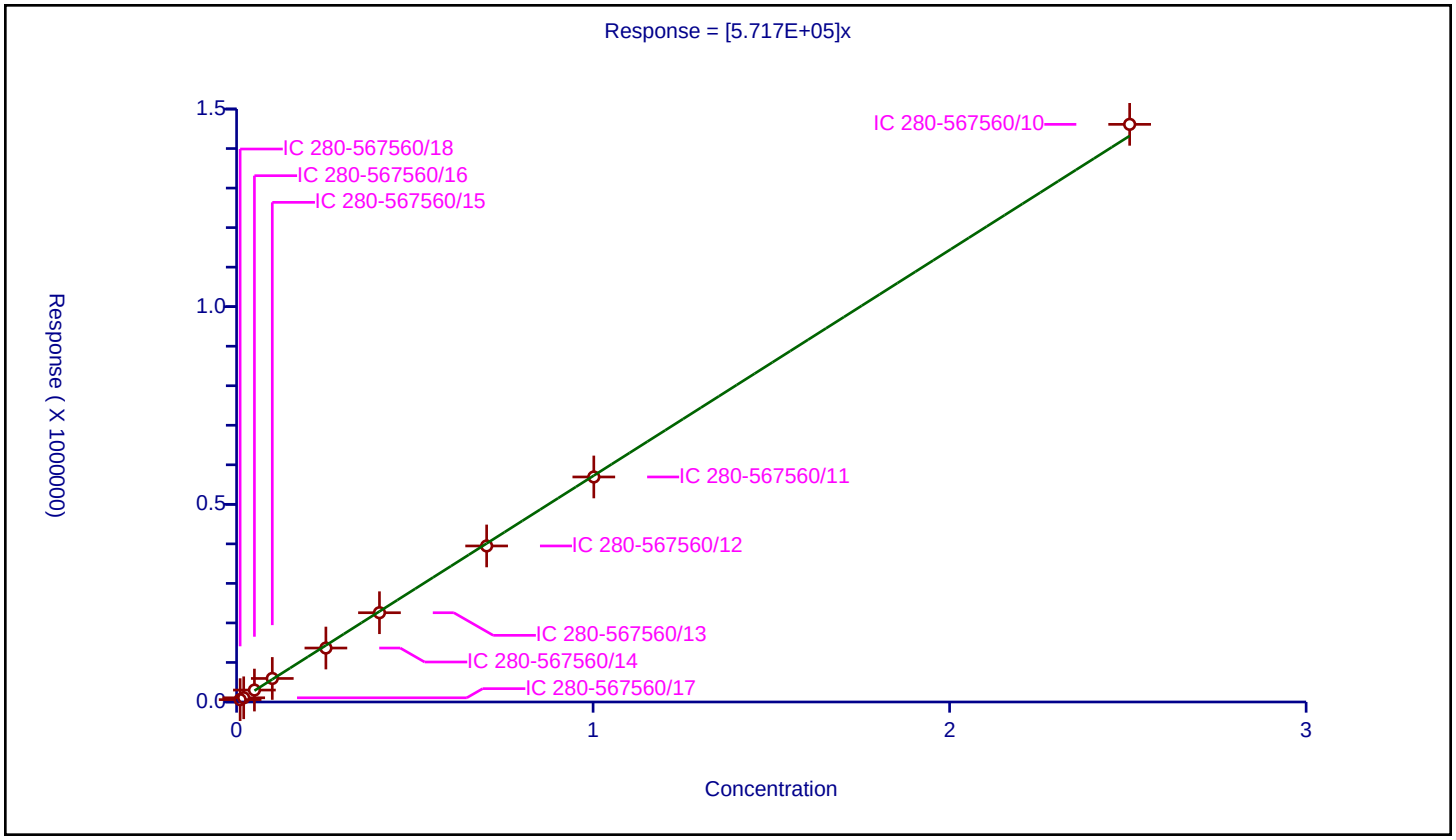
Curve Coefficients

Intercept:	0
Slope:	5.717E+05

Error Coefficients

Standard Error:	11000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01002	5961.0			594910.179641	Y
2	IC 280-567560/17	0.02004	10643.0			531087.824351	Y
3	IC 280-567560/16	0.0501	30181.0			602415.169661	Y
4	IC 280-567560/15	0.1002	59537.0			594181.636727	Y
5	IC 280-567560/14	0.2505	136486.0			544854.291417	Y
6	IC 280-567560/13	0.4008	225815.0			563410.678643	Y
7	IC 280-567560/12	0.7014	394707.0			562741.659538	Y
8	IC 280-567560/11	1.002	569212.0			568075.848303	Y
9	IC 280-567560/10	2.505	1461217.0			583320.159681	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

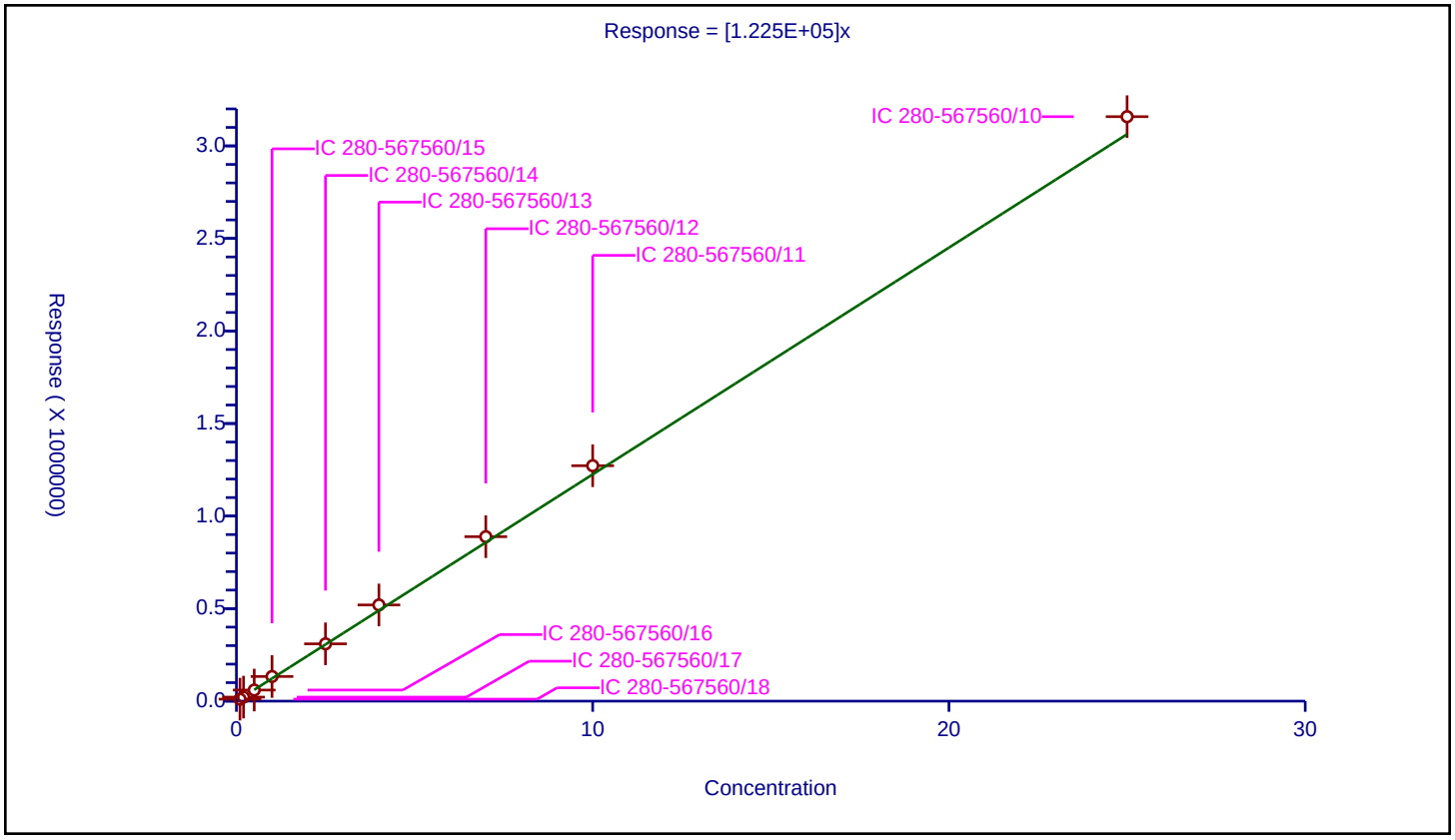
Curve Coefficients

Intercept:	0
Slope:	1.225E+05

Error Coefficients

Standard Error:	40600
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.1	10664.0			106640.0	Y
2	IC 280-567560/17	0.2	21750.0			108750.0	Y
3	IC 280-567560/16	0.5	59894.0			119788.0	Y
4	IC 280-567560/15	1.0	133241.0			133241.0	Y
5	IC 280-567560/14	2.5	309657.0			123862.8	Y
6	IC 280-567560/13	4.0	519683.0			129920.75	Y
7	IC 280-567560/12	7.0	888552.0			126936.0	Y
8	IC 280-567560/11	10.0	1272015.0			127201.5	Y
9	IC 280-567560/10	25.0	3158004.0			126320.16	Y



Calibration / o-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

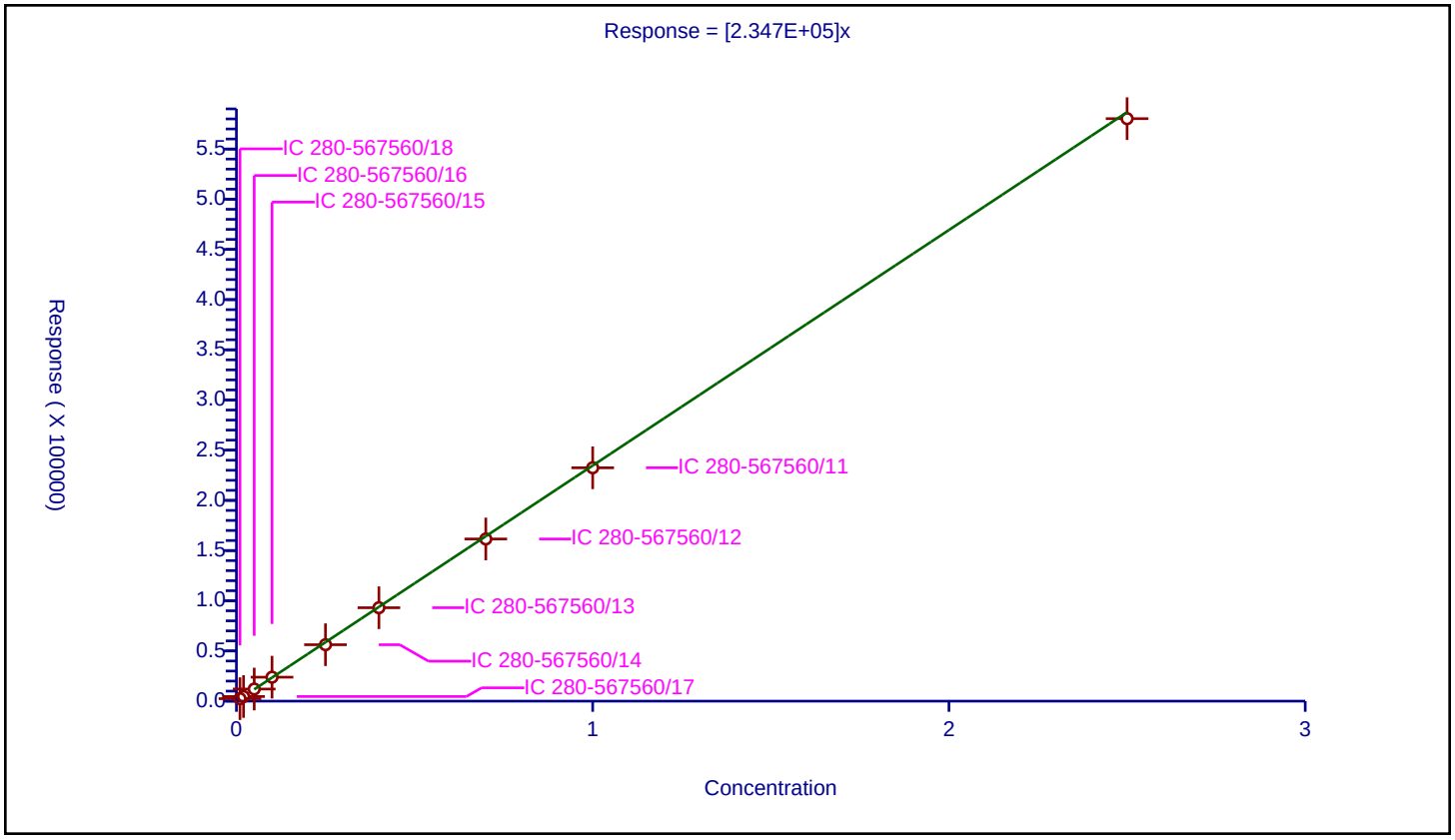
Curve Coefficients

Intercept:	0
Slope:	2.347E+05

Error Coefficients

Standard Error:	2750
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01	2491.0			249100.0	Y
2	IC 280-567560/17	0.02	4607.0			230350.0	Y
3	IC 280-567560/16	0.05	12057.0			241140.0	Y
4	IC 280-567560/15	0.1	23857.0			238570.0	Y
5	IC 280-567560/14	0.25	56221.0			224884.0	Y
6	IC 280-567560/13	0.4	93064.0			232660.0	Y
7	IC 280-567560/12	0.7	161534.0			230762.857143	Y
8	IC 280-567560/11	1.0	232476.0			232476.0	Y
9	IC 280-567560/10	2.5	580270.0			232108.0	Y



Calibration / p-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

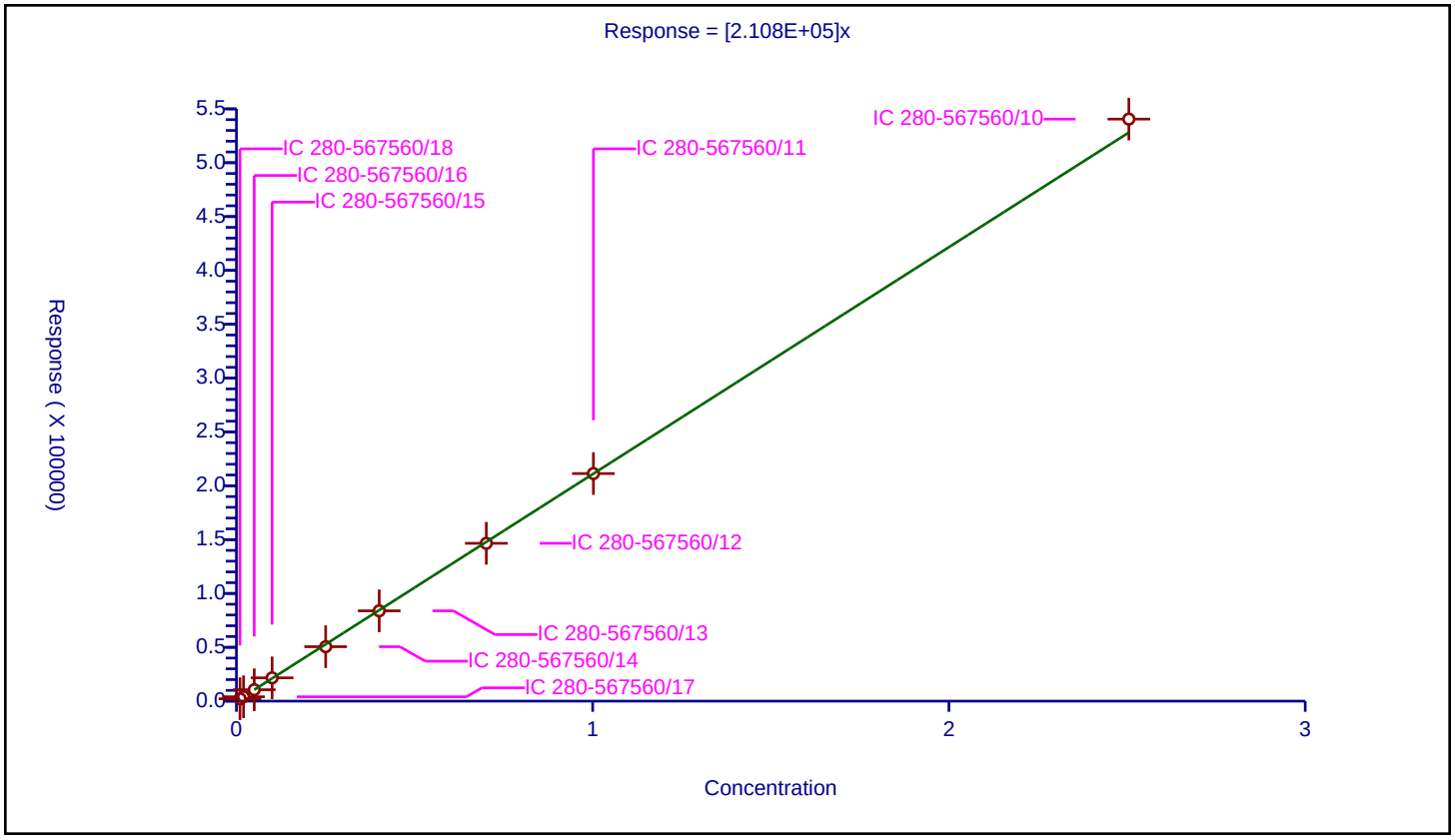
Curve Coefficients

Intercept:	0
Slope:	2.108E+05

Error Coefficients

Standard Error:	4500
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01002	2203.0			219860.279441	Y
2	IC 280-567560/17	0.02004	4078.0			203493.013972	Y
3	IC 280-567560/16	0.0501	10595.0			211477.045908	Y
4	IC 280-567560/15	0.1002	21625.0			215818.363273	Y
5	IC 280-567560/14	0.2505	50555.0			201816.367265	Y
6	IC 280-567560/13	0.4008	83857.0			209224.051896	Y
7	IC 280-567560/12	0.7014	146563.0			208957.798688	Y
8	IC 280-567560/11	1.002	211344.0			210922.155689	Y
9	IC 280-567560/10	2.505	540531.0			215780.838323	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

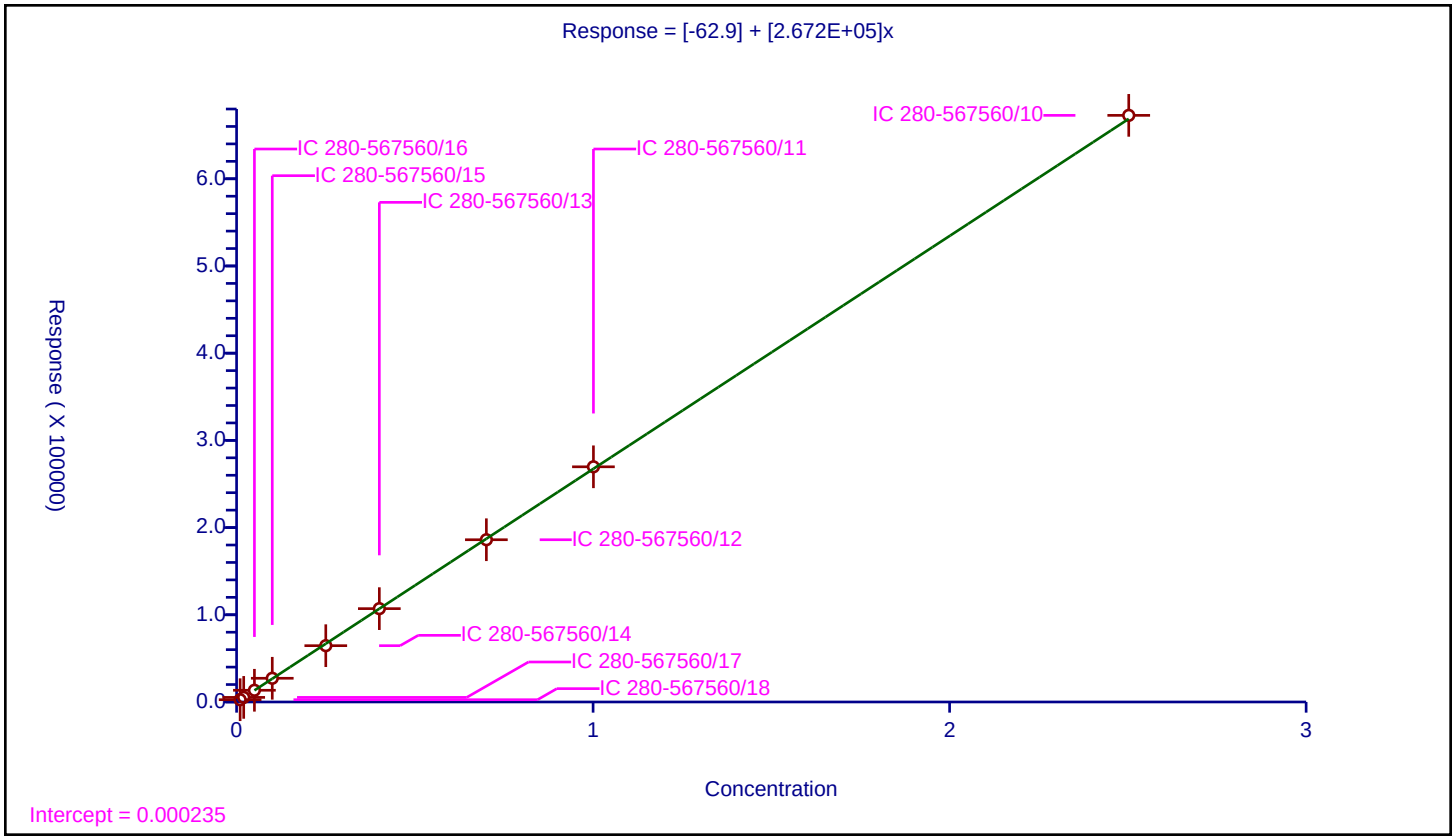
Curve Coefficients

Intercept:	-62.9
Slope:	2.672E+05

Error Coefficients

Standard Error:	1990
Relative Standard Error:	1.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01001	2610.0			260739.260739	Y
2	IC 280-567560/17	0.02002	5271.0			263286.713287	Y
3	IC 280-567560/16	0.05005	13425.0			268231.768232	Y
4	IC 280-567560/15	0.1001	27216.0			271888.111888	Y
5	IC 280-567560/14	0.25025	64569.0			258017.982018	Y
6	IC 280-567560/13	0.4004	107043.0			267340.15984	Y
7	IC 280-567560/12	0.7007	186078.0			265560.154132	Y
8	IC 280-567560/11	1.001	269691.0			269421.578422	Y
9	IC 280-567560/10	2.5025	672715.0			268817.182817	Y



Calibration / m-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

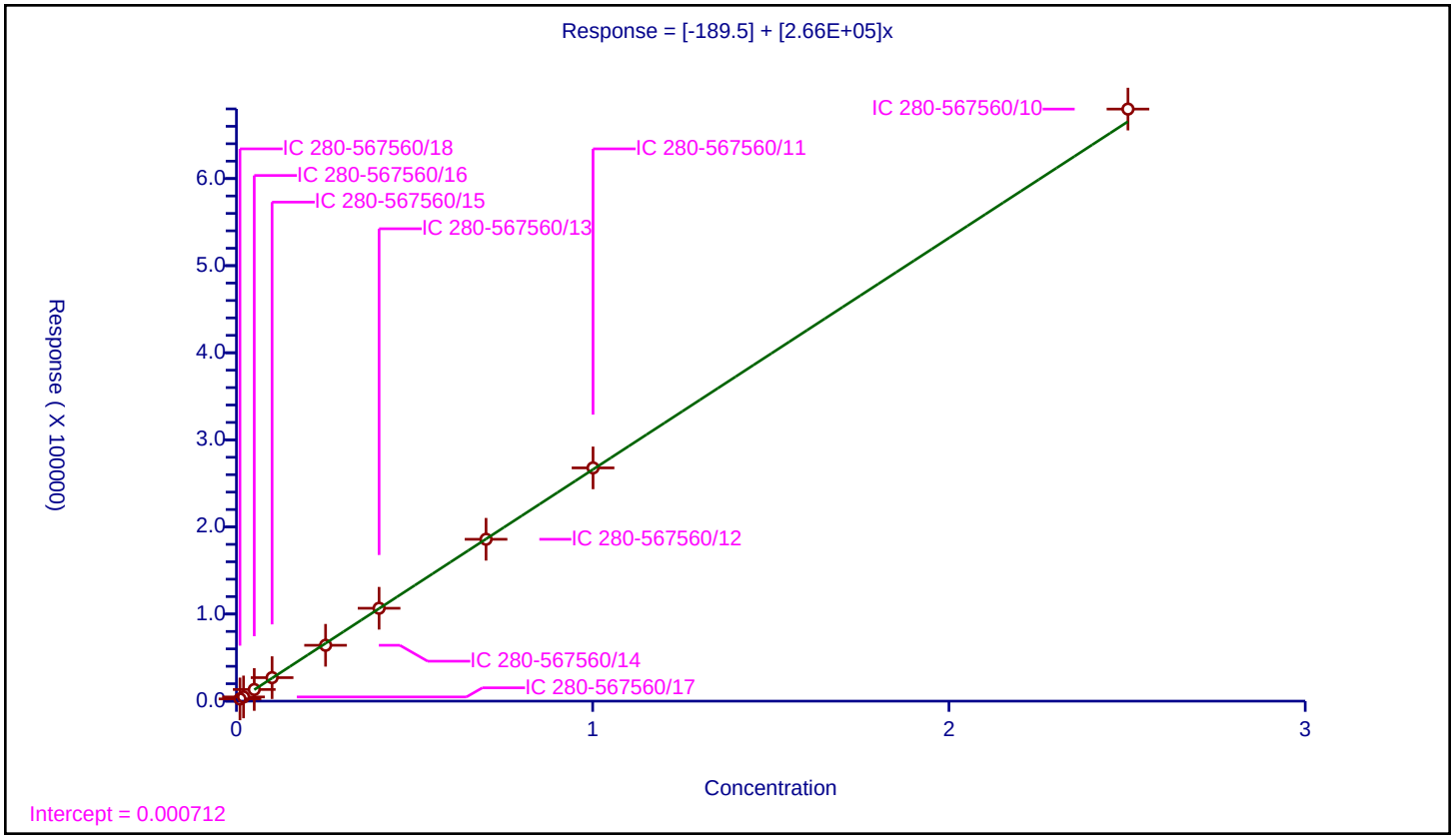
Curve Coefficients

Intercept:	-189.5
Slope:	2.66E+05

Error Coefficients

Standard Error:	5530
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01001	2543.0			254045.954046	Y
2	IC 280-567560/17	0.02002	4805.0			240009.99001	Y
3	IC 280-567560/16	0.05005	13387.0			267472.527473	Y
4	IC 280-567560/15	0.1001	26978.0			269510.48951	Y
5	IC 280-567560/14	0.25025	64150.0			256343.656344	Y
6	IC 280-567560/13	0.4004	106661.0			266386.113886	Y
7	IC 280-567560/12	0.7007	185839.0			265219.066648	Y
8	IC 280-567560/11	1.001	267812.0			267544.455544	Y
9	IC 280-567560/10	2.5025	679800.0			271648.351648	Y



Calibration / 2-Amino-4,6-dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

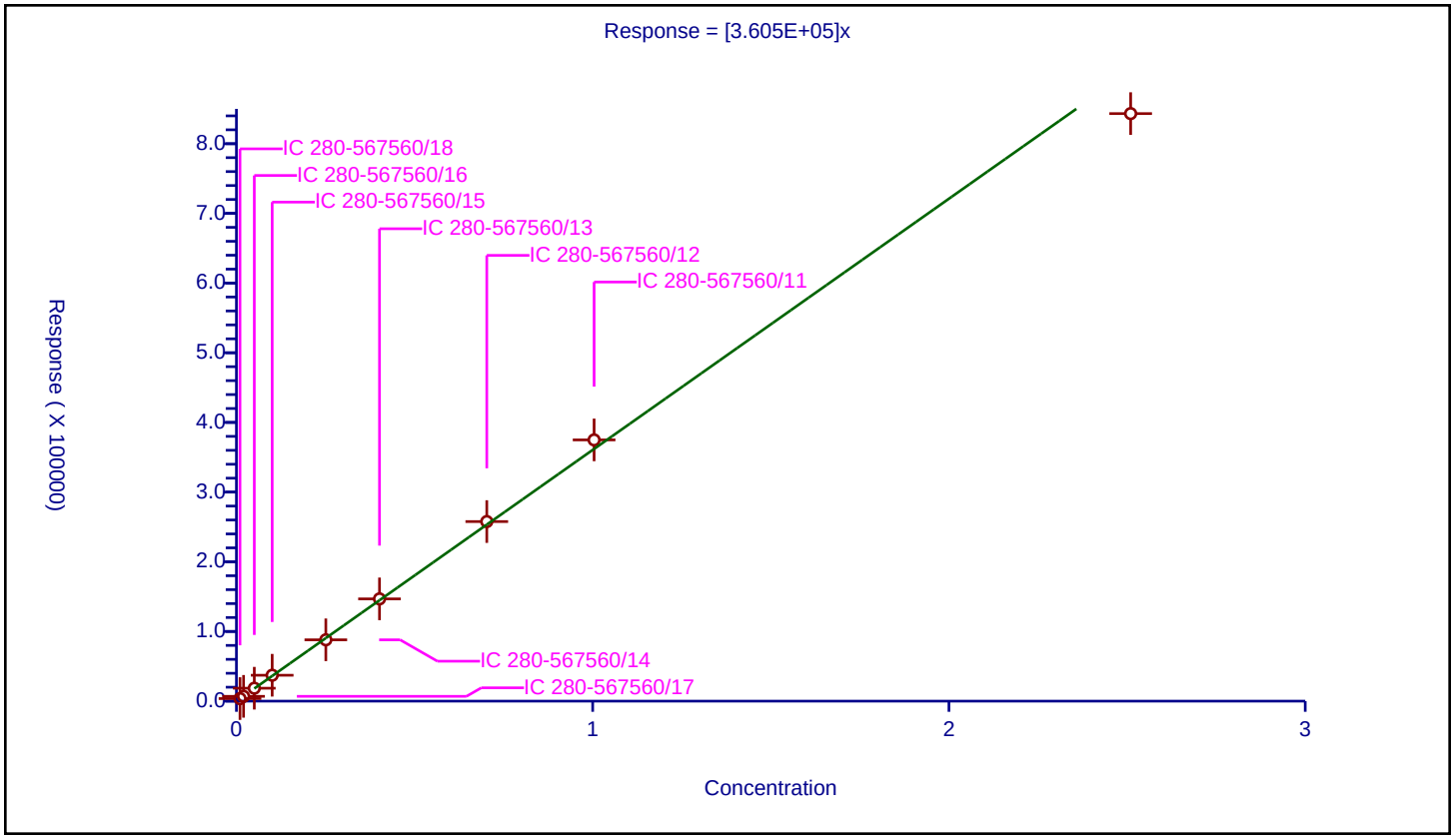
Curve Coefficients

Intercept:	0
Slope:	3.605E+05

Error Coefficients

Standard Error:	22400
Relative Standard Error:	3.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01004	3705.0			369023.904382	Y
2	IC 280-567560/17	0.02008	6899.0			343575.697211	Y
3	IC 280-567560/16	0.0502	18562.0			369760.956175	Y
4	IC 280-567560/15	0.1004	37178.0			370298.804781	Y
5	IC 280-567560/14	0.251	88010.0			350637.450199	Y
6	IC 280-567560/13	0.4016	146764.0			365448.207171	Y
7	IC 280-567560/12	0.7028	257718.0			366701.764371	Y
8	IC 280-567560/11	1.004	374916.0			373422.310757	Y
9	IC 280-567560/10	2.51	843240.0			335952.191235	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

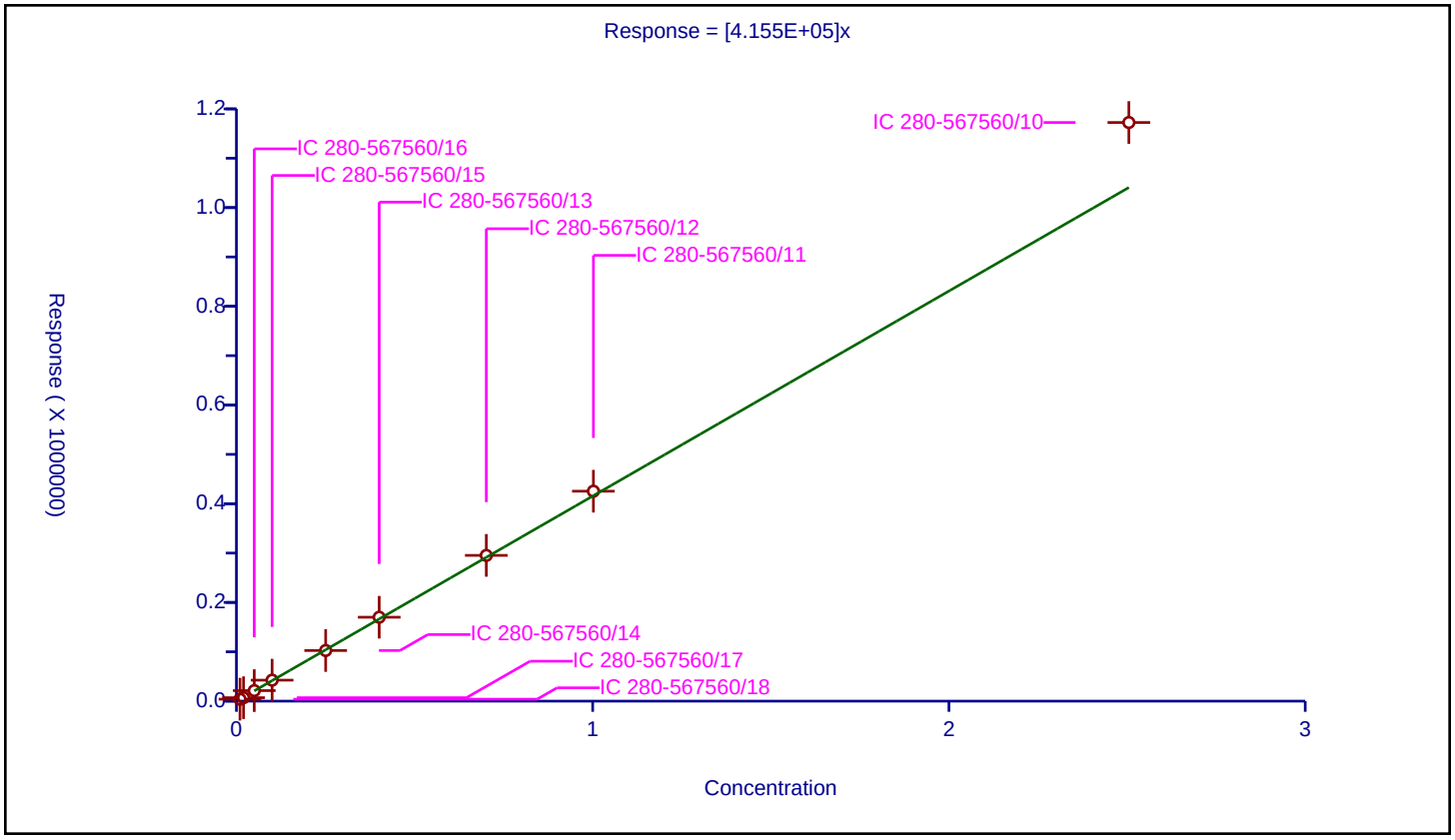
Curve Coefficients

Intercept:	0
Slope:	4.155E+05

Error Coefficients

Standard Error:	46700
Relative Standard Error:	7.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01002	3947.0			393912.175649	Y
2	IC 280-567560/17	0.02004	6970.0			347804.391218	Y
3	IC 280-567560/16	0.0501	21339.0			425928.143713	Y
4	IC 280-567560/15	0.1002	42514.0			424291.417166	Y
5	IC 280-567560/14	0.2505	102576.0			409485.02994	Y
6	IC 280-567560/13	0.4008	170012.0			424181.636727	Y
7	IC 280-567560/12	0.7014	295298.0			421012.261192	Y
8	IC 280-567560/11	1.002	425388.0			424538.922156	Y
9	IC 280-567560/10	2.505	1172398.0			468023.153693	Y



Calibration / 2,6-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

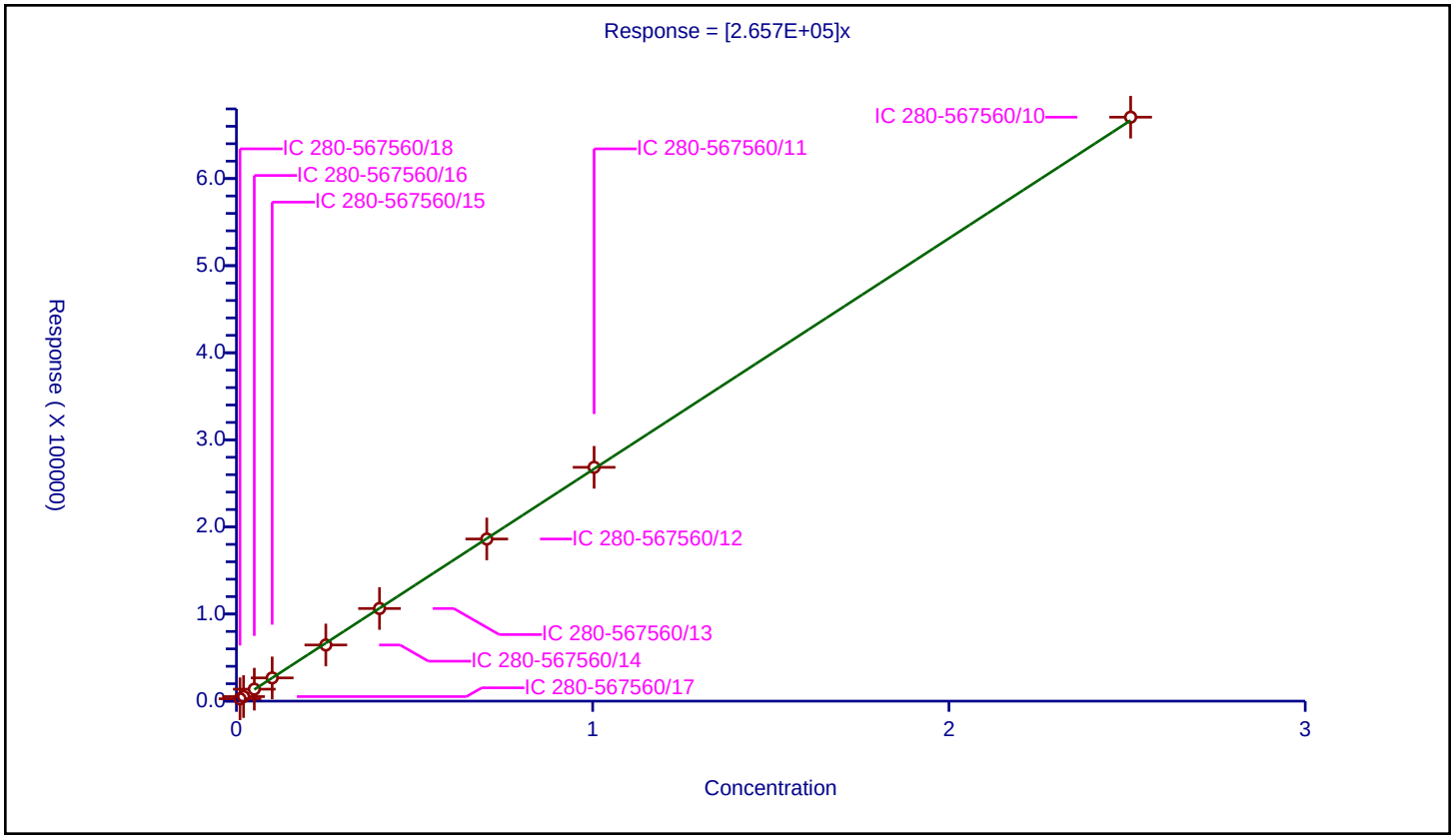
Curve Coefficients

Intercept:	0
Slope:	2.657E+05

Error Coefficients

Standard Error:	1660
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01004	2704.0			269322.709163	Y
2	IC 280-567560/17	0.02008	5233.0			260607.569721	Y
3	IC 280-567560/16	0.0502	13757.0			274043.824701	Y
4	IC 280-567560/15	0.1004	26687.0			265806.772908	Y
5	IC 280-567560/14	0.251	64489.0			256928.286853	Y
6	IC 280-567560/13	0.4016	106362.0			264845.61753	Y
7	IC 280-567560/12	0.7028	186150.0			264869.095048	Y
8	IC 280-567560/11	1.004	268478.0			267408.366534	Y
9	IC 280-567560/10	2.51	670482.0			267124.302789	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

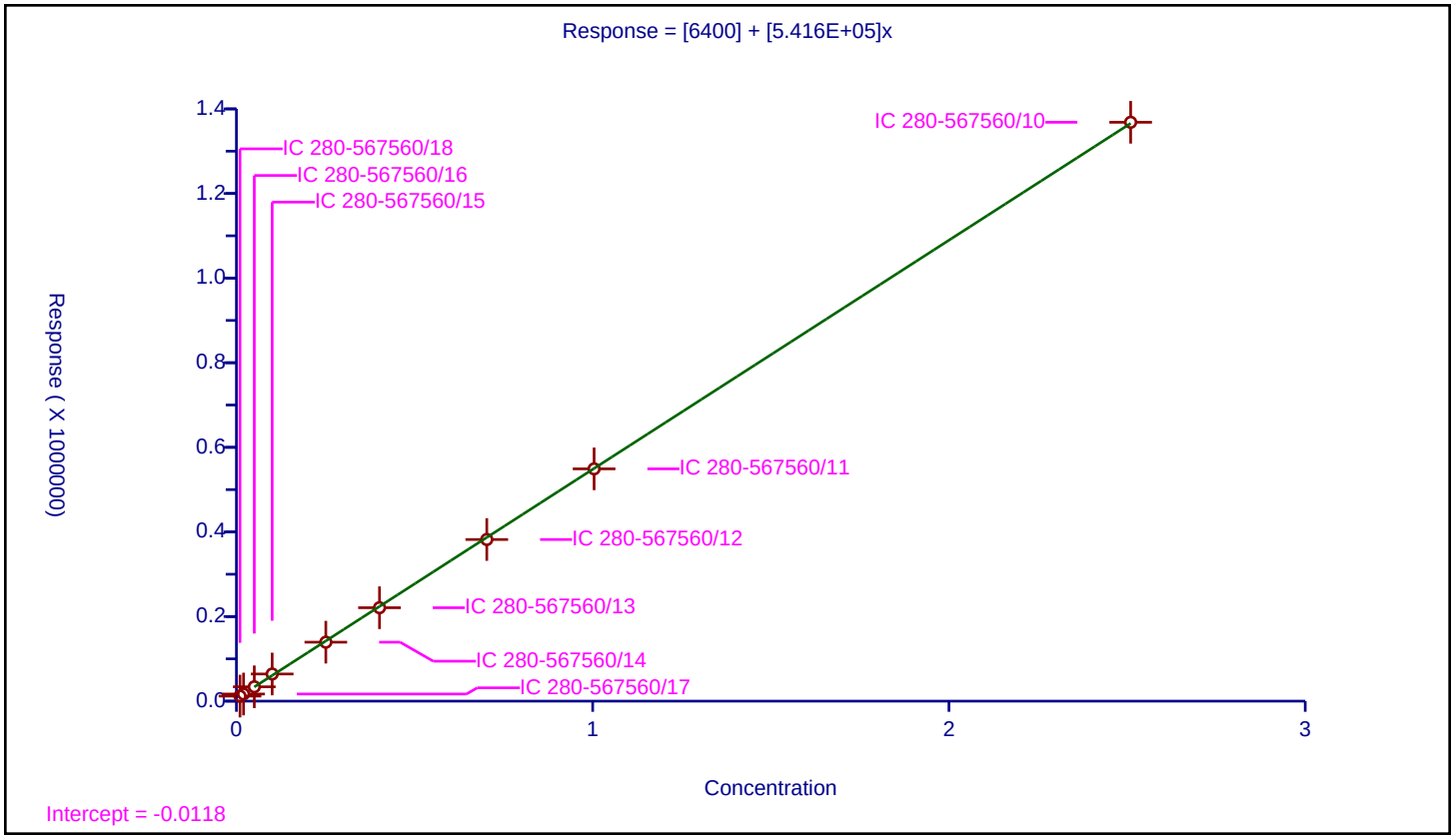
Curve Coefficients

Intercept:	6400
Slope:	5.416E+05

Error Coefficients

Standard Error:	2990
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 280-567560/18	0.01004	11900.0			1185258.964143	Y
2	IC 280-567560/17	0.02008	16863.0			839790.836653	Y
3	IC 280-567560/16	0.0502	33918.0			675657.370518	Y
4	IC 280-567560/15	0.1004	64187.0			639312.749004	Y
5	IC 280-567560/14	0.251	139375.0			555278.884462	Y
6	IC 280-567560/13	0.4016	220828.0			549870.517928	Y
7	IC 280-567560/12	0.7028	382059.0			543624.075128	Y
8	IC 280-567560/11	1.004	549112.0			546924.302789	Y
9	IC 280-567560/10	2.51	1368356.0			545161.752988	Y



Calibration / Tetryl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

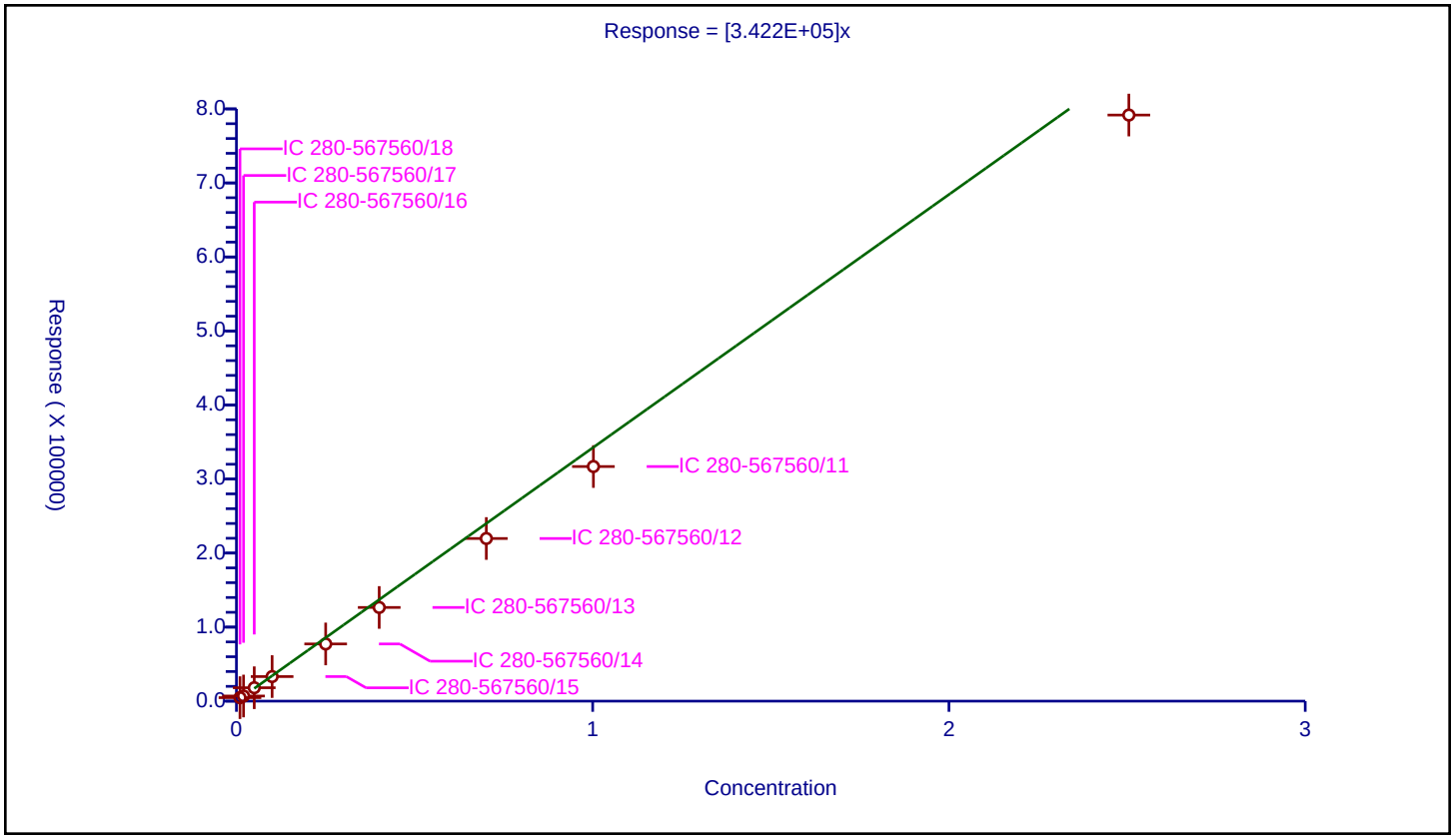
Curve Coefficients

Intercept:	0
Slope:	3.422E+05

Error Coefficients

Standard Error:	26400
Relative Standard Error:	15.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.965

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01002	4722.0			471257.48503	Y
2	IC 280-567560/17	0.02004	6933.0			345958.083832	Y
3	IC 280-567560/16	0.0501	18110.0			361477.045908	Y
4	IC 280-567560/15	0.1002	33188.0			331217.56487	Y
5	IC 280-567560/14	0.2505	77249.0			308379.241517	Y
6	IC 280-567560/13	0.4008	126546.0			315733.532934	Y
7	IC 280-567560/12	0.7014	219675.0			313195.038494	Y
8	IC 280-567560/11	1.002	316900.0			316267.46507	Y
9	IC 280-567560/10	2.505	791703.0			316049.101796	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

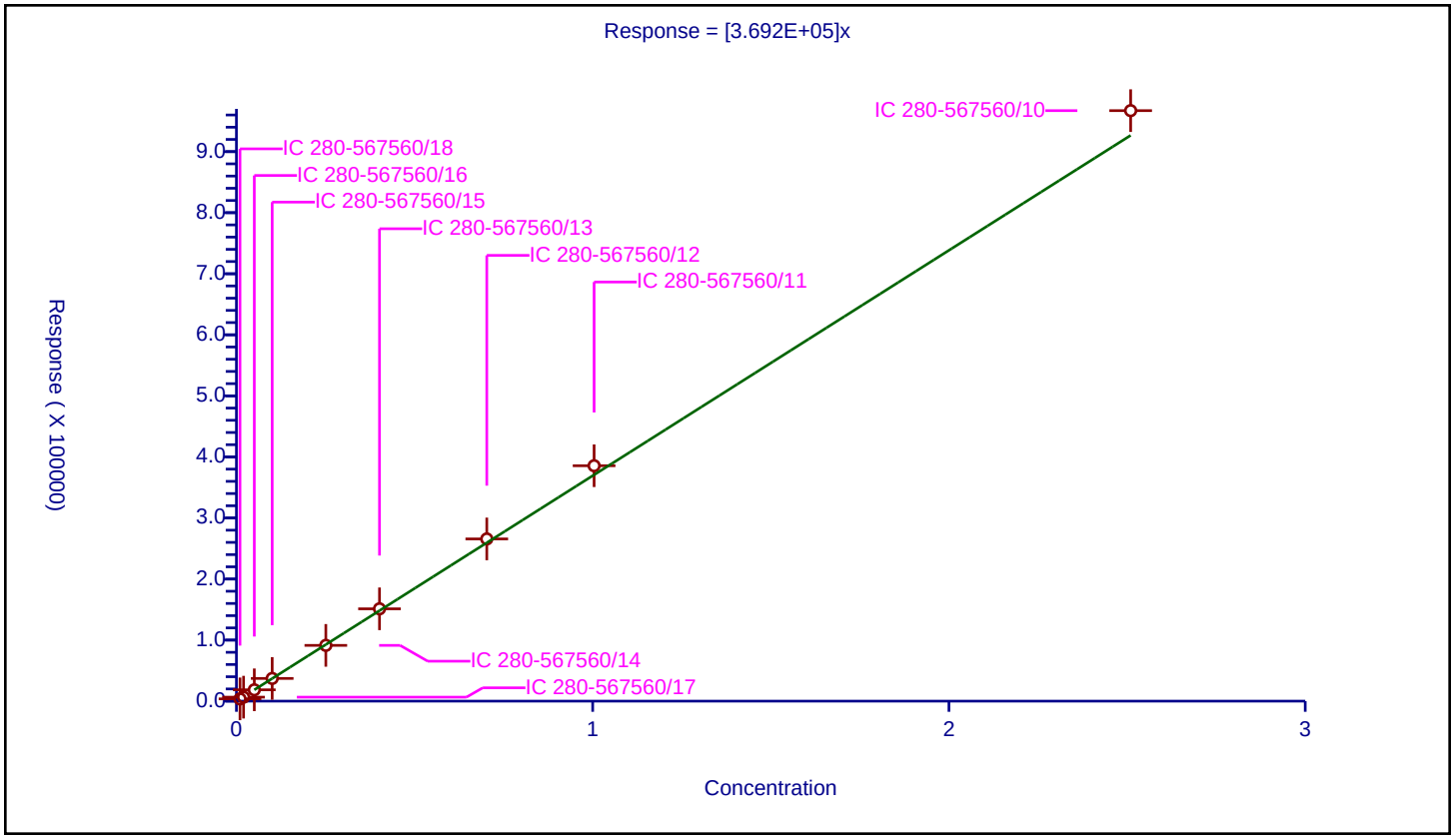
Curve Coefficients

Intercept:	0
Slope:	3.692E+05

Error Coefficients

Standard Error:	15500
Relative Standard Error:	5.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01004	3720.0			370517.928287	Y
2	IC 280-567560/17	0.02008	6507.0			324053.784861	Y
3	IC 280-567560/16	0.0502	18556.0			369641.434263	Y
4	IC 280-567560/15	0.1004	37205.0			370567.729084	Y
5	IC 280-567560/14	0.251	91338.0			363896.414343	Y
6	IC 280-567560/13	0.4016	151235.0			376581.175299	Y
7	IC 280-567560/12	0.7028	265676.0			378025.042686	Y
8	IC 280-567560/11	1.004	385560.0			384023.904382	Y
9	IC 280-567560/10	2.51	967117.0			385305.577689	Y



Calibration / PETN

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

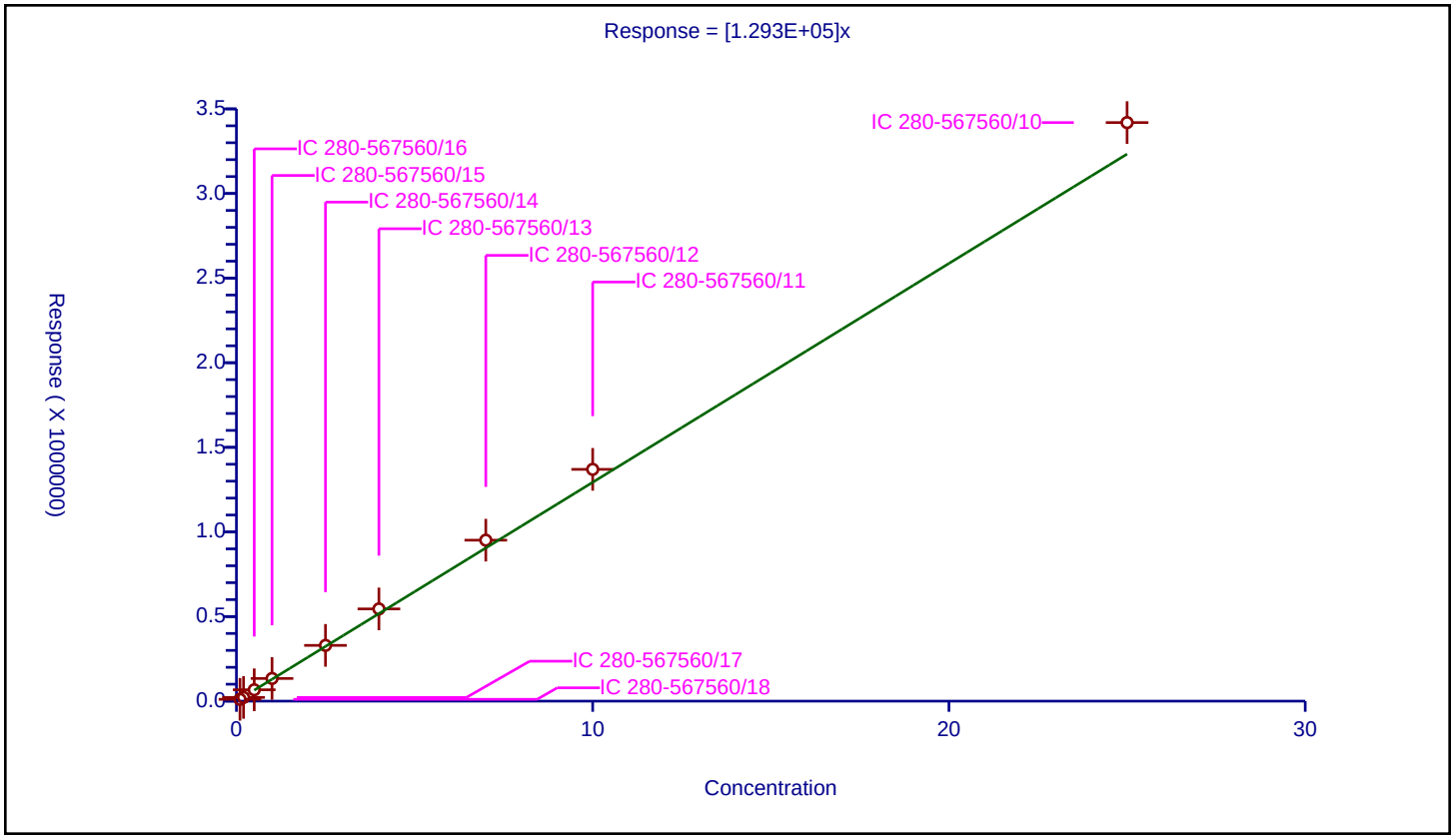
Curve Coefficients

Intercept:	0
Slope:	1.293E+05

Error Coefficients

Standard Error:	73600
Relative Standard Error:	9.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.1	10842.0			108420.0	Y
2	IC 280-567560/17	0.2	21923.0			109615.0	Y
3	IC 280-567560/16	0.5	67082.0			134164.0	Y
4	IC 280-567560/15	1.0	134076.0			134076.0	Y
5	IC 280-567560/14	2.5	329509.0			131803.6	Y
6	IC 280-567560/13	4.0	544987.0			136246.75	Y
7	IC 280-567560/12	7.0	951206.0			135886.571429	Y
8	IC 280-567560/11	10.0	1369840.0			136984.0	Y
9	IC 280-567560/10	25.0	3419168.0			136766.72	Y



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2022 03:13 Calibration End Date: 03/03/2022 07:19 Calibration ID: 62763

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/27	03020027.D
Level 2	IC 280-567560/26	03020026.D
Level 3	IC 280-567560/25	03020025.D
Level 4	IC 280-567560/24	03020024.D
Level 5	IC 280-567560/23	03020023.D
Level 6	IC 280-567560/22	03020022.D
Level 7	IC 280-567560/21	03020021.D
Level 8	IC 280-567560/20	03020020.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
TNX	5.170	5.168	5.172	5.164	5.171	5.157	5.156	5.140			5.021 - 5.321	5.162
DNX	6.030	6.028	6.032	6.024	6.031	6.017	6.016	6.000			5.881 - 6.181	6.022
MNX	7.624	7.621	7.625	7.617	7.625	7.610	7.602	7.593			7.475 - 7.775	7.615

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver | Job No.: 280-162386-1 | Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2022 03:13 | Calibration End Date: 03/03/2022 07:19 | Calibration ID: 62763

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/27	03020027.D
Level 2	IC 280-567560/26	03020026.D
Level 3	IC 280-567560/25	03020025.D
Level 4	IC 280-567560/24	03020024.D
Level 5	IC 280-567560/23	03020023.D
Level 6	IC 280-567560/22	03020022.D
Level 7	IC 280-567560/21	03020021.D
Level 8	IC 280-567560/20	03020020.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
TNX	349201 351611	355385 355367	353267 354987	350933 361808	Ave		354069.850				1.1		20.0			
DNX	317133 267552	289031 269316	277622 267891	269419 271146	Ave		278638.900				6.2		20.0			
MNX	257326 246598	252785 247481	254053 246929	246461 249015	Ave		250081.020				1.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-162386-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2022 03:13 Calibration End Date: 03/03/2022 07:19 Calibration ID: 62763

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/27	03020027.D
Level 2	IC 280-567560/26	03020026.D
Level 3	IC 280-567560/25	03020025.D
Level 4	IC 280-567560/24	03020024.D
Level 5	IC 280-567560/23	03020023.D
Level 6	IC 280-567560/22	03020022.D
Level 7	IC 280-567560/21	03020021.D
Level 8	IC 280-567560/20	03020020.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
TNX	Ave	6991 249006	17787 355342	35362 905425	87821	140785	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
DNX	Ave	6349 188710	14466 268159	27790 678544	67422	107128	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
MNX	Ave	6006 202167	14750 288166	29648 726501	71905	115112	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292	0.467

Curve Type Legend
Ave = Average

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020020.D				
Lims ID:	IC DMT 8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	03-Mar-2022 03:13:58	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 8				
Misc. Info.:	280-0108949-020				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:18	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.140	5.171	-0.031	905425	2.50	2.56	
4 DNX	1	6.000	6.031	-0.031	678544	2.50	2.44	
6 MNX	1	7.593	7.625	-0.032	726501	2.92	2.91	

Reagents:

8330 DMT_00010 Amount Added: 125.00 Units: uL

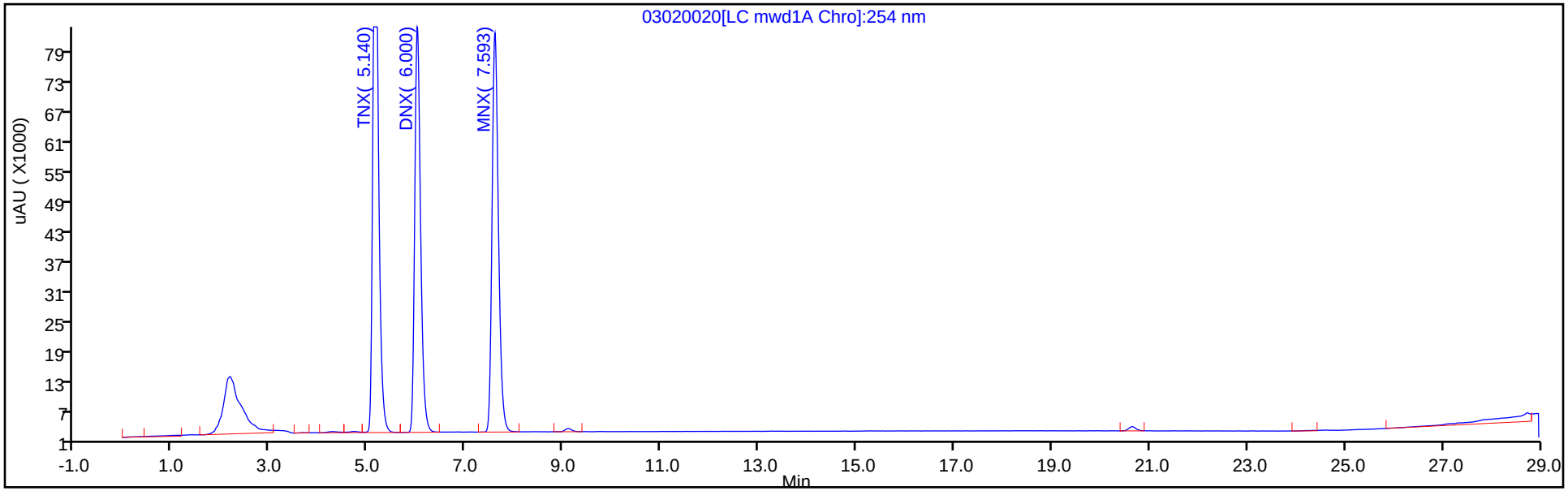
Report Date: 03-Mar-2022 12:49:19 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

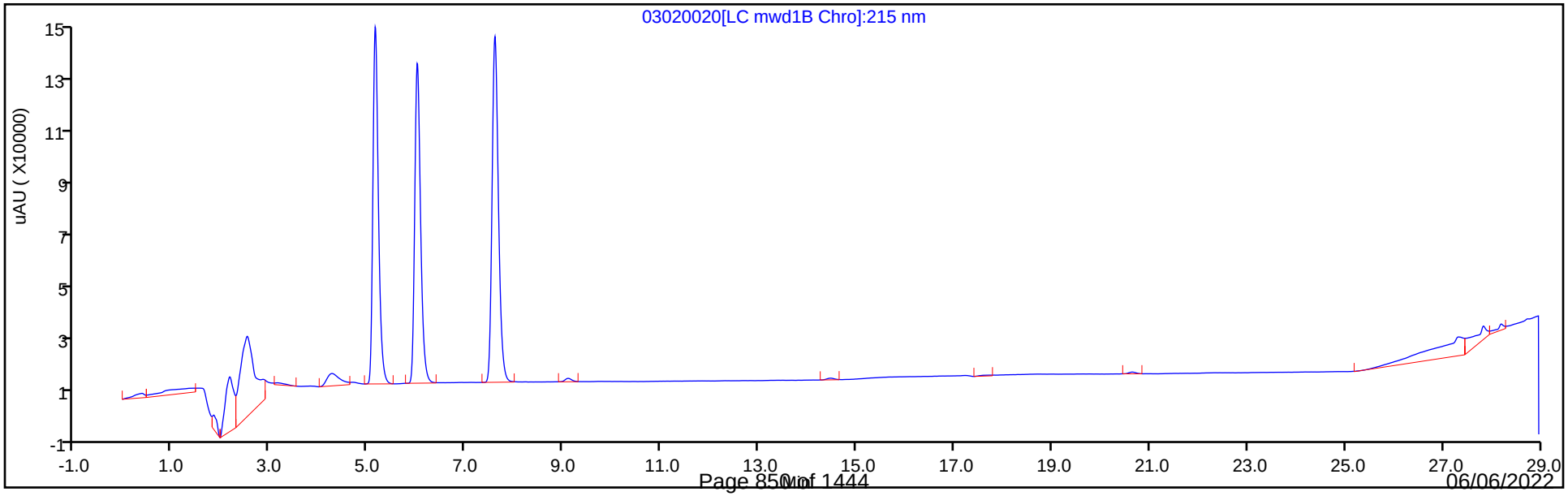
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020020.D

Injection Date:	03-Mar-2022 03:13:58	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 8			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020021.D				
Lims ID:	IC DMT 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	03-Mar-2022 03:49:08	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 7				
Misc. Info.:	280-0108949-021				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:19	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.156	5.171	-0.015	355342	1.00	1.00	
4 DNX	1	6.016	6.031	-0.015	268159	1.00	0.9624	
6 MNX	1	7.602	7.625	-0.023	288166	1.17	1.15	

Reagents:

8330 DMT_00010 Amount Added: 50.00 Units: uL

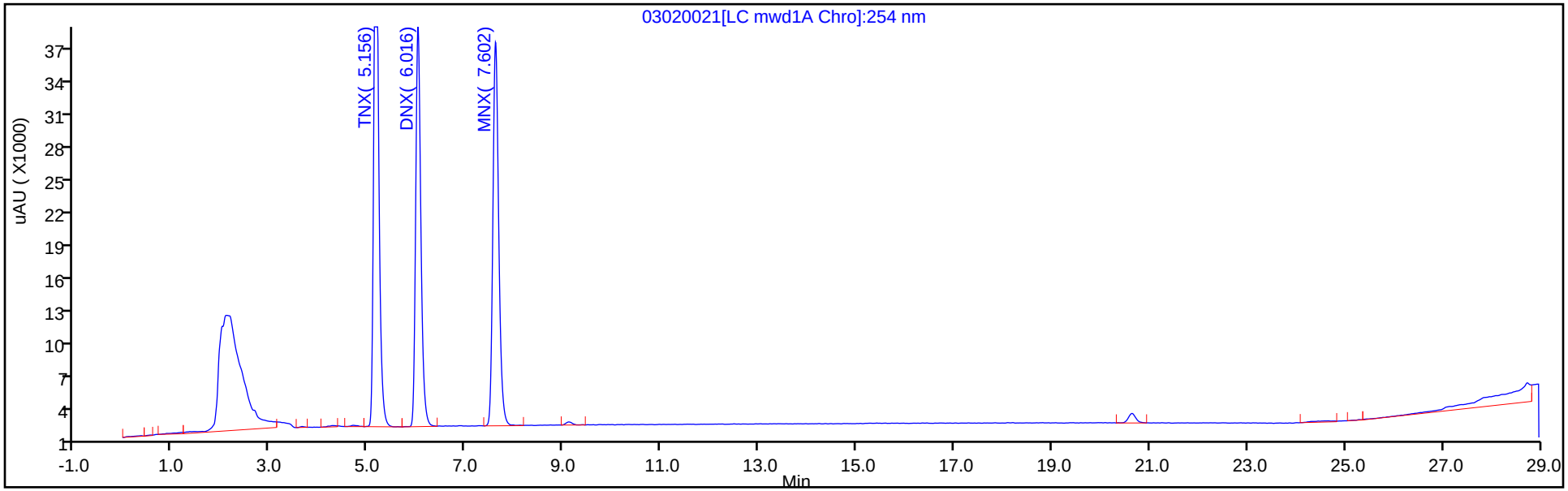
Report Date: 03-Mar-2022 12:49:19 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

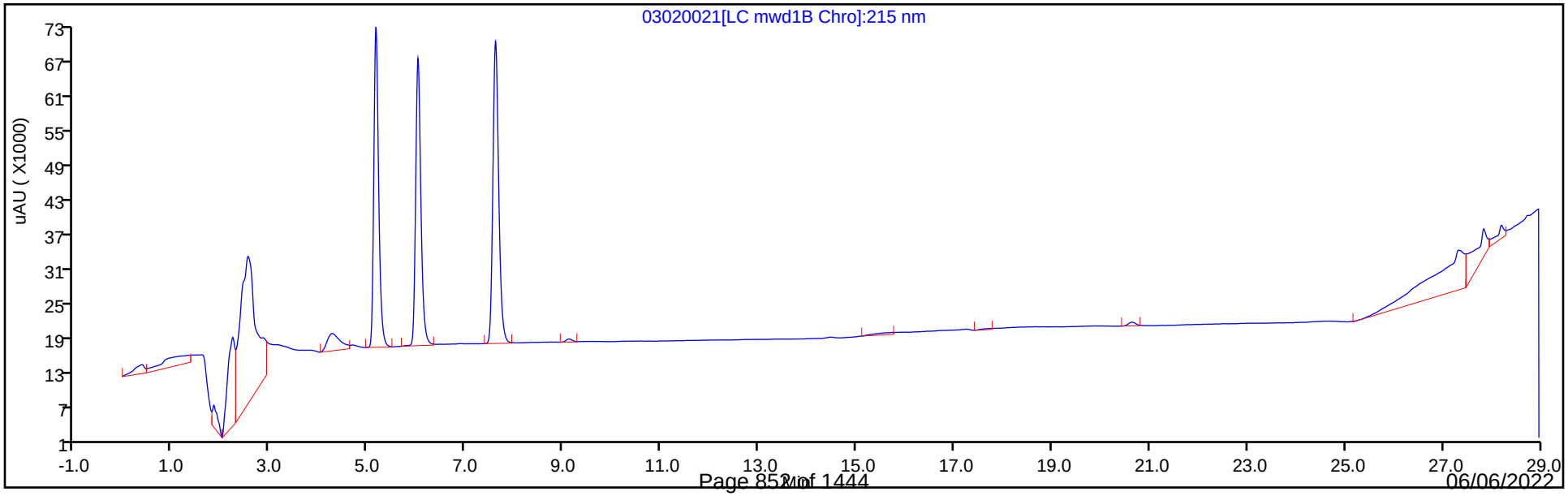
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020021.D

Injection Date:	03-Mar-2022 03:49:08	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 7			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020022.D
Lims ID: IC DMT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 03-Mar-2022 04:24:13 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 6
Misc. Info.: 280-0108949-022
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub2

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:19 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.157	5.171	-0.014	249006	0.7007	0.7033	
4 DNX	1	6.017	6.031	-0.014	188710	0.7007	0.6773	
6 MNX	1	7.610	7.625	-0.015	202167	0.8169	0.8084	

Reagents:

8330 DMT_00010 Amount Added: 35.00 Units: uL

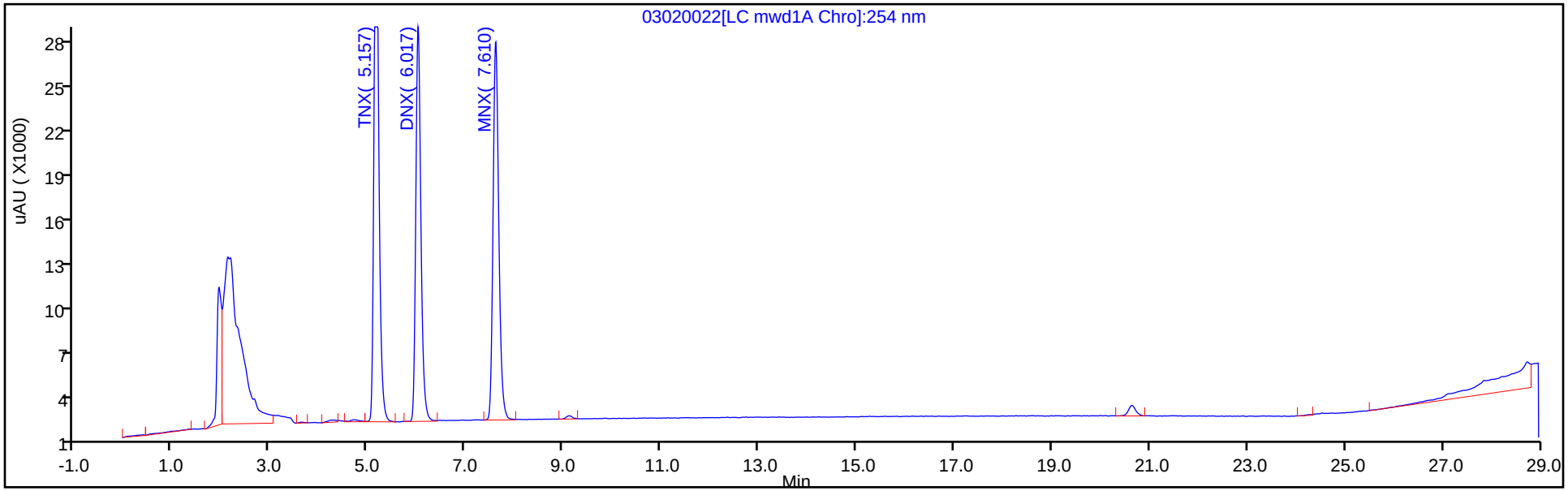
Report Date: 03-Mar-2022 12:49:19 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

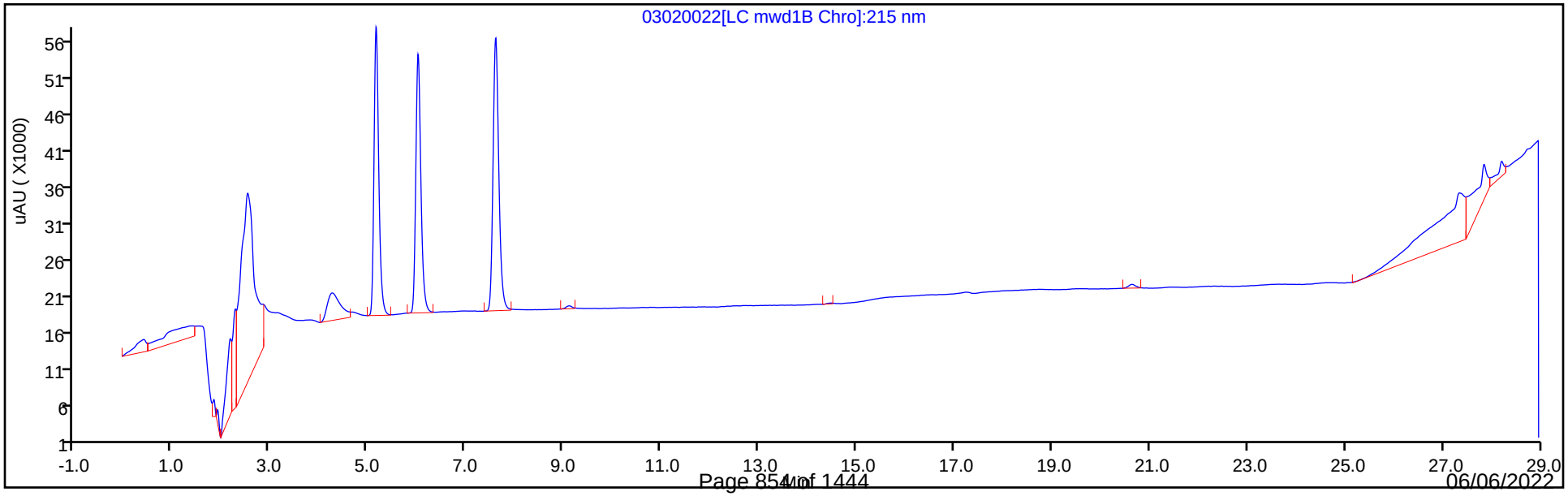
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020022.D

Injection Date:	03-Mar-2022 04:24:13	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 6			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020023.D				
Lims ID:	IC DMT 5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	03-Mar-2022 04:59:22	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 5				
Misc. Info.:	280-0108949-023				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:20	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.171	5.171	0.000	140785	0.4004	0.3976	
4 DNX	1	6.031	6.031	0.000	107128	0.4004	0.3845	
6 MNX	1	7.625	7.625	0.000	115112	0.4668	0.4603	

Reagents:

8330 DMT_00010 Amount Added: 20.00 Units: uL

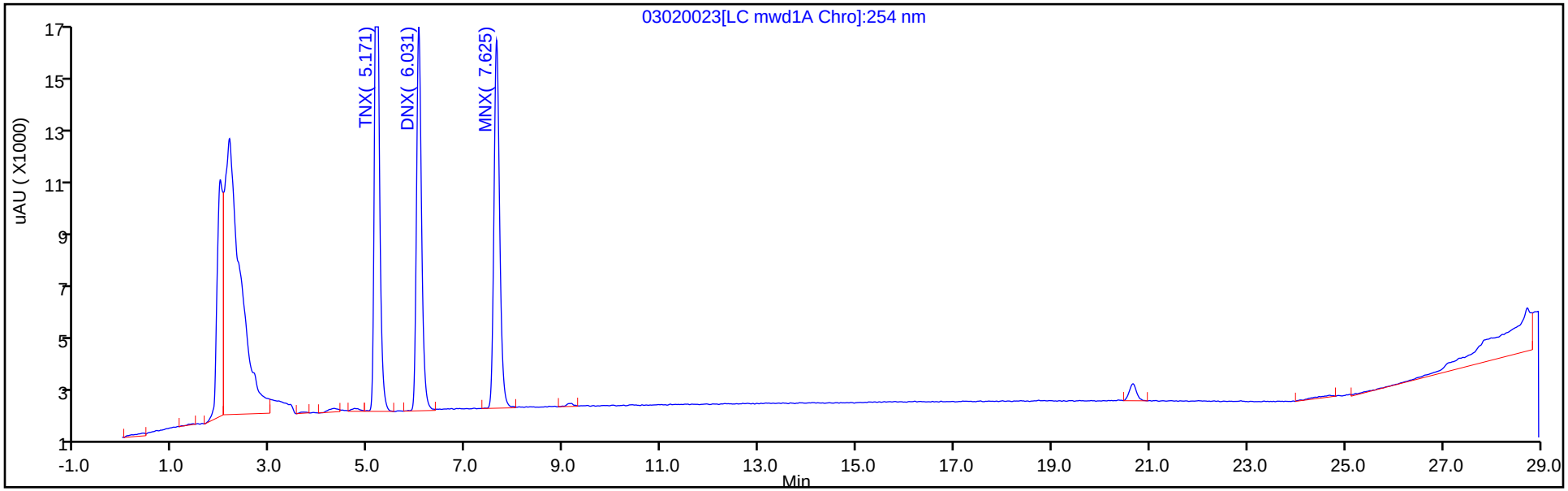
Report Date: 03-Mar-2022 12:49:20 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

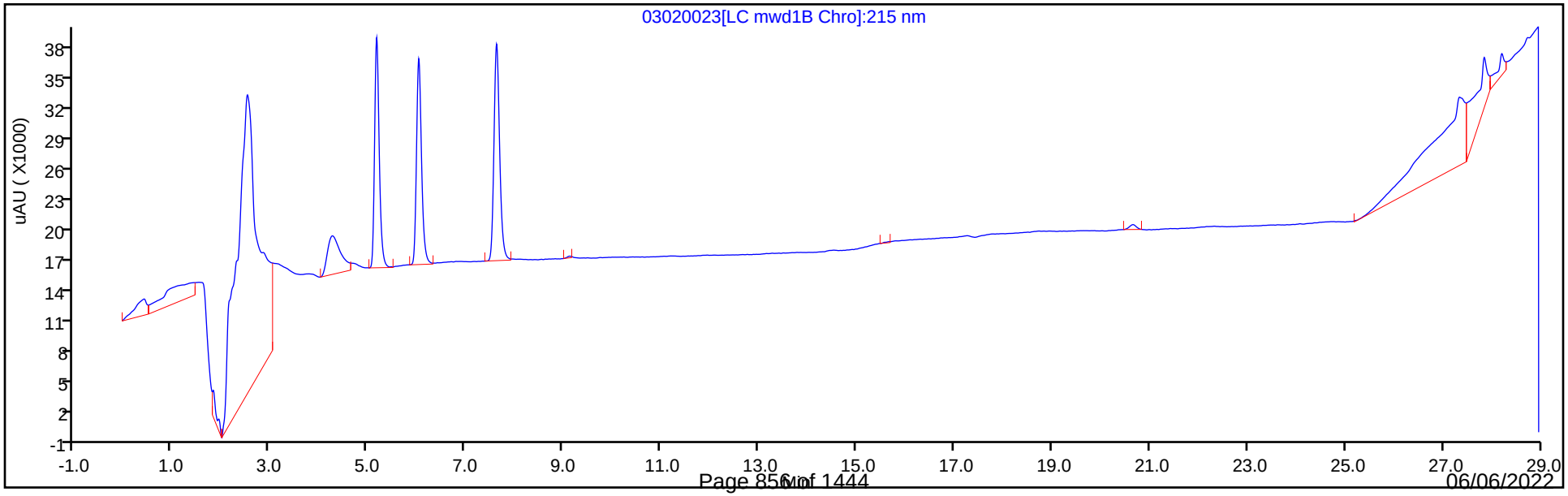
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020023.D

Injection Date:	03-Mar-2022 04:59:22	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 5			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020024.D
Lims ID: IC DMT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Mar-2022 05:34:27 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 4
Misc. Info.: 280-0108949-024
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub2

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:20 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.164	5.171	-0.007	87821	0.2503	0.2480	
4 DNX	1	6.024	6.031	-0.007	67422	0.2503	0.2420	
6 MNX	1	7.617	7.625	-0.008	71905	0.2918	0.2875	

Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

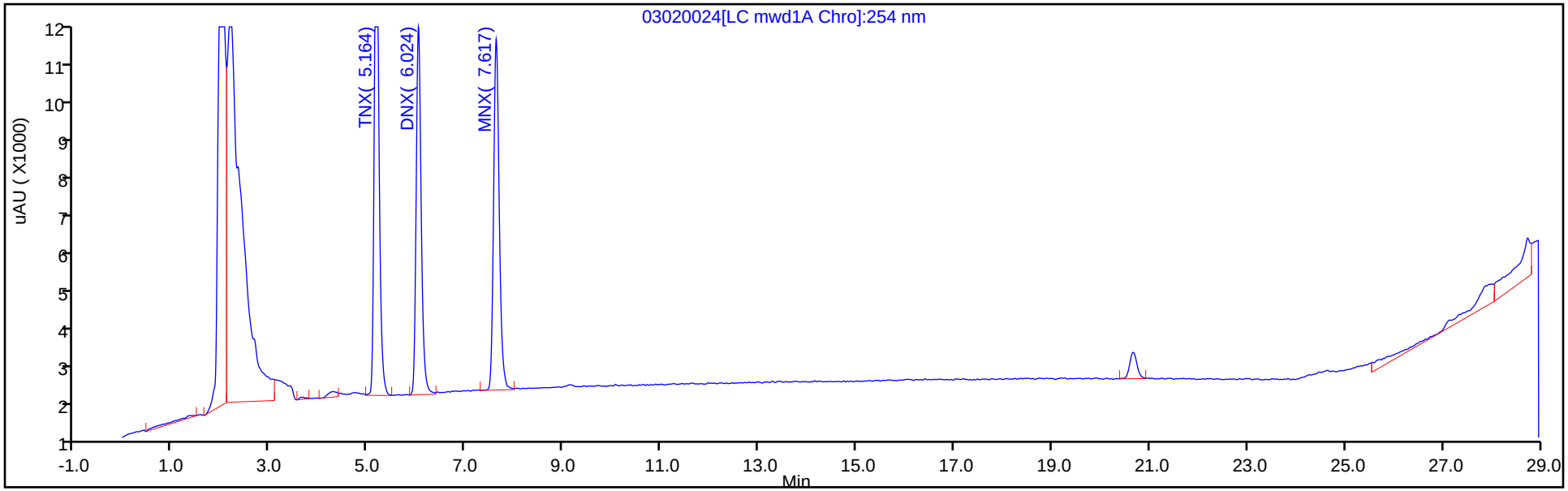
Report Date: 03-Mar-2022 12:49:20 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

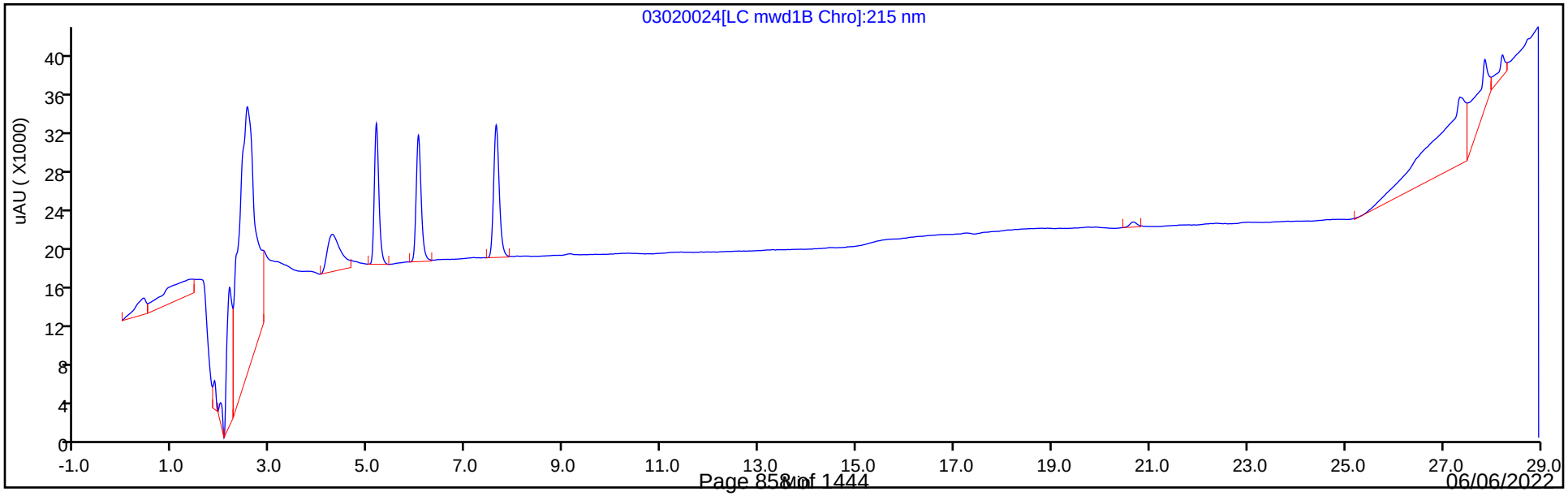
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020024.D

Injection Date:	03-Mar-2022 05:34:27	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 4			Worklist Smp#:	24
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020025.D				
Lims ID:	IC DMT 3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	03-Mar-2022 06:09:35	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 3				
Misc. Info.:	280-0108949-025				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:21	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.172	5.171	0.001	35362	0.1001	0.0999	
4 DNX	1	6.032	6.031	0.001	27790	0.1001	0.0997	
6 MNX	1	7.625	7.625	0.000	29648	0.1167	0.1186	

Reagents:

8330 DMT_00010 Amount Added: 5.00 Units: uL

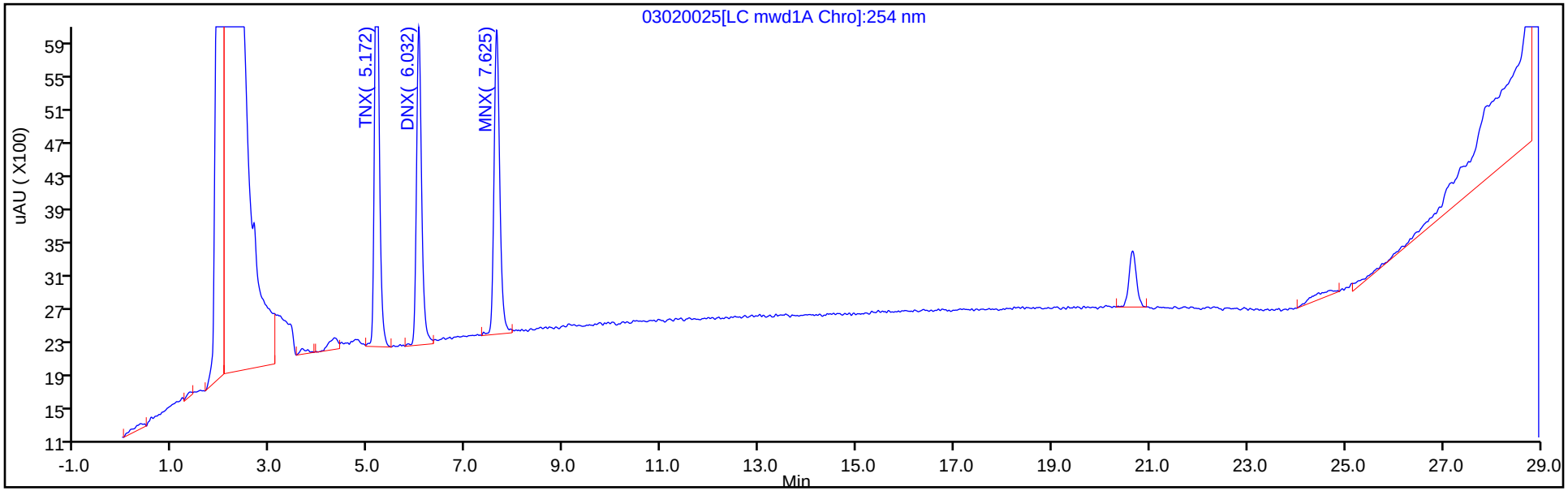
Report Date: 03-Mar-2022 12:49:21 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

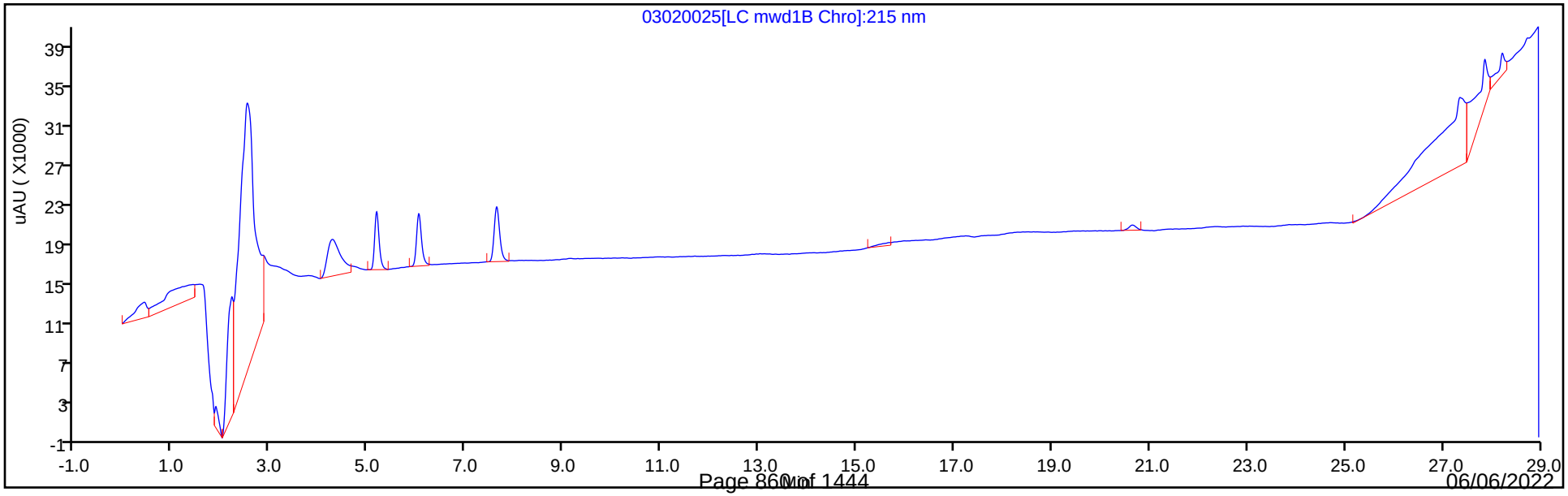
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020025.D

Injection Date:	03-Mar-2022 06:09:35	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 3			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020026.D				
Lims ID:	IC DMT 2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	03-Mar-2022 06:44:40	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 2				
Misc. Info.:	280-0108949-026				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:21	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.168	5.171	-0.003	17787	0.0501	0.0502	
4 DNX	1	6.028	6.031	-0.003	14466	0.0501	0.0519	
6 MNX	1	7.621	7.625	-0.004	14750	0.0584	0.0590	

Reagents:

8330 DMT_00010 Amount Added: 2.50 Units: uL

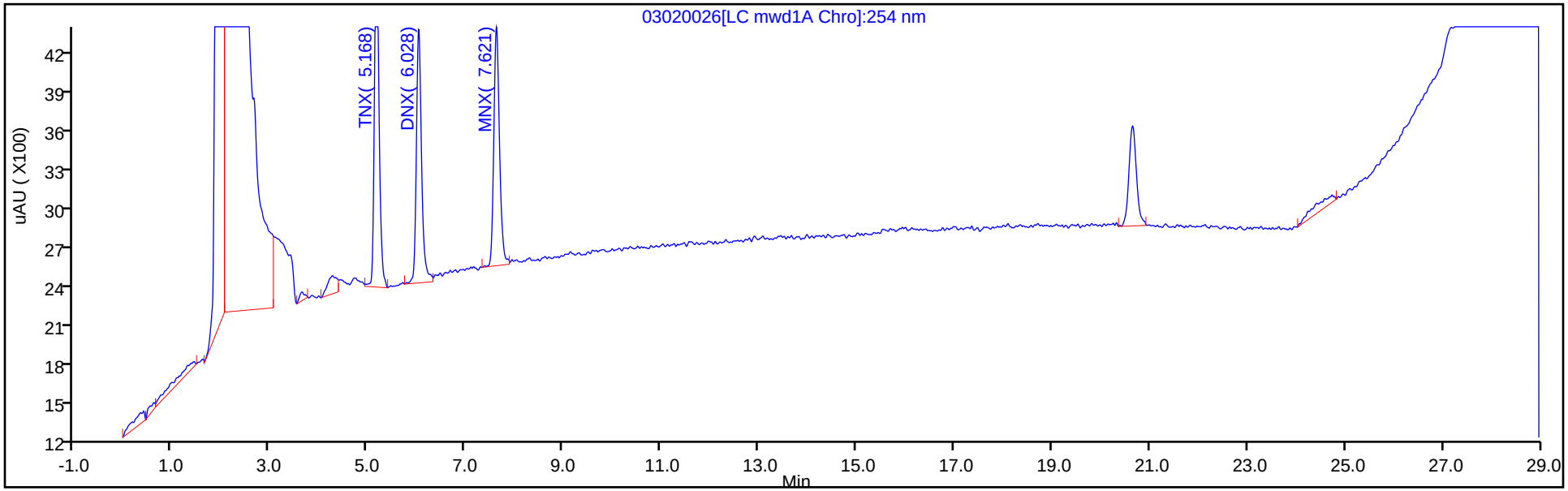
Report Date: 03-Mar-2022 12:49:21 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

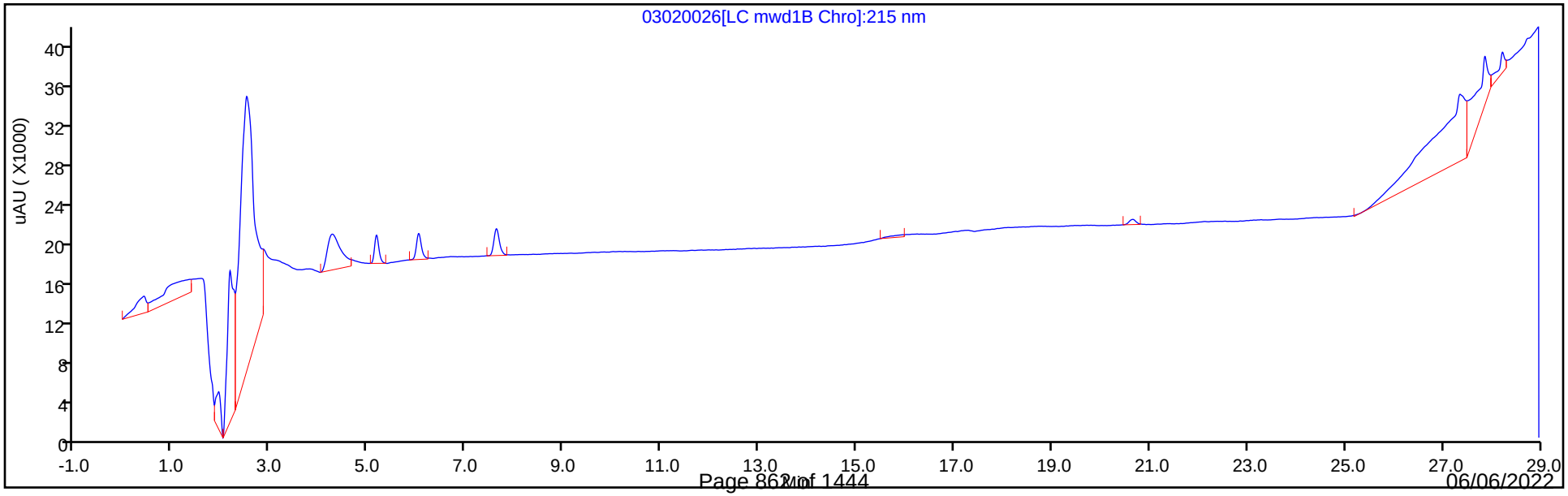
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020026.D

Injection Date:	03-Mar-2022 06:44:40	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 2			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Lims ID:	IC DMT 1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	03-Mar-2022 07:19:48	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 1				
Misc. Info.:	280-0108949-027				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:22	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.170	5.171	-0.001	6991	0.0200	0.0197	
4 DNX	1	6.030	6.031	-0.001	6349	0.0200	0.0228	
6 MNX	1	7.624	7.625	-0.001	6006	0.0233	0.0240	

Reagents:

8330 DMT_00010 Amount Added: 1.00 Units: uL

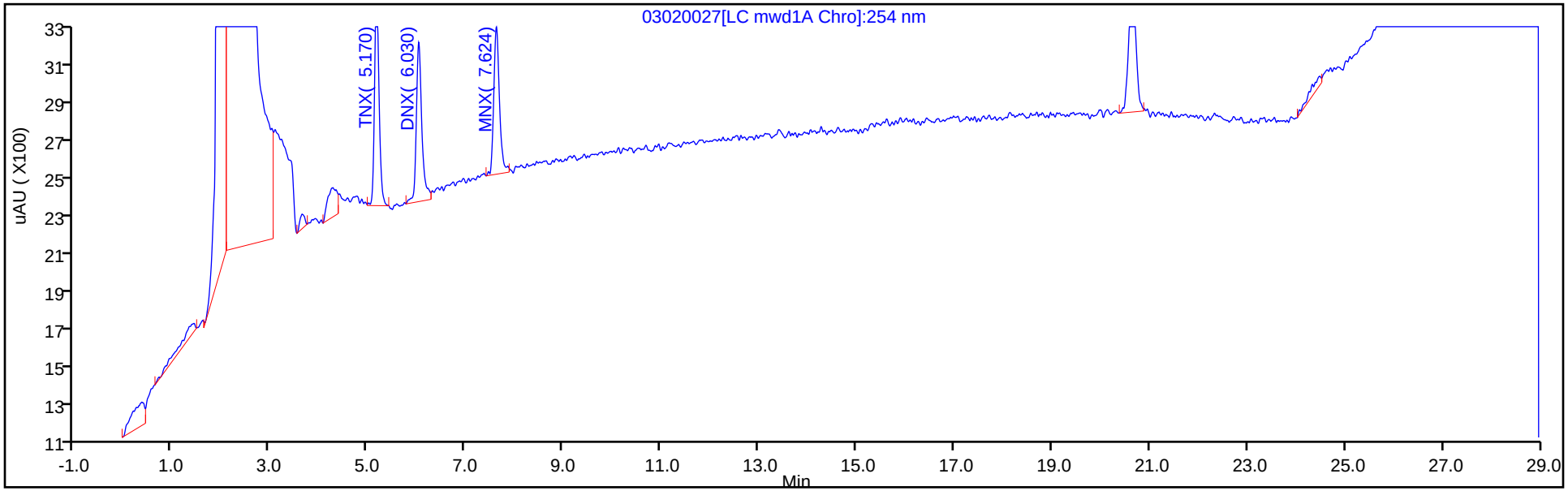
Report Date: 03-Mar-2022 12:49:22 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

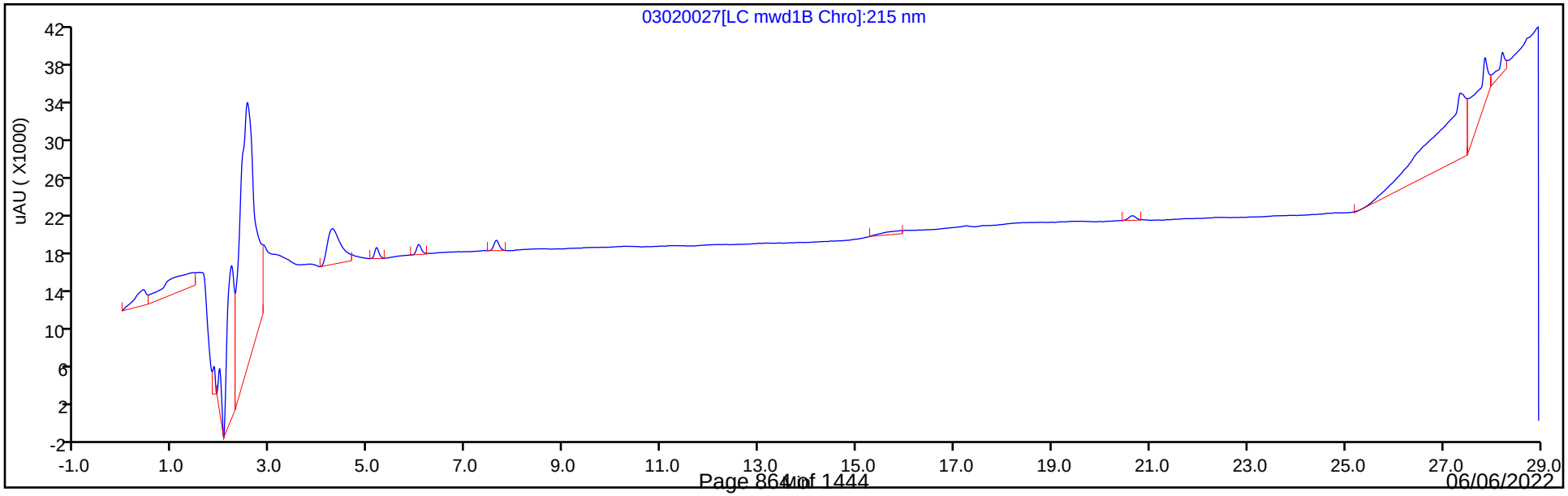
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Injection Date:	03-Mar-2022 07:19:48	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 1			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

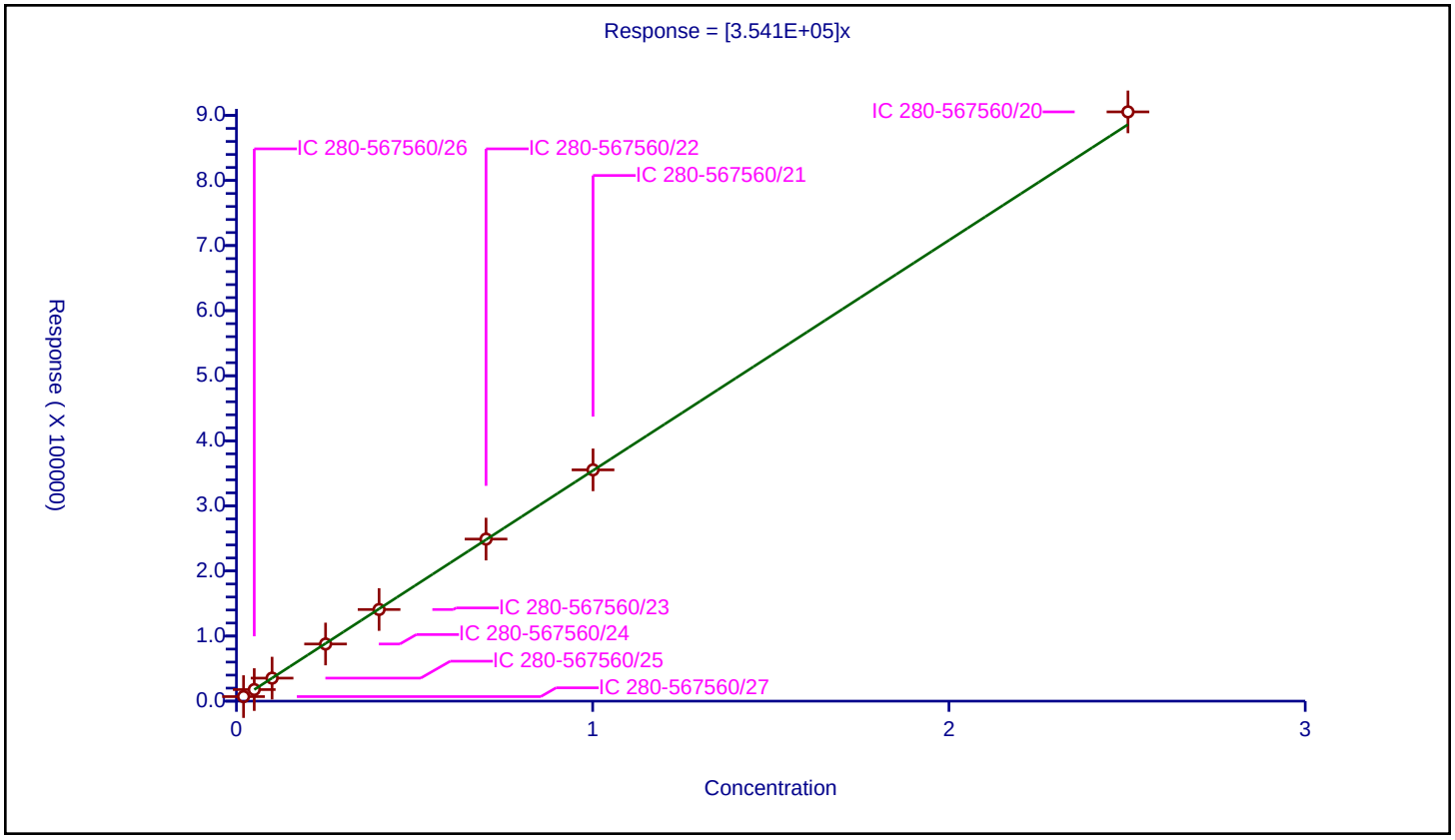
Curve Coefficients

Intercept:	0
Slope:	3.541E+05

Error Coefficients

Standard Error:	7350
Relative Standard Error:	1.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/27	0.02002	6991.0			349200.799201	Y
2	IC 280-567560/26	0.05005	17787.0			355384.615385	Y
3	IC 280-567560/25	0.1001	35362.0			353266.733267	Y
4	IC 280-567560/24	0.25025	87821.0			350933.066933	Y
5	IC 280-567560/23	0.4004	140785.0			351610.889111	Y
6	IC 280-567560/22	0.7007	249006.0			355367.489653	Y
7	IC 280-567560/21	1.001	355342.0			354987.012987	Y
8	IC 280-567560/20	2.5025	905425.0			361808.191808	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

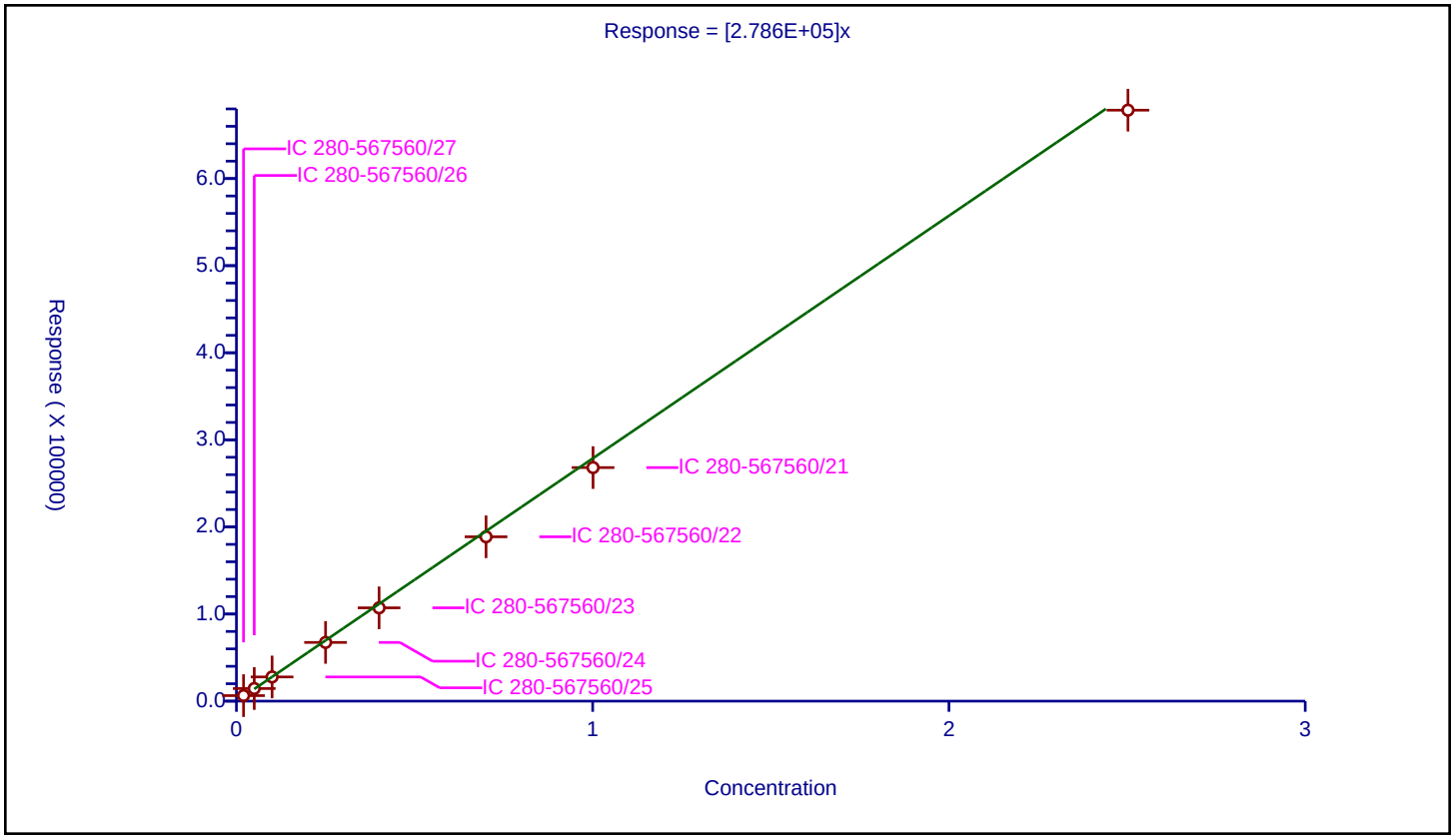
Curve Coefficients

Intercept:	0
Slope:	2.786E+05

Error Coefficients

Standard Error:	8750
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 280-567560/27	0.02002	6349.0			317132.867133	Y
2	IC 280-567560/26	0.05005	14466.0			289030.969031	Y
3	IC 280-567560/25	0.1001	27790.0			277622.377622	Y
4	IC 280-567560/24	0.25025	67422.0			269418.581419	Y
5	IC 280-567560/23	0.4004	107128.0			267552.447552	Y
6	IC 280-567560/22	0.7007	188710.0			269316.397888	Y
7	IC 280-567560/21	1.001	268159.0			267891.108891	Y
8	IC 280-567560/20	2.5025	678544.0			271146.453546	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

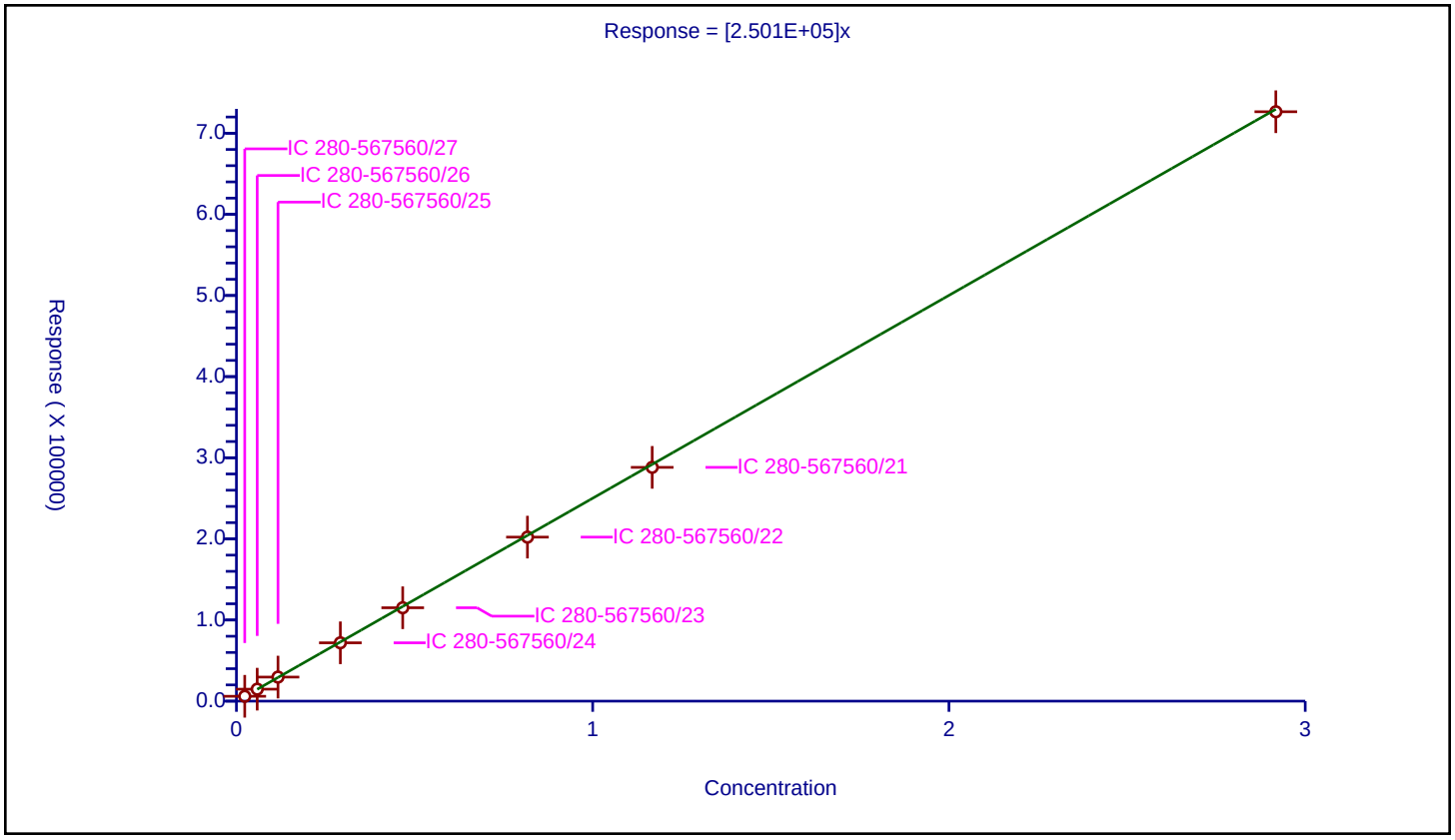
Curve Coefficients

Intercept:	0
Slope:	2.501E+05

Error Coefficients

Standard Error:	2130
Relative Standard Error:	1.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/27	0.02334	6006.0			257326.478149	Y
2	IC 280-567560/26	0.05835	14750.0			252784.918595	Y
3	IC 280-567560/25	0.1167	29648.0			254053.127678	Y
4	IC 280-567560/24	0.29175	71905.0			246461.01114	Y
5	IC 280-567560/23	0.4668	115112.0			246598.114824	Y
6	IC 280-567560/22	0.8169	202167.0			247480.719794	Y
7	IC 280-567560/21	1.167	288166.0			246928.877464	Y
8	IC 280-567560/20	2.9175	726501.0			249014.910026	Y



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-562503/20 Calibration Date: 01/04/2022 21:54

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 01040020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	83827	81972		489	500	-2.2	15.0
RDX	Ave	103609	97016		468	500	-6.4	15.0
Picric acid	Ave	77039	79050		513	500	2.6	15.0
1,3,5-Trinitrobenzene	Ave	218096	225924		518	500	3.6	15.0
1,3-Dinitrobenzene	Ave	288401	300348		521	500	4.1	15.0
Nitrobenzene	Ave	191953	197872		515	500	3.1	15.0
Tetryl	Ave	170567	173346		508	500	1.6	15.0
Nitroglycerin	Ave	63037	66420		5270	5000	5.4	15.0
2,4,6-Trinitrotoluene	Ave	202726	207174		511	500	2.2	15.0
4-Amino-2,6-dinitrotoluene	Ave	150985	149862		496	500	-0.7	15.0
2-Amino-4,6-dinitrotoluene	Ave	202171	202042		500	500	-0.0	15.0
2,6-Dinitrotoluene	Ave	143115	146810		513	500	2.6	15.0
2,4-Dinitrotoluene	Ave	289351	286440		495	500	-1.0	15.0
2-Nitrotoluene	Ave	127614	127510		500	500	-0.0	15.0
4-Nitrotoluene	Ave	106235	113254		533	500	6.6	15.0
3-Nitrotoluene	Ave	142273	134496		473	500	-5.5	15.0
PETN	Lin2		76139		5230	5000	4.6	15.0
1,2-Dinitrobenzene	Ave	124698	132072		530	500	5.9	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-562503/20 Calibration Date: 01/04/2022 21:54

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 01040020.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.60	6.45	6.75
RDX	7.60	7.46	7.76
Picric acid	7.92	7.80	8.10
1,3,5-Trinitrobenzene	8.68	8.54	8.84
1,3-Dinitrobenzene	9.32	9.18	9.48
Nitrobenzene	9.71	9.58	9.88
Tetryl	10.04	9.91	10.21
Nitroglycerin	10.50	10.37	10.67
2,4,6-Trinitrotoluene	10.96	10.87	11.07
4-Amino-2,6-dinitrotoluene	11.16	11.07	11.27
2-Amino-4,6-dinitrotoluene	11.41	11.33	11.53
2,6-Dinitrotoluene	11.58	11.50	11.70
2,4-Dinitrotoluene	11.75	11.67	11.87
2-Nitrotoluene	12.62	12.49	12.79
4-Nitrotoluene	13.05	12.92	13.22
3-Nitrotoluene	13.63	13.50	13.80
PETN	14.72	14.59	14.89
1,2-Dinitrobenzene	8.56	8.42	8.72

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040020.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 04-Jan-2022 21:54:19 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Misc. Info.: 280-0107731-020
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:07:47 Calib Date: 04-Jan-2022 21:31:24
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 06-Jan-2022 20:07:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.602	6.598	0.004	40986	0.5000	0.4889	
8 RDX	1	7.602	7.605	-0.003	48508	0.5000	0.4682	M
9 2,4,6-Trinitrophenol	1	7.915	7.945	-0.030	39525	0.5000	0.5131	M
$ 10 1,2-Dinitrobenzene	1	8.562	8.572	-0.010	66036	0.5000	0.5296	
11 1,3,5-Trinitrobenzene	1	8.682	8.692	-0.010	112962	0.5000	0.5179	
12 1,3-Dinitrobenzene	1	9.315	9.331	-0.016	150174	0.5000	0.5207	
13 Nitrobenzene	1	9.708	9.725	-0.017	98936	0.5000	0.5154	
15 Tetryl	1	10.042	10.058	-0.016	86673	0.5000	0.5081	
16 Nitroglycerin	2	10.502	10.518	-0.016	332100	5.00	5.27	
17 2,4,6-Trinitrotoluene	1	10.955	10.971	-0.016	103587	0.5000	0.5110	
18 4-Amino-2,6-dinitrotoluene	1	11.155	11.171	-0.016	74931	0.5000	0.4963	
19 2-Amino-4,6-dinitrotoluene	1	11.408	11.425	-0.017	101021	0.5000	0.4997	
20 2,6-Dinitrotoluene	1	11.582	11.598	-0.016	73405	0.5000	0.5129	
21 2,4-Dinitrotoluene	1	11.748	11.765	-0.017	143220	0.5000	0.4950	
22 o-Nitrotoluene	1	12.615	12.638	-0.023	63755	0.5000	0.4996	
23 p-Nitrotoluene	1	13.048	13.071	-0.023	56627	0.5000	0.5330	
24 m-Nitrotoluene	1	13.628	13.651	-0.023	67248	0.5000	0.4727	
25 PETN	2	14.715	14.738	-0.023	380697	5.00	5.23	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00127 Amount Added: 50.00 Units: uL
8330 LCS_00111 Amount Added: 50.00 Units: uL

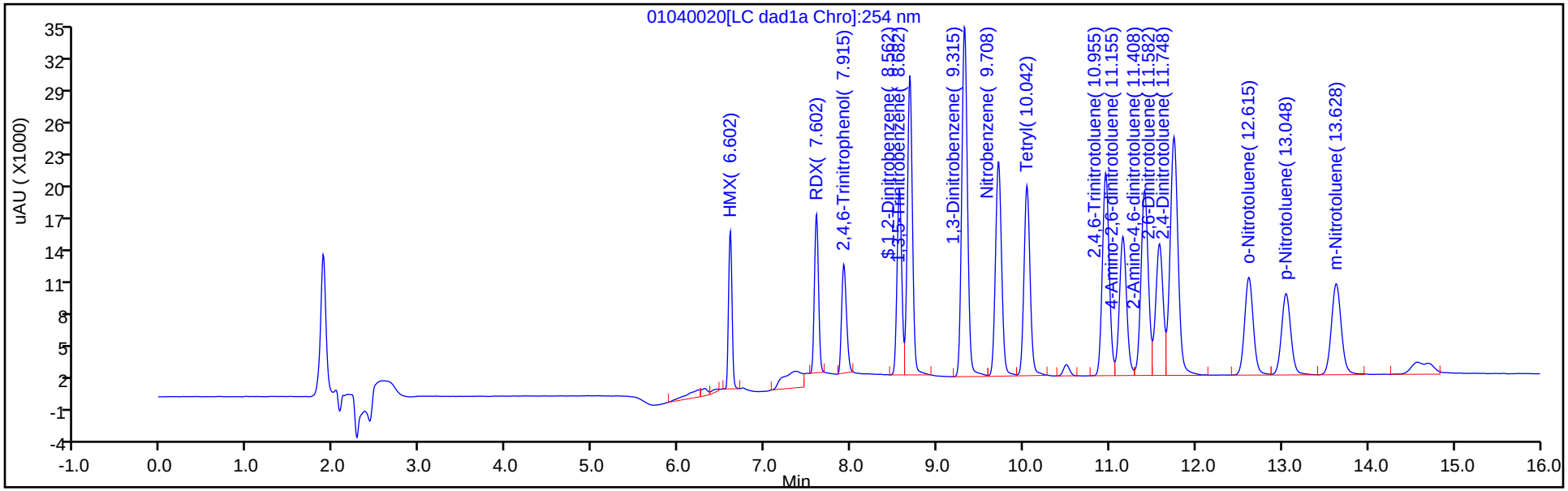
Report Date: 06-Jan-2022 20:08:00 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

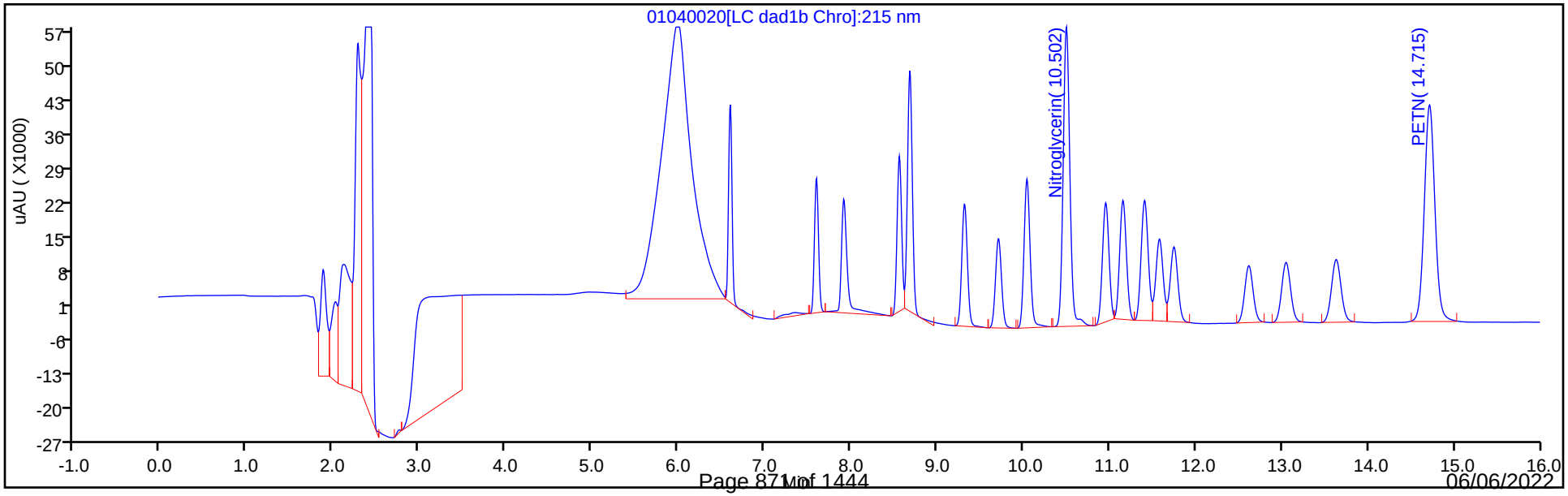
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040020.d

Injection Date:	04-Jan-2022 21:54:19	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	ICV INT			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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

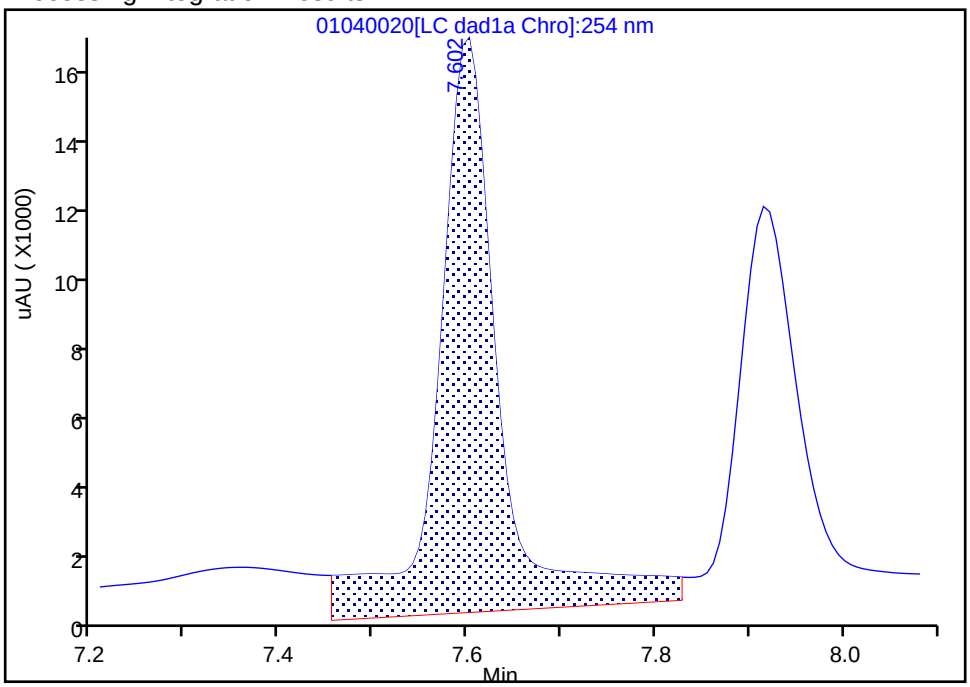
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040020.d				
Injection Date:	04-Jan-2022 21:54:19	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

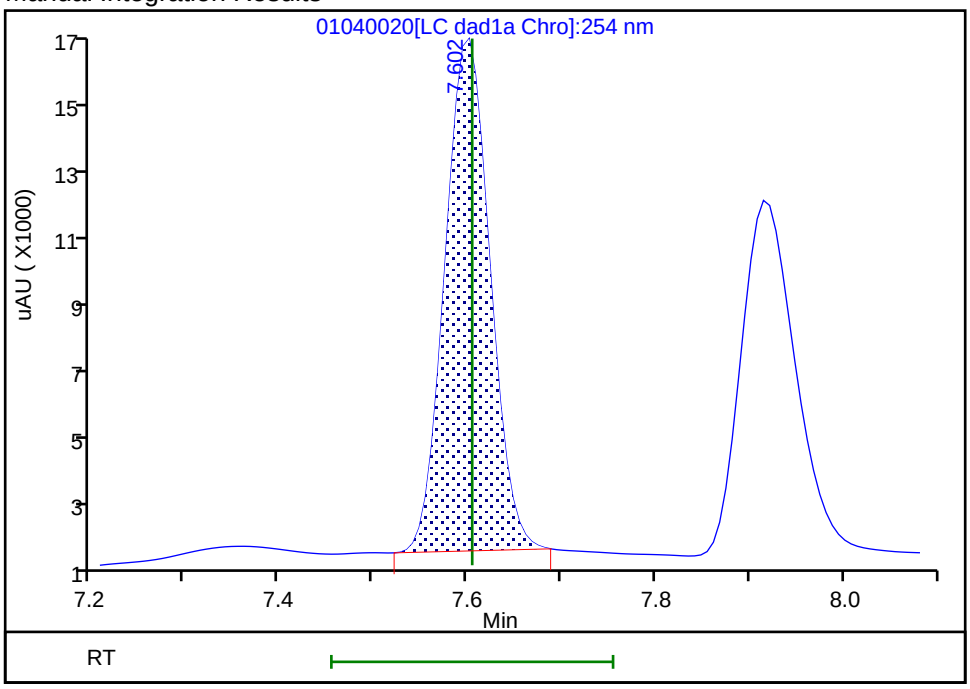
Processing Integration Results

RT: 7.60
Area: 71144
Amount: 0.655784
Amount Units: ug/mL



Manual Integration Results

RT: 7.60
Area: 48508
Amount: 0.468182
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 11:59:11
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

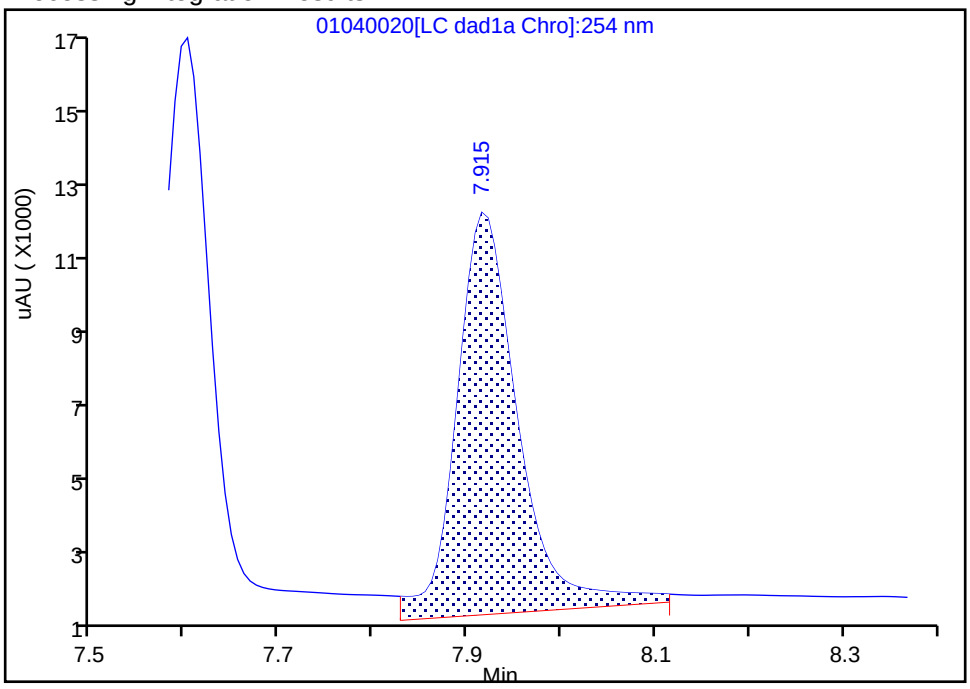
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040020.d				
Injection Date:	04-Jan-2022 21:54:19	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

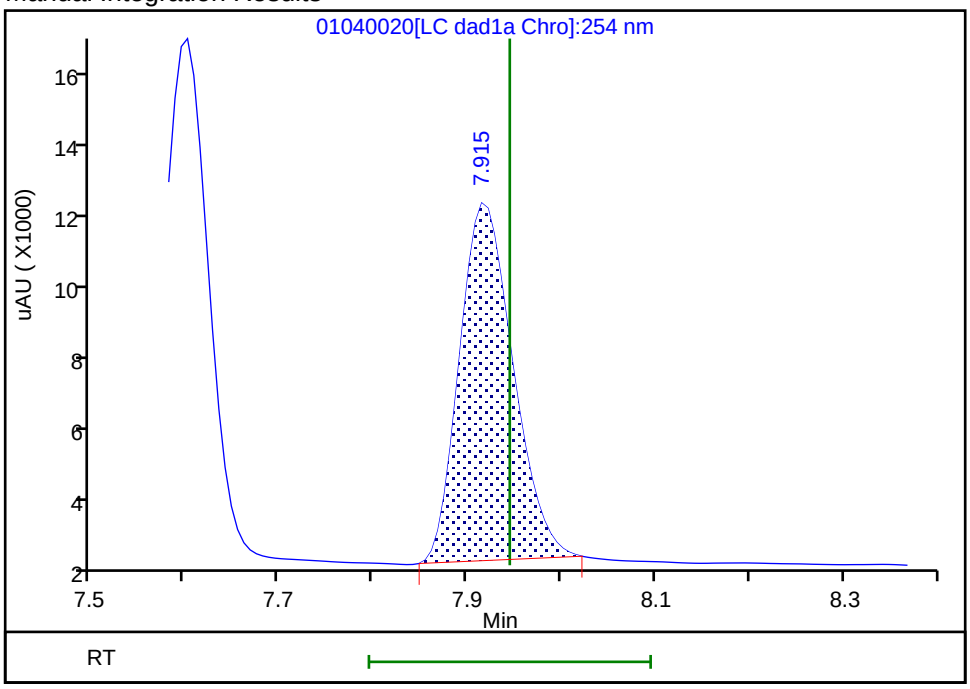
Processing Integration Results

RT: 7.92
Area: 48188
Amount: 0.601054
Amount Units: ug/mL



Manual Integration Results

RT: 7.92
Area: 39525
Amount: 0.513051
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 11:59:15

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-562503/38 Calibration Date: 01/05/2022 04:47

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 01040038.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	181207	178414		493	501	-1.5	15.0
DNX	Ave	138113	139363		505	501	0.9	15.0
MNX	Ave	125995	128593		596	584	2.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-562503/38 Calibration Date: 01/05/2022 04:47

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 01040038.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.48	6.38	6.58
DNX	6.80	6.70	6.90
MNX	7.22	7.07	7.37

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040038.D
Lims ID: ICV DMT
Client ID:
Sample Type: ICV
Inject. Date: 05-Jan-2022 04:47:17 ALS Bottle#: 38 Worklist Smp#: 38
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV DMT
Misc. Info.: 280-0107731-038
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 05-Jan-2022 12:18:54 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1613

First Level Reviewer: zhangji Date: 05-Jan-2022 12:09:42

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.482	6.484	-0.002	89296	0.5005	0.4928	M
6 DNX	1	6.796	6.797	-0.001	69751	0.5005	0.5050	M
7 MNX	1	7.222	7.224	-0.002	75034	0.5835	0.5955	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330_OP_DMT_00012 Amount Added: 50.00 Units: uL

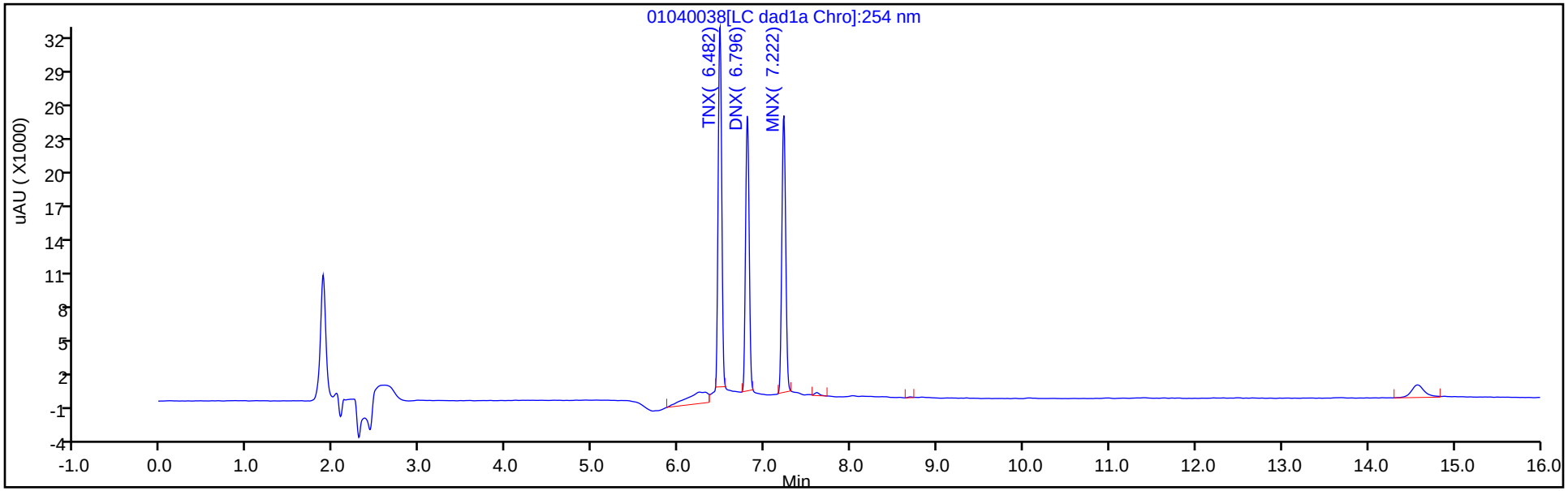
Report Date: 05-Jan-2022 12:19:19 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

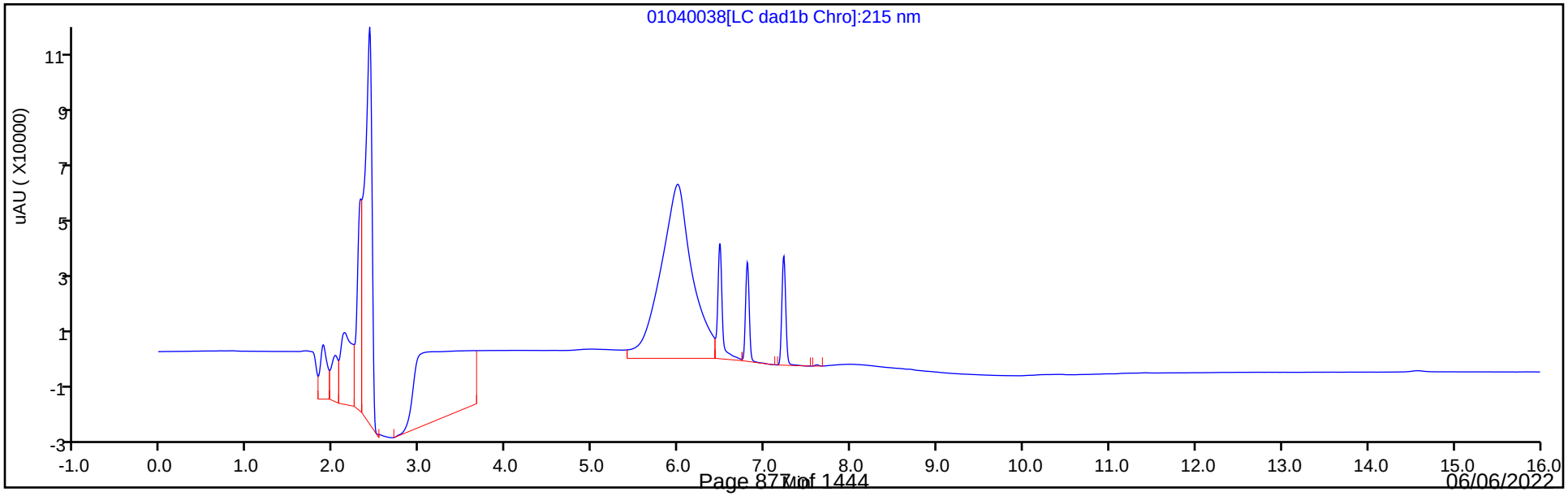
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040038.d

Injection Date:	05-Jan-2022 04:47:17	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	ICV DMT			Worklist Smp#:	38
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	38
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

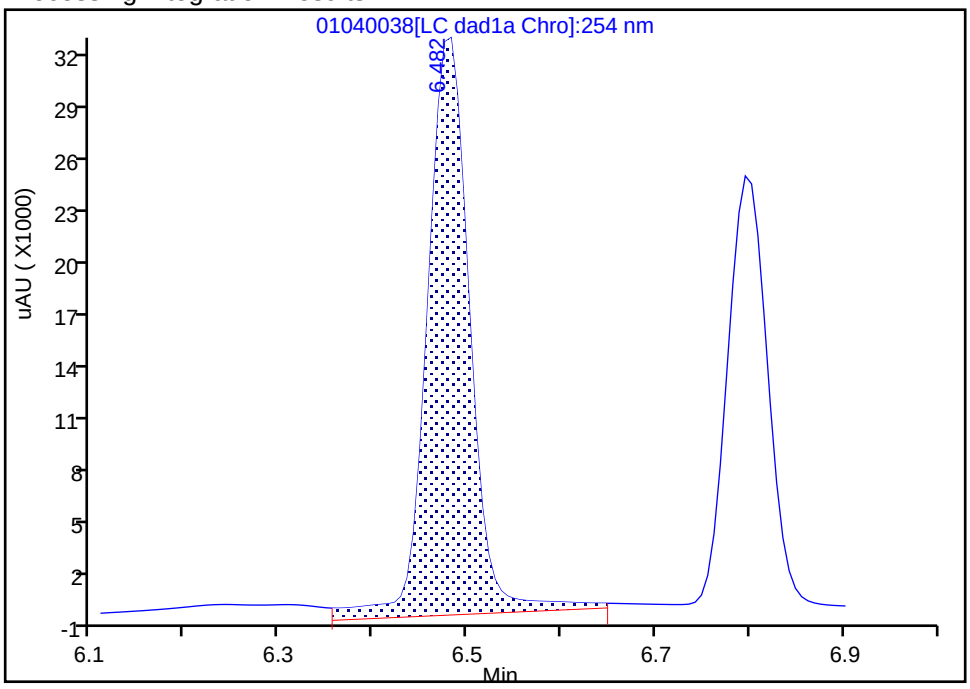
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040038.d				
Injection Date:	05-Jan-2022 04:47:17	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

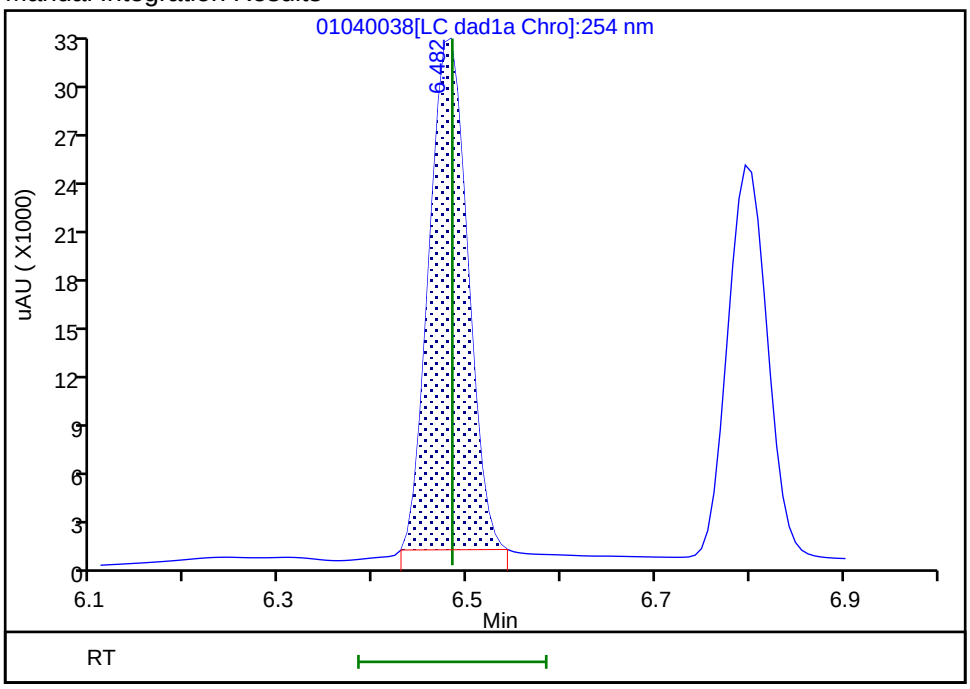
Processing Integration Results

RT: 6.48
Area: 102738
Amount: 0.566963
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 89296
Amount: 0.492783
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

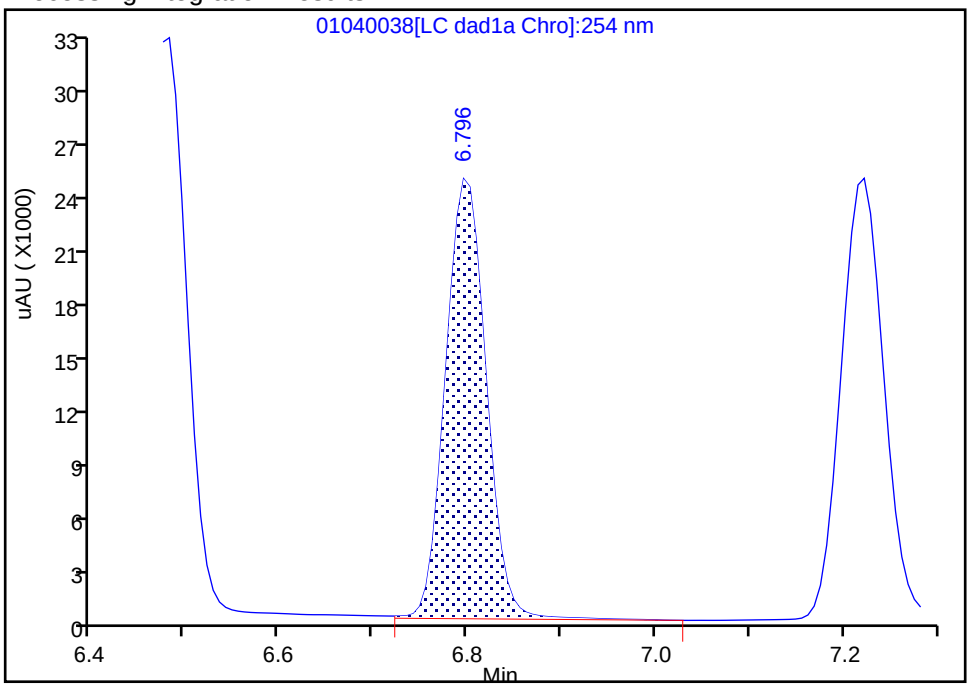
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040038.d				
Injection Date:	05-Jan-2022 04:47:17	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

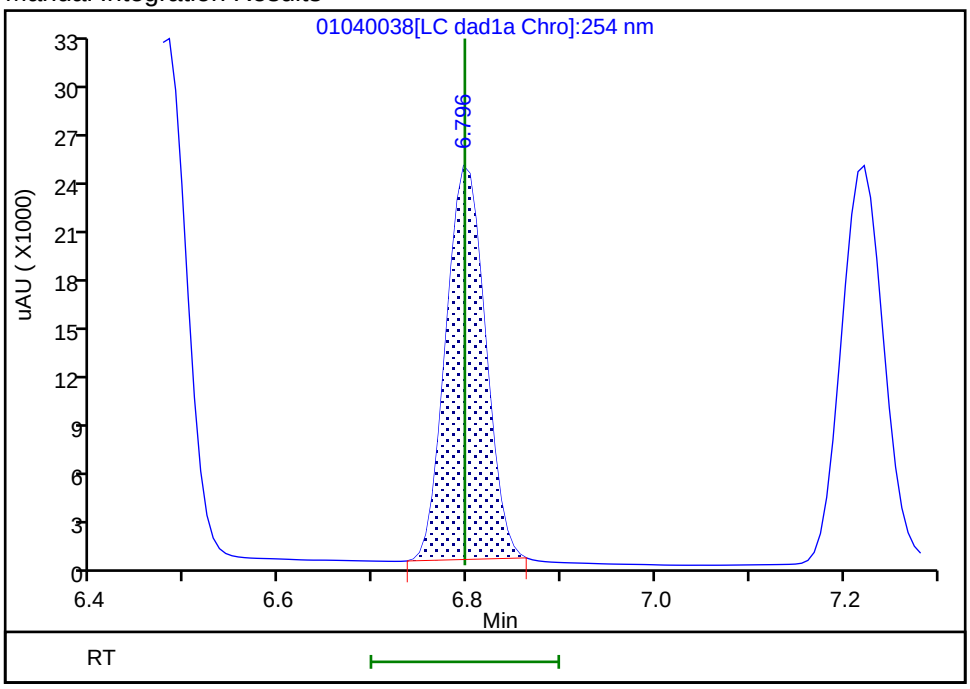
Processing Integration Results

RT: 6.80
Area: 72644
Amount: 0.525975
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 69751
Amount: 0.505029
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:38

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

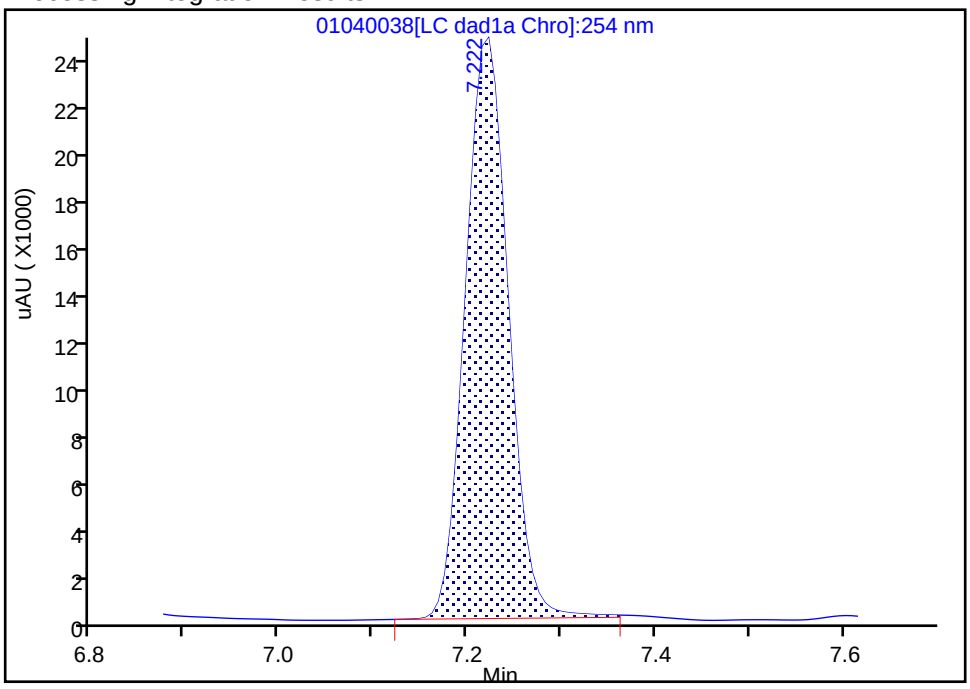
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040038.d				
Injection Date:	05-Jan-2022 04:47:17	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

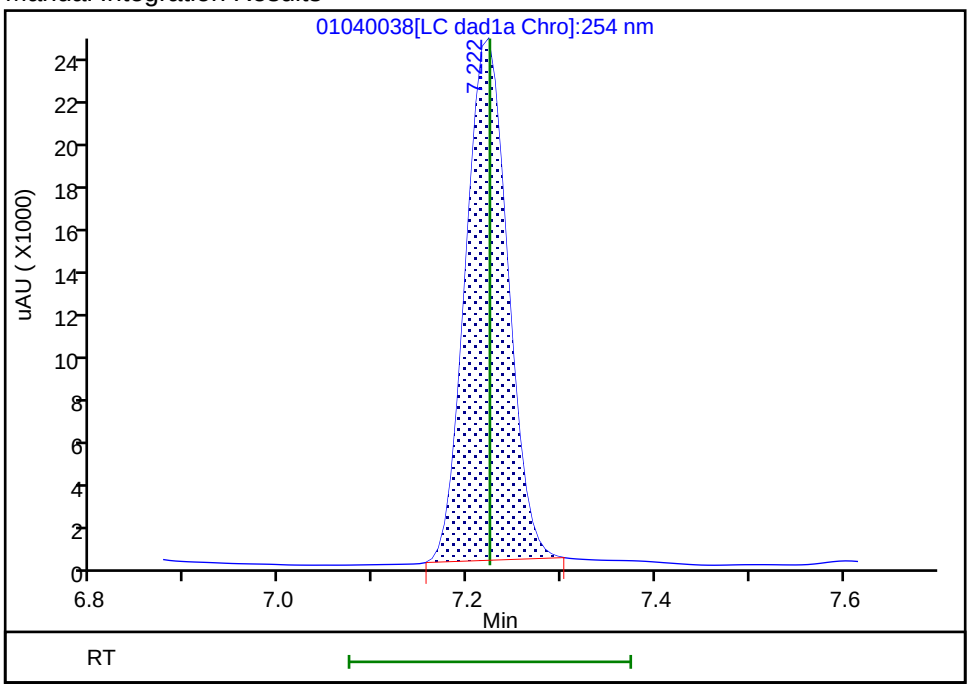
Processing Integration Results

RT: 7.22
Area: 76990
Amount: 0.611054
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 75034
Amount: 0.595530
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:41

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/7 Calibration Date: 05/19/2022 19:42

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 05190007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	83827	90836		271	250	8.4	15.0
RDX	Ave	103609	105448		254	250	1.8	15.0
Picric acid	Ave	77039	146060		474	250	89.6*	15.0
1,3,5-Trinitrobenzene	Ave	218096	215708		247	250	-1.1	15.0
1,3-Dinitrobenzene	Ave	288401	297192		258	250	3.0	15.0
Nitrobenzene	Ave	191953	196316		256	250	2.3	15.0
Tetryl	Ave	170567	169580		249	250	-0.6	15.0
Nitroglycerin	Ave	63037	64634		2560	2500	2.5	15.0
2,4,6-Trinitrotoluene	Ave	202726	212072		262	250	4.6	15.0
4-Amino-2,6-dinitrotoluene	Ave	150985	145252		241	250	-3.8	15.0
2-Amino-4,6-dinitrotoluene	Ave	202171	198008		245	250	-2.1	15.0
2,6-Dinitrotoluene	Ave	143115	142776		249	250	-0.2	15.0
2,4-Dinitrotoluene	Ave	289351	288084		249	250	-0.4	15.0
2-Nitrotoluene	Ave	127614	140460		275	250	10.1	15.0
4-Nitrotoluene	Ave	106235	108192		255	250	1.8	15.0
3-Nitrotoluene	Ave	142273	136004		239	250	-4.4	15.0
PETN	Lin2		72600		2480	2500	-0.7	15.0
1,2-Dinitrobenzene	Ave	124698	129496		260	250	3.8	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/7 Calibration Date: 05/19/2022 19:42

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 05190007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.46	6.76
RDX	7.60	7.45	7.75
Picric acid	7.95	7.80	8.10
1,3,5-Trinitrobenzene	8.68	8.53	8.83
1,3-Dinitrobenzene	9.31	9.16	9.46
Nitrobenzene	9.70	9.55	9.85
Tetryl	10.03	9.88	10.18
Nitroglycerin	10.47	10.32	10.62
2,4,6-Trinitrotoluene	10.93	10.83	11.03
4-Amino-2,6-dinitrotoluene	11.13	11.03	11.23
2-Amino-4,6-dinitrotoluene	11.39	11.29	11.49
2,6-Dinitrotoluene	11.55	11.45	11.65
2,4-Dinitrotoluene	11.72	11.62	11.82
2-Nitrotoluene	12.57	12.42	12.72
4-Nitrotoluene	13.00	12.85	13.15
3-Nitrotoluene	13.57	13.42	13.72
PETN	14.64	14.49	14.79
1,2-Dinitrobenzene	8.55	8.40	8.70

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190007.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2022 19:42:49 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0111180-007
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:40:16 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 19-May-2022 20:04:52

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.606	6.606	0.000	22709	0.2500	0.2709	
8 RDX	1	7.599	7.599	0.000	26362	0.2500	0.2544	
9 2,4,6-Trinitrophenol	1	7.946	7.946	0.000	36515	0.2500	0.4740	
$ 10 1,2-Dinitrobenzene	1	8.552	8.552	0.000	32374	0.2500	0.2596	
11 1,3,5-Trinitrobenzene	1	8.679	8.679	0.000	53927	0.2500	0.2473	
12 1,3-Dinitrobenzene	1	9.306	9.306	0.000	74298	0.2500	0.2576	
13 Nitrobenzene	1	9.699	9.699	0.000	49079	0.2500	0.2557	
15 Tetryl	1	10.026	10.026	0.000	42395	0.2500	0.2486	
16 Nitroglycerin	2	10.472	10.472	0.000	161586	2.50	2.56	
17 2,4,6-Trinitrotoluene	1	10.932	10.932	0.000	53018	0.2500	0.2615	
18 4-Amino-2,6-dinitrotoluene	1	11.132	11.132	0.000	36313	0.2500	0.2405	
19 2-Amino-4,6-dinitrotoluene	1	11.386	11.386	0.000	49502	0.2500	0.2449	
20 2,6-Dinitrotoluene	1	11.546	11.546	0.000	35694	0.2500	0.2494	
21 2,4-Dinitrotoluene	1	11.719	11.719	0.000	72021	0.2500	0.2489	
22 o-Nitrotoluene	1	12.572	12.572	0.000	35115	0.2500	0.2752	
23 p-Nitrotoluene	1	12.999	12.999	0.000	27048	0.2500	0.2546	
24 m-Nitrotoluene	1	13.572	13.572	0.000	34001	0.2500	0.2390	
25 PETN	2	14.639	14.639	0.000	181499	2.50	2.48	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00072 Amount Added: 25.00 Units: uL

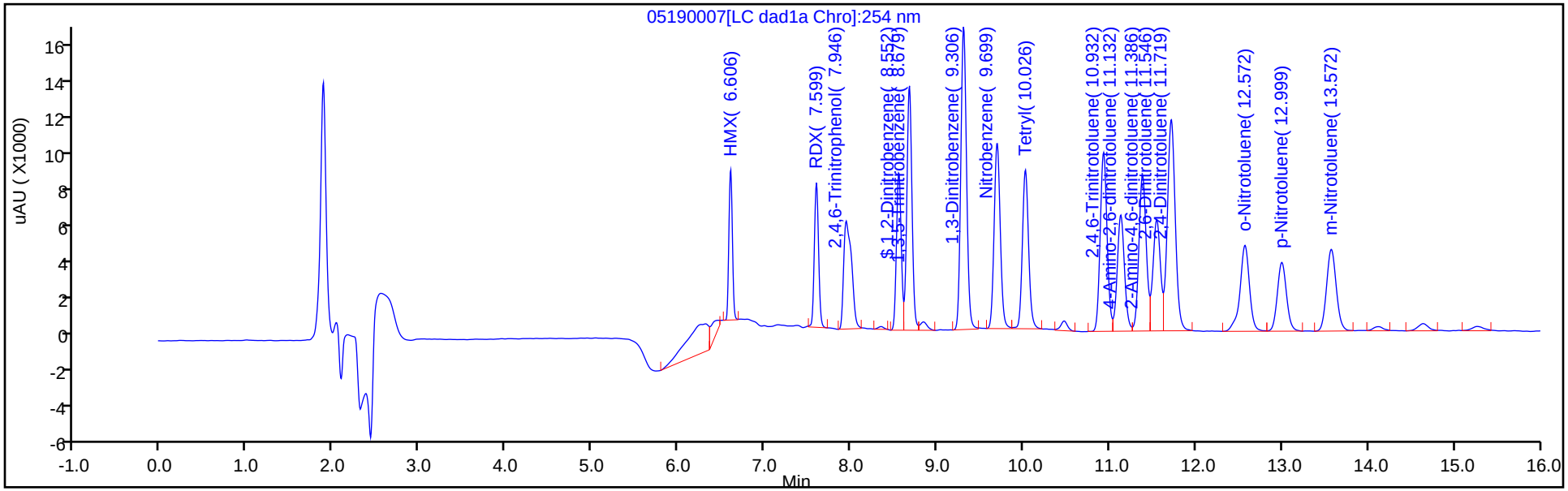
Report Date: 20-May-2022 13:40:17 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

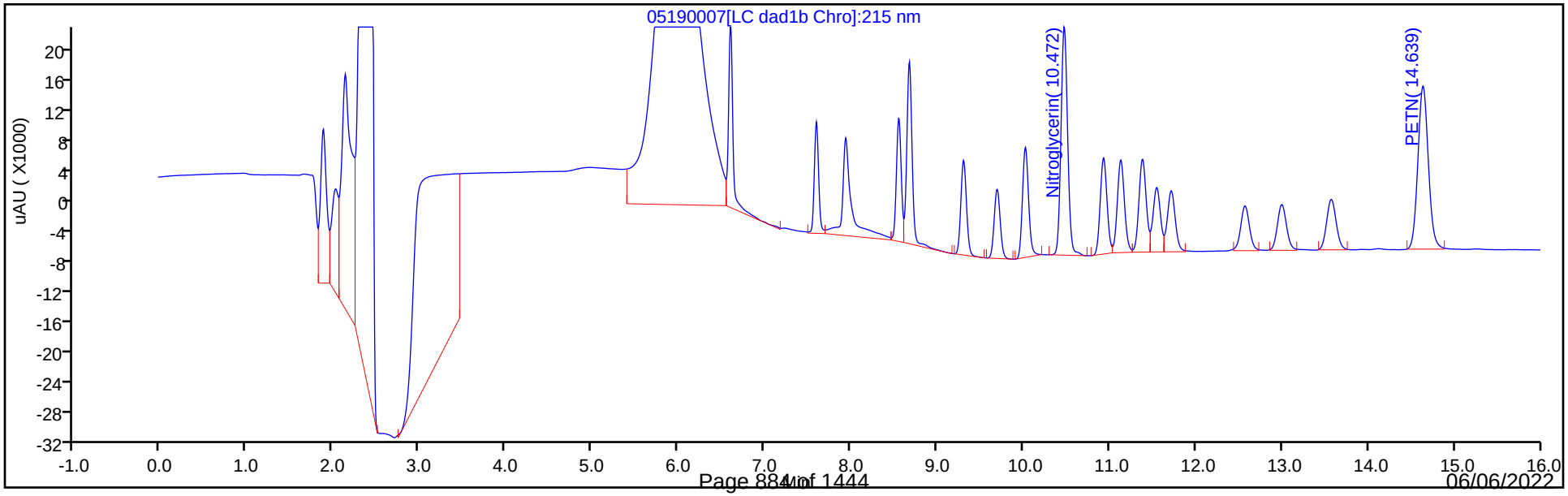
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190007.d

Injection Date:	19-May-2022 19:42:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
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



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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/9 | Calibration Date: 05/19/2022 20:28

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/05/2022 04:24

Lab File ID: 05190009.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	181207	190484		263	250	5.1	15.0
DNX	Ave	138113	142211		258	251	3.0	15.0
MNX	Ave	125995	132568		308	293	5.2	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/9 Calibration Date: 05/19/2022 20:28

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 05190009.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.49	6.39	6.59
DNX	6.80	6.70	6.90
MNX	7.22	7.07	7.37

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190009.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	19-May-2022 20:28:37	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0111180-009				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:15	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				
First Level Reviewer: zhangji		Date:	20-May-2022 13:39:07		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.486	6.486	0.000	47621	0.2500	0.2628	M
6 DNX	1	6.799	6.799	0.000	35695	0.2510	0.2584	M
7 MNX	1	7.219	7.219	0.000	38776	0.2925	0.3078	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00011 Amount Added: 12.50 Units: uL

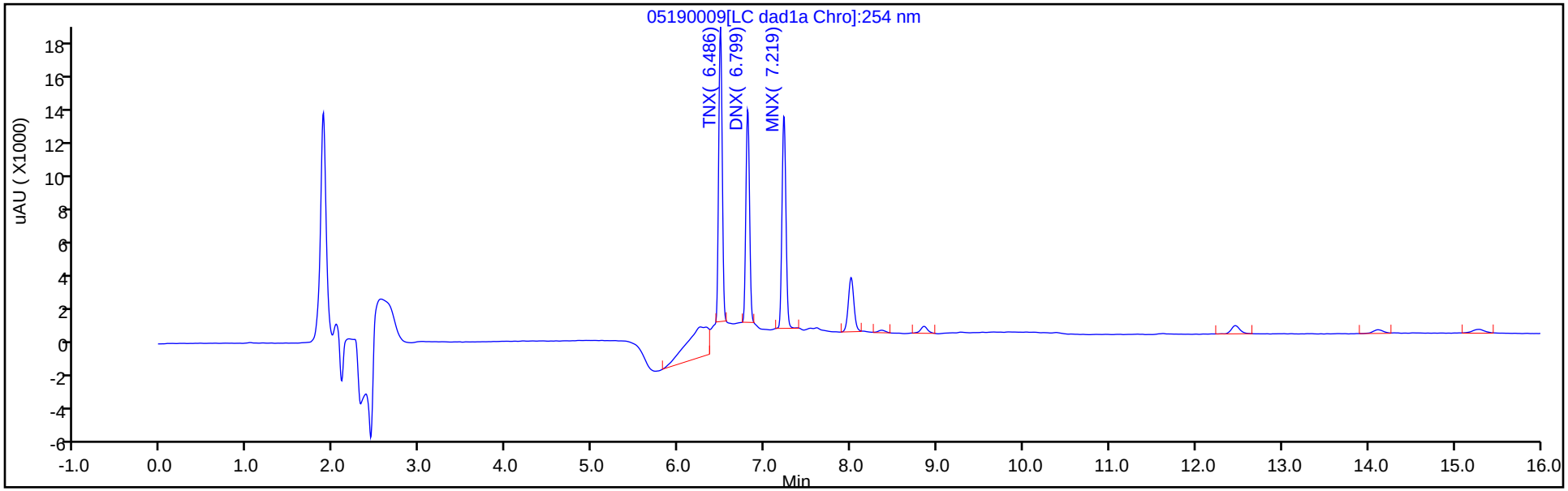
Report Date: 20-May-2022 13:40:15 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

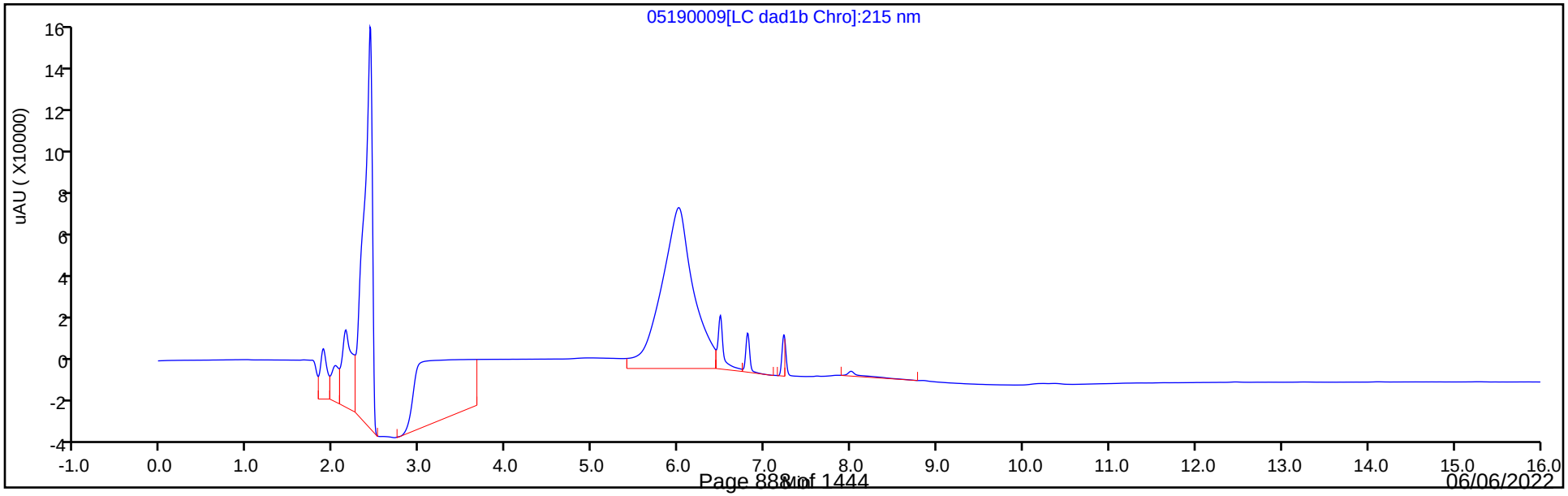
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190009.d

Injection Date:	19-May-2022 20:28:37	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins Denver

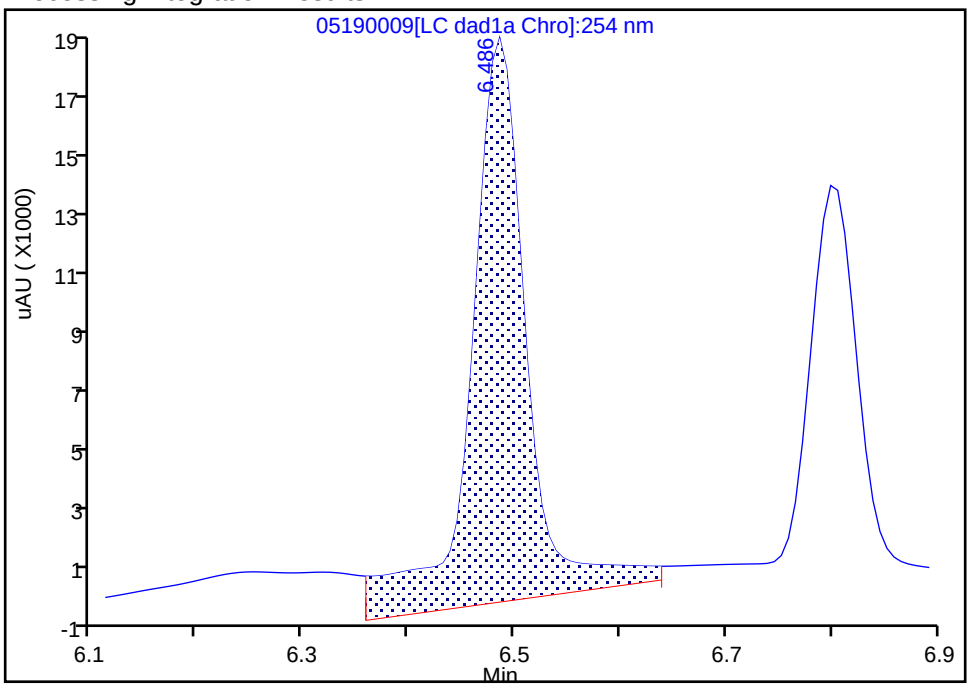
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190009.d				
Injection Date:	19-May-2022 20:28:37	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

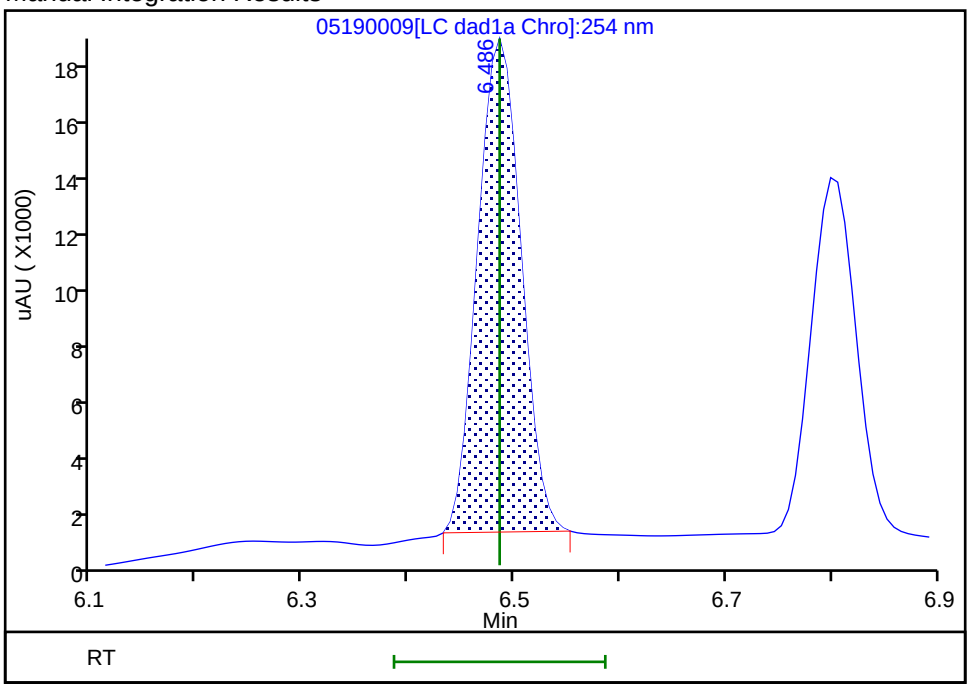
Processing Integration Results

RT: 6.49
Area: 66219
Amount: 0.365432
Amount Units: ug/mL



Manual Integration Results

RT: 6.49
Area: 47621
Amount: 0.262798
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 13:38:58

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

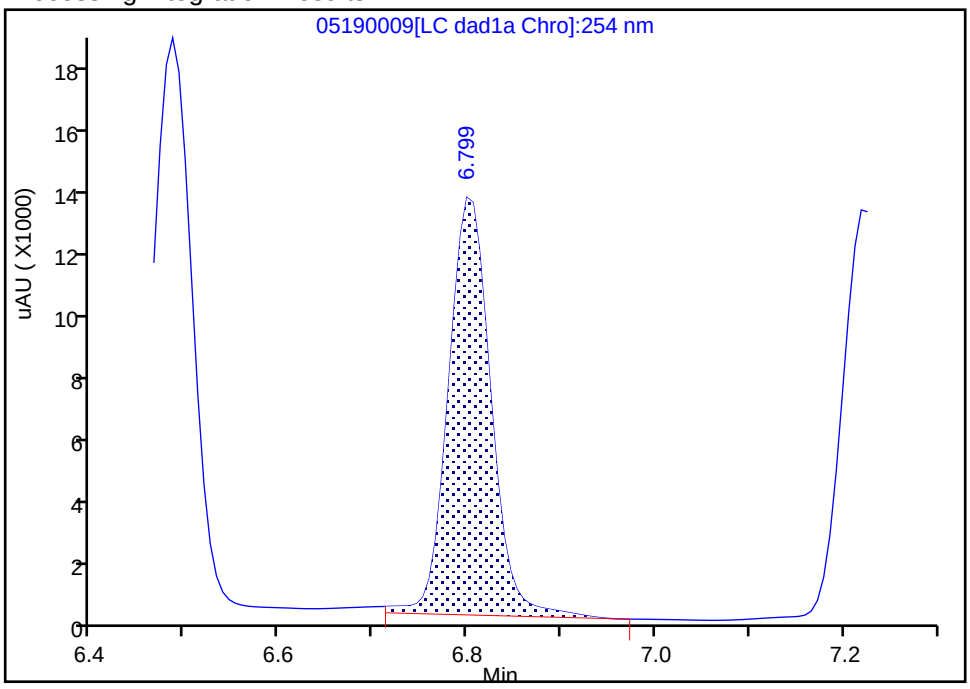
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190009.d				
Injection Date:	19-May-2022 20:28:37	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

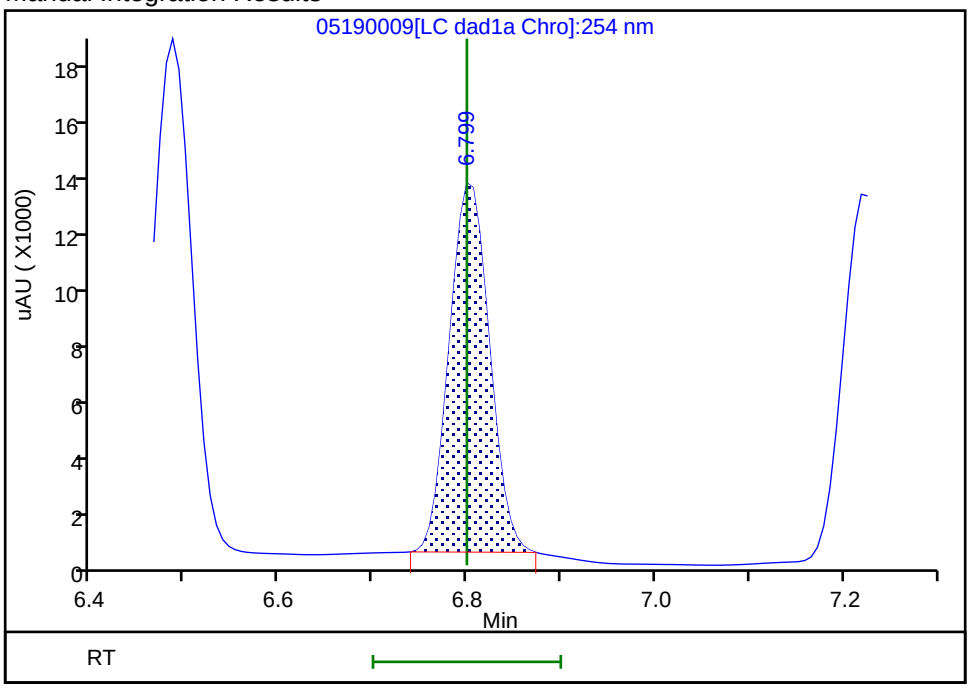
Processing Integration Results

RT: 6.80
Area: 38834
Amount: 0.281176
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 35695
Amount: 0.258448
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 13:39:02
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/21 Calibration Date: 05/20/2022 00:40

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 05190021.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	83827	90072		269	250	7.4	15.0
RDX	Ave	103609	106992		258	250	3.3	15.0
Picric acid	Ave	77039	134072		435	250	74.0*	15.0
1,3,5-Trinitrobenzene	Ave	218096	215624		247	250	-1.1	15.0
1,3-Dinitrobenzene	Ave	288401	297484		258	250	3.1	15.0
Nitrobenzene	Ave	191953	193184		252	250	0.6	15.0
Tetryl	Ave	170567	170256		250	250	-0.2	15.0
Nitroglycerin	Ave	63037	64695		2570	2500	2.6	15.0
2,4,6-Trinitrotoluene	Ave	202726	212504		262	250	4.8	15.0
4-Amino-2,6-dinitrotoluene	Ave	150985	145308		241	250	-3.8	15.0
2-Amino-4,6-dinitrotoluene	Ave	202171	198244		245	250	-1.9	15.0
2,6-Dinitrotoluene	Ave	143115	140044		245	250	-2.1	15.0
2,4-Dinitrotoluene	Ave	289351	290876		251	250	0.5	15.0
2-Nitrotoluene	Ave	127614	137900		270	250	8.1	15.0
4-Nitrotoluene	Ave	106235	105816		249	250	-0.4	15.0
3-Nitrotoluene	Ave	142273	134416		236	250	-5.5	15.0
PETN	Lin2		72732		2490	2500	-0.5	15.0
1,2-Dinitrobenzene	Ave	124698	130976		263	250	5.0	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/21 Calibration Date: 05/20/2022 00:40

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 05190021.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.60	6.46	6.76
RDX	7.60	7.45	7.75
Picric acid	7.94	7.80	8.10
1,3,5-Trinitrobenzene	8.68	8.53	8.83
1,3-Dinitrobenzene	9.31	9.16	9.46
Nitrobenzene	9.70	9.55	9.85
Tetryl	10.02	9.88	10.18
Nitroglycerin	10.47	10.32	10.62
2,4,6-Trinitrotoluene	10.93	10.83	11.03
4-Amino-2,6-dinitrotoluene	11.13	11.03	11.23
2-Amino-4,6-dinitrotoluene	11.38	11.29	11.49
2,6-Dinitrotoluene	11.54	11.45	11.65
2,4-Dinitrotoluene	11.71	11.62	11.82
2-Nitrotoluene	12.56	12.42	12.72
4-Nitrotoluene	12.99	12.85	13.15
3-Nitrotoluene	13.56	13.42	13.72
PETN	14.62	14.49	14.79
1,2-Dinitrobenzene	8.56	8.40	8.70

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190021.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2022 00:40:36 ALS Bottle#: 7 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0111180-021
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:40:07 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:15:05

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.604	6.606	-0.002	22518	0.2500	0.2686	M
8 RDX	1	7.604	7.599	0.005	26748	0.2500	0.2582	
9 2,4,6-Trinitrophenol	1	7.944	7.946	-0.002	33518	0.2500	0.4351	
$ 10 1,2-Dinitrobenzene	1	8.558	8.552	0.006	32744	0.2500	0.2626	
11 1,3,5-Trinitrobenzene	1	8.678	8.679	-0.001	53906	0.2500	0.2472	
12 1,3-Dinitrobenzene	1	9.311	9.306	0.005	74371	0.2500	0.2579	
13 Nitrobenzene	1	9.698	9.699	-0.001	48296	0.2500	0.2516	
15 Tetryl	1	10.024	10.026	-0.002	42564	0.2500	0.2495	
16 Nitroglycerin	2	10.471	10.472	-0.001	161737	2.50	2.57	
17 2,4,6-Trinitrotoluene	1	10.931	10.932	-0.001	53126	0.2500	0.2621	
18 4-Amino-2,6-dinitrotoluene	1	11.131	11.132	-0.001	36327	0.2500	0.2406	
19 2-Amino-4,6-dinitrotoluene	1	11.384	11.386	-0.002	49561	0.2500	0.2451	
20 2,6-Dinitrotoluene	1	11.544	11.546	-0.002	35011	0.2500	0.2446	
21 2,4-Dinitrotoluene	1	11.711	11.719	-0.008	72719	0.2500	0.2513	
22 o-Nitrotoluene	1	12.564	12.572	-0.008	34475	0.2500	0.2702	
23 p-Nitrotoluene	1	12.991	12.999	-0.008	26454	0.2500	0.2490	
24 m-Nitrotoluene	1	13.564	13.572	-0.008	33604	0.2500	0.2362	
25 PETN	2	14.624	14.639	-0.015	181829	2.50	2.49	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00072 Amount Added: 25.00 Units: uL

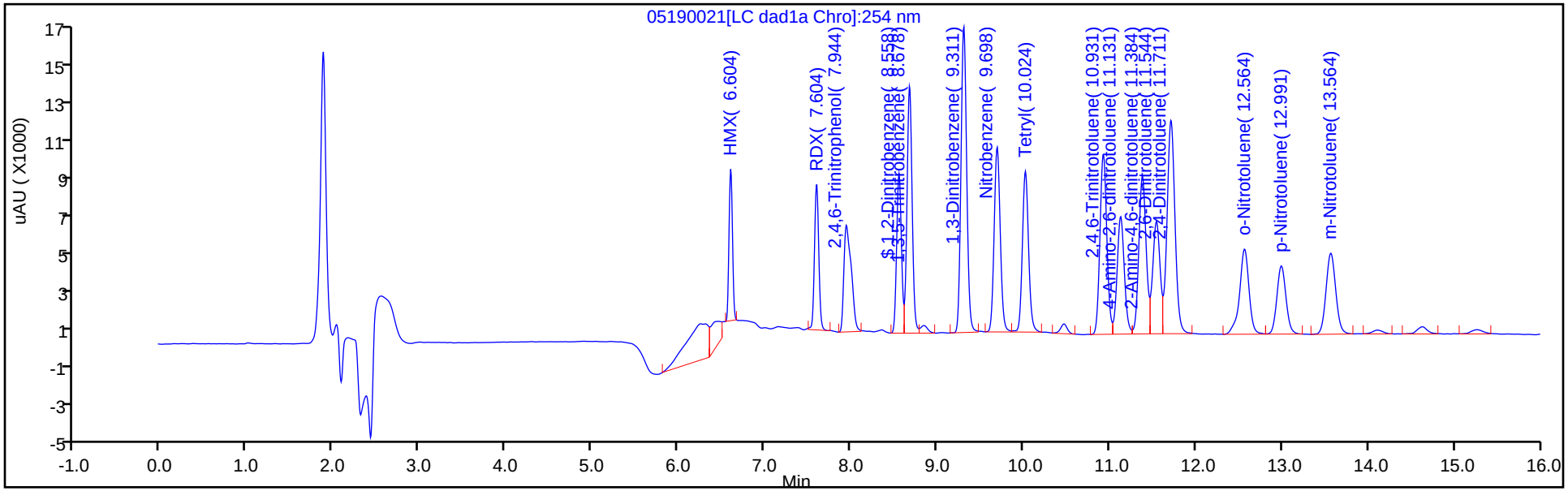
Report Date: 20-May-2022 13:40:07 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

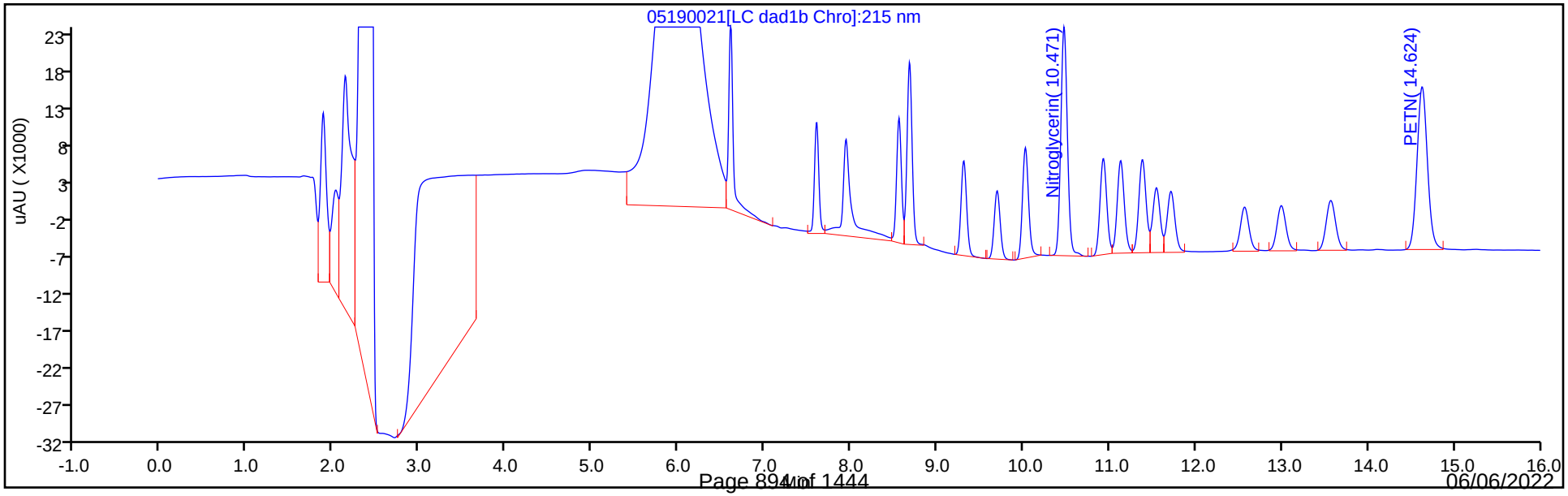
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190021.d

Injection Date:	20-May-2022 00:40:36	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins Denver

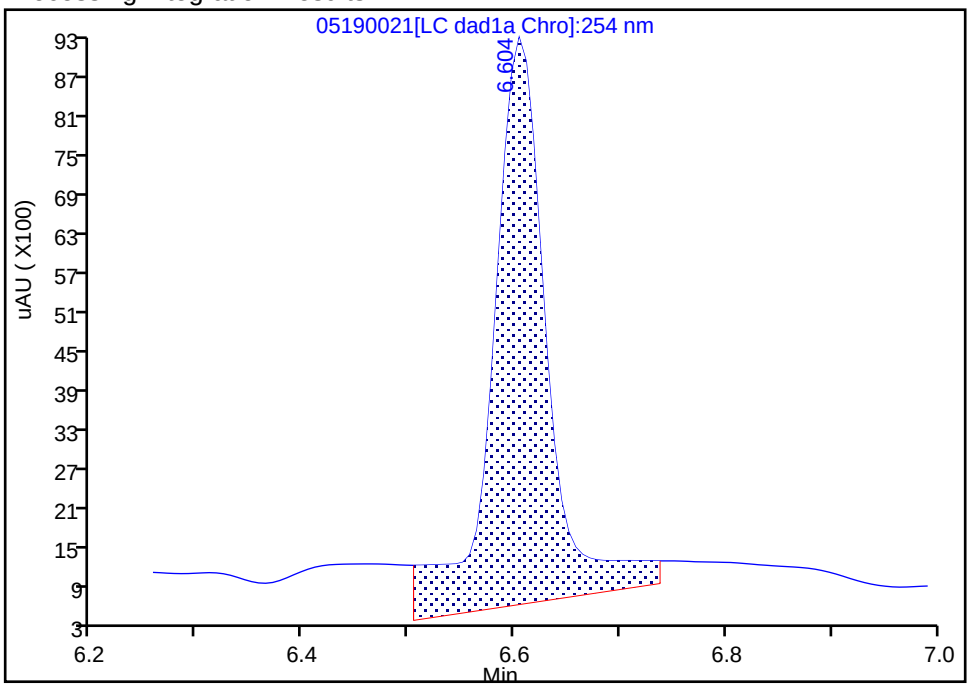
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190021.d				
Injection Date:	20-May-2022 00:40:36	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

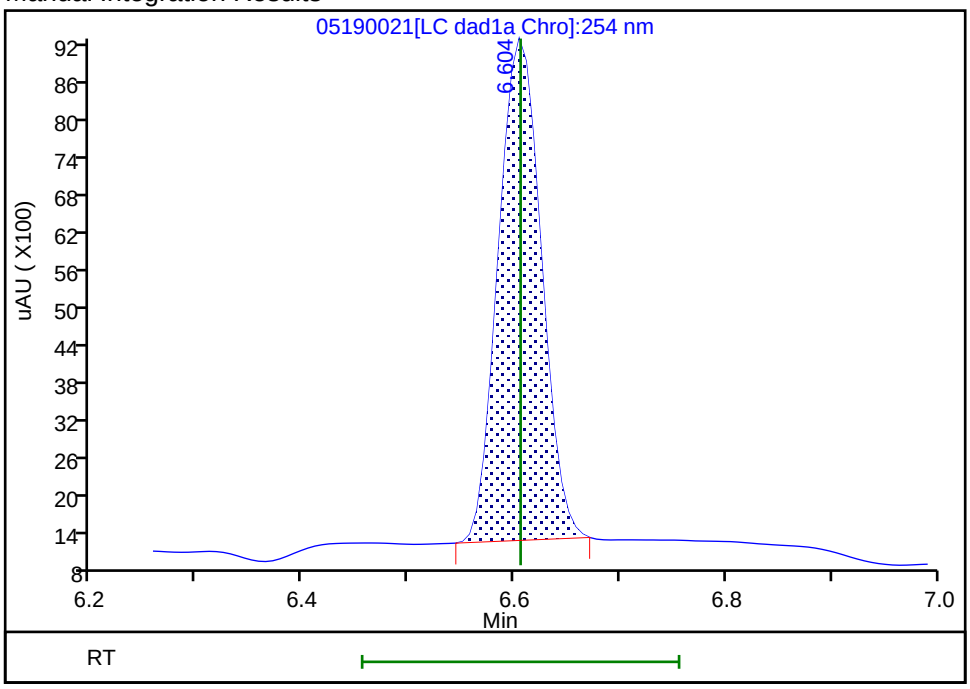
Processing Integration Results

RT: 6.60
Area: 31141
Amount: 0.371490
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 22518
Amount: 0.268624
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:15:04

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/23 | Calibration Date: 05/20/2022 01:26

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/05/2022 04:24

Lab File ID: 05190023.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	181207	189040		261	250	4.3	15.0
DNX	Ave	138113	141741		258	251	2.6	15.0
MNX	Ave	125995	131552		305	293	4.4	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/23 Calibration Date: 05/20/2022 01:26

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 05190023.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.49	6.39	6.59
DNX	6.80	6.70	6.90
MNX	7.22	7.07	7.37

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190023.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	20-May-2022 01:26:26	ALS Bottle#:	9	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0111180-023				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:05	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				
First Level Reviewer: zhangji		Date:	20-May-2022 12:15:26		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.486	6.486	0.000	47260	0.2500	0.2608	M
6 DNX	1	6.800	6.799	0.001	35577	0.2510	0.2576	M
7 MNX	1	7.220	7.219	0.001	38479	0.2925	0.3054	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00011 Amount Added: 12.50 Units: uL

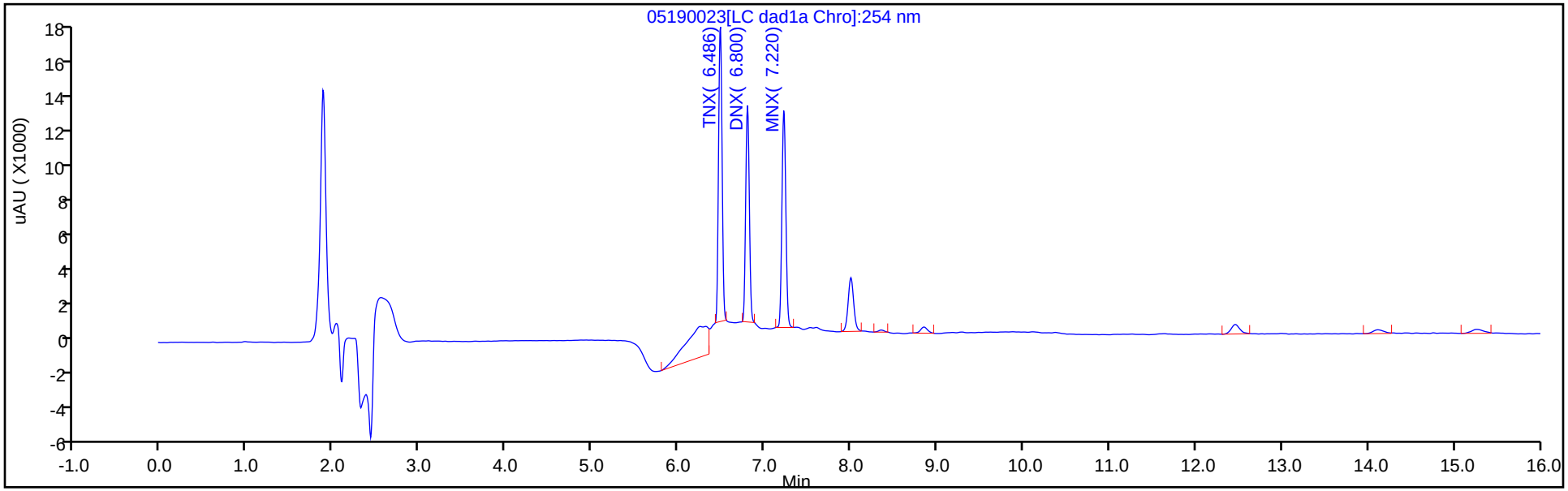
Report Date: 20-May-2022 13:40:05 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

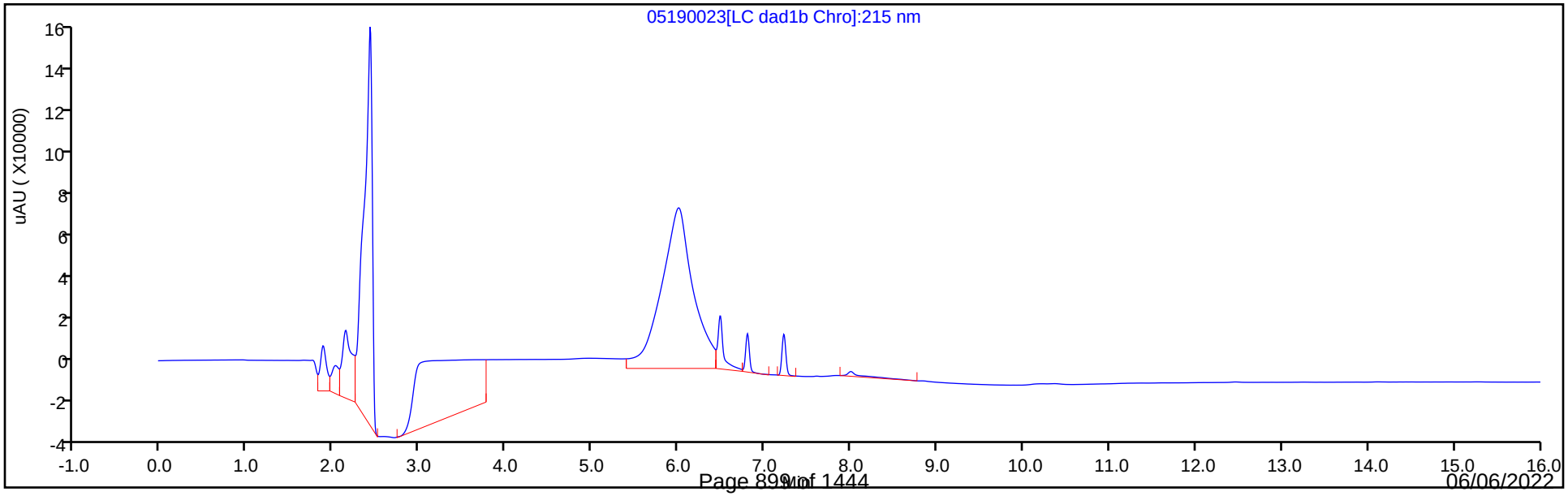
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190023.d

Injection Date:	20-May-2022 01:26:26	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins Denver

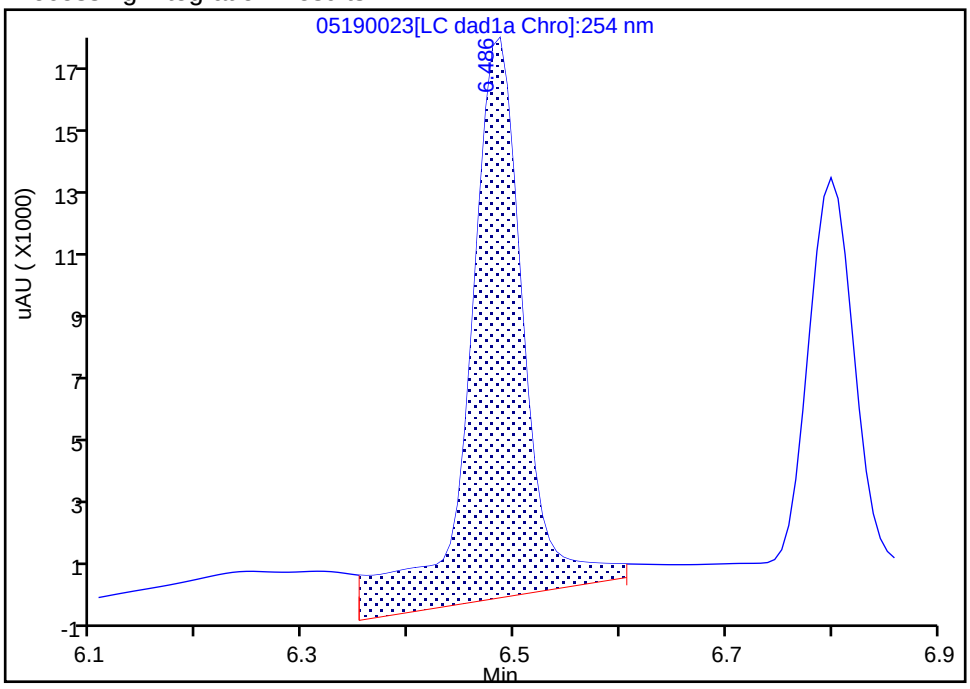
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190023.d				
Injection Date:	20-May-2022 01:26:26	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

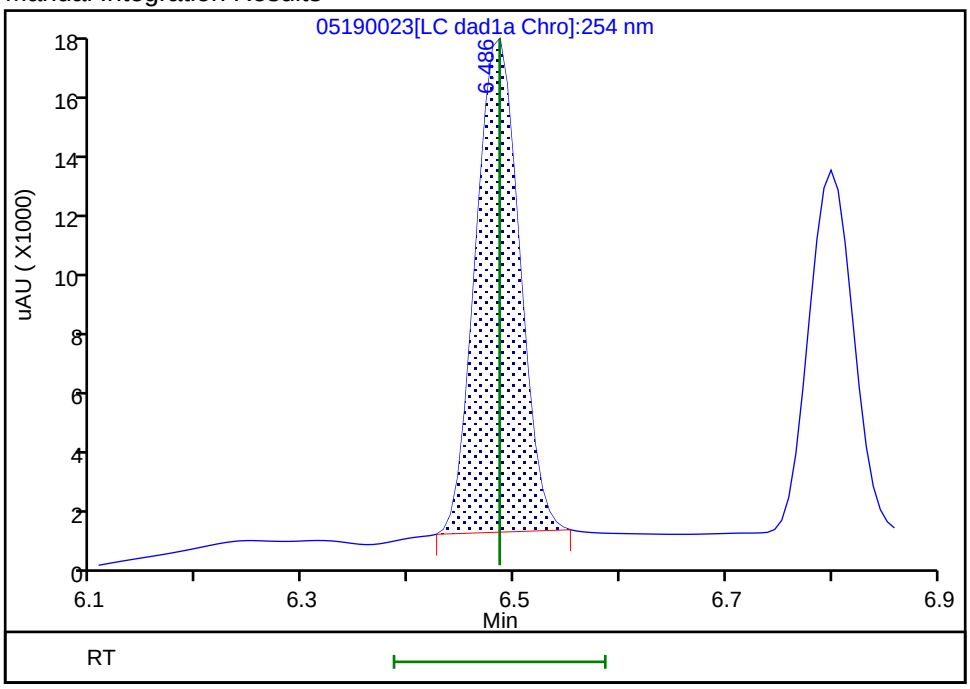
Processing Integration Results

RT: 6.49
Area: 63444
Amount: 0.350118
Amount Units: ug/mL



Manual Integration Results

RT: 6.49
Area: 47260
Amount: 0.260806
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:15:21

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

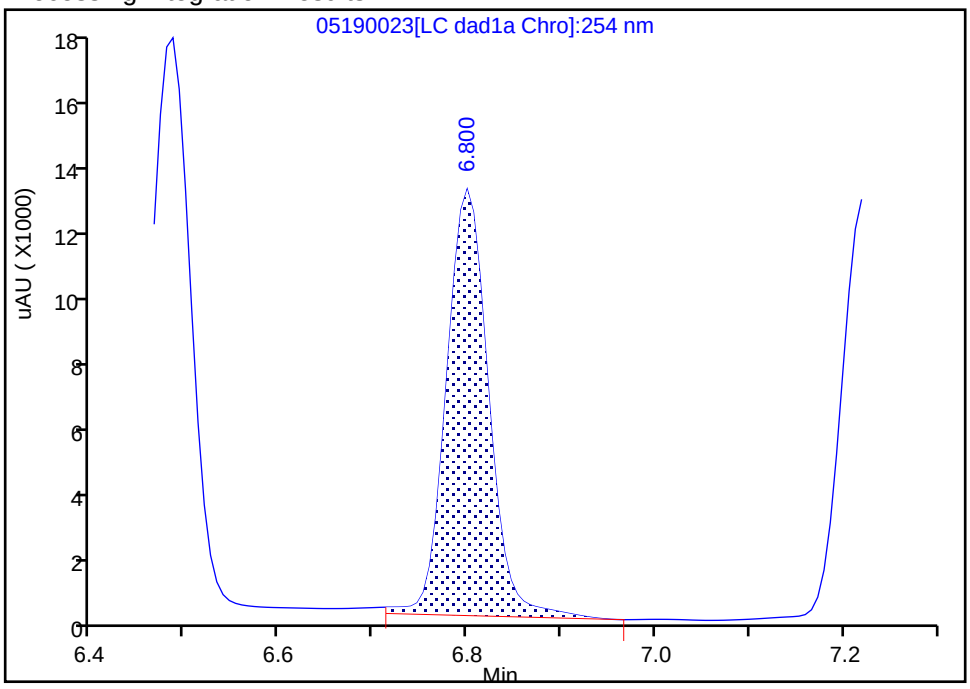
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190023.d				
Injection Date:	20-May-2022 01:26:26	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

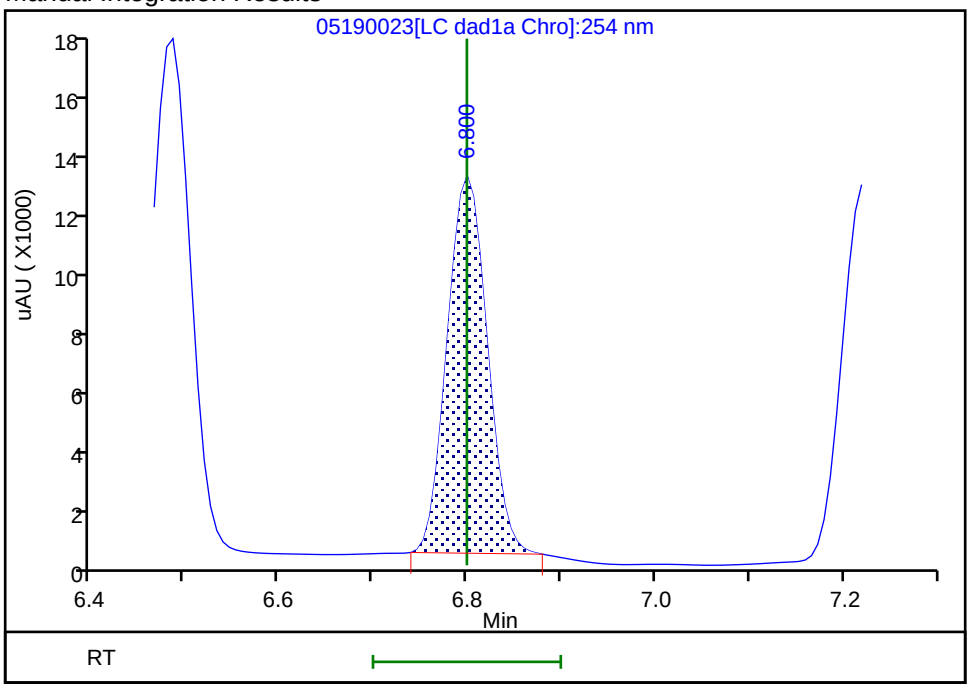
Processing Integration Results

RT: 6.80
Area: 38488
Amount: 0.278670
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 35577
Amount: 0.257594
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:15:25
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/33 Calibration Date: 05/20/2022 05:15

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 05190033.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	83827	90344		269	250	7.8	15.0
RDX	Ave	103609	107128		258	250	3.4	15.0
Picric acid	Ave	77039	135836		441	250	76.3*	15.0
1,3,5-Trinitrobenzene	Ave	218096	216248		248	250	-0.8	15.0
1,3-Dinitrobenzene	Ave	288401	299816		260	250	4.0	15.0
Nitrobenzene	Ave	191953	191956		250	250	0.0	15.0
Tetryl	Ave	170567	170084		249	250	-0.3	15.0
Nitroglycerin	Ave	63037	66059		2620	2500	4.8	15.0
2,4,6-Trinitrotoluene	Ave	202726	212816		262	250	5.0	15.0
4-Amino-2,6-dinitrotoluene	Ave	150985	146048		242	250	-3.3	15.0
2-Amino-4,6-dinitrotoluene	Ave	202171	197356		244	250	-2.4	15.0
2,6-Dinitrotoluene	Ave	143115	144024		252	250	0.6	15.0
2,4-Dinitrotoluene	Ave	289351	292320		253	250	1.0	15.0
2-Nitrotoluene	Ave	127614	140404		275	250	10.0	15.0
4-Nitrotoluene	Ave	106235	105712		249	250	-0.5	15.0
3-Nitrotoluene	Ave	142273	131676		231	250	-7.4	15.0
PETN	Lin2		73346		2510	2500	0.3	15.0
1,2-Dinitrobenzene	Ave	124698	128892		258	250	3.4	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/33 Calibration Date: 05/20/2022 05:15

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 05190033.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.46	6.76
RDX	7.60	7.45	7.75
Picric acid	7.95	7.80	8.10
1,3,5-Trinitrobenzene	8.68	8.53	8.83
1,3-Dinitrobenzene	9.30	9.16	9.46
Nitrobenzene	9.69	9.55	9.85
Tetryl	10.02	9.88	10.18
Nitroglycerin	10.47	10.32	10.62
2,4,6-Trinitrotoluene	10.92	10.83	11.03
4-Amino-2,6-dinitrotoluene	11.12	11.03	11.23
2-Amino-4,6-dinitrotoluene	11.38	11.29	11.49
2,6-Dinitrotoluene	11.54	11.45	11.65
2,4-Dinitrotoluene	11.71	11.62	11.82
2-Nitrotoluene	12.56	12.42	12.72
4-Nitrotoluene	12.99	12.85	13.15
3-Nitrotoluene	13.56	13.42	13.72
PETN	14.62	14.49	14.79
1,2-Dinitrobenzene	8.56	8.40	8.70

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190033.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2022 05:15:40 ALS Bottle#: 7 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0111180-033
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:39:57 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:30:10

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.605	6.606	-0.001	22586	0.2500	0.2694	M
8 RDX	1	7.598	7.599	-0.001	26782	0.2500	0.2585	
9 2,4,6-Trinitrophenol	1	7.945	7.946	-0.001	33959	0.2500	0.4408	
$ 10 1,2-Dinitrobenzene	1	8.558	8.552	0.006	32223	0.2500	0.2584	
11 1,3,5-Trinitrobenzene	1	8.678	8.679	-0.001	54062	0.2500	0.2479	
12 1,3-Dinitrobenzene	1	9.304	9.306	-0.002	74954	0.2500	0.2599	
13 Nitrobenzene	1	9.691	9.699	-0.008	47989	0.2500	0.2500	
15 Tetryl	1	10.018	10.026	-0.008	42521	0.2500	0.2493	
16 Nitroglycerin	2	10.471	10.472	-0.001	165148	2.50	2.62	
17 2,4,6-Trinitrotoluene	1	10.924	10.932	-0.008	53204	0.2500	0.2624	
18 4-Amino-2,6-dinitrotoluene	1	11.124	11.132	-0.008	36512	0.2500	0.2418	
19 2-Amino-4,6-dinitrotoluene	1	11.378	11.386	-0.008	49339	0.2500	0.2440	
20 2,6-Dinitrotoluene	1	11.544	11.546	-0.002	36006	0.2500	0.2516	
21 2,4-Dinitrotoluene	1	11.711	11.719	-0.008	73080	0.2500	0.2526	
22 o-Nitrotoluene	1	12.564	12.572	-0.008	35101	0.2500	0.2751	
23 p-Nitrotoluene	1	12.991	12.999	-0.008	26428	0.2500	0.2488	
24 m-Nitrotoluene	1	13.564	13.572	-0.008	32919	0.2500	0.2314	
25 PETN	2	14.624	14.639	-0.015	183365	2.50	2.51	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00072 Amount Added: 25.00 Units: uL

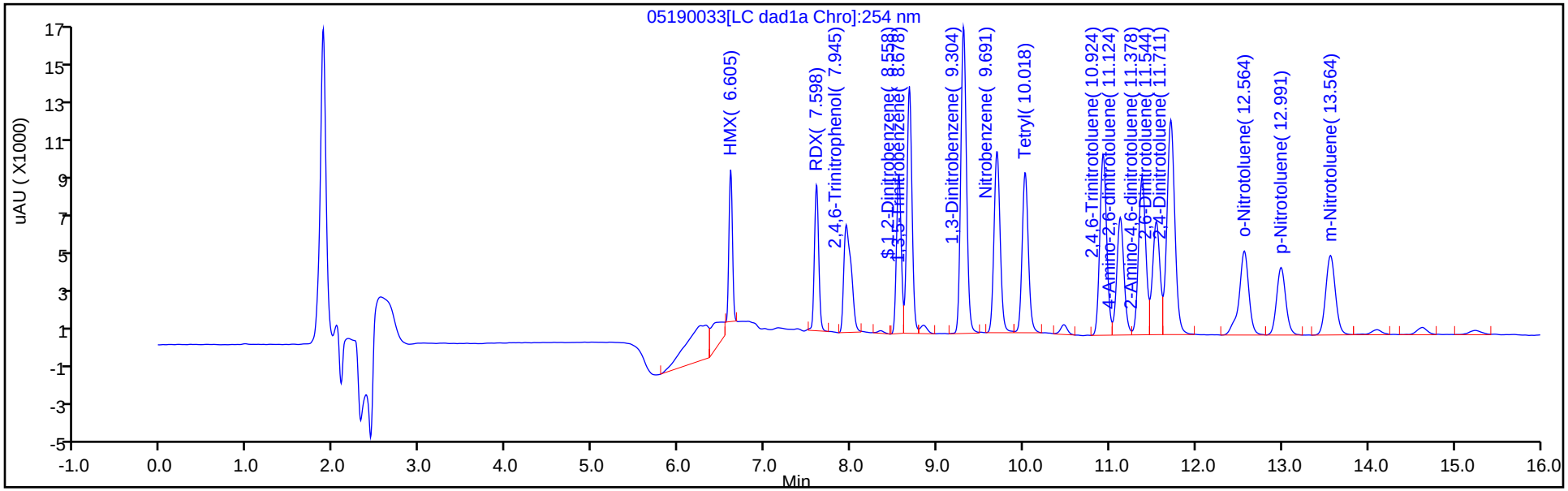
Report Date: 20-May-2022 13:39:57 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

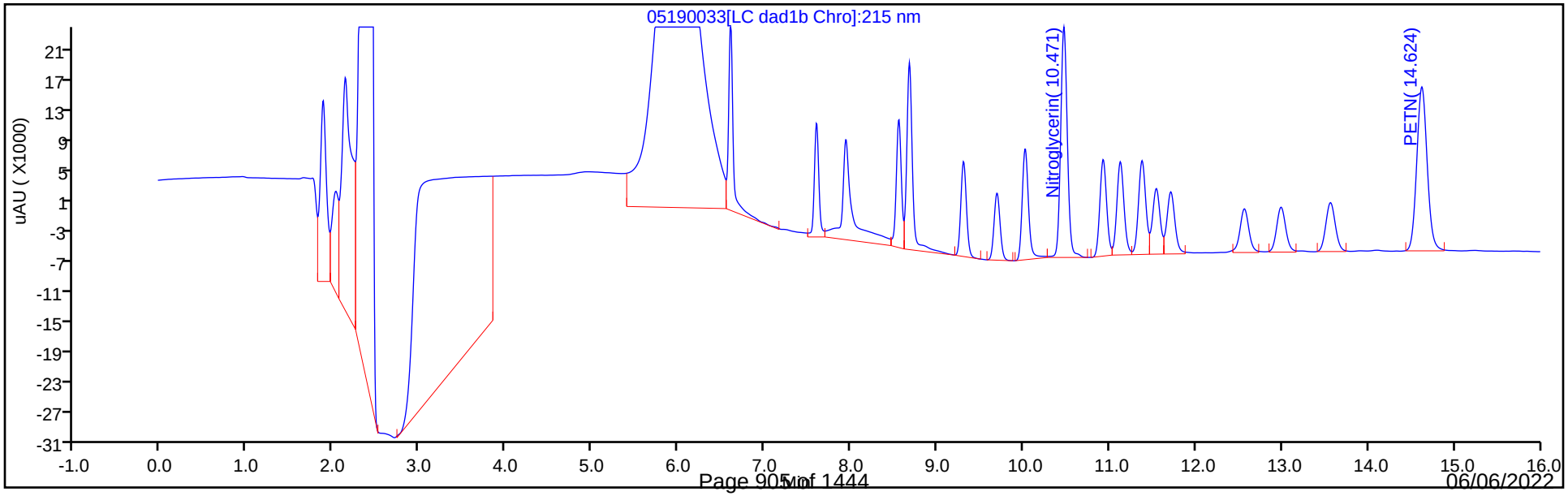
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190033.d

Injection Date:	20-May-2022 05:15:40	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	33
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins Denver

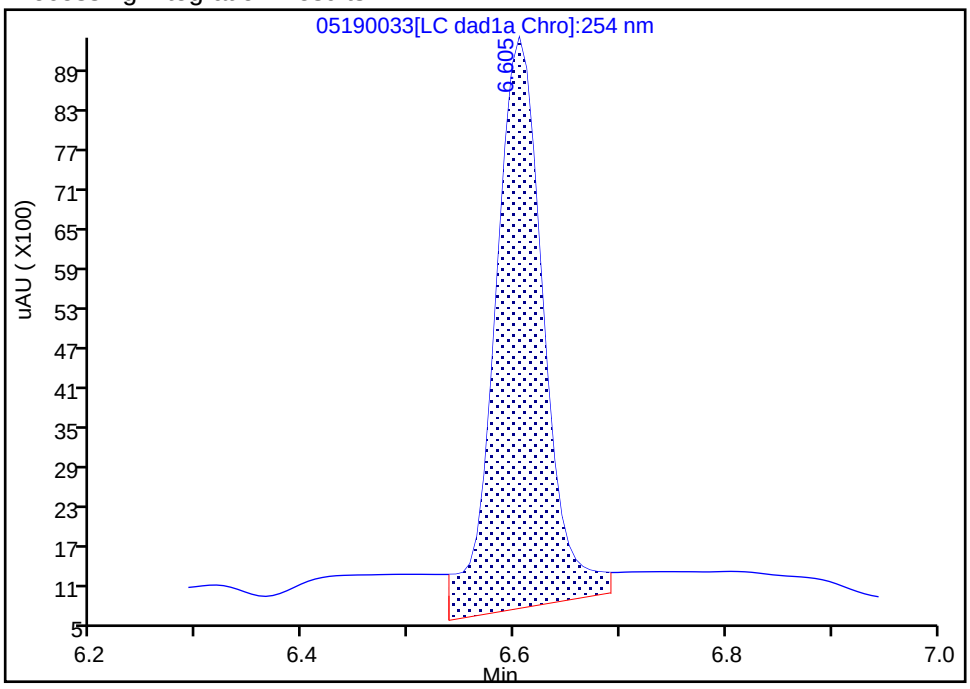
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190033.d				
Injection Date:	20-May-2022 05:15:40	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

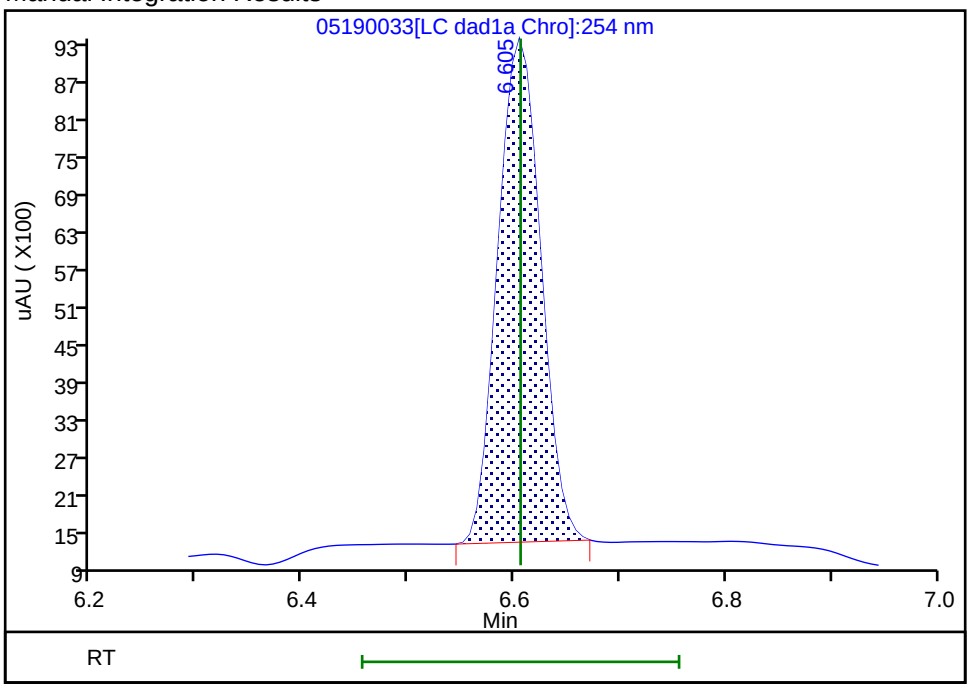
Processing Integration Results

RT: 6.60
Area: 27329
Amount: 0.326016
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 22586
Amount: 0.269435
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:30:09
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/35 Calibration Date: 05/20/2022 06:01

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 05190035.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	181207	184344		254	250	1.7	15.0
DNX	Ave	138113	141749		258	251	2.6	15.0
MNX	Ave	125995	131149		304	293	4.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575600/35 Calibration Date: 05/20/2022 06:01

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 05190035.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.49	6.39	6.59
DNX	6.80	6.70	6.90
MNX	7.22	7.07	7.37

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190035.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	20-May-2022 06:01:34	ALS Bottle#:	9	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0111180-035				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:39:56	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				
First Level Reviewer: zhangji		Date:	20-May-2022 12:30:34		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.487	6.486	0.001	46086	0.2500	0.2543	M
6 DNX	1	6.800	6.799	0.001	35579	0.2510	0.2576	M
7 MNX	1	7.220	7.219	0.001	38361	0.2925	0.3045	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00011 Amount Added: 12.50 Units: uL

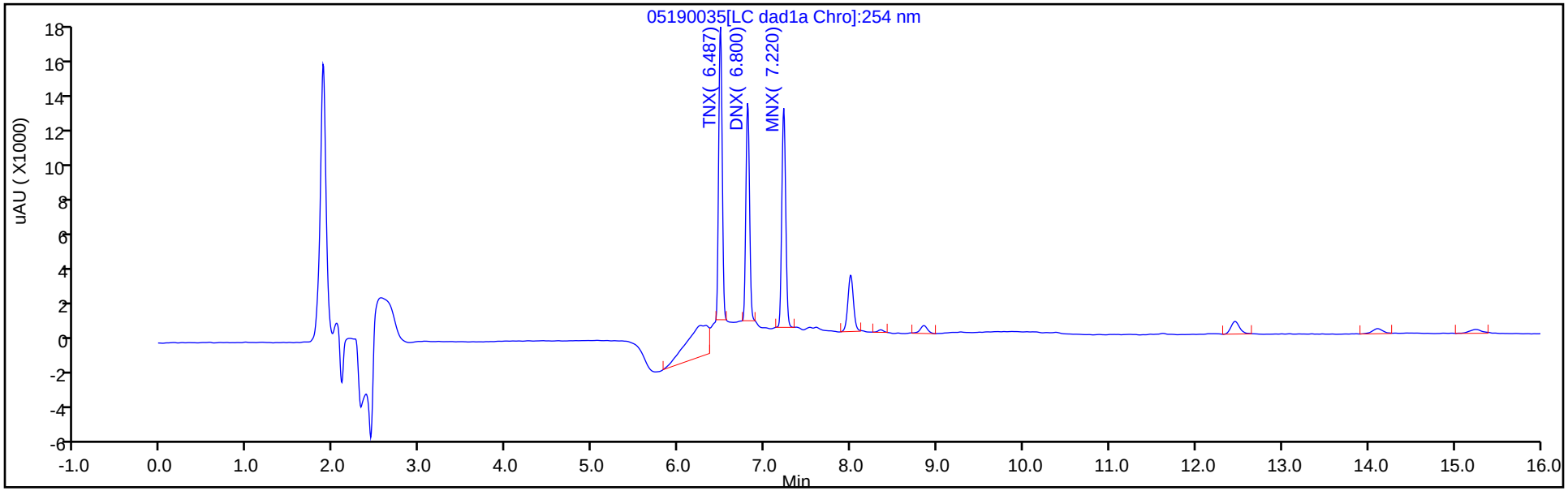
Report Date: 20-May-2022 13:39:56 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

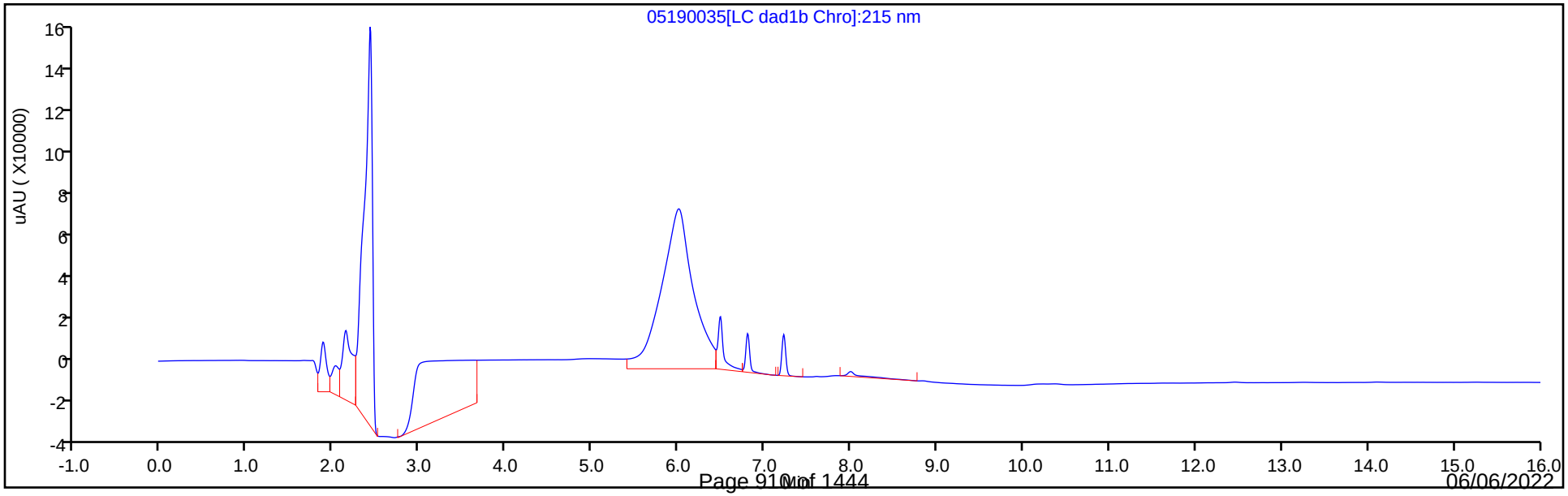
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190035.d

Injection Date:	20-May-2022 06:01:34	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	35
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Manual Integration/User Assign Peak Report

Eurofins Denver

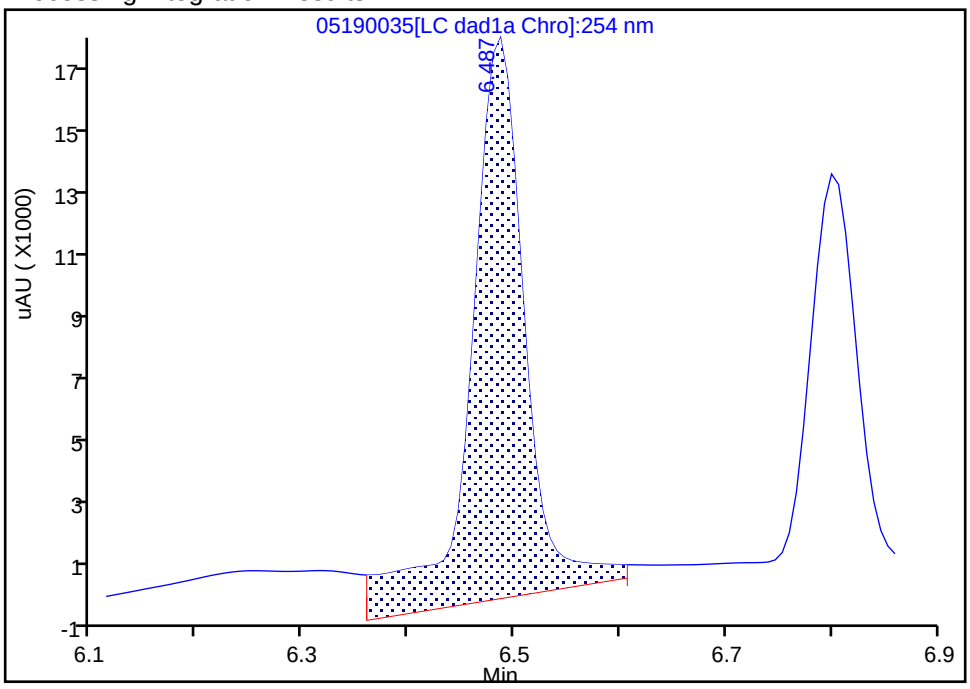
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190035.d				
Injection Date:	20-May-2022 06:01:34	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

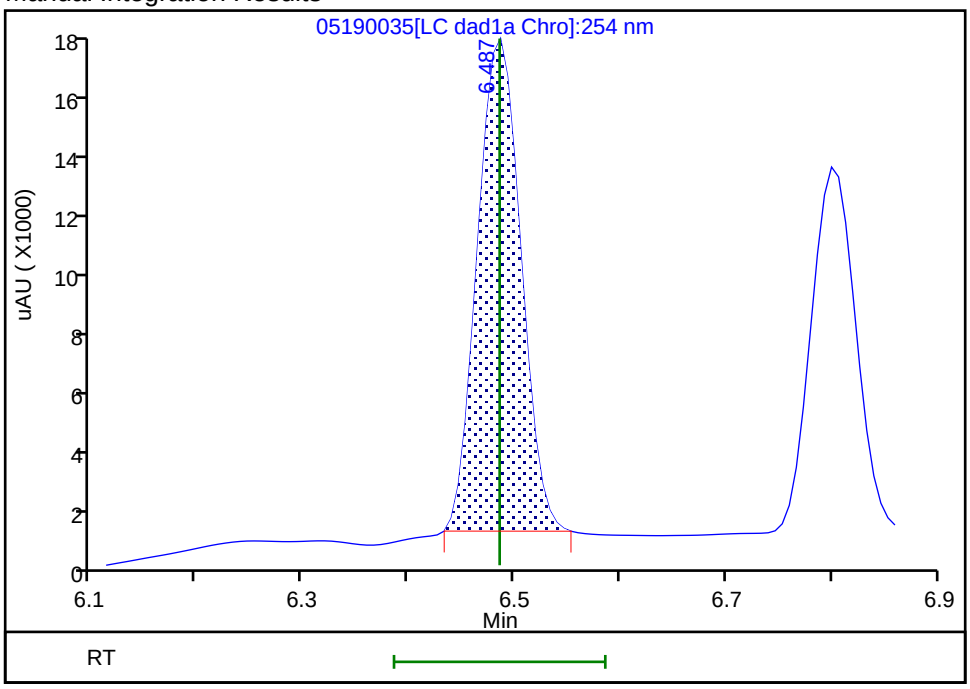
Processing Integration Results

RT: 6.49
Area: 62333
Amount: 0.343987
Amount Units: ug/mL



Manual Integration Results

RT: 6.49
Area: 46086
Amount: 0.254327
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:30:29

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

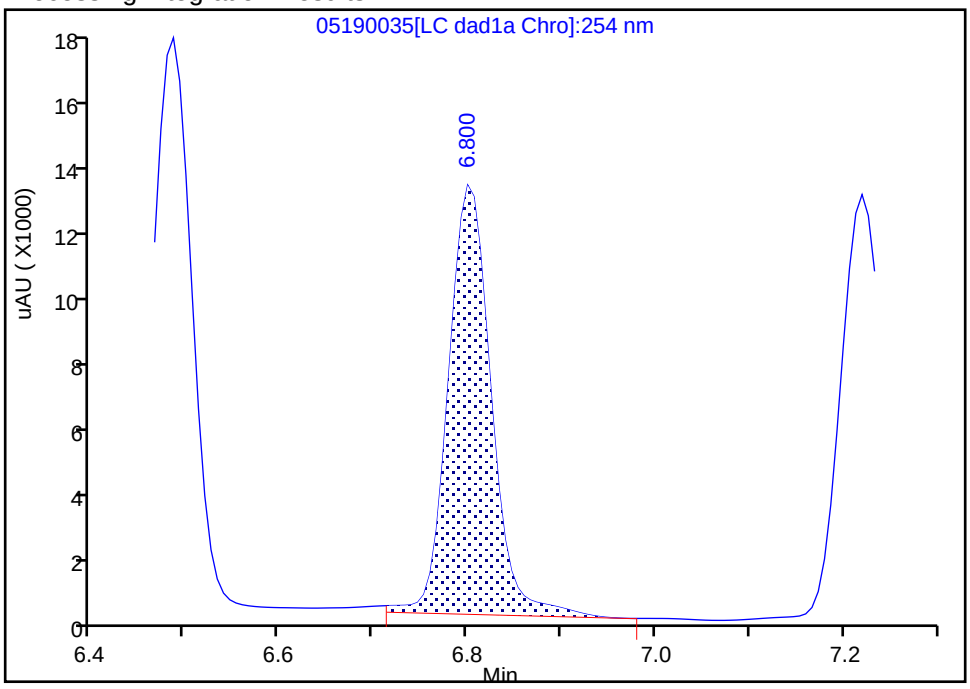
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190035.d				
Injection Date:	20-May-2022 06:01:34	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

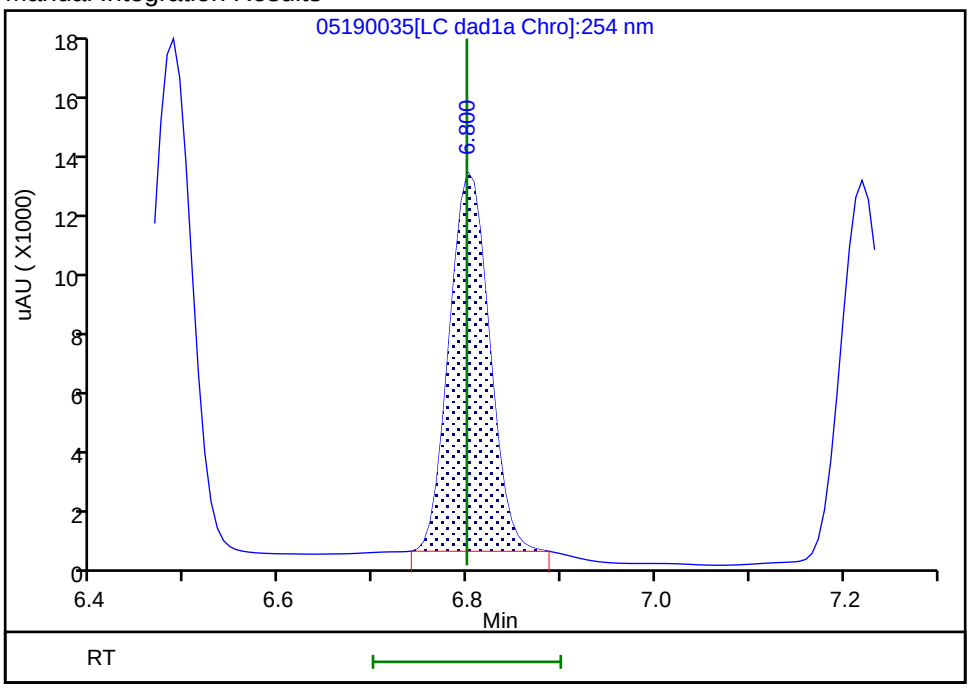
Processing Integration Results

RT: 6.80
Area: 38939
Amount: 0.281936
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 35579
Amount: 0.257608
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:30:32
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-567560/19 Calibration Date: 03/03/2022 02:38

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03020019.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	166135	152908		460	500	-8.0	15.0
Picric acid	Ave	132885	149388		562	500	12.4	15.0
RDX	Ave	194331	186788		481	500	-3.9	15.0
Nitrobenzene	Ave	368293	368460		500	500	0.0	15.0
1,3-Dinitrobenzene	Ave	571666	563218		493	500	-1.5	15.0
Nitroglycerin	Ave	122518	128779		5260	5000	5.1	15.0
2-Nitrotoluene	Ave	234672	232836		496	500	-0.8	15.0
4-Nitrotoluene	Ave	210817	216650		514	500	2.8	15.0
4-Amino-2,6-dinitrotoluene	Lin2		269688		505	500	1.0	15.0
3-Nitrotoluene	Lin2		254816		480	500	-4.1	15.0
2-Amino-4,6-dinitrotoluene	Ave	360536	361200		501	500	0.2	15.0
1,3,5-Trinitrobenzene	Ave	415464	433072		521	500	4.2	15.0
2,6-Dinitrotoluene	Ave	265662	266814		502	500	0.4	15.0
2,4-Dinitrotoluene	Lin2		522322		470	500	-5.9	15.0
Tetryl	Ave	342171	323254		472	500	-5.5	15.0
2,4,6-Trinitrotoluene	Ave	369179	384614		521	500	4.2	15.0
PETN	Ave	129329	137808		5330	5000	6.6	15.0
1,2-Dinitrobenzene	Ave	249753	254466		509	500	1.9	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-567560/19 Calibration Date: 03/03/2022 02:38

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03020019.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.87	6.74	7.04
Picric acid	7.62	7.45	7.75
RDX	9.08	8.97	9.27
Nitrobenzene	12.01	11.91	12.21
1,3-Dinitrobenzene	15.60	15.49	15.79
Nitroglycerin	16.04	15.91	16.21
2-Nitrotoluene	16.78	16.67	16.97
4-Nitrotoluene	17.08	16.98	17.28
4-Amino-2,6-dinitrotoluene	17.72	17.61	17.91
3-Nitrotoluene	18.06	17.95	18.25
2-Amino-4,6-dinitrotoluene	18.72	18.59	18.89
1,3,5-Trinitrobenzene	18.92	18.80	19.10
2,6-Dinitrotoluene	20.22	20.11	20.41
2,4-Dinitrotoluene	20.73	20.61	20.91
Tetryl	24.48	24.34	24.64
2,4,6-Trinitrotoluene	25.24	25.11	25.41
PETN	26.21	26.07	26.37
1,2-Dinitrobenzene	13.24	13.13	13.43

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020019.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 03-Mar-2022 02:38:50 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Misc. Info.: 280-0108949-019
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:52:22 Calib Date: 03-Mar-2022 02:03:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: zhangji Date: 03-Mar-2022 12:42:44
Second Level Reviewer: zhangji Date: 03-Mar-2022 12:52:22

	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	4.143	4.142	0.001	223893	0.5000	0.5509	
2	2,4-diamino-6-nitrotoluene	1	4.749	4.669	0.080	110582	0.5000	0.4814	M
5	HMX	1	6.869	6.889	-0.020	76454	0.5000	0.4602	
7	2,4,6-Trinitrophenol	1	7.623	7.602	0.021	74694	0.5000	0.5621	
8	RDX	1	9.076	9.115	-0.039	93394	0.5000	0.4806	
9	Nitrobenzene	1	12.009	12.062	-0.053	184230	0.5000	0.5002	
$ 10	1,2-Dinitrobenzene	1	13.236	13.282	-0.046	127233	0.5000	0.5094	
11	3,5-Dinitroaniline	1	15.229	15.269	-0.040	225413	0.5000	0.5479	
12	1,3-Dinitrobenzene	1	15.596	15.635	-0.039	281609	0.5000	0.4926	
13	Nitroglycerin	2	16.036	16.055	-0.019	643894	5.00	5.26	
14	o-Nitrotoluene	1	16.776	16.822	-0.046	116418	0.5000	0.4961	
16	p-Nitrotoluene	1	17.083	17.129	-0.046	108325	0.5000	0.5138	
17	4-Amino-2,6-dinitrotoluene	1	17.716	17.755	-0.039	134844	0.5000	0.5048	
18	m-Nitrotoluene	1	18.056	18.102	-0.046	127408	0.5000	0.4797	
19	2-Amino-4,6-dinitrotoluene	1	18.716	18.742	-0.026	180600	0.5000	0.5009	
20	1,3,5-Trinitrobenzene	1	18.916	18.949	-0.033	216536	0.5000	0.5212	
21	2,6-Dinitrotoluene	1	20.223	20.255	-0.032	133407	0.5000	0.5022	
22	2,4-Dinitrotoluene	1	20.729	20.762	-0.033	261161	0.5000	0.4704	
23	Tetryl	1	24.476	24.489	-0.013	161627	0.5000	0.4724	
24	2,4,6-Trinitrotoluene	1	25.243	25.262	-0.019	192307	0.5000	0.5209	
25	PETN	2	26.209	26.215	-0.006	689039	5.00	5.33	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 LCS_00111	Amount Added:	50.00	Units: uL
8330Surrogate_00127	Amount Added:	50.00	Units: uL
3,5-DNA LCS_00040	Amount Added:	50.00	Units: uL
8330DiaminLCS_00047	Amount Added:	50.00	Units: uL

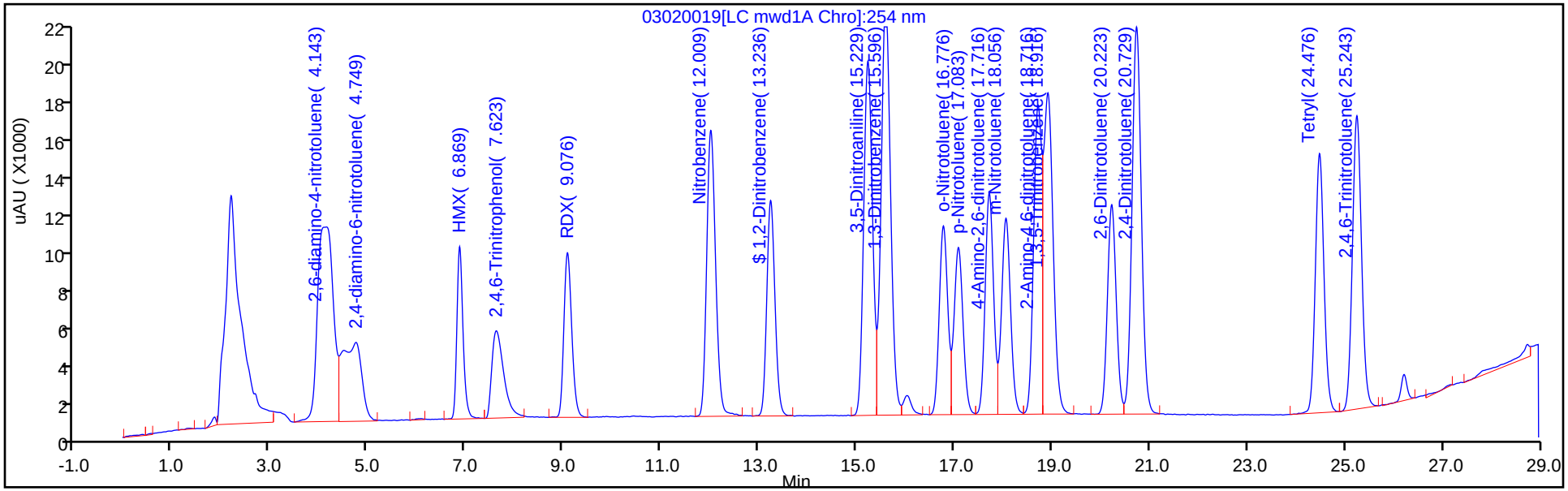
Report Date: 03-Mar-2022 12:52:29 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

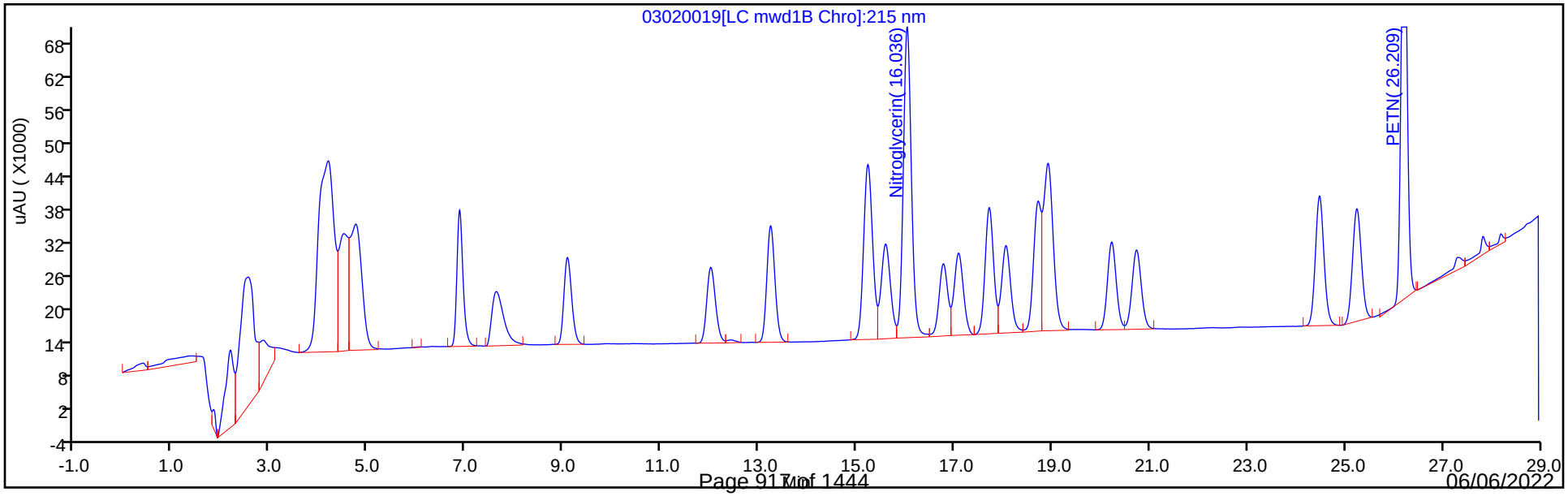
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020019.D

Injection Date:	03-Mar-2022 02:38:50	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	ICV INT			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-567560/28 Calibration Date: 03/03/2022 07:54

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03020028.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	354070	354839		502	501	0.2	15.0
DNX	Ave	278639	276448		497	501	-0.8	15.0
MNX	Ave	250081	253925		592	584	1.5	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: ICV 280-567560/28 Calibration Date: 03/03/2022 07:54

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03020028.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.16	5.02	5.32
DNX	6.02	5.88	6.18
MNX	7.61	7.48	7.78

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020028.D				
Lims ID:	ICV DMT				
Client ID:					
Sample Type:	ICV				
Inject. Date:	03-Mar-2022 07:54:47	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICV DMT				
Misc. Info.:	280-0108949-028				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:					
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 13:02:36	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.157	5.171	-0.014	177597	0.5005	0.5016	
4 DNX	1	6.017	6.031	-0.014	138362	0.5005	0.4966	
6 MNX	1	7.610	7.625	-0.015	148165	0.5835	0.5925	

Reagents:

8330_OP_DMT_00012 Amount Added: 50.00 Units: uL

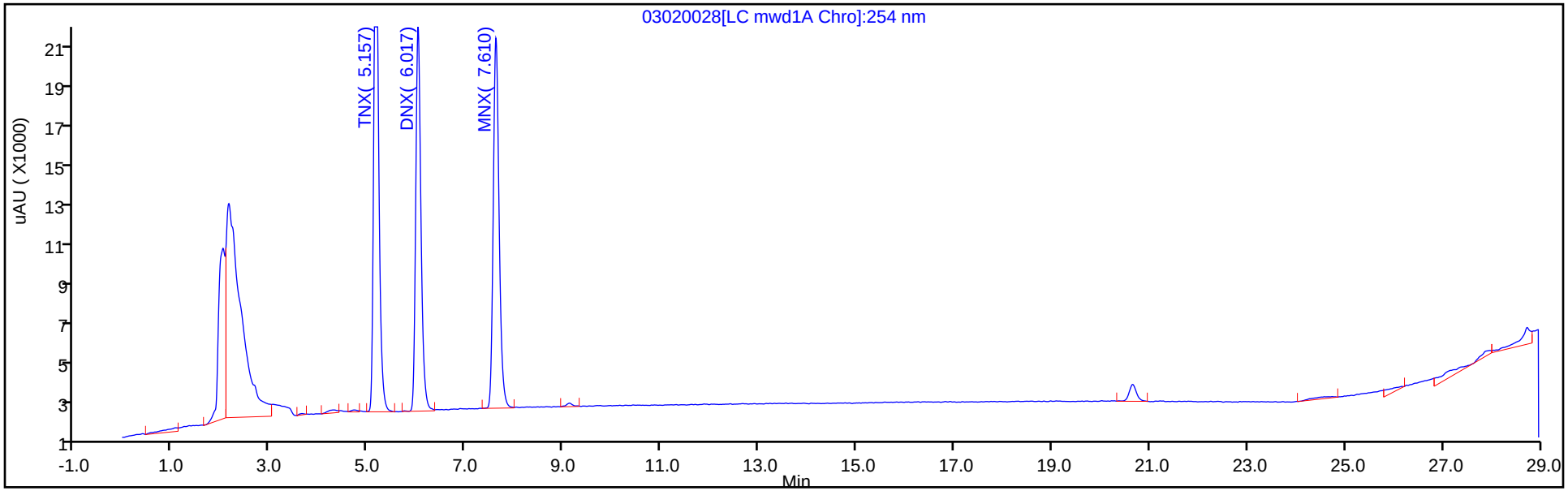
Report Date: 03-Mar-2022 13:02:44 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

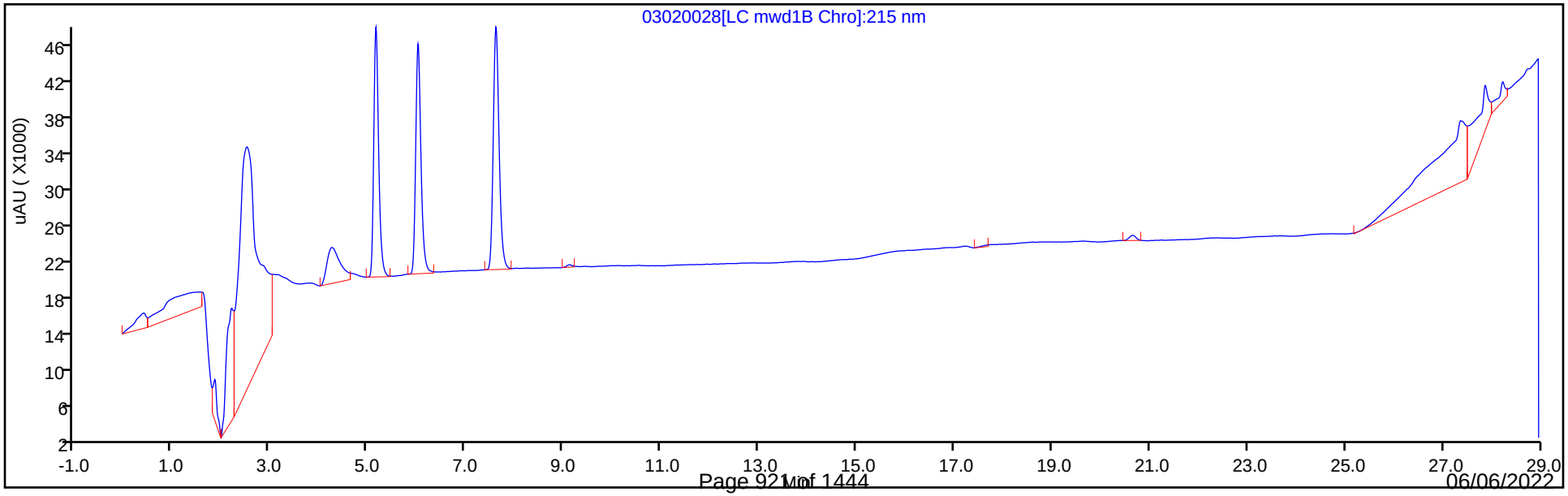
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020028.D

Injection Date:	03-Mar-2022 07:54:47	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	ICV DMT			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575712/7 | Calibration Date: 05/20/2022 16:51

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/03/2022 02:03

Lab File ID: 05200007.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	166135	177804		268	250	7.0	15.0
Picric acid	Ave	132885	152760		287	250	15.0	15.0
RDX	Ave	194331	197036		253	250	1.4	15.0
Nitrobenzene	Ave	368293	386544		262	250	5.0	15.0
1,3-Dinitrobenzene	Ave	571666	577808		253	250	1.1	15.0
Nitroglycerin	Ave	122518	126110		2570	2500	2.9	15.0
2-Nitrotoluene	Ave	234672	234720		250	250	0.0	15.0
4-Nitrotoluene	Ave	210817	211292		251	250	0.2	15.0
4-Amino-2,6-dinitrotoluene	Lin2		265356		248	250	-0.6	15.0
3-Nitrotoluene	Lin2		268120		253	250	1.1	15.0
2-Amino-4,6-dinitrotoluene	Ave	360536	363124		252	250	0.7	15.0
1,3,5-Trinitrobenzene	Ave	415464	424084		255	250	2.1	15.0
2,6-Dinitrotoluene	Ave	265662	271164		255	250	2.1	15.0
2,4-Dinitrotoluene	Lin2		543760		239	250	-4.3	15.0
Tetryl	Ave	342171	338792		248	250	-1.0	15.0
2,4,6-Trinitrotoluene	Ave	369179	417012		282	250	13.0	15.0
PETN	Ave	129329	135527		2620	2500	4.8	15.0
1,2-Dinitrobenzene	Ave	249753	255052		255	250	2.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575712/7 Calibration Date: 05/20/2022 16:51

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 05200007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.81	6.66	6.96
Picric acid	8.12	7.97	8.27
RDX	8.99	8.84	9.14
Nitrobenzene	11.96	11.81	12.11
1,3-Dinitrobenzene	15.51	15.36	15.66
Nitroglycerin	15.94	15.79	16.09
2-Nitrotoluene	16.74	16.59	16.89
4-Nitrotoluene	17.05	16.90	17.20
4-Amino-2,6-dinitrotoluene	17.65	17.50	17.80
3-Nitrotoluene	18.03	17.88	18.18
2-Amino-4,6-dinitrotoluene	18.67	18.52	18.82
1,3,5-Trinitrobenzene	18.81	18.66	18.96
2,6-Dinitrotoluene	20.17	20.02	20.32
2,4-Dinitrotoluene	20.68	20.53	20.83
Tetryl	24.43	24.28	24.58
2,4,6-Trinitrotoluene	25.19	25.04	25.34
PETN	26.17	26.02	26.32
1,2-Dinitrobenzene	13.18	13.03	13.33

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200007.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2022 16:51:58 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0111212-007
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-May-2022 12:33:09 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1646

First Level Reviewer: zhangji Date: 20-May-2022 17:46:05

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1	4.181	4.181	0.000	38634	0.2500	0.0951	
	2 2,4-diamino-6-nitrotoluene	1	4.788	4.788	0.000	8830	0.2500	0.0317	
	5 HMX	1	6.808	6.808	0.000	44451	0.2500	0.2676	
	7 2,4,6-Trinitrophenol	1	8.121	8.121	0.000	38190	0.2500	0.2874	
	8 RDX	1	8.988	8.988	0.000	49259	0.2500	0.2535	
	9 Nitrobenzene	1	11.961	11.961	0.000	96636	0.2500	0.2624	
$	10 1,2-Dinitrobenzene	1	13.181	13.181	0.000	63763	0.2500	0.2553	
	11 3,5-Dinitroaniline	1	15.141	15.141	0.000	102221	0.2500	0.2483	
	12 1,3-Dinitrobenzene	1	15.507	15.507	0.000	144452	0.2500	0.2527	
	13 Nitroglycerin	2	15.941	15.941	0.000	315276	2.50	2.57	
	14 o-Nitrotoluene	1	16.741	16.741	0.000	58680	0.2500	0.2501	
	16 p-Nitrotoluene	1	17.047	17.047	0.000	52823	0.2500	0.2506	
	17 4-Amino-2,6-dinitrotoluene	1	17.654	17.654	0.000	66339	0.2500	0.2485	
	18 m-Nitrotoluene	1	18.027	18.027	0.000	67030	0.2500	0.2527	
	19 2-Amino-4,6-dinitrotoluene	1	18.667	18.667	0.000	90781	0.2500	0.2518	
	20 1,3,5-Trinitrobenzene	1	18.807	18.807	0.000	106021	0.2500	0.2552	
	21 2,6-Dinitrotoluene	1	20.174	20.174	0.000	67791	0.2500	0.2552	
	22 2,4-Dinitrotoluene	1	20.681	20.681	0.000	135940	0.2500	0.2392	
	23 Tetryl	1	24.428	24.428	0.000	84698	0.2500	0.2475	M
	24 2,4,6-Trinitrotoluene	1	25.188	25.188	0.000	104253	0.2500	0.2824	M
	25 PETN	2	26.168	26.168	0.000	338818	2.50	2.62	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00072	Amount Added:	25.00	Units: uL
8330_ADDs_00031	Amount Added:	12.50	Units: uL

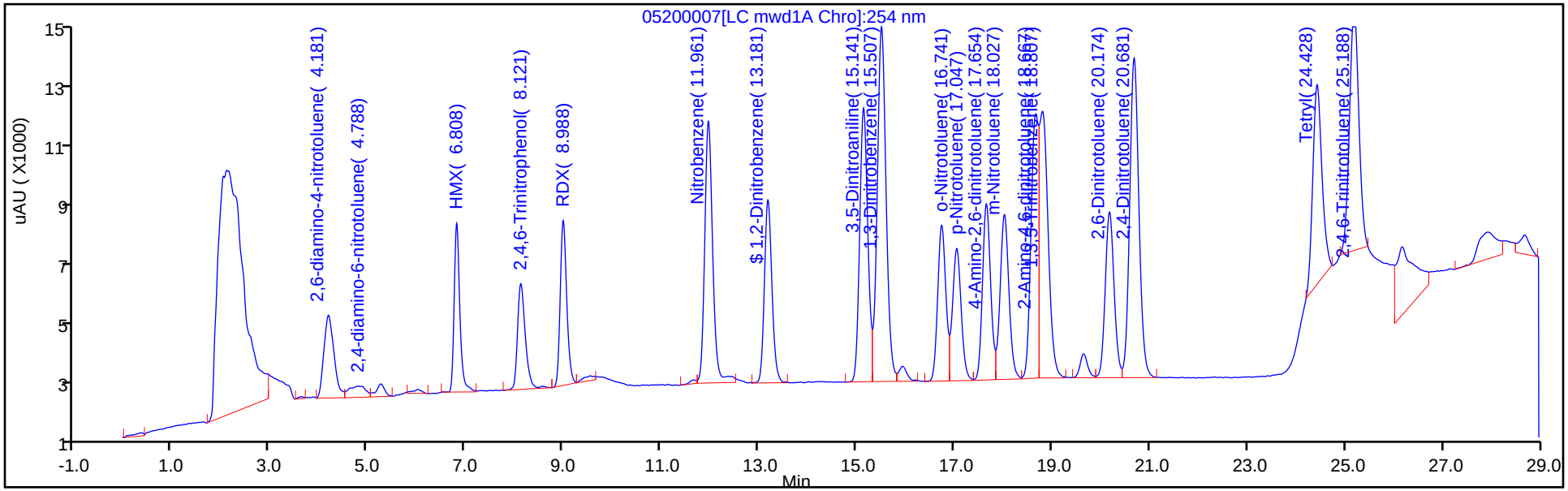
Report Date: 21-May-2022 12:33:09 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

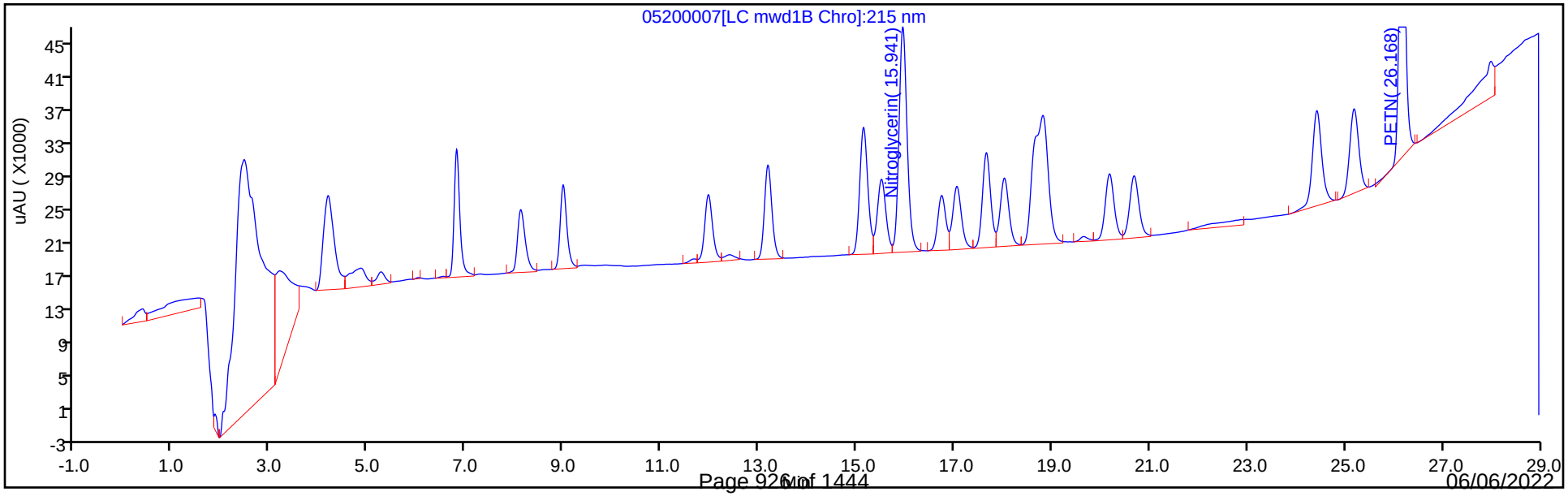
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200007.D

Injection Date:	20-May-2022 16:51:58	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

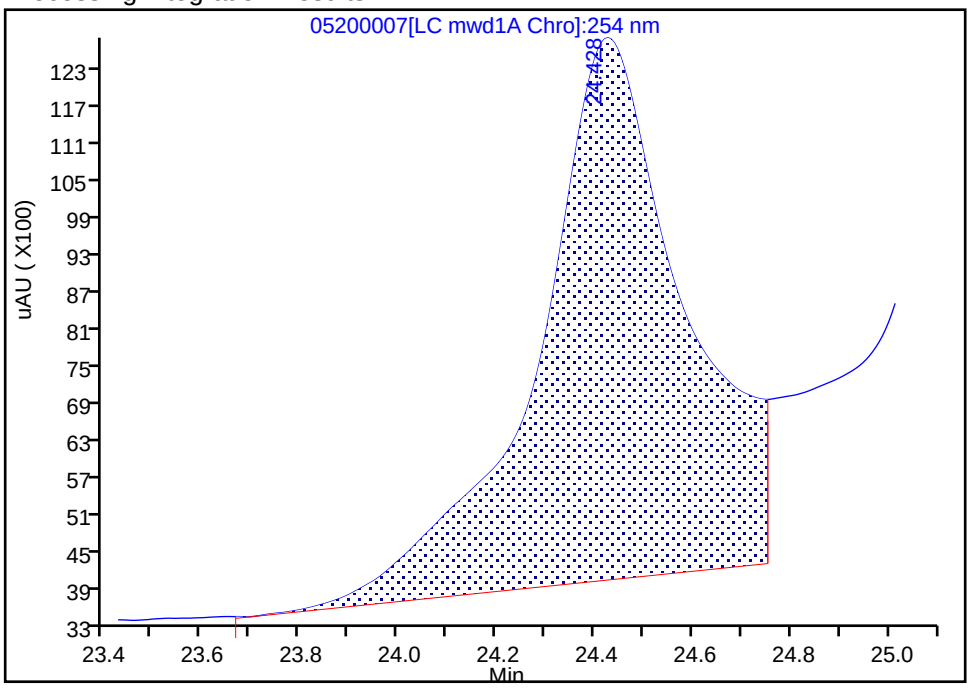
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200007.D				
Injection Date:	20-May-2022 16:51:58	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

23 Tetryl, CAS: 479-45-8

Signal: 1

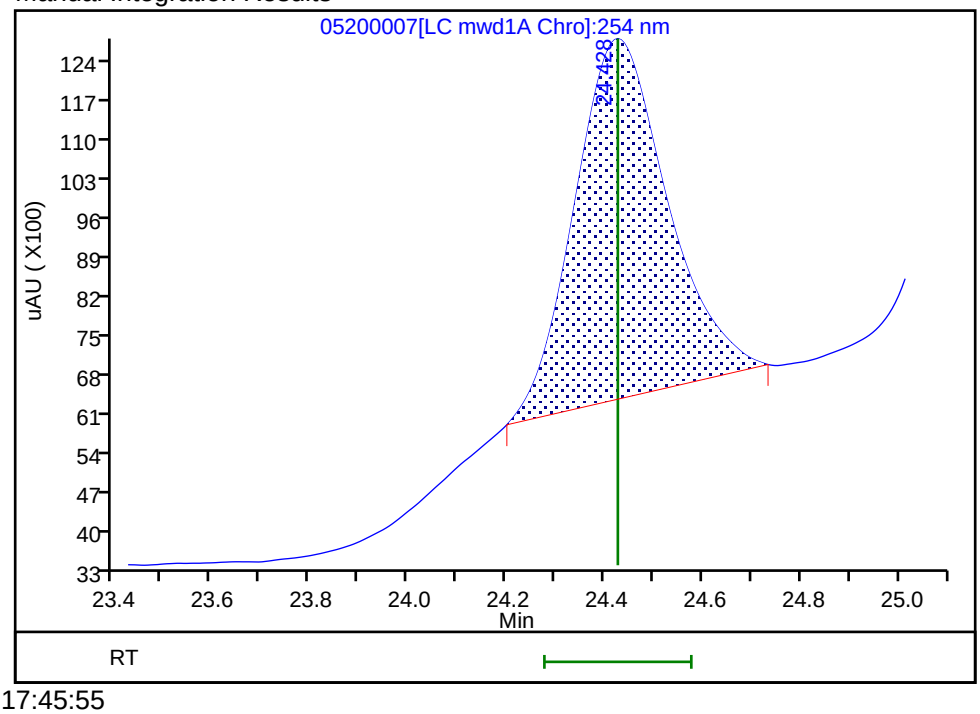
Processing Integration Results

RT: 24.43
Area: 182892
Amount: 0.534505
Amount Units: ug/ml



Manual Integration Results

RT: 24.43
Area: 84698
Amount: 0.247532
Amount Units: ug/ml



Reviewer: zhangji, 20-May-2022 17:45:55

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

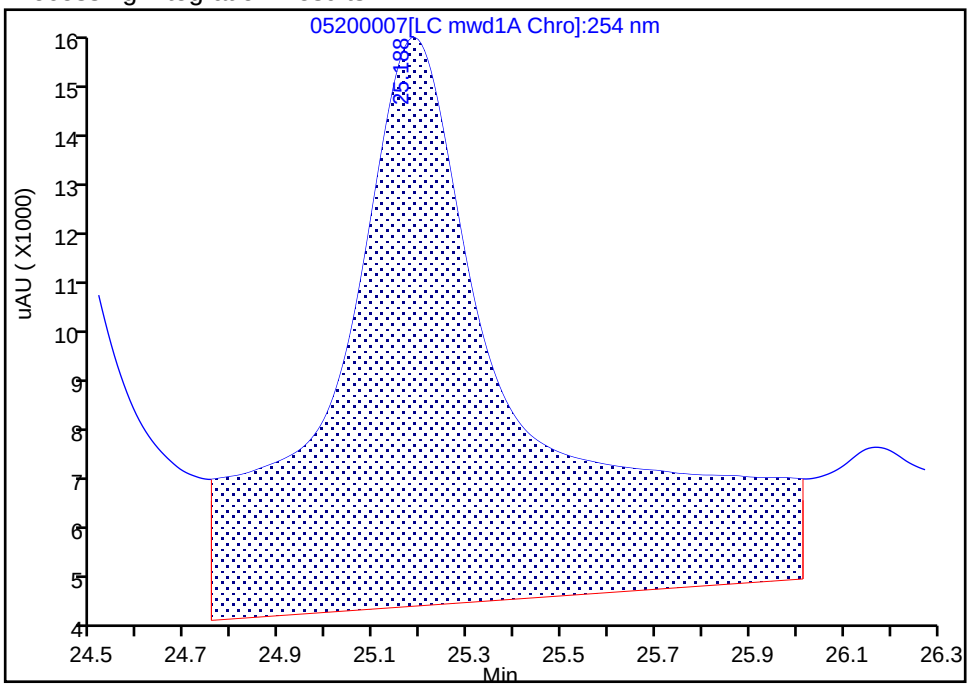
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200007.D				
Injection Date:	20-May-2022 16:51:58	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

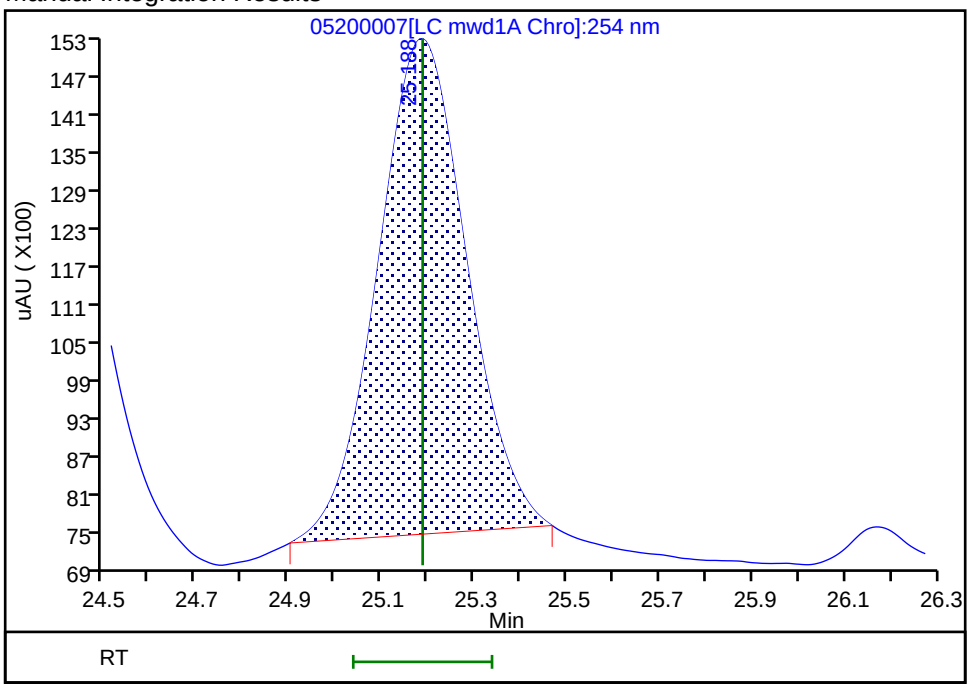
Processing Integration Results

RT: 25.19
Area: 298683
Amount: 0.809046
Amount Units: ug/ml



Manual Integration Results

RT: 25.19
Area: 104253
Amount: 0.282391
Amount Units: ug/ml



Reviewer: zhangji, 20-May-2022 17:45:59

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575712/8 Calibration Date: 05/20/2022 17:26

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 05200008.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	354070	366236		259	250	3.4	15.0
DNX	Ave	278639	274745		247	251	-1.4	15.0
MNX	Ave	250081	250954		294	293	0.3	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575712/8 Calibration Date: 05/20/2022 17:26

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 05200008.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.10	4.95	5.25
DNX	5.94	5.79	6.09
MNX	7.51	7.36	7.66

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200008.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2022 17:26:56 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Misc. Info.: 280-0111212-008
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub2

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-May-2022 12:33:09 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1646

First Level Reviewer: zhangji Date: 20-May-2022 18:00:58

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.103	5.103	0.000	91559	0.2500	0.2586	
4 DNX	1	5.943	5.943	0.000	68961	0.2510	0.2475	
6 MNX	1	7.509	7.509	0.000	73404	0.2925	0.2935	

Reagents:

8330 DMT_00011 Amount Added: 12.50 Units: uL

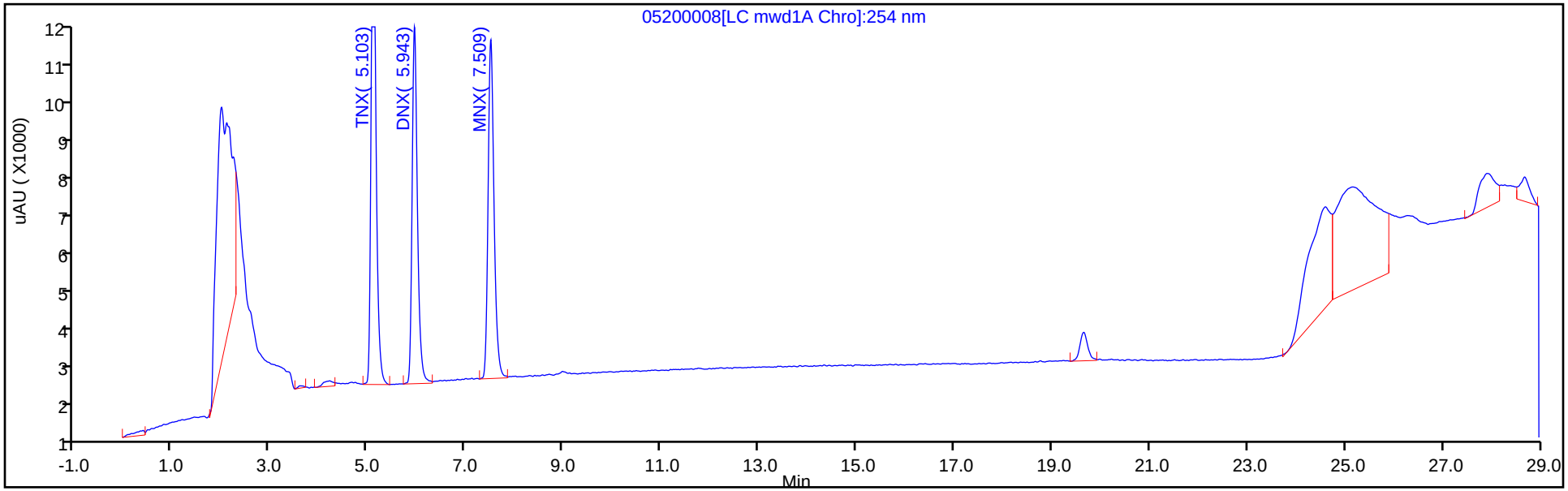
Report Date: 21-May-2022 12:33:09 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

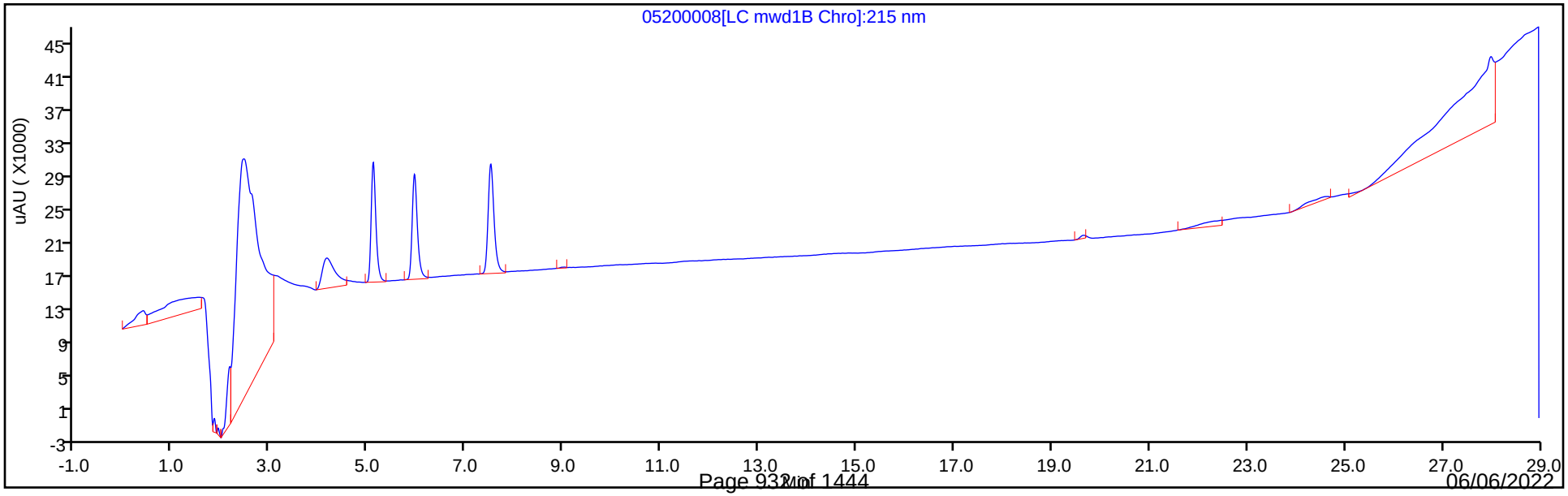
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200008.D

Injection Date:	20-May-2022 17:26:56	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575712/20 | Calibration Date: 05/20/2022 23:52

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/03/2022 02:03

Lab File ID: 05200020.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	166135	178980		269	250	7.7	15.0
Picric acid	Ave	132885	154412		290	250	16.2*	15.0
RDX	Ave	194331	199340		256	250	2.6	15.0
Nitrobenzene	Ave	368293	379000		257	250	2.9	15.0
1,3-Dinitrobenzene	Ave	571666	575388		252	250	0.7	15.0
Nitroglycerin	Ave	122518	125689		2560	2500	2.6	15.0
2-Nitrotoluene	Ave	234672	232012		247	250	-1.1	15.0
4-Nitrotoluene	Ave	210817	211068		250	250	0.1	15.0
4-Amino-2,6-dinitrotoluene	Lin2		269368		252	250	0.9	15.0
3-Nitrotoluene	Lin2		267416		252	250	0.8	15.0
2-Amino-4,6-dinitrotoluene	Ave	360536	366816		254	250	1.7	15.0
1,3,5-Trinitrobenzene	Ave	415464	433700		261	250	4.4	15.0
2,6-Dinitrotoluene	Ave	265662	274868		259	250	3.5	15.0
2,4-Dinitrotoluene	Lin2		549876		242	250	-3.2	15.0
Tetryl	Ave	342171	334480		244	250	-2.2	15.0
2,4,6-Trinitrotoluene	Ave	369179	393100		266	250	6.5	15.0
PETN	Ave	129329	136531		2640	2500	5.6	15.0
1,2-Dinitrobenzene	Ave	249753	254840		255	250	2.0	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575712/20 Calibration Date: 05/20/2022 23:52

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 05200020.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.80	6.66	6.96
Picric acid	8.00	7.97	8.27
RDX	8.96	8.84	9.14
Nitrobenzene	11.93	11.81	12.11
1,3-Dinitrobenzene	15.47	15.36	15.66
Nitroglycerin	15.91	15.79	16.09
2-Nitrotoluene	16.70	16.59	16.89
4-Nitrotoluene	17.01	16.90	17.20
4-Amino-2,6-dinitrotoluene	17.60	17.50	17.80
3-Nitrotoluene	17.98	17.88	18.18
2-Amino-4,6-dinitrotoluene	18.60	18.52	18.82
1,3,5-Trinitrobenzene	18.76	18.66	18.96
2,6-Dinitrotoluene	20.11	20.02	20.32
2,4-Dinitrotoluene	20.61	20.53	20.83
Tetryl	24.32	24.28	24.58
2,4,6-Trinitrotoluene	25.08	25.04	25.34
PETN	26.09	26.02	26.32
1,2-Dinitrobenzene	13.14	13.03	13.33

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200020.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2022 23:52:34 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0111212-020
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-May-2022 12:33:14 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1646

First Level Reviewer: zhangji Date: 21-May-2022 11:27:29

	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	4.177	4.181	-0.004	39965	0.2500	0.0983	
	2 2,4-diamino-6-nitrotoluene	1	4.750	4.788	-0.038	3434	0.2500	0.007812	
	5 HMX	1	6.797	6.808	-0.011	44745	0.2500	0.2693	
	7 2,4,6-Trinitrophenol	1	8.003	8.121	-0.118	38603	0.2500	0.2905	
	8 RDX	1	8.963	8.988	-0.025	49835	0.2500	0.2564	
	9 Nitrobenzene	1	11.930	11.961	-0.031	94750	0.2500	0.2573	
$	10 1,2-Dinitrobenzene	1	13.143	13.181	-0.038	63710	0.2500	0.2551	
	11 3,5-Dinitroaniline	1	15.097	15.141	-0.044	103111	0.2500	0.2505	
	12 1,3-Dinitrobenzene	1	15.470	15.507	-0.037	143847	0.2500	0.2516	
	13 Nitroglycerin	2	15.910	15.941	-0.031	314223	2.50	2.56	
	14 o-Nitrotoluene	1	16.703	16.741	-0.038	58003	0.2500	0.2472	
	16 p-Nitrotoluene	1	17.010	17.047	-0.037	52767	0.2500	0.2503	
	17 4-Amino-2,6-dinitrotoluene	1	17.603	17.654	-0.051	67342	0.2500	0.2522	
	18 m-Nitrotoluene	1	17.983	18.027	-0.044	66854	0.2500	0.2520	
	19 2-Amino-4,6-dinitrotoluene	1	18.597	18.667	-0.070	91704	0.2500	0.2544	
	20 1,3,5-Trinitrobenzene	1	18.763	18.807	-0.044	108425	0.2500	0.2610	
	21 2,6-Dinitrotoluene	1	20.110	20.174	-0.064	68717	0.2500	0.2587	
	22 2,4-Dinitrotoluene	1	20.610	20.681	-0.071	137469	0.2500	0.2420	
	23 Tetryl	1	24.317	24.428	-0.111	83620	0.2500	0.2444	M
	24 2,4,6-Trinitrotoluene	1	25.083	25.188	-0.105	98275	0.2500	0.2662	M
	25 PETN	2	26.090	26.168	-0.078	341328	2.50	2.64	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00072	Amount Added:	25.00	Units: uL
8330_ADDs_00031	Amount Added:	12.50	Units: uL

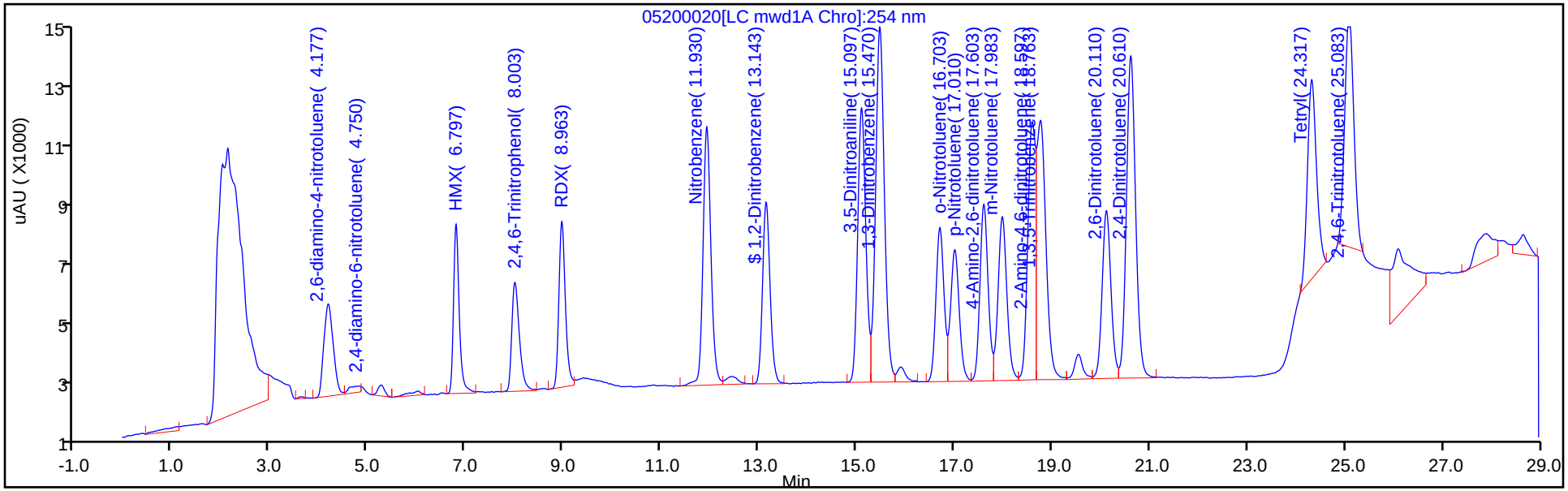
Report Date: 21-May-2022 12:33:15 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

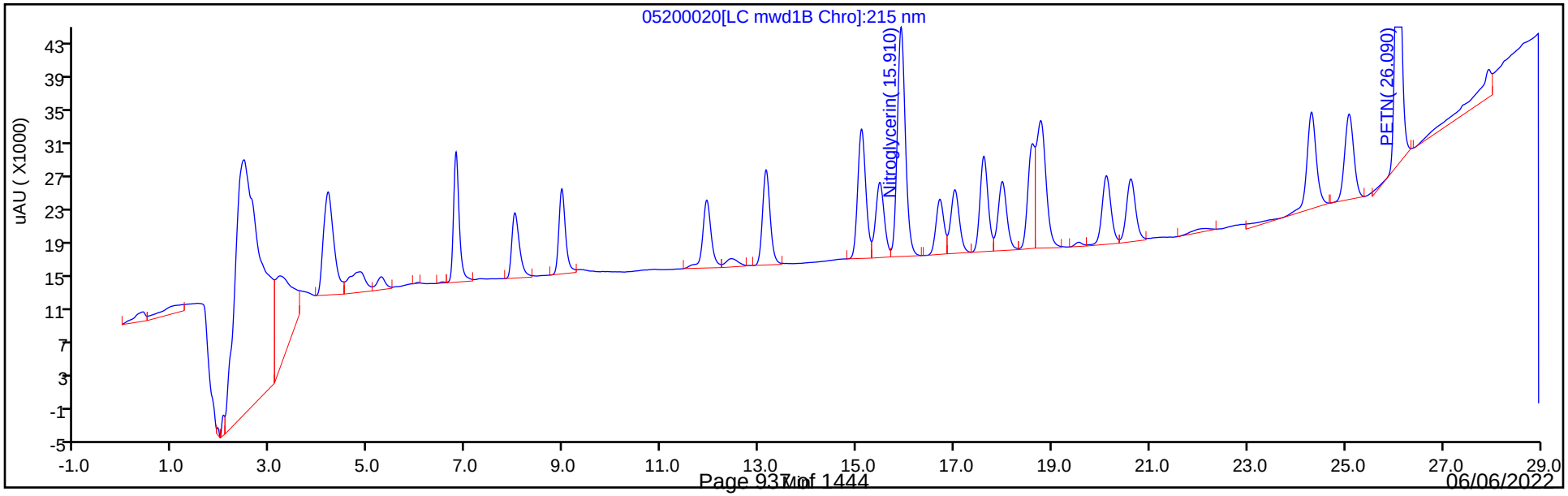
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200020.D

Injection Date:	20-May-2022 23:52:34	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

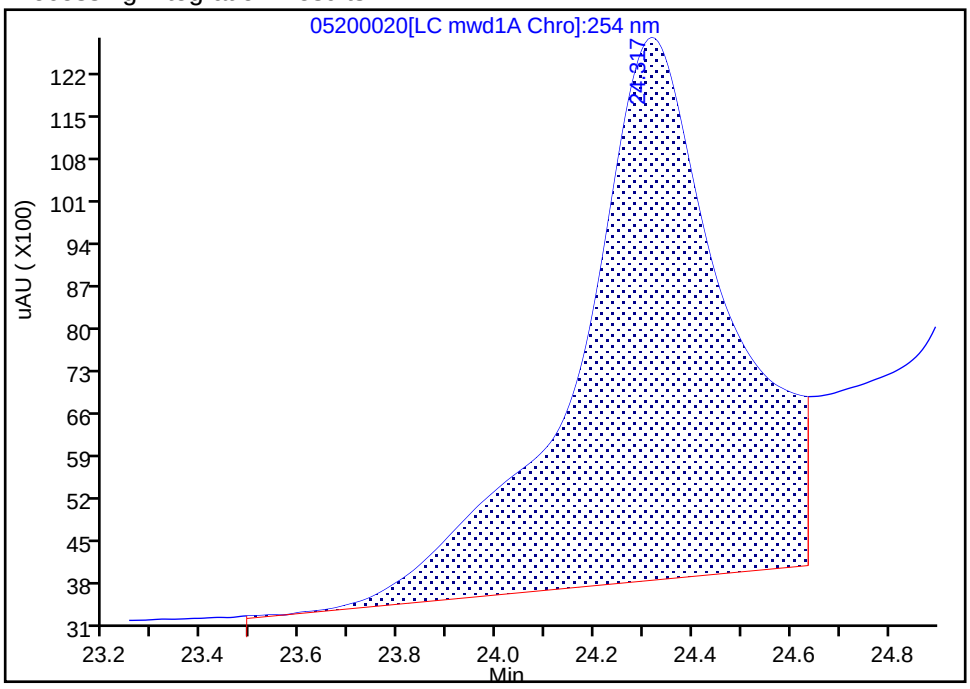
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200020.D				
Injection Date:	20-May-2022 23:52:34	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

23 Tetryl, CAS: 479-45-8

Signal: 1

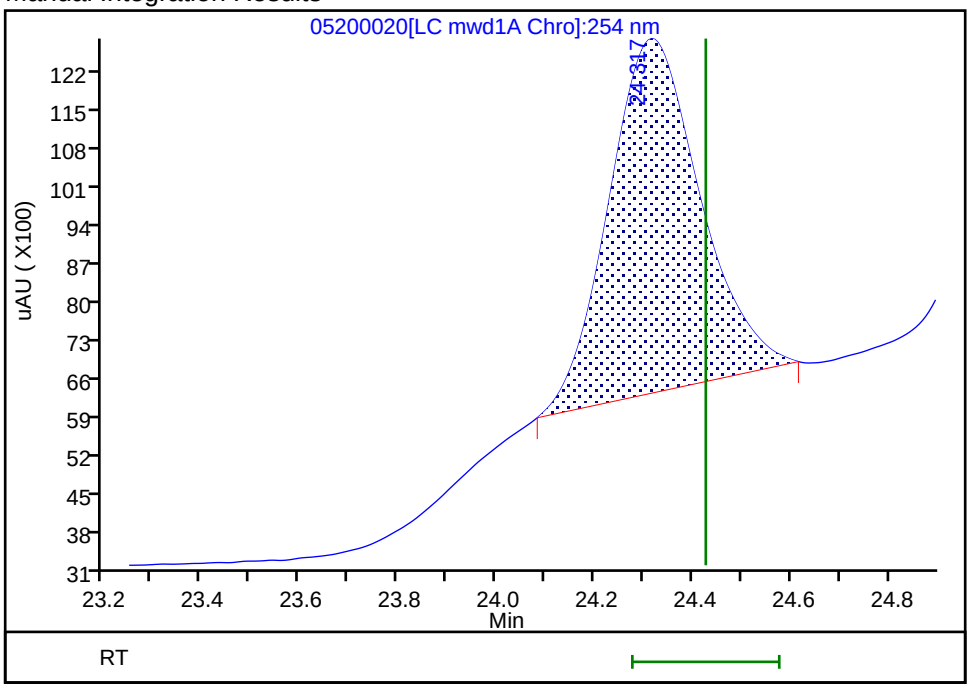
Processing Integration Results

RT: 24.32
Area: 190921
Amount: 0.557970
Amount Units: ug/ml



Manual Integration Results

RT: 24.32
Area: 83620
Amount: 0.244381
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:30:02
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

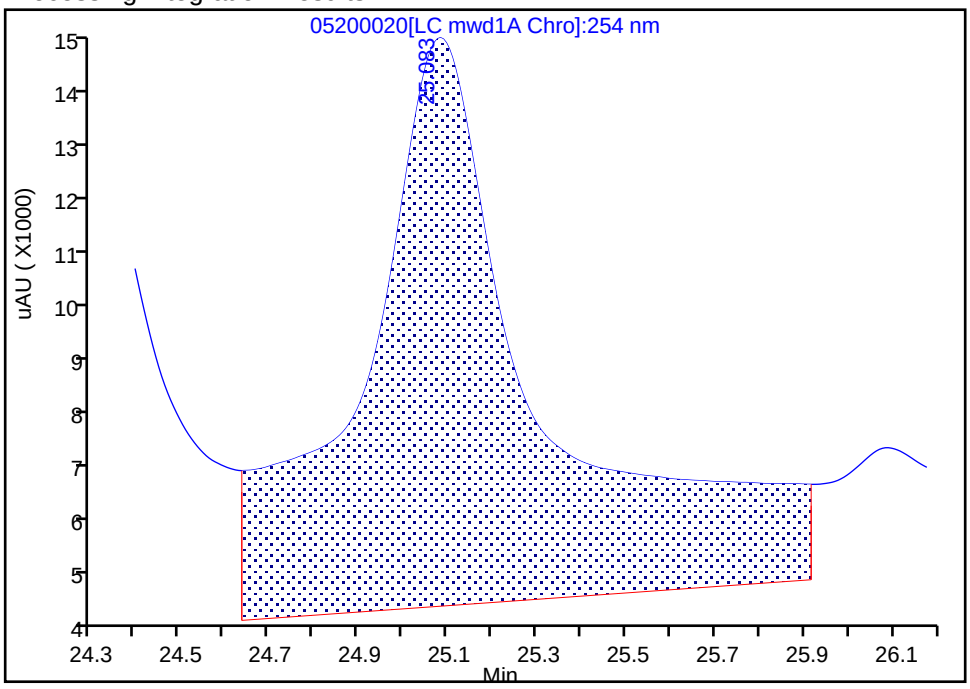
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200020.D				
Injection Date:	20-May-2022 23:52:34	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

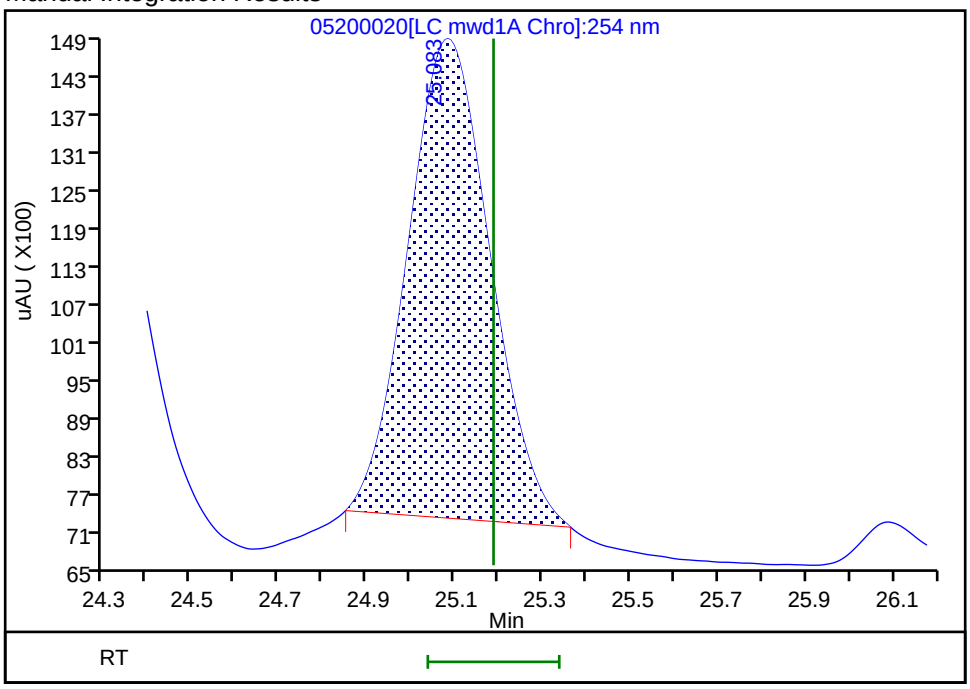
Processing Integration Results

RT: 25.08
Area: 296315
Amount: 0.802632
Amount Units: ug/ml



Manual Integration Results

RT: 25.08
Area: 98275
Amount: 0.266199
Amount Units: ug/ml



Reviewer: zhangji, 21-May-2022 12:30:05

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575712/21 Calibration Date: 05/21/2022 00:27

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 05200021.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	354070	359084		254	250	1.4	15.0
DNX	Ave	278639	271323		244	251	-2.6	15.0
MNX	Ave	250081	251453		294	293	0.5	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Lab Sample ID: CCV 280-575712/21 Calibration Date: 05/21/2022 00:27

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 05200021.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.08	4.95	5.25
DNX	5.93	5.79	6.09
MNX	7.49	7.36	7.66

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200021.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-May-2022 00:27:38	ALS Bottle#:	8	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0111212-021				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-May-2022 12:33:15	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1646				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.084	5.103	-0.019	89771	0.2500	0.2535	
4 DNX	1	5.931	5.943	-0.012	68102	0.2510	0.2444	
6 MNX	1	7.491	7.509	-0.018	73550	0.2925	0.2941	

Reagents:

8330 DMT_00011 Amount Added: 12.50 Units: uL

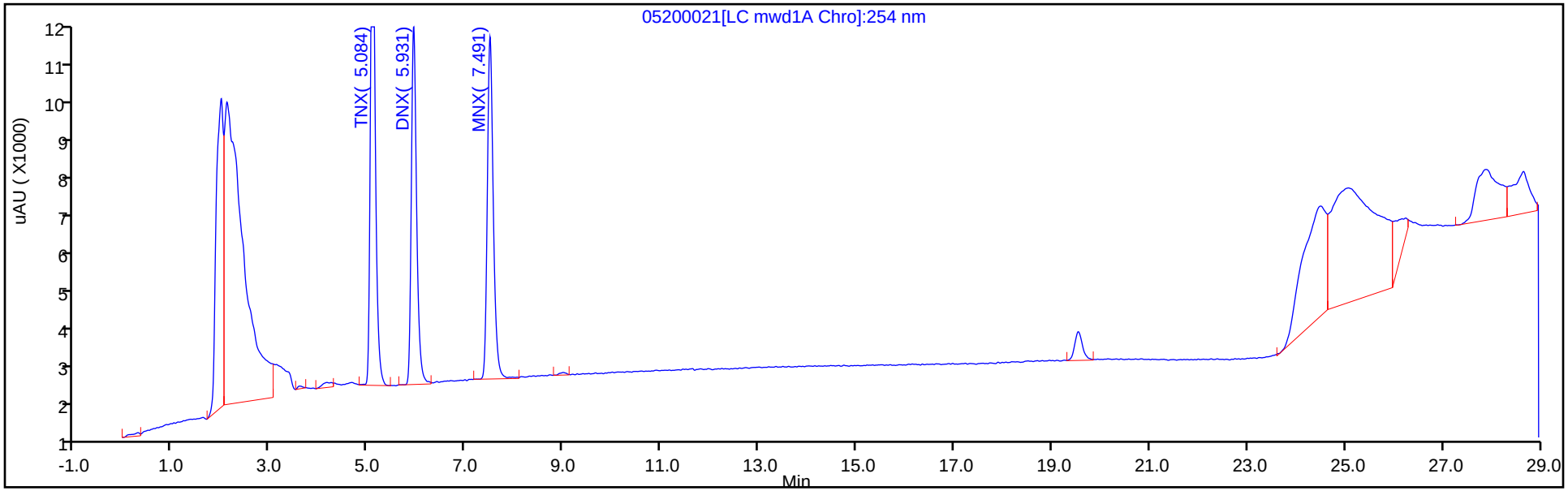
Report Date: 21-May-2022 12:33:15 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

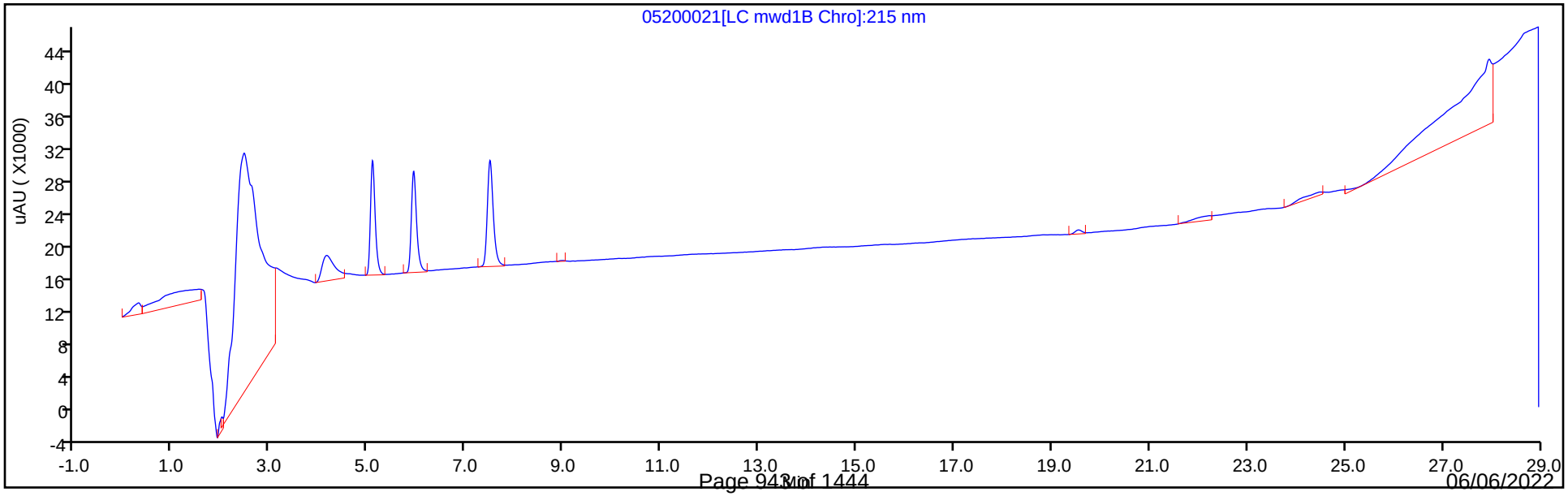
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220520-111212.b\05200021.D

Injection Date:	21-May-2022 00:27:38	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-575516/1-A

Matrix: Water | Lab File ID: 05190011.D

Analysis Method: 8330A | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 500(mL) | Date Analyzed: 05/19/2022 20:51

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U M	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.40	U	0.40	0.40	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.20	U	0.21	0.20	0.088
5755-27-1	MNX	0.40	U	2.0	0.40	0.15
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
121-82-4	RDX	0.20	U M	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	106	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190011.D
Lims ID: MB 280-575516/1-A
Client ID:
Sample Type: MB
Inject. Date: 19-May-2022 20:51:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-575516/1-
Misc. Info.: 280-0111180-011
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:40:07 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 11:58:07

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	1 Triamine Trinitrobenzene	1		2.454				ND	
	2 2,6-diamino-4-nitrotoluene	1		6.479				ND	
	3 TNX	1		6.486				ND	U
	4 HMX	1		6.606				ND	
	5 2,4-diamino-6-nitrotoluene	1		6.659				ND	
	6 DNX	1		6.799				ND	
	7 MNX	1		7.219				ND	7
	8 RDX	1		7.599				ND	U
	9 2,4,6-Trinitrophenol	1		7.946				ND	U
$	10 1,2-Dinitrobenzene	1	8.558	8.552	0.006	26413	0.2000	0.2118	M
	11 1,3,5-Trinitrobenzene	1		8.679				ND	
	12 1,3-Dinitrobenzene	1		9.306				ND	
	13 Nitrobenzene	1		9.699				ND	
	14 3,5-Dinitroaniline	1		9.905				ND	
	15 Tetryl	1		10.026				ND	
	16 Nitroglycerin	2		10.472				ND	
	17 2,4,6-Trinitrotoluene	1		10.932				ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.132				ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.386				ND	
	20 2,6-Dinitrotoluene	1		11.546				ND	
	21 2,4-Dinitrotoluene	1		11.719				ND	
	22 o-Nitrotoluene	1		12.572				ND	U
	23 p-Nitrotoluene	1		12.999				ND	
	24 m-Nitrotoluene	1		13.572				ND	
	25 PETN	2		14.639				ND	
	26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

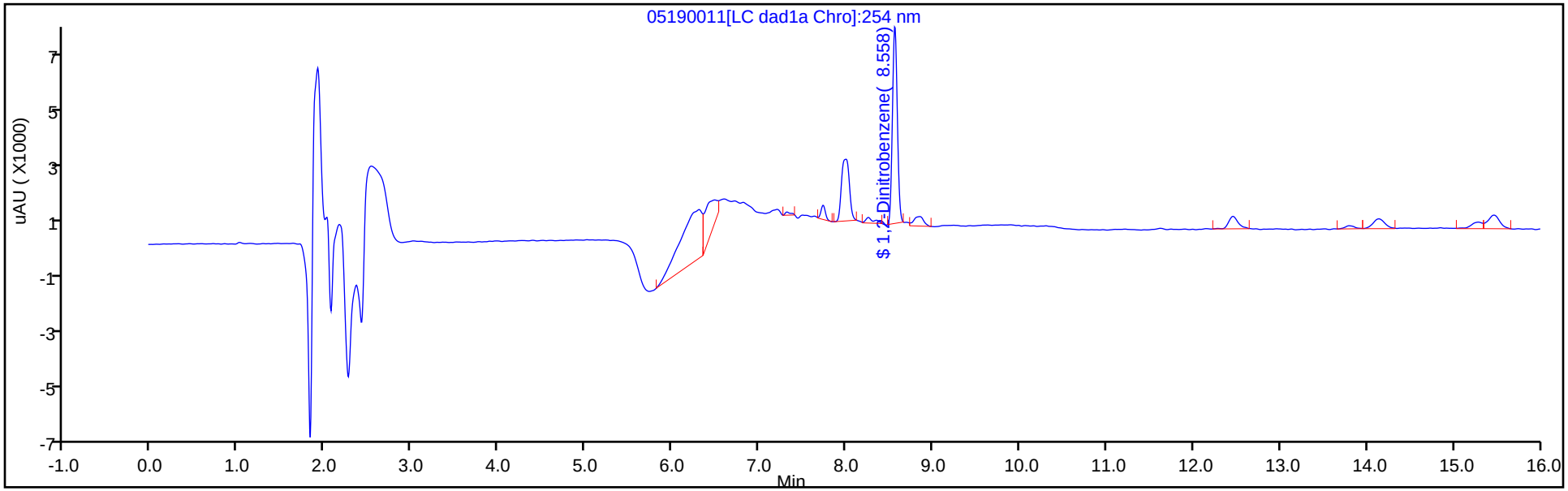
Report Date: 20-May-2022 13:40:15 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

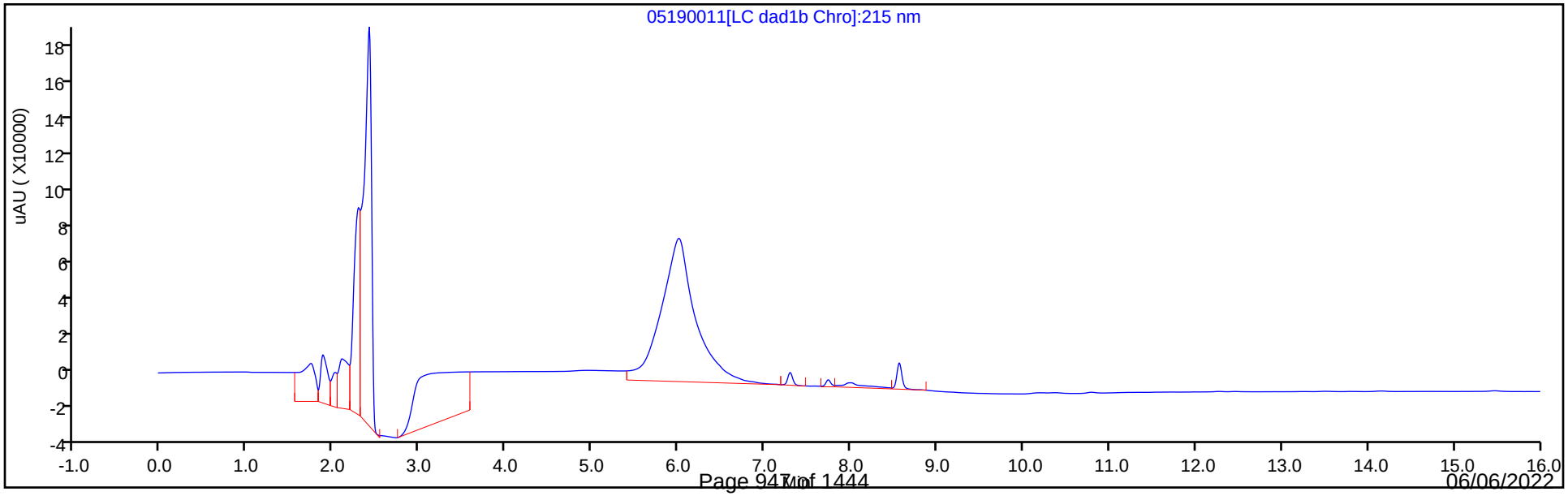
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190011.d

Injection Date:	19-May-2022 20:51:30	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	MB 280-575516/1-A			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190011.D				
Lims ID:	MB 280-575516/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	19-May-2022 20:51:30	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-575516/1-				
Misc. Info.:	280-0111180-011				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 11:58:07

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2118	105.91

Manual Integration/User Assign Peak Report

Eurofins Denver

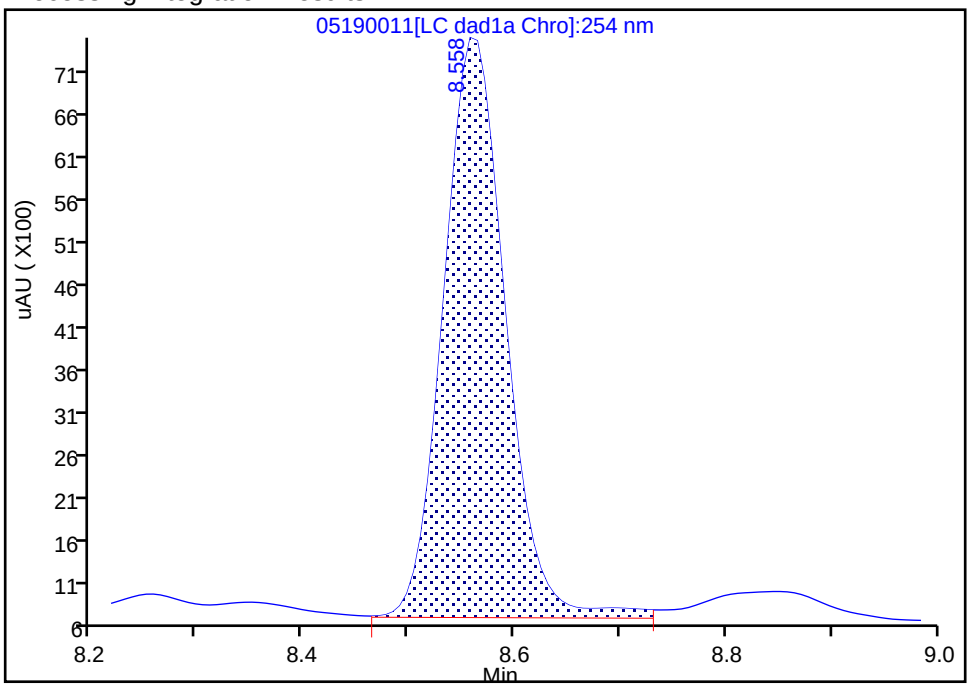
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190011.d				
Injection Date:	19-May-2022 20:51:30	Instrument ID:	CHHPLC_X3		
Lims ID:	MB 280-575516/1-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

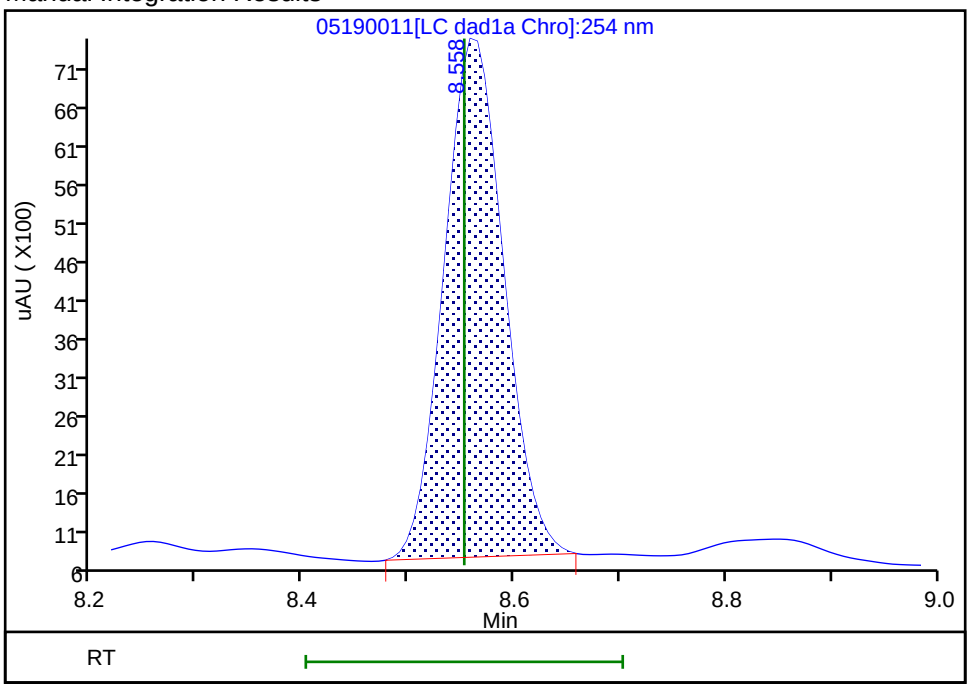
Processing Integration Results

RT: 8.56
Area: 27739
Amount: 0.222450
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 26413
Amount: 0.211816
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 11:58:04

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

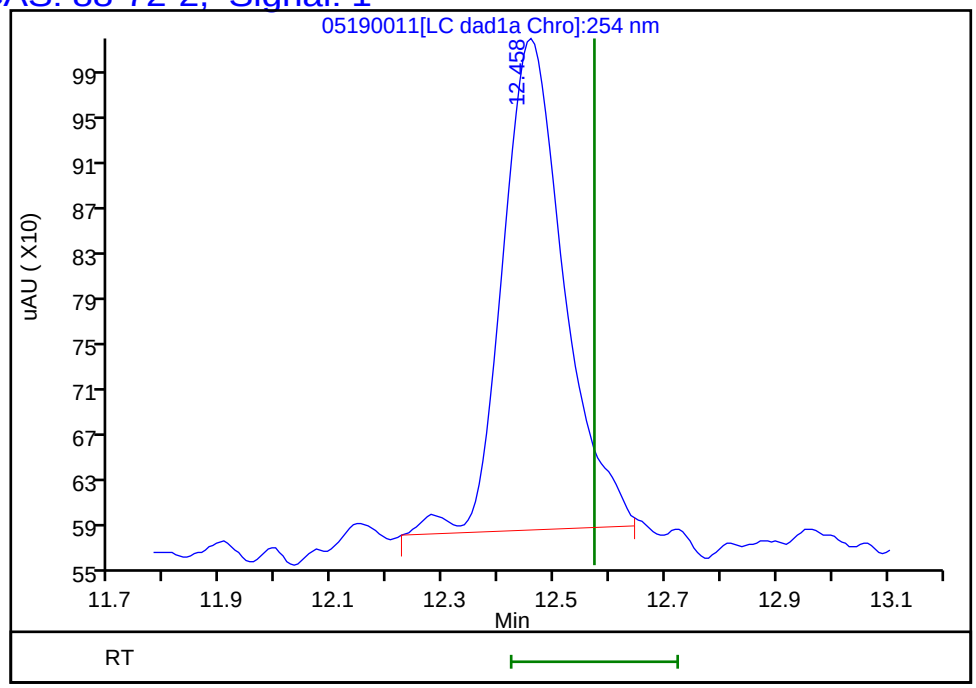
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190011.d
Injection Date: 19-May-2022 20:51:30 Instrument ID: CHHPLC_X3
Lims ID: MB 280-575516/1-A
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.46
Response: 3284
Amount: 0.025734



Reviewer: zhangji, 20-May-2022 11:58:07
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

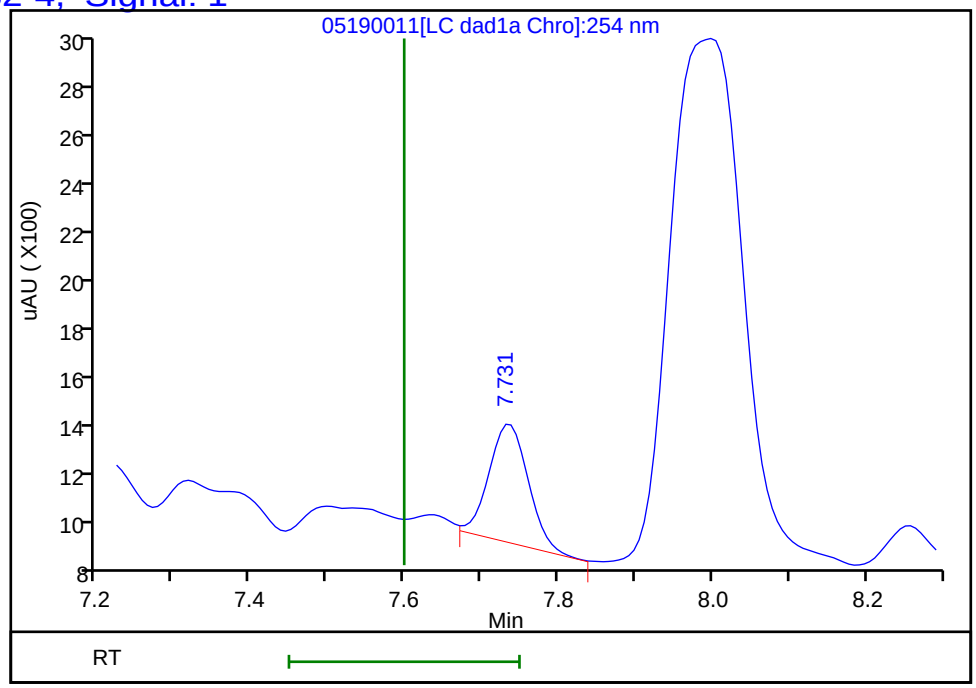
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190011.d
Injection Date: 19-May-2022 20:51:30 Instrument ID: CHHPLC_X3
Lims ID: MB 280-575516/1-A
Client ID:
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

8 RDX, CAS: 121-82-4, Signal: 1

RT: 7.73
Response: 1728
Amount: 0.016678



Reviewer: zhangji, 20-May-2022 11:58:07
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-575516/2-A

Matrix: Water | Lab File ID: 05190012.D

Analysis Method: 8330A | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 500(mL) | Date Analyzed: 05/19/2022 21:14

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.06		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	2.09		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	2.07		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.96		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	2.05		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.98		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.98		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.62		0.40	0.40	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.96		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.90		0.41	0.40	0.10
2691-41-0	HMX	2.00	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.92		0.21	0.20	0.091
121-82-4	RDX	1.96		0.21	0.20	0.052
479-45-8	Tetryl	2.06		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	105		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190012.D
Lims ID: LCS 280-575516/2-A
Client ID:
Sample Type: LCS
Inject. Date: 19-May-2022 21:14:25 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-575516/2
Misc. Info.: 280-0111180-012
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:40:07 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 13:38:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.602	6.606	-0.004	16776	0.2000	0.2001	M
8 RDX	1	7.596	7.599	-0.003	20308	0.2000	0.1960	
9 2,4,6-Trinitrophenol	1	7.936	7.946	-0.010	29987	0.2000	0.3892	
$ 10 1,2-Dinitrobenzene	1	8.556	8.552	0.004	26246	0.2000	0.2105	
11 1,3,5-Trinitrobenzene	1	8.676	8.679	-0.003	44941	0.2000	0.2061	
12 1,3-Dinitrobenzene	1	9.309	9.306	0.003	60363	0.2000	0.2093	
13 Nitrobenzene	1	9.695	9.699	-0.004	36910	0.2000	0.1923	
15 Tetryl	1	10.022	10.026	-0.004	35135	0.2000	0.2060	
16 Nitroglycerin	2	10.469	10.472	-0.003	137039	2.00	2.17	
17 2,4,6-Trinitrotoluene	1	10.929	10.932	-0.003	42010	0.2000	0.2072	
18 4-Amino-2,6-dinitrotoluene	1	11.122	11.132	-0.010	29567	0.2000	0.1958	
19 2-Amino-4,6-dinitrotoluene	1	11.375	11.386	-0.011	40097	0.2000	0.1983	
20 2,6-Dinitrotoluene	1	11.542	11.546	-0.004	29310	0.2000	0.2048	
21 2,4-Dinitrotoluene	1	11.709	11.719	-0.010	56774	0.2000	0.1962	
22 o-Nitrotoluene	1	12.562	12.572	-0.010	25303	0.2000	0.1983	
23 p-Nitrotoluene	1	12.995	12.999	-0.004	20222	0.2000	0.1904	
24 m-Nitrotoluene	1	13.569	13.572	-0.003	23082	0.2000	0.1622	
25 PETN	2	14.635	14.639	-0.004	155366	2.00	2.12	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

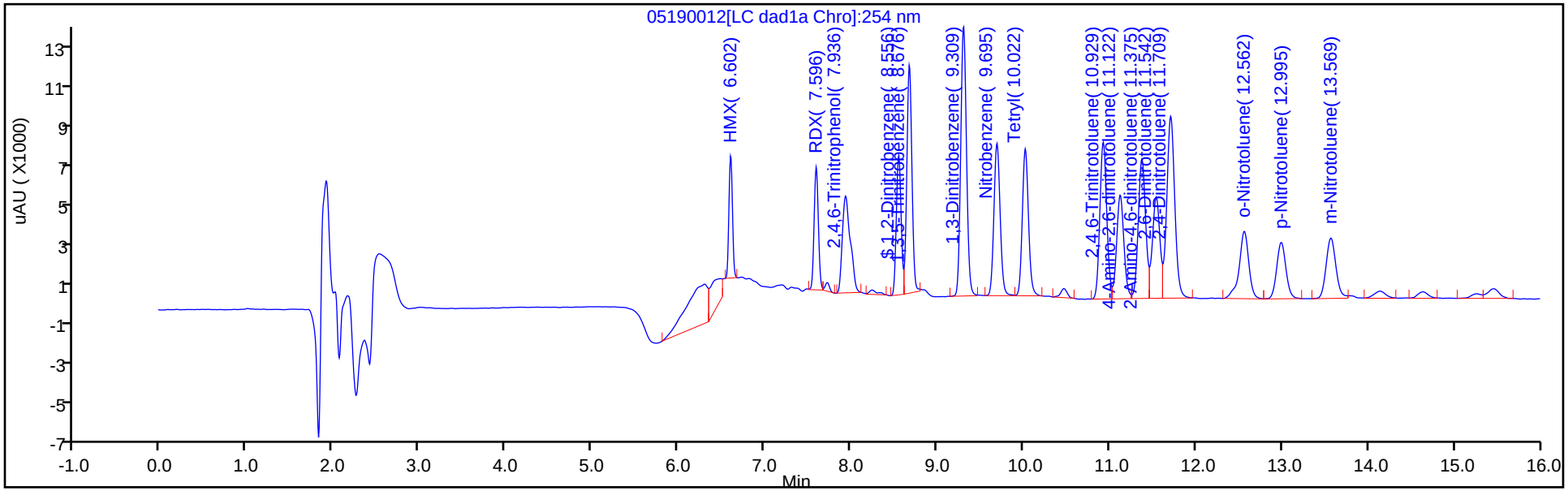
Report Date: 20-May-2022 13:40:14 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

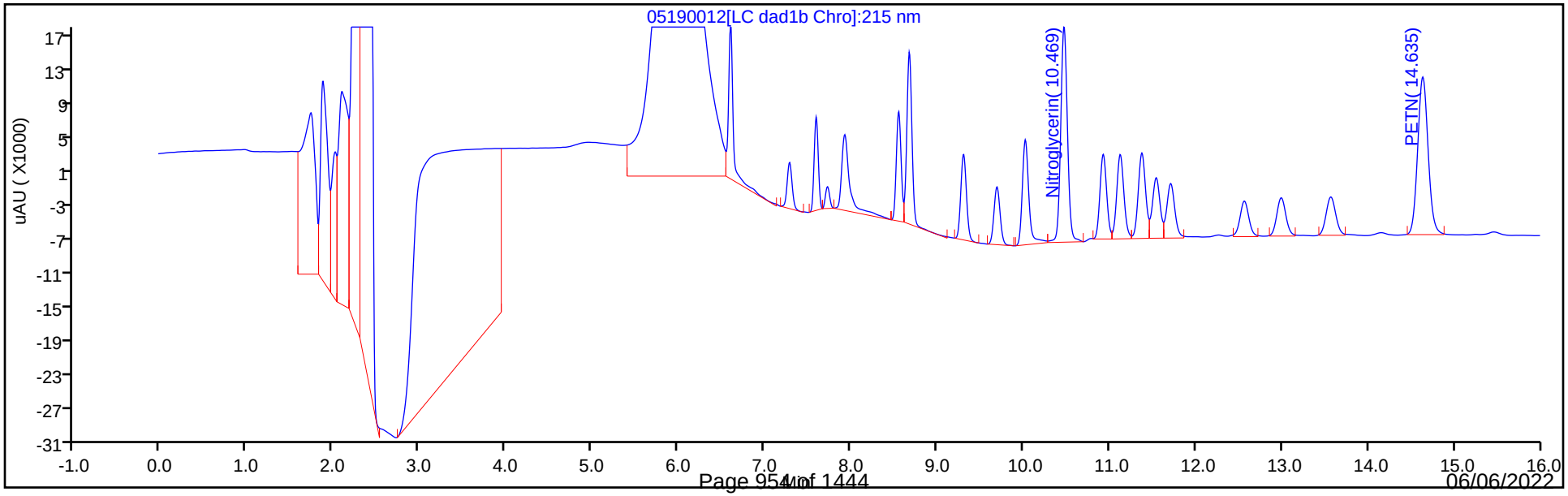
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190012.d

Injection Date:	19-May-2022 21:14:25	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-575516/2-A			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190012.D				
Lims ID:	LCS 280-575516/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	19-May-2022 21:14:25	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-575516/2				
Misc. Info.:	280-0111180-012				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 13:38:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2105	105.24

Manual Integration/User Assign Peak Report

Eurofins Denver

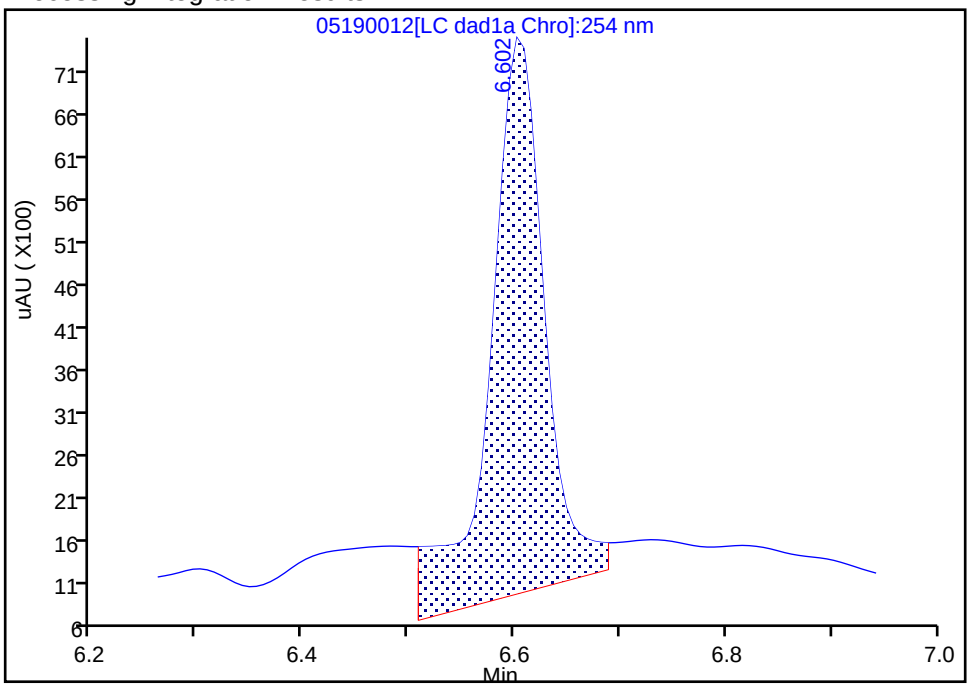
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190012.d				
Injection Date:	19-May-2022 21:14:25	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-575516/2-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

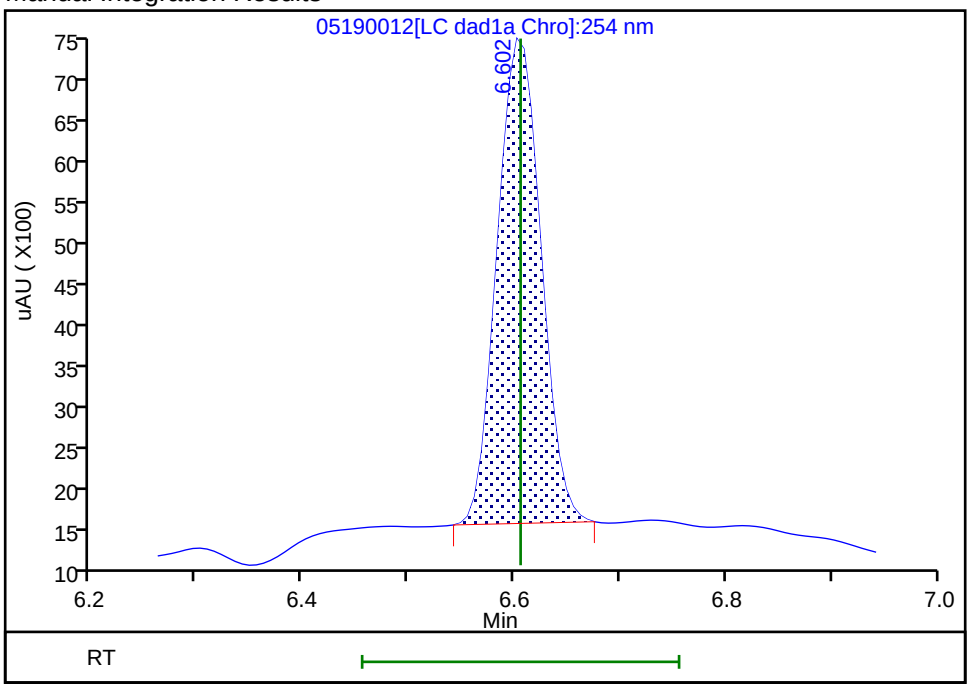
Processing Integration Results

RT: 6.60
Area: 23198
Amount: 0.276736
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 16776
Amount: 0.200126
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 13:38:43

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-575516/3-A

Matrix: Water | Lab File ID: 05190013.D

Analysis Method: 8330A | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 500(mL) | Date Analyzed: 05/19/2022 21:37

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	2.41	M	2.0	0.40	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190013.D				
Lims ID:	LCS 280-575516/3-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	19-May-2022 21:37:20	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-575516/3				
Misc. Info.:	280-0111180-013				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				
First Level Reviewer: zhangji		Date:	20-May-2022 11:59:16		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.485	6.486	-0.001	37382	0.2000	0.2063	M
6 DNX	1	6.798	6.799	-0.001	28761	0.2008	0.2082	M
7 MNX	1	7.218	7.219	-0.001	30421	0.2340	0.2414	M
$ 10 1,2-Dinitrobenzene	1	8.552	8.552	0.000	25966	0.2000	0.2082	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

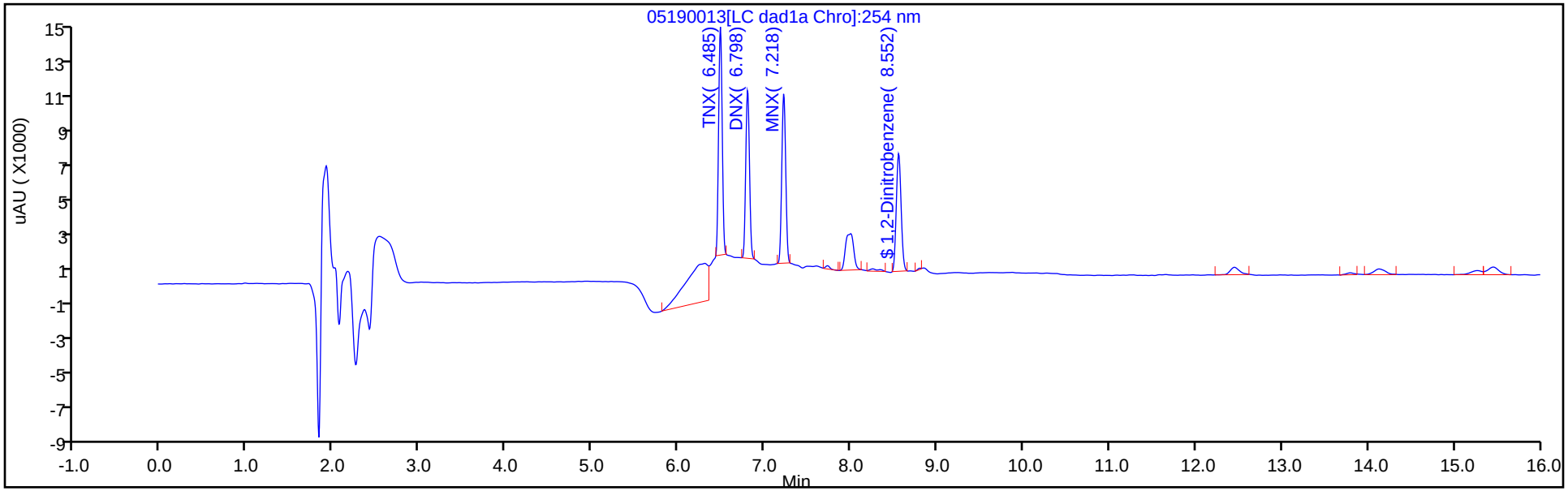
Report Date: 20-May-2022 13:40:13 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

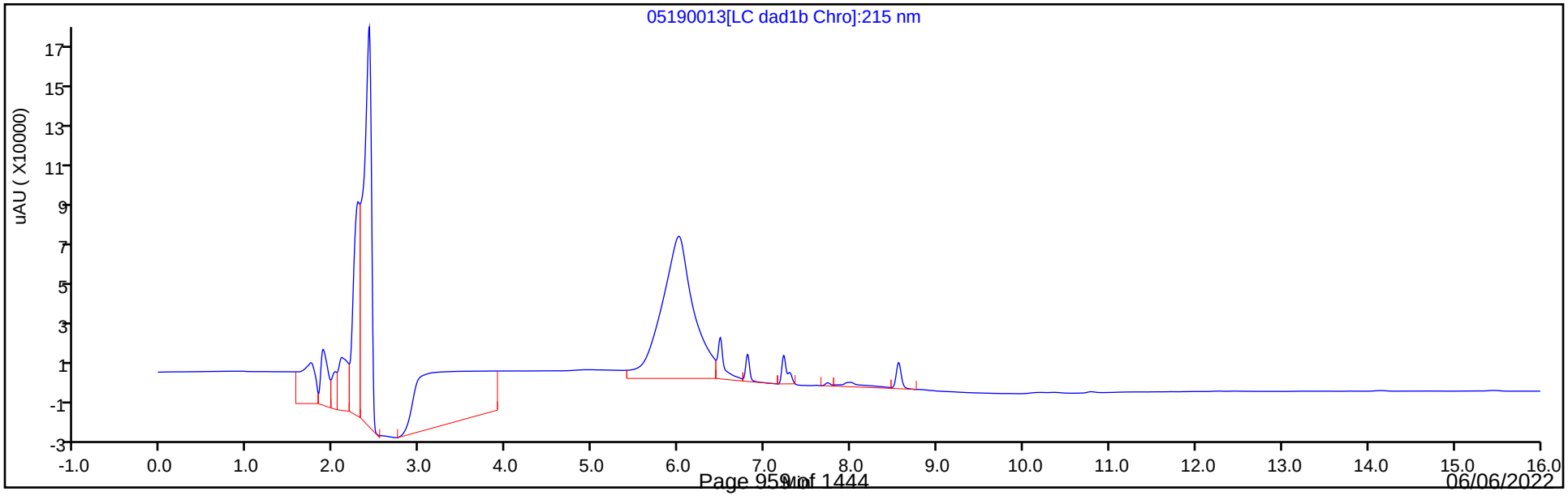
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190013.d

Injection Date:	19-May-2022 21:37:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-575516/3-A			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190013.D				
Lims ID:	LCS 280-575516/3-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	19-May-2022 21:37:20	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-575516/3				
Misc. Info.:	280-0111180-013				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 11:59:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2082	104.12

Manual Integration/User Assign Peak Report

Eurofins Denver

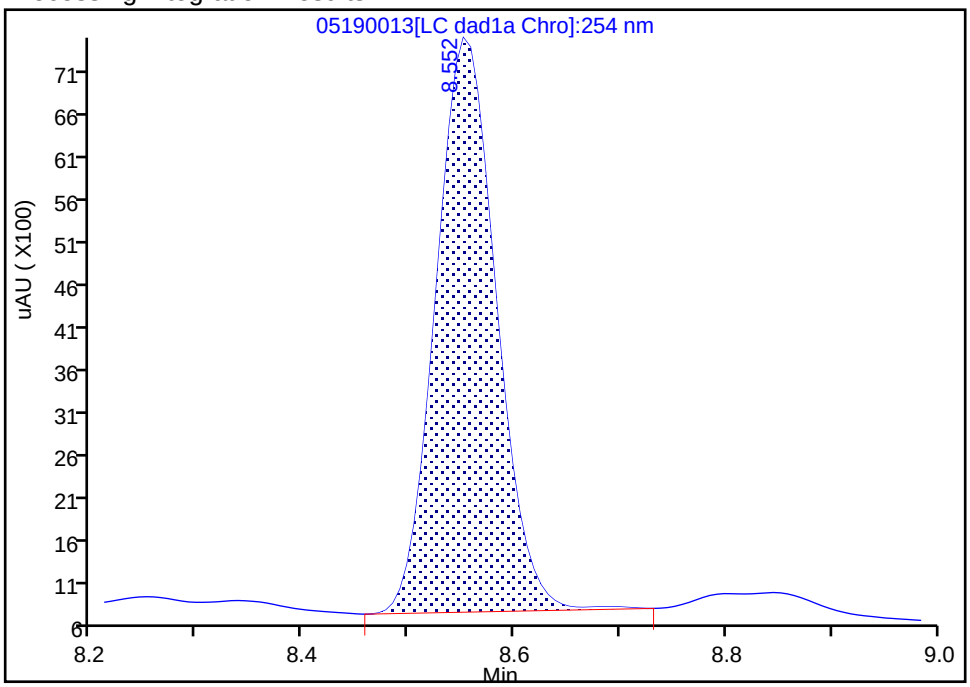
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190013.d				
Injection Date:	19-May-2022 21:37:20	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-575516/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

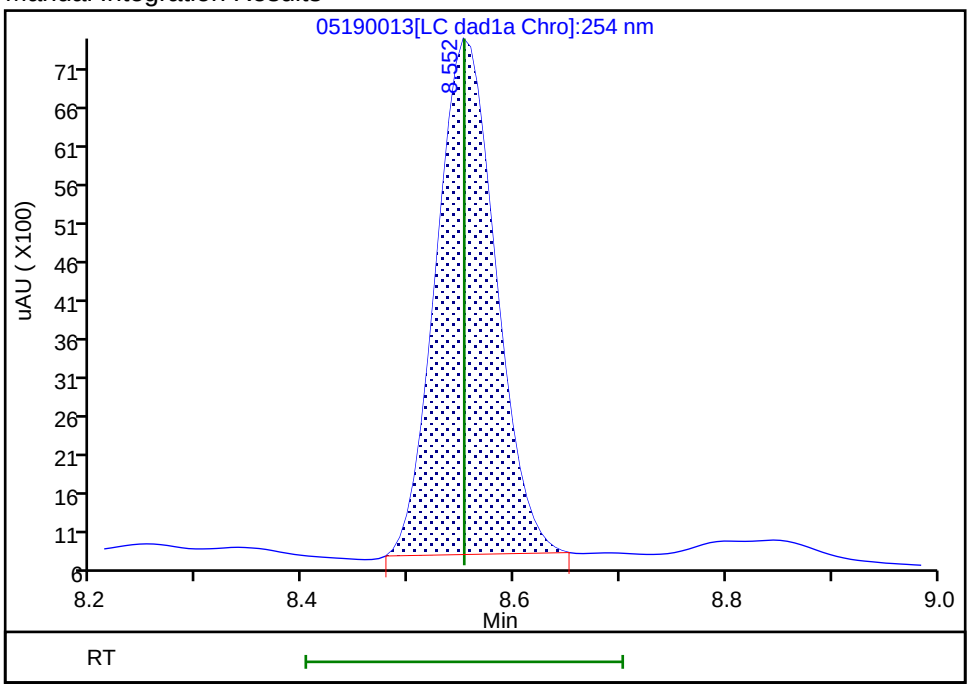
Processing Integration Results

RT: 8.55
Area: 26531
Amount: 0.212763
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 25966
Amount: 0.208232
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 11:59:15

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

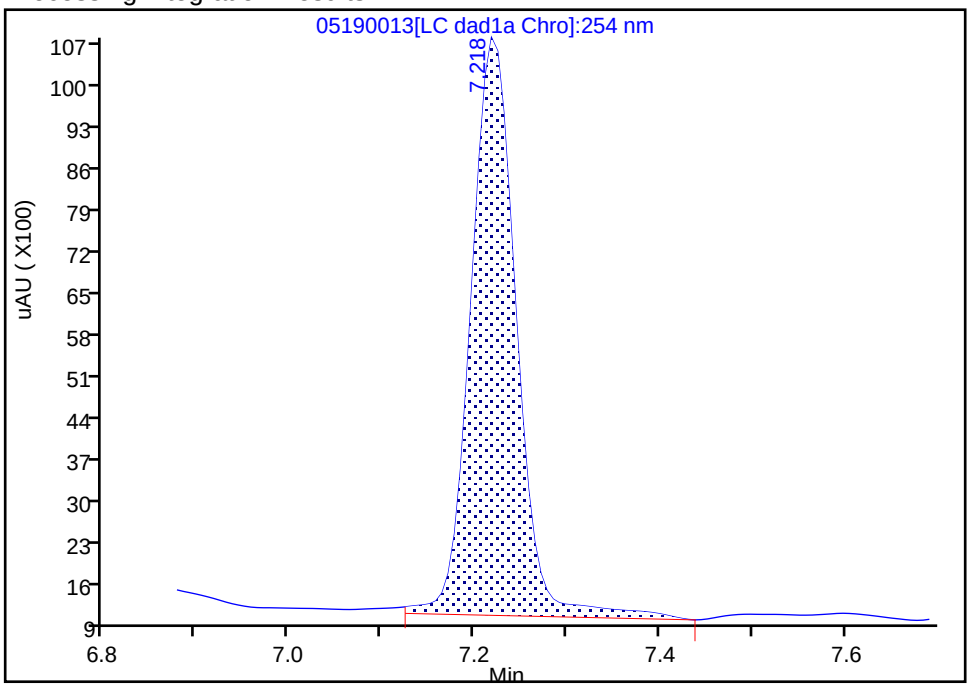
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190013.d				
Injection Date:	19-May-2022 21:37:20	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-575516/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

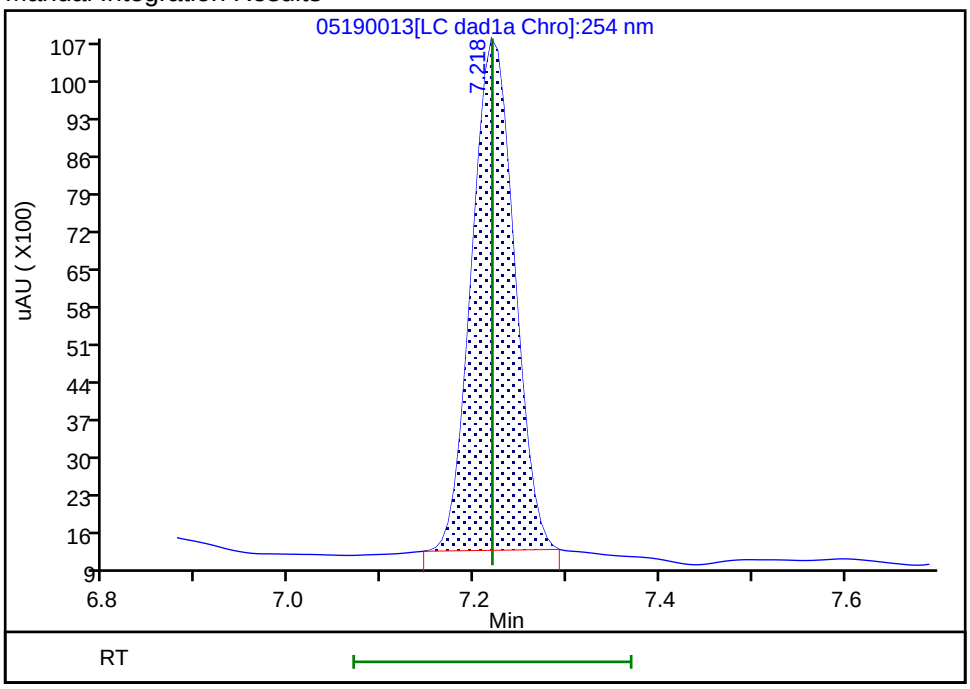
Processing Integration Results

RT: 7.22
Area: 33386
Amount: 0.264978
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 30421
Amount: 0.241445
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 11:59:10

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ007-22A MS | Lab Sample ID: 280-162386-1 MS

Matrix: Water | Lab File ID: 05190015.D

Analysis Method: 8330A | Date Collected: 05/13/2022 09:15

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 506.7(mL) | Date Analyzed: 05/19/2022 22:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.06	M	0.21	0.20	0.083
99-65-0	1,3-Dinitrobenzene	2.10		0.11	0.099	0.036
118-96-7	2,4,6-Trinitrotoluene	2.05		0.11	0.099	0.044
121-14-2	2,4-Dinitrotoluene	1.89		0.099	0.079	0.027
606-20-2	2,6-Dinitrotoluene	1.99		0.099	0.079	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.94		0.11	0.099	0.050
88-72-2	2-Nitrotoluene	1.92		0.21	0.20	0.084
99-08-1	3-Nitrotoluene	1.51		0.39	0.39	0.19
19406-51-0	4-Amino-2,6-dinitrotoluene	1.89		0.15	0.12	0.057
99-99-0	4-Nitrotoluene	1.85		0.40	0.39	0.099
2691-41-0	HMX	2.01	M	0.21	0.20	0.086
98-95-3	Nitrobenzene	1.98		0.21	0.20	0.090
121-82-4	RDX	1.82	M	0.21	0.20	0.051
479-45-8	Tetryl	2.03		0.11	0.099	0.031

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	109		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190015.D
Lims ID: 280-162386-A-1-B MS
Client ID: PZ007-22A
Sample Type: MS
Inject. Date: 19-May-2022 22:23:09 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-1-B
Misc. Info.: 280-0111180-015
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:40:07 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:08:14

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.602	6.606	-0.004	17084	0.2000	0.2038	M
8 RDX	1	7.602	7.599	0.003	19095	0.2000	0.1843	M
9 2,4,6-Trinitrophenol	1	7.915	7.946	-0.031	20151	0.2000	0.2616	M
$ 10 1,2-Dinitrobenzene	1	8.555	8.552	0.003	27186	0.2000	0.2180	
11 1,3,5-Trinitrobenzene	1	8.675	8.679	-0.004	45434	0.2000	0.2083	M
12 1,3-Dinitrobenzene	1	9.308	9.306	0.002	61506	0.2000	0.2133	
13 Nitrobenzene	1	9.695	9.699	-0.004	38463	0.2000	0.2004	
15 Tetryl	1	10.022	10.026	-0.004	35059	0.2000	0.2055	
16 Nitroglycerin	2	10.468	10.472	-0.004	137372	2.00	2.18	
17 2,4,6-Trinitrotoluene	1	10.928	10.932	-0.004	42052	0.2000	0.2074	
18 4-Amino-2,6-dinitrotoluene	1	11.128	11.132	-0.004	28923	0.2000	0.1916	
19 2-Amino-4,6-dinitrotoluene	1	11.375	11.386	-0.011	39817	0.2000	0.1969	
20 2,6-Dinitrotoluene	1	11.542	11.546	-0.004	28841	0.2000	0.2015	
21 2,4-Dinitrotoluene	1	11.708	11.719	-0.011	55413	0.2000	0.1915	
22 o-Nitrotoluene	1	12.562	12.572	-0.010	24865	0.2000	0.1948	
23 p-Nitrotoluene	1	12.988	12.999	-0.011	19865	0.2000	0.1870	
24 m-Nitrotoluene	1	13.568	13.572	-0.004	21788	0.2000	0.1531	
25 PETN	2	14.628	14.639	-0.011	153946	2.00	2.10	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

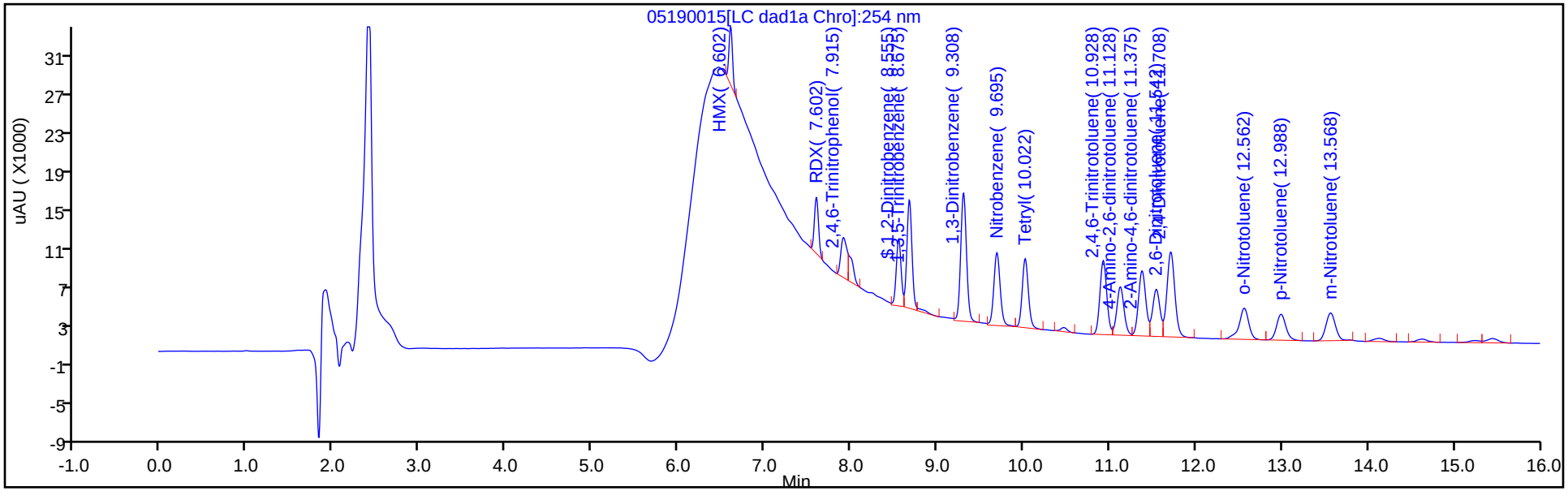
Report Date: 20-May-2022 13:40:12 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

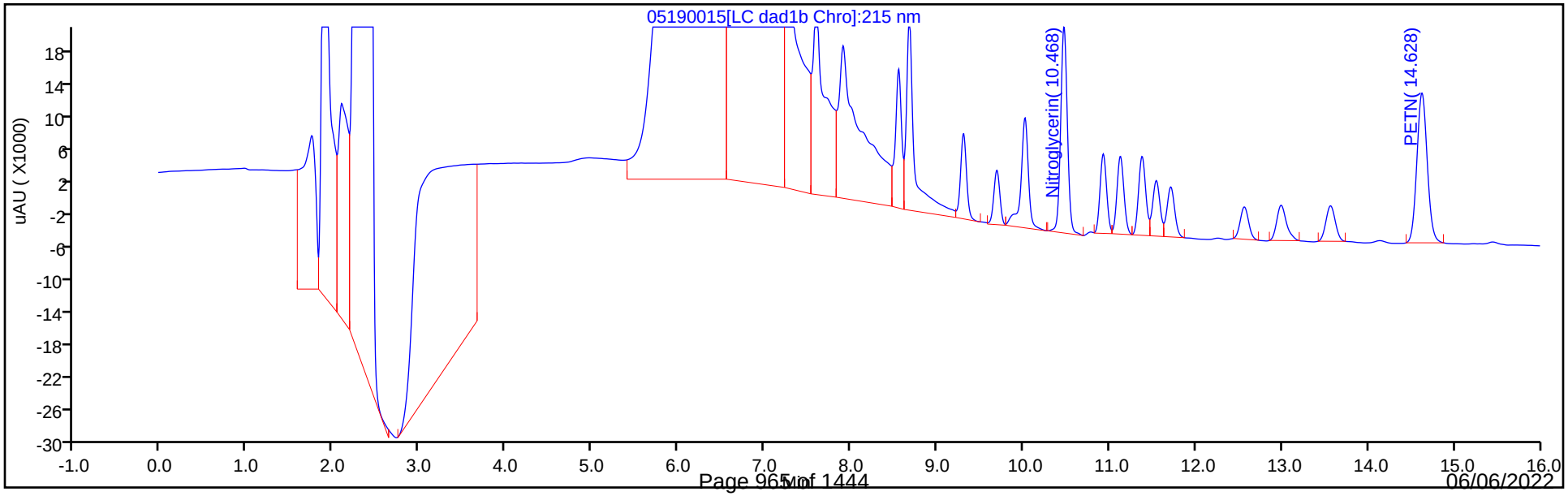
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190015.d

Injection Date:	19-May-2022 22:23:09	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-A-1-B MS			Worklist Smp#:	15
Client ID:	PZ007-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190015.D				
Lims ID:	280-162386-A-1-B MS				
Client ID:	PZ007-22A				
Sample Type:	MS				
Inject. Date:	19-May-2022 22:23:09	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-1-B				
Misc. Info.:	280-0111180-015				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:08:14

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2180	109.01

Manual Integration/User Assign Peak Report

Eurofins Denver

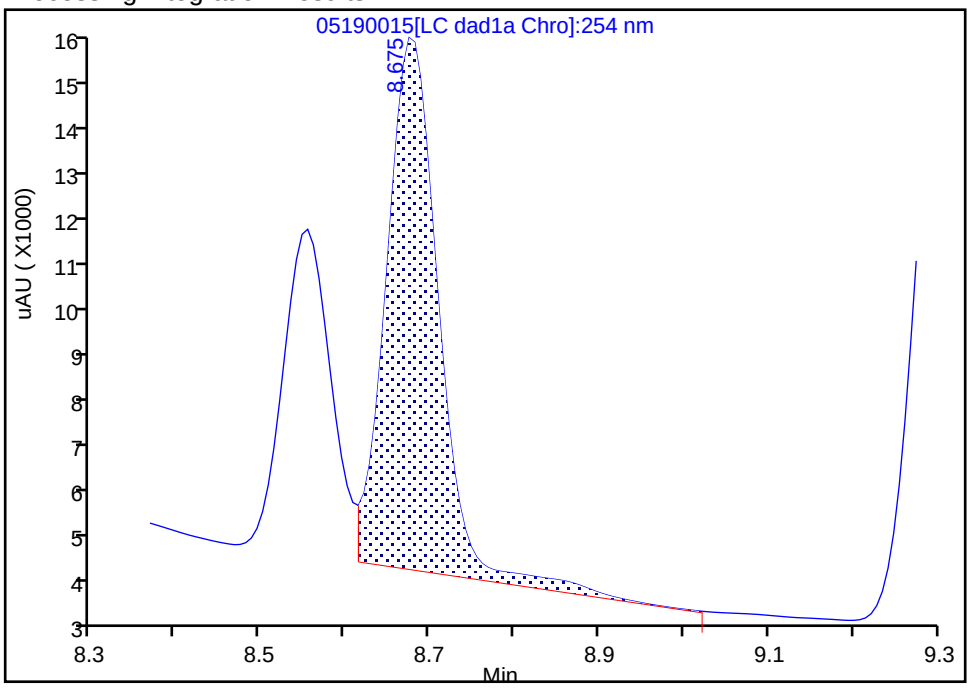
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190015.d				
Injection Date:	19-May-2022 22:23:09	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-1-B MS				
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

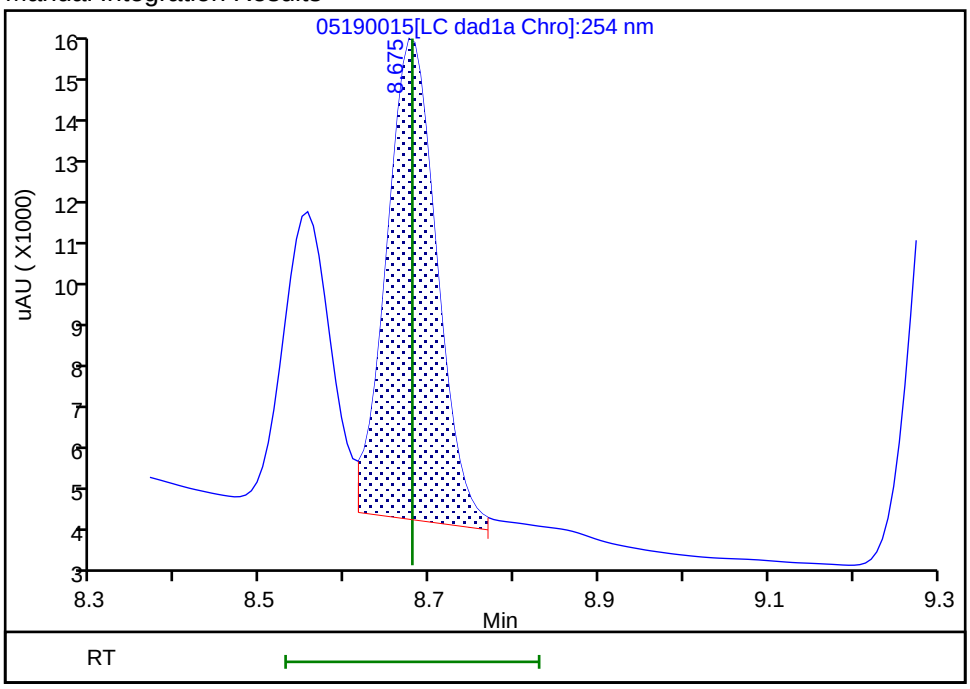
Processing Integration Results

RT: 8.68
Area: 47434
Amount: 0.217492
Amount Units: ug/mL



Manual Integration Results

RT: 8.68
Area: 45434
Amount: 0.208322
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:08:12
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

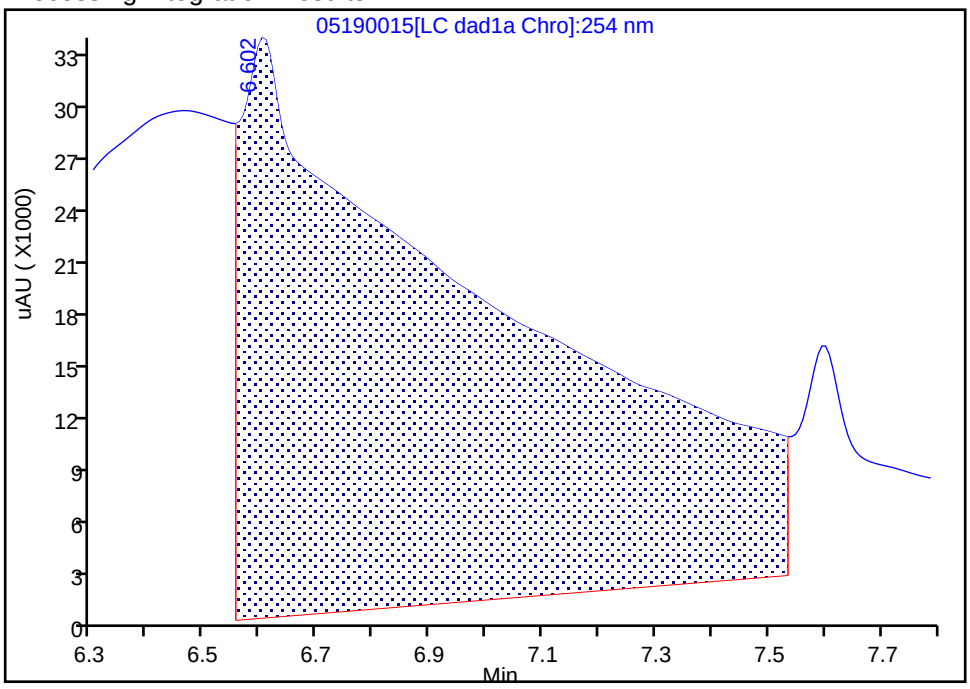
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190015.d				
Injection Date:	19-May-2022 22:23:09	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-1-B MS				
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

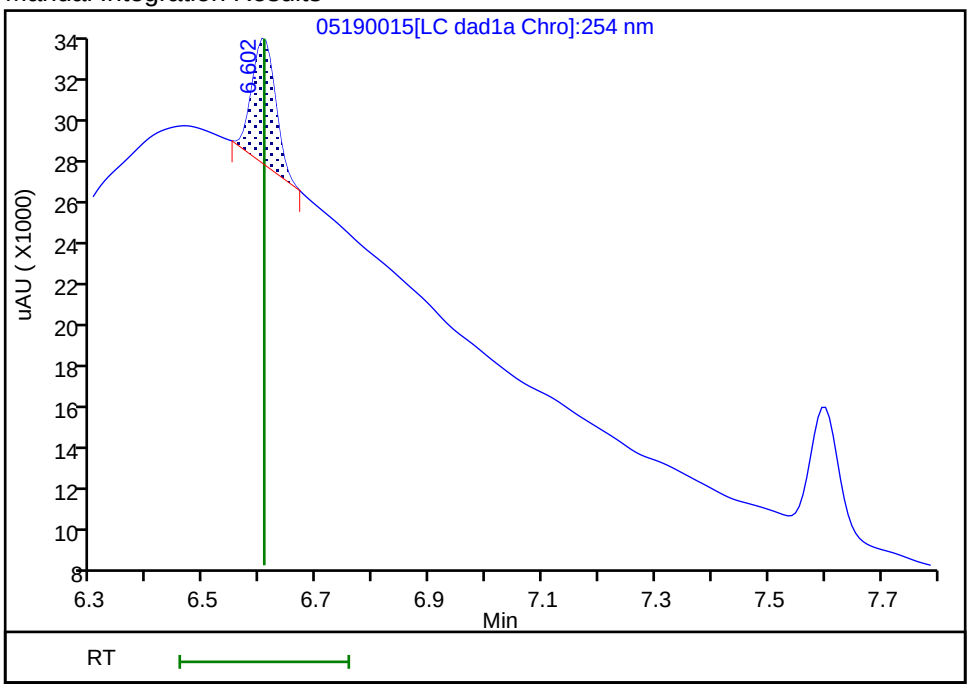
Processing Integration Results

RT: 6.60
Area: 994616
Amount: 11.865075
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 17084
Amount: 0.203800
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:07:55

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

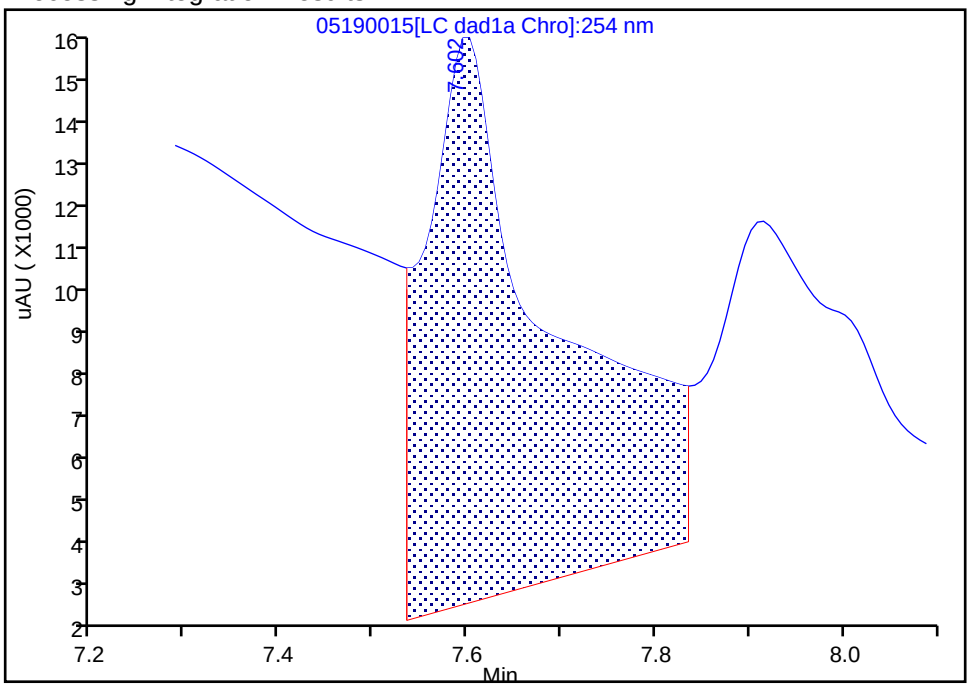
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190015.d				
Injection Date:	19-May-2022 22:23:09	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-1-B MS				
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

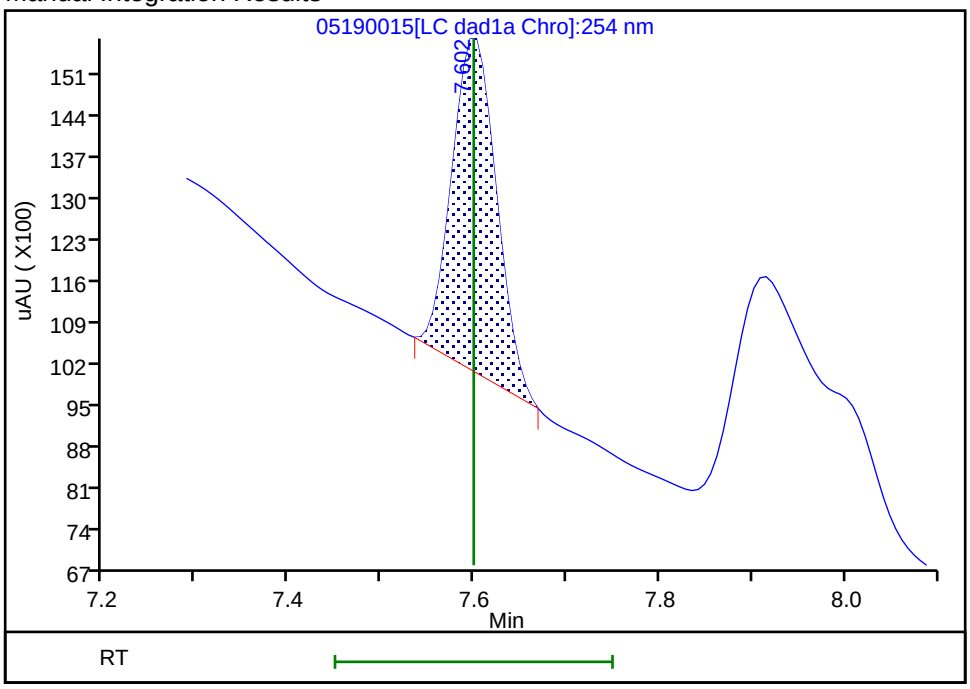
Processing Integration Results

RT: 7.60
Area: 119074
Amount: 1.149261
Amount Units: ug/mL



Manual Integration Results

RT: 7.60
Area: 19095
Amount: 0.184298
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:08:00
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ007-22A MS | Lab Sample ID: 280-162386-1 MS

Matrix: Water | Lab File ID: 05190017.D

Analysis Method: 8330A | Date Collected: 05/13/2022 09:15

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 498.4(mL) | Date Analyzed: 05/19/2022 23:08

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	2.33	M	2.0	0.40	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	107	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190017.D				
Lims ID:	280-162386-B-1-A MS				
Client ID:	PZ007-22A				
Sample Type:	MS				
Inject. Date:	19-May-2022 23:08:55	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-B-1-A				
Misc. Info.:	280-0111180-017				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				
First Level Reviewer: zhangji		Date:	20-May-2022 12:10:38		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.483	6.486	-0.003	38590	0.2000	0.2130	M
6 DNX	1	6.803	6.799	0.004	27695	0.2008	0.2005	M
7 MNX	1	7.223	7.219	0.004	29274	0.2340	0.2323	M
$ 10 1,2-Dinitrobenzene	1	8.556	8.552	0.004	26730	0.2000	0.2144	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

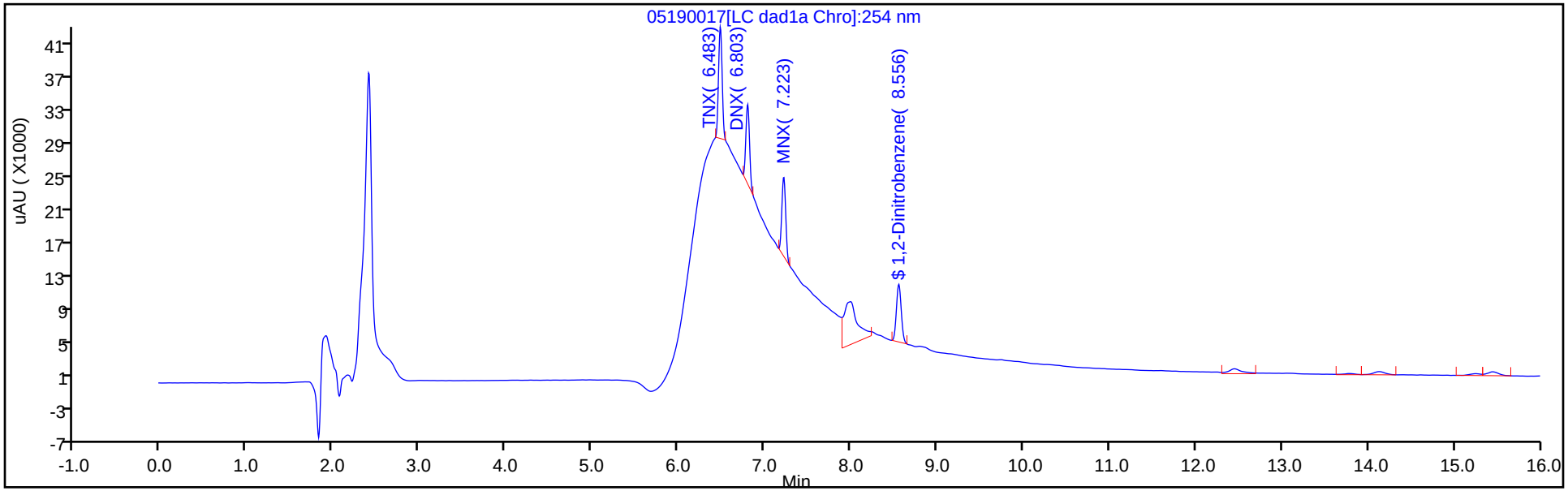
Report Date: 20-May-2022 13:40:10 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

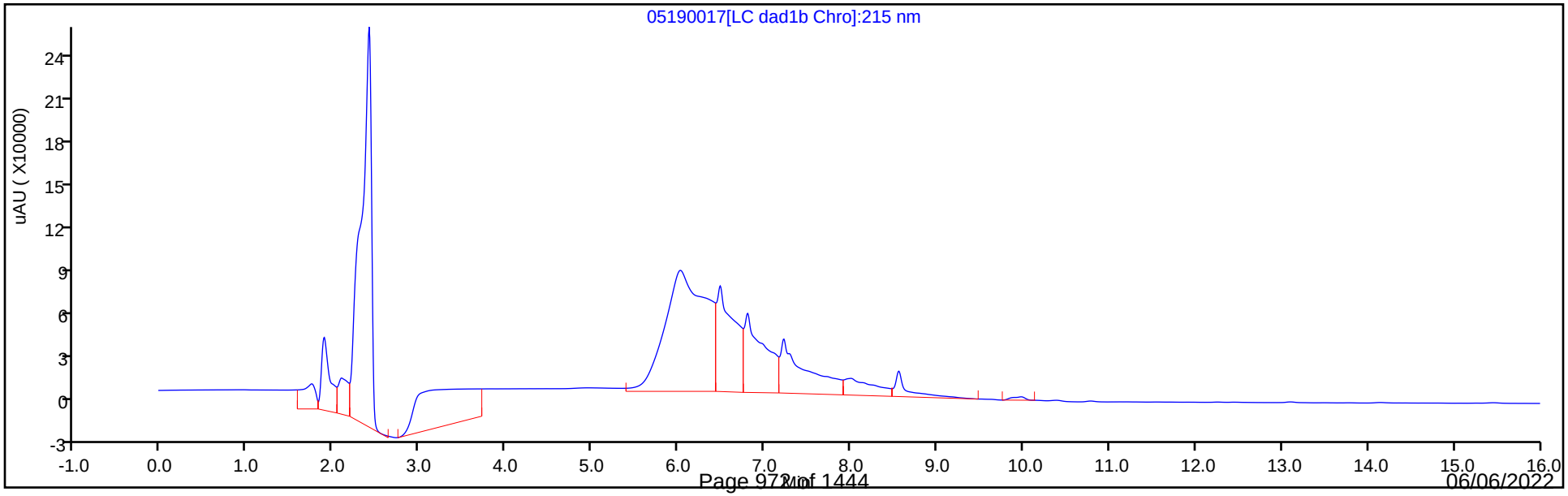
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190017.d

Injection Date:	19-May-2022 23:08:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-B-1-A MS			Worklist Smp#:	17
Client ID:	PZ007-22A				
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



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190017.D				
Lims ID:	280-162386-B-1-A MS				
Client ID:	PZ007-22A				
Sample Type:	MS				
Inject. Date:	19-May-2022 23:08:55	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-B-1-A				
Misc. Info.:	280-0111180-017				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:10:38

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2144	107.18

Manual Integration/User Assign Peak Report

Eurofins Denver

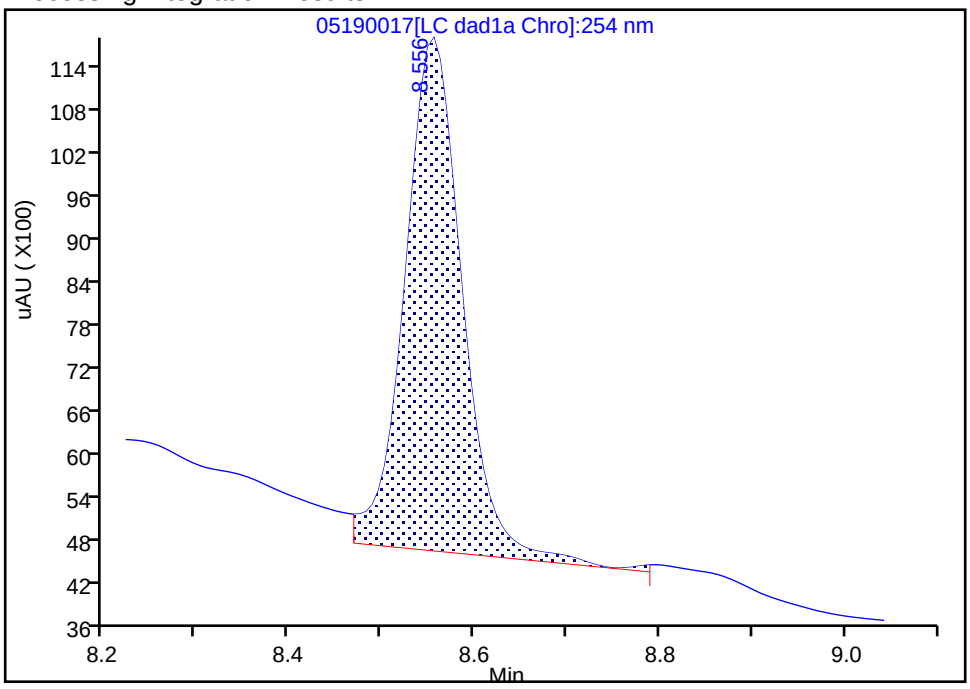
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190017.d				
Injection Date:	19-May-2022 23:08:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-1-A MS				
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

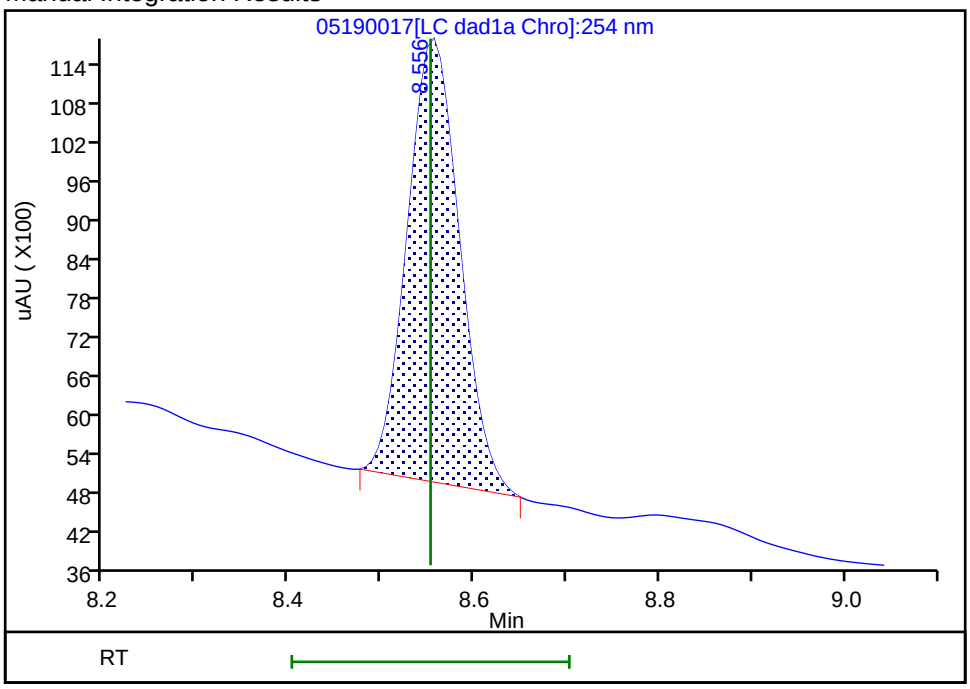
Processing Integration Results

RT: 8.56
Area: 30746
Amount: 0.246564
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 26730
Amount: 0.214358
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:10:37

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

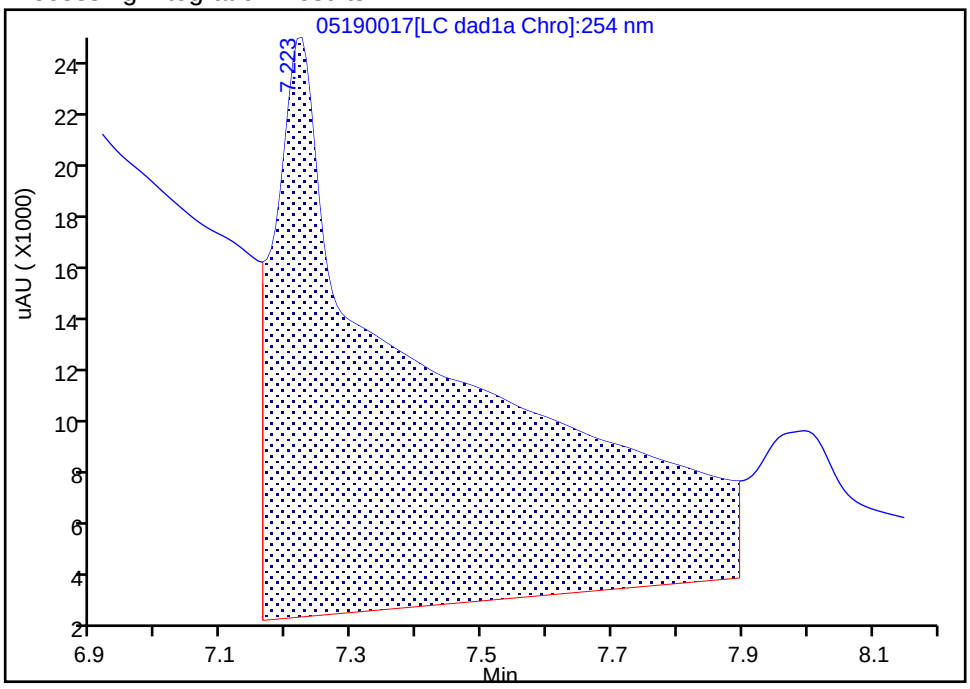
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190017.d				
Injection Date:	19-May-2022 23:08:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-1-A MS				
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

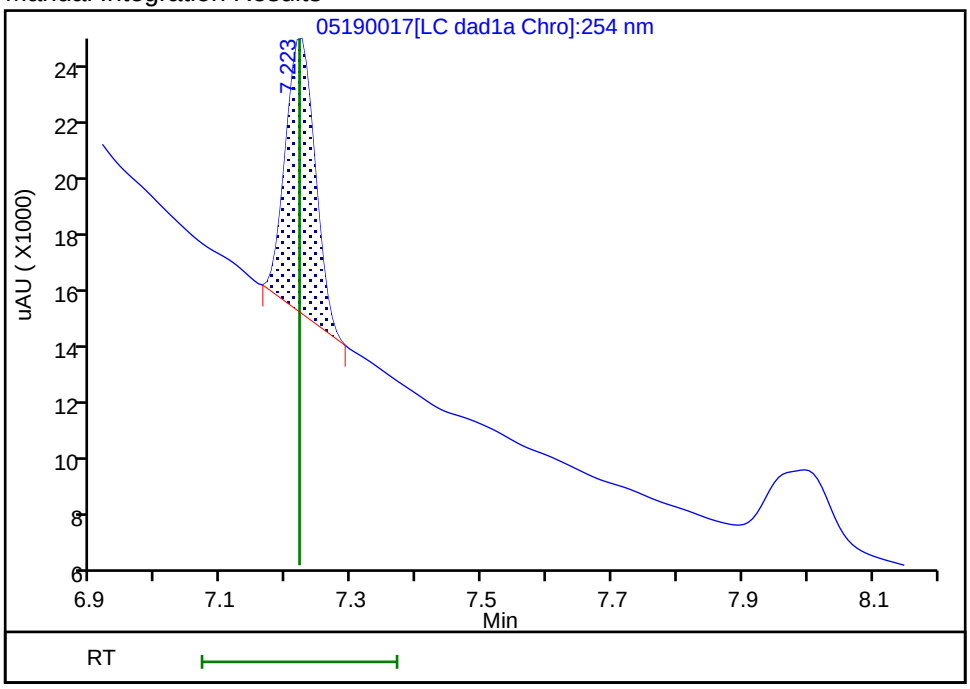
Processing Integration Results

RT: 7.22
Area: 371709
Amount: 2.950179
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 29274
Amount: 0.232342
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:10:34

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ007-22A MSD | Lab Sample ID: 280-162386-1 MSD

Matrix: Water | Lab File ID: 05190016.D

Analysis Method: 8330A | Date Collected: 05/13/2022 09:15

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 516.3(mL) | Date Analyzed: 05/19/2022 22:46

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.02	M	0.20	0.19	0.081
99-65-0	1,3-Dinitrobenzene	2.05		0.11	0.097	0.036
118-96-7	2,4,6-Trinitrotoluene	1.99		0.11	0.097	0.044
121-14-2	2,4-Dinitrotoluene	1.86		0.097	0.077	0.027
606-20-2	2,6-Dinitrotoluene	1.96		0.097	0.077	0.039
35572-78-2	2-Amino-4,6-dinitrotoluene	1.89		0.11	0.097	0.049
88-72-2	2-Nitrotoluene	1.95		0.20	0.19	0.083
99-08-1	3-Nitrotoluene	1.50		0.39	0.39	0.19
19406-51-0	4-Amino-2,6-dinitrotoluene	1.85		0.15	0.12	0.056
99-99-0	4-Nitrotoluene	1.87		0.40	0.39	0.097
2691-41-0	HMX	1.96	M	0.20	0.19	0.085
98-95-3	Nitrobenzene	1.96		0.20	0.19	0.088
121-82-4	RDX	1.80	M	0.20	0.19	0.050
479-45-8	Tetryl	1.99		0.11	0.097	0.031

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	108		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190016.D
Lims ID: 280-162386-A-1-C MSD
Client ID: PZ007-22A
Sample Type: MSD
Inject. Date: 19-May-2022 22:46:01 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-162386-A-1-C
Misc. Info.: 280-0111180-016
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 20-May-2022 13:40:07 Calib Date: 25-Mar-2022 16:30:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1677

First Level Reviewer: zhangji Date: 20-May-2022 12:10:17

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.603	6.606	-0.003	16993	0.2000	0.2027	M
8 RDX	1	7.603	7.599	0.004	19222	0.2000	0.1855	M
9 2,4,6-Trinitrophenol	1	7.916	7.946	-0.030	19537	0.2000	0.2536	M
$ 10 1,2-Dinitrobenzene	1	8.550	8.552	-0.002	27032	0.2000	0.2168	
11 1,3,5-Trinitrobenzene	1	8.676	8.679	-0.003	45589	0.2000	0.2090	M
12 1,3-Dinitrobenzene	1	9.303	9.306	-0.003	61087	0.2000	0.2118	
13 Nitrobenzene	1	9.690	9.699	-0.009	38920	0.2000	0.2028	
15 Tetryl	1	10.016	10.026	-0.010	35094	0.2000	0.2057	
16 Nitroglycerin	2	10.470	10.472	-0.002	136297	2.00	2.16	
17 2,4,6-Trinitrotoluene	1	10.923	10.932	-0.009	41718	0.2000	0.2058	
18 4-Amino-2,6-dinitrotoluene	1	11.123	11.132	-0.009	28883	0.2000	0.1913	
19 2-Amino-4,6-dinitrotoluene	1	11.376	11.386	-0.010	39449	0.2000	0.1951	
20 2,6-Dinitrotoluene	1	11.536	11.546	-0.010	28926	0.2000	0.2021	
21 2,4-Dinitrotoluene	1	11.710	11.719	-0.009	55700	0.2000	0.1925	
22 o-Nitrotoluene	1	12.556	12.572	-0.016	25631	0.2000	0.2008	
23 p-Nitrotoluene	1	12.990	12.999	-0.009	20563	0.2000	0.1936	
24 m-Nitrotoluene	1	13.563	13.572	-0.009	22069	0.2000	0.1551	
25 PETN	2	14.623	14.639	-0.016	152950	2.00	2.09	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

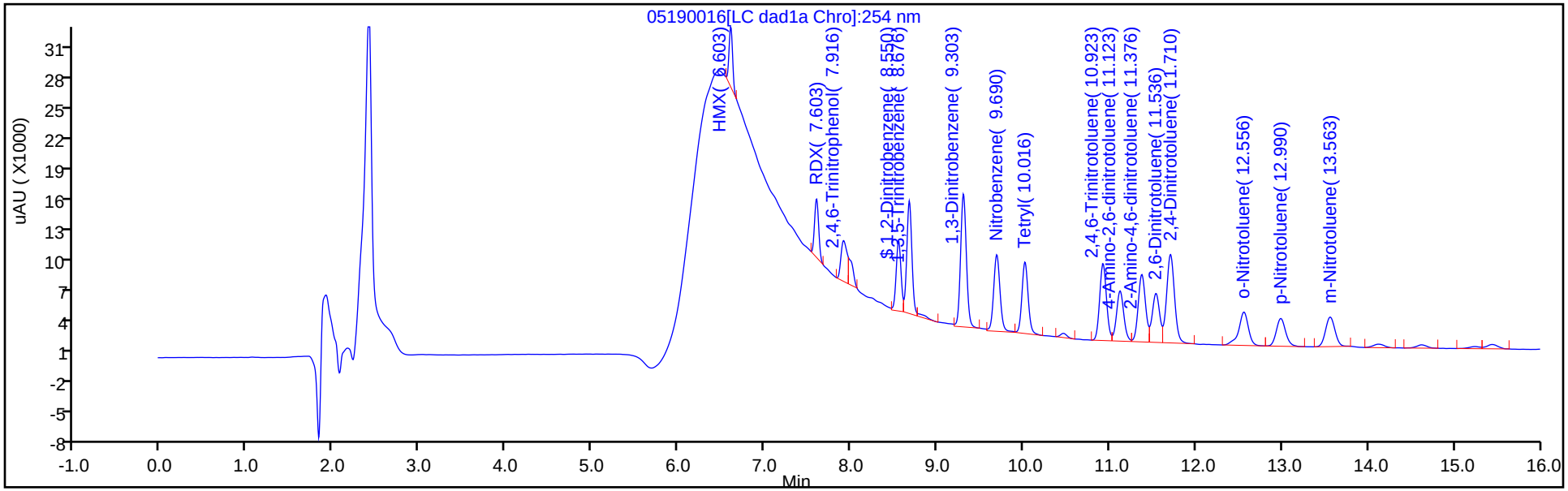
Report Date: 20-May-2022 13:40:11 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

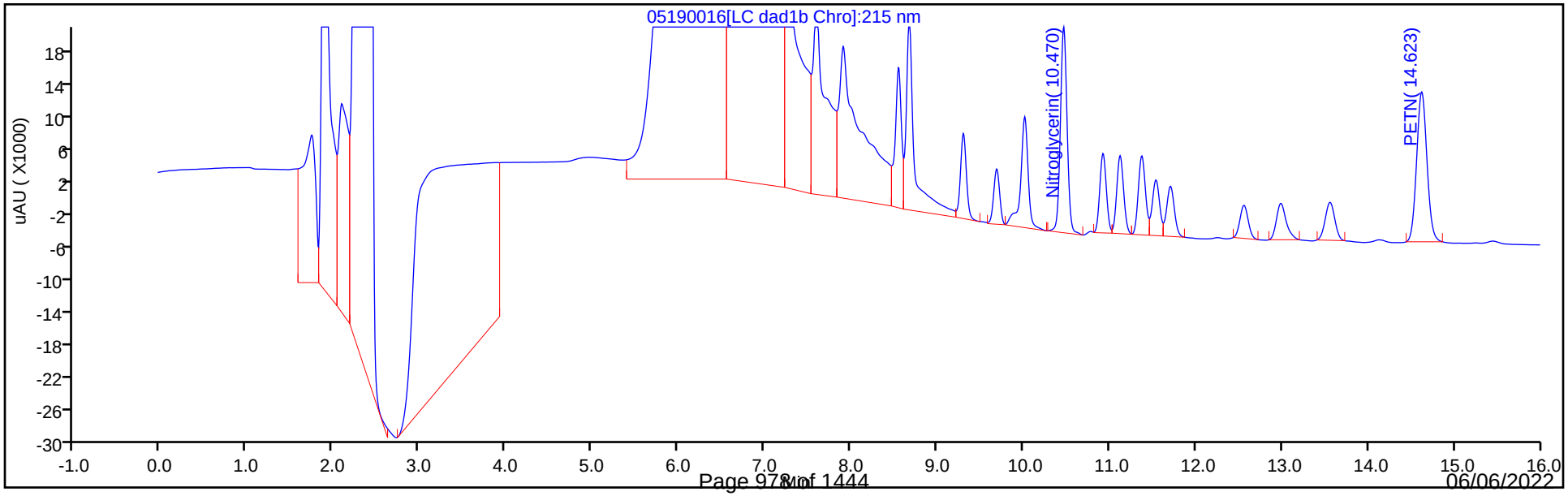
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190016.d

Injection Date:	19-May-2022 22:46:01	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-A-1-C MSD			Worklist Smp#:	16
Client ID:	PZ007-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190016.D				
Lims ID:	280-162386-A-1-C MSD				
Client ID:	PZ007-22A				
Sample Type:	MSD				
Inject. Date:	19-May-2022 22:46:01	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-A-1-C				
Misc. Info.:	280-0111180-016				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:10:17

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2168	108.39

Manual Integration/User Assign Peak Report

Eurofins Denver

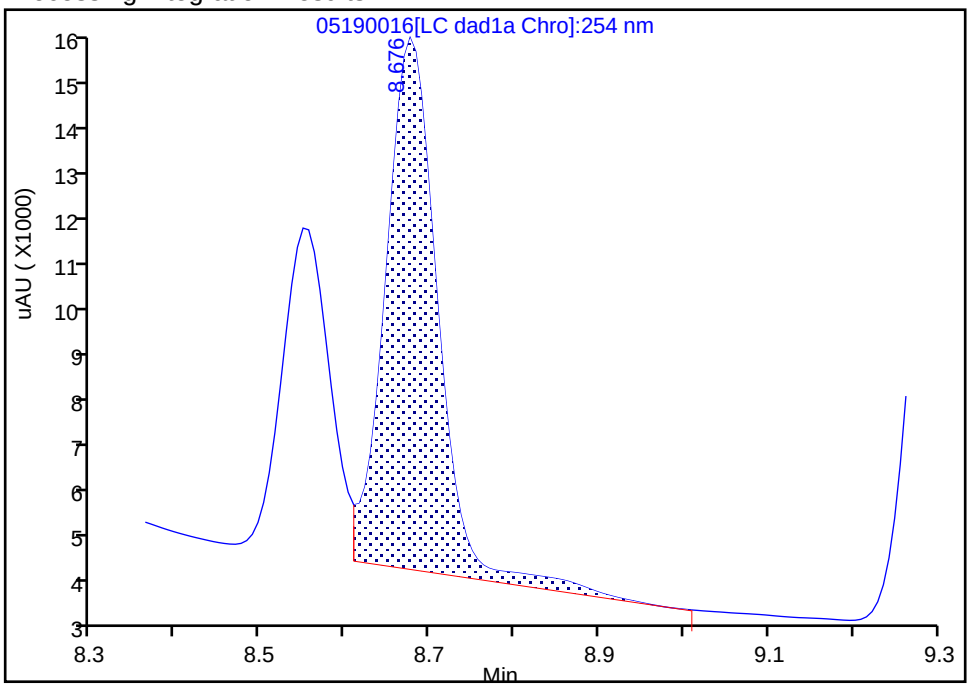
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190016.d				
Injection Date:	19-May-2022 22:46:01	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-1-C MSD				
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

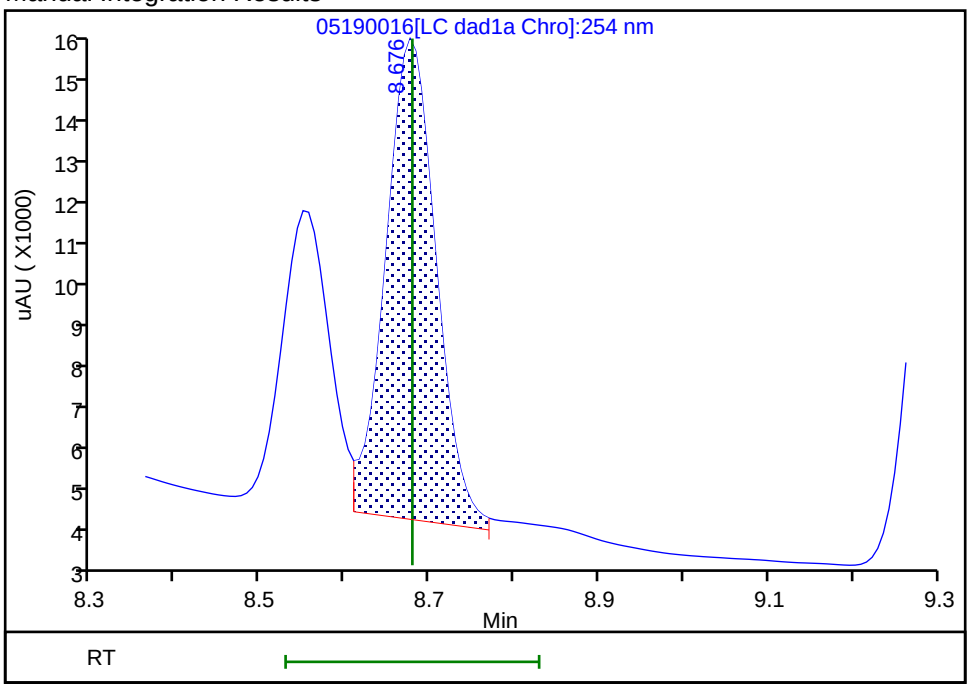
Processing Integration Results

RT: 8.68
Area: 47532
Amount: 0.217941
Amount Units: ug/mL



Manual Integration Results

RT: 8.68
Area: 45589
Amount: 0.209032
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:10:16
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

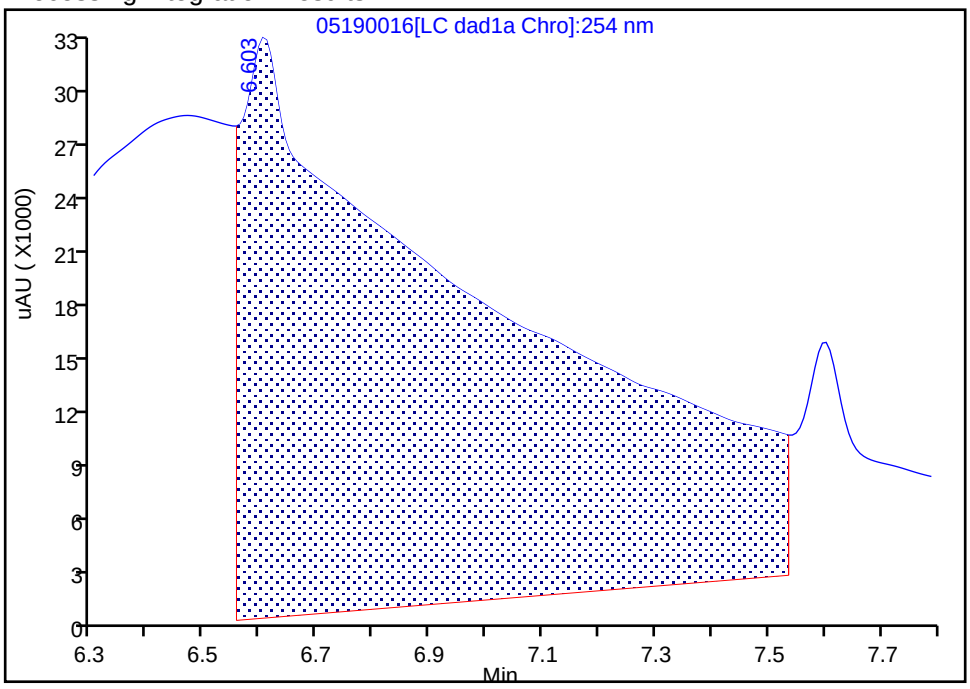
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190016.d				
Injection Date:	19-May-2022 22:46:01	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-1-C MSD				
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

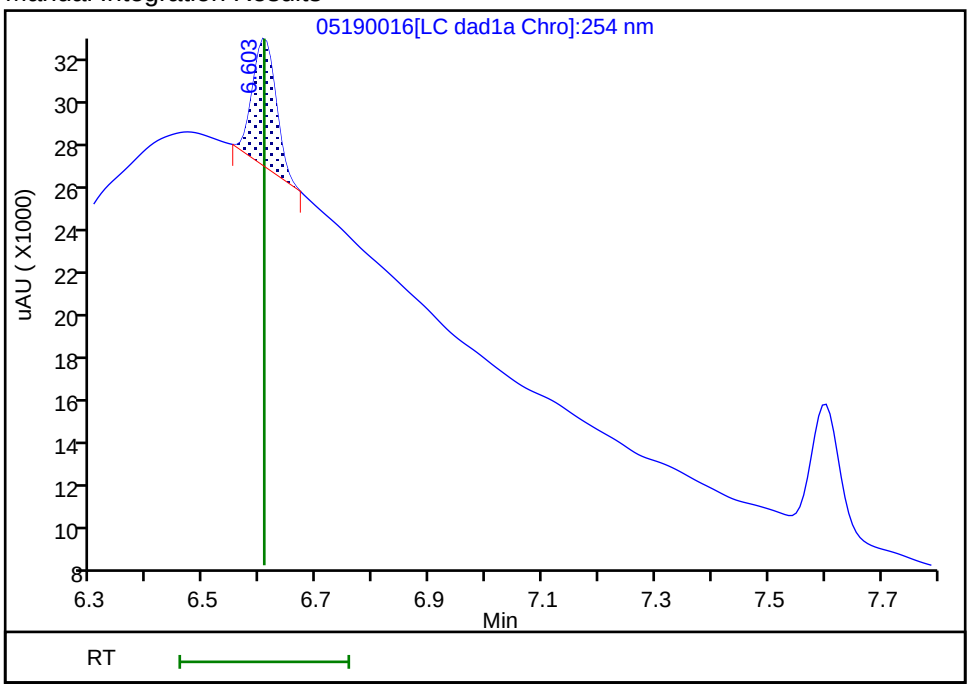
Processing Integration Results

RT: 6.60
Area: 973381
Amount: 11.611756
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 16993
Amount: 0.202715
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:08:23
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

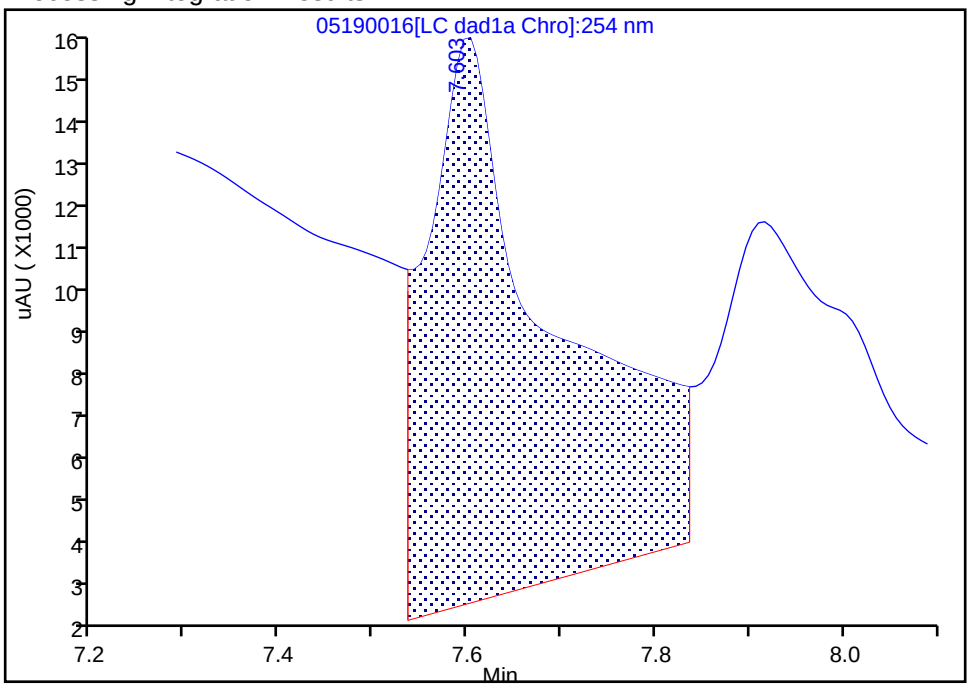
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190016.d				
Injection Date:	19-May-2022 22:46:01	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-A-1-C MSD				
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

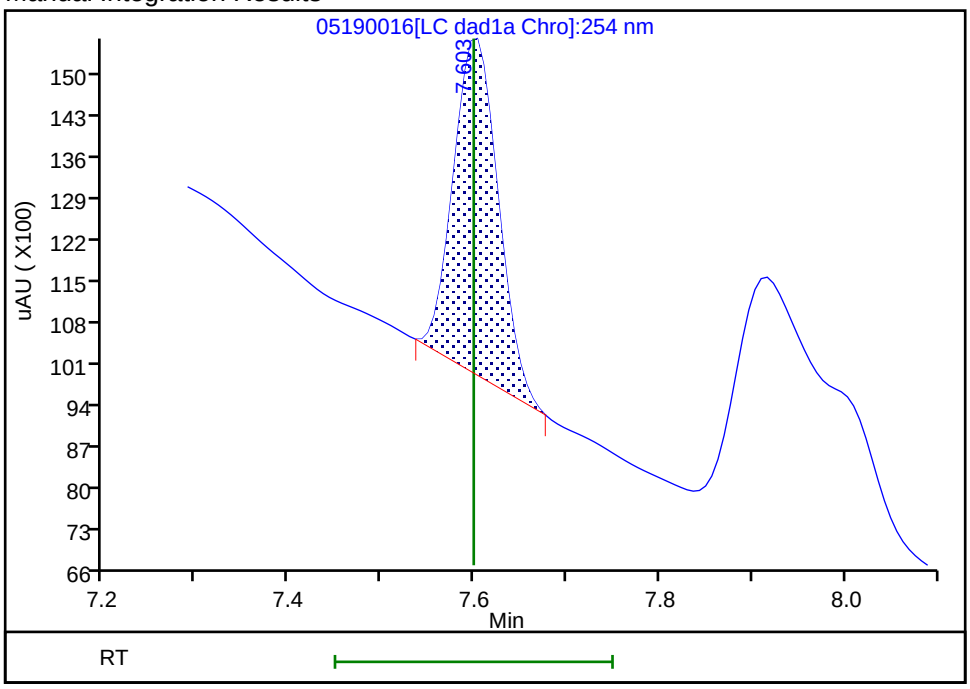
Processing Integration Results

RT: 7.60
Area: 118727
Amount: 1.145912
Amount Units: ug/mL



Manual Integration Results

RT: 7.60
Area: 19222
Amount: 0.185524
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:08:26
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Client Sample ID: PZ007-22A MSD | Lab Sample ID: 280-162386-1 MSD

Matrix: Water | Lab File ID: 05190018.D

Analysis Method: 8330A | Date Collected: 05/13/2022 09:15

Extraction Method: 3535 | Date Extracted: 05/19/2022 14:06

Sample wt/vol: 476.2(mL) | Date Analyzed: 05/19/2022 23:31

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 575600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	2.39	M	2.1	0.42	0.16

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	106	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190018.D				
Lims ID:	280-162386-B-1-B MSD				
Client ID:	PZ007-22A				
Sample Type:	MSD				
Inject. Date:	19-May-2022 23:31:47	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-B-1-B				
Misc. Info.:	280-0111180-018				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				
First Level Reviewer: zhangji		Date:	20-May-2022 12:11:01		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.487	6.486	0.001	39421	0.2000	0.2175	M
6 DNX	1	6.800	6.799	0.001	27584	0.2008	0.1997	M
7 MNX	1	7.220	7.219	0.001	28679	0.2340	0.2276	M
$ 10 1,2-Dinitrobenzene	1	8.553	8.552	0.001	26542	0.2000	0.2129	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

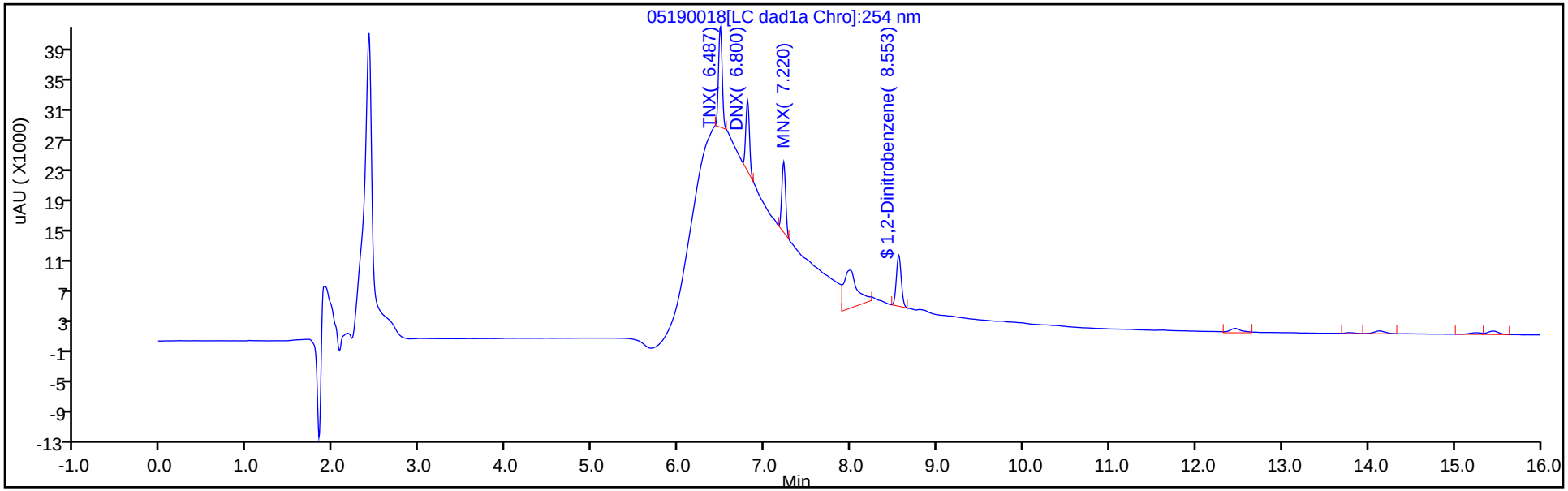
Report Date: 20-May-2022 13:40:09 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

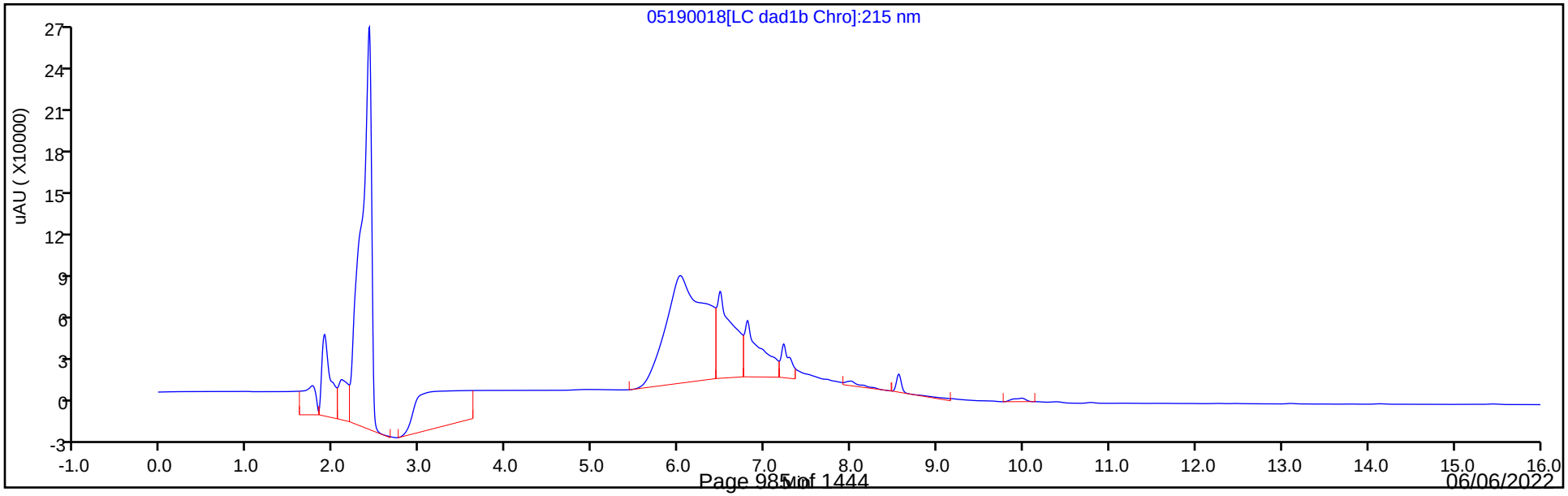
Data File: \\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190018.d

Injection Date:	19-May-2022 23:31:47	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-162386-B-1-B MSD			Worklist Smp#:	18
Client ID:	PZ007-22A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\05190018.D				
Lims ID:	280-162386-B-1-B MSD				
Client ID:	PZ007-22A				
Sample Type:	MSD				
Inject. Date:	19-May-2022 23:31:47	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-162386-B-1-B				
Misc. Info.:	280-0111180-018				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220519-111180.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2022 13:40:07	Calib Date:	25-Mar-2022 16:30:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220325-109559.b\03250017.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1677				

First Level Reviewer: zhangji Date: 20-May-2022 12:11:01

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2129	106.43

Manual Integration/User Assign Peak Report

Eurofins Denver

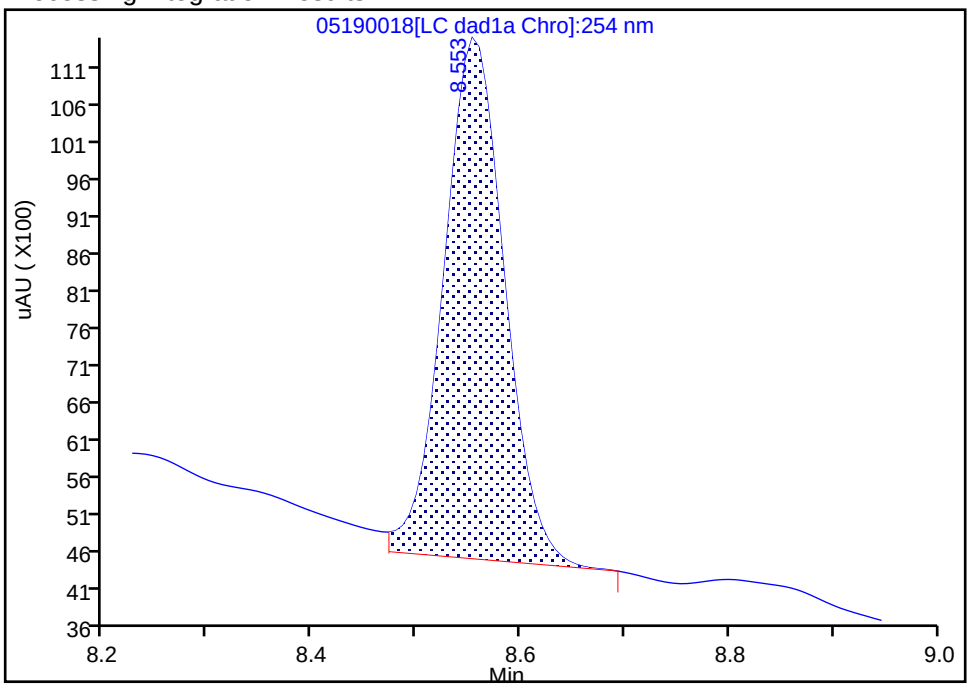
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190018.d				
Injection Date:	19-May-2022 23:31:47	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-1-B MSD				
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

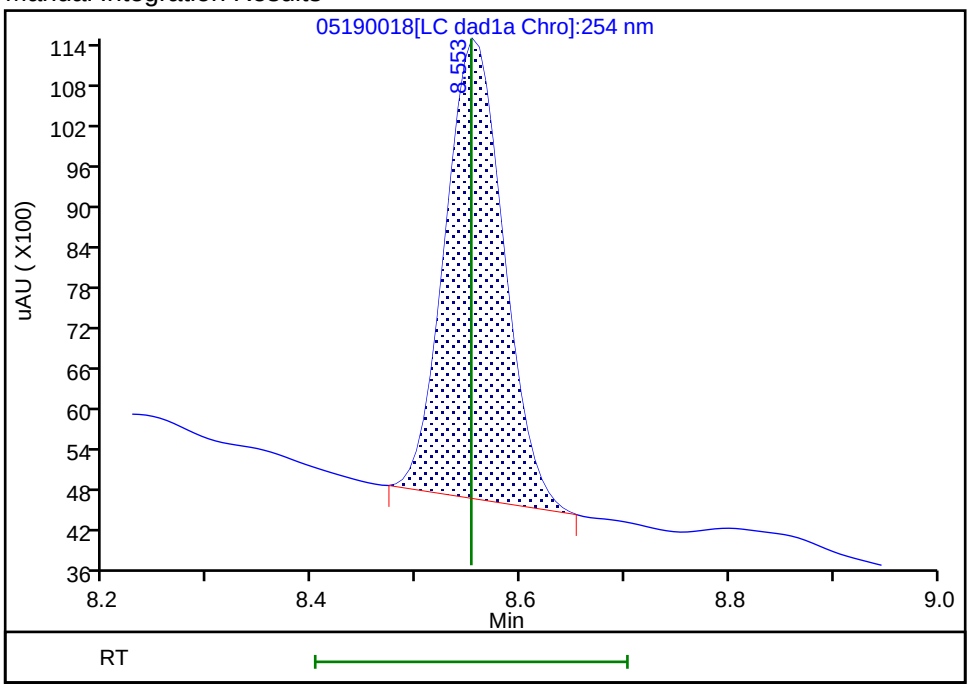
Processing Integration Results

RT: 8.55
Area: 28206
Amount: 0.226195
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 26542
Amount: 0.212851
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:10:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

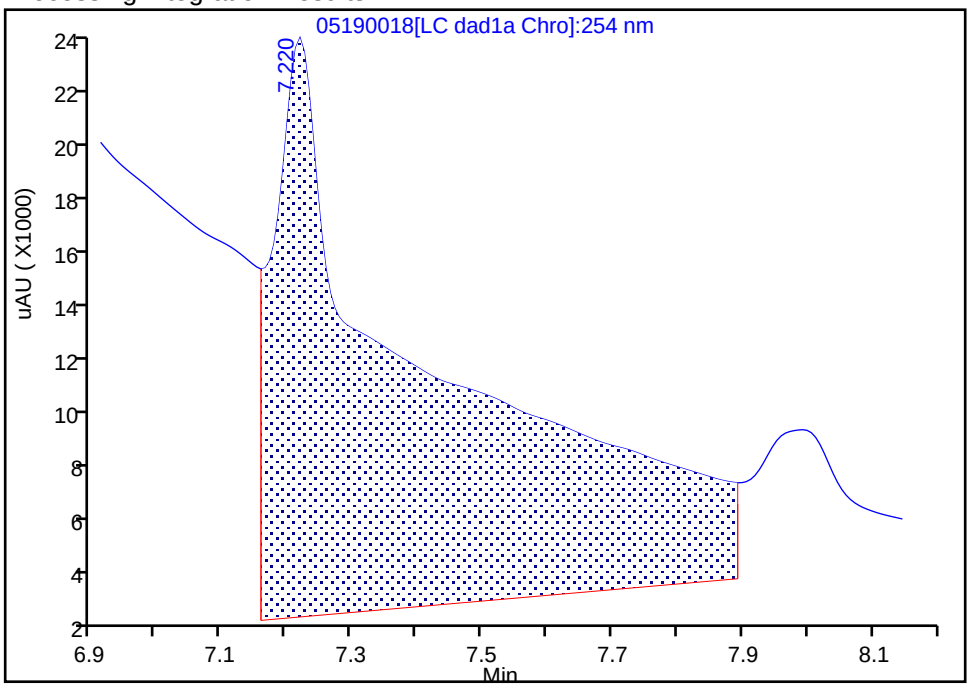
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220519-111180.b\05190018.d				
Injection Date:	19-May-2022 23:31:47	Instrument ID:	CHHPLC_X3		
Lims ID:	280-162386-B-1-B MSD				
Client ID:	PZ007-22A				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

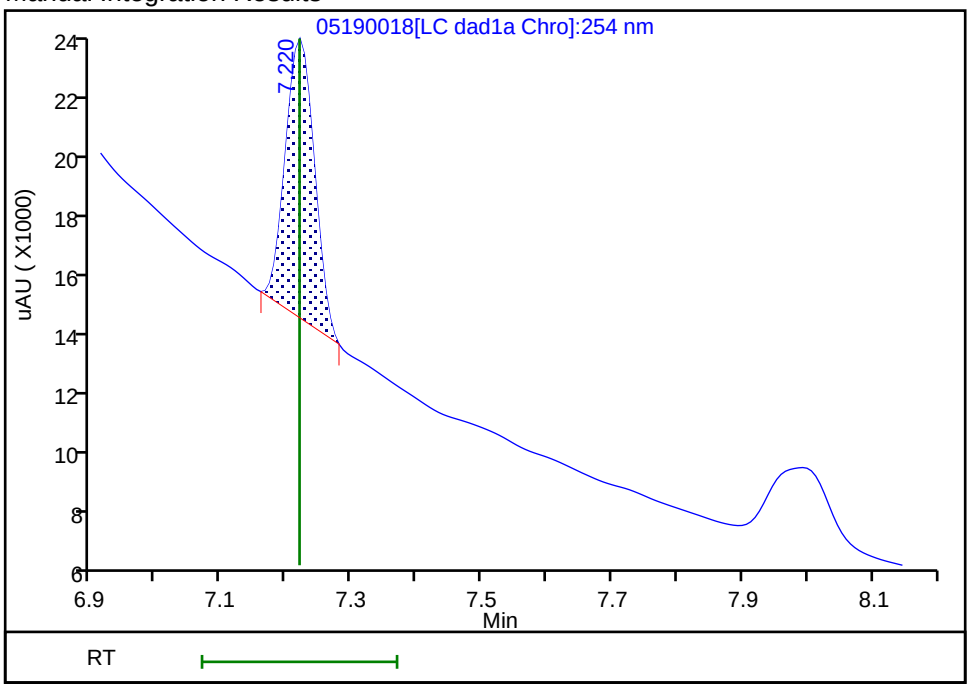
Processing Integration Results

RT: 7.22
Area: 359192
Amount: 2.850834
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 28679
Amount: 0.227619
Amount Units: ug/mL



Reviewer: zhangji, 20-May-2022 12:11:00

Audit Action: Manually Integrated Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 01/04/2022 18:28

Analysis Batch Number: 562503 End Date: 01/05/2022 04:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-562503/11		01/04/2022 18:28	1	01040011.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/12		01/04/2022 18:51	1	01040012.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/13		01/04/2022 19:13	1	01040013.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/14		01/04/2022 19:36	1	01040014.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/15		01/04/2022 19:59	1	01040015.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/16		01/04/2022 20:22	1	01040016.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/17		01/04/2022 20:45	1	01040017.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/18		01/04/2022 21:08	1	01040018.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/19		01/04/2022 21:31	1	01040019.D	UltraCarb5uODS 4.6(mm)
ICV 280-562503/20		01/04/2022 21:54	1	01040020.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/21		01/04/2022 22:17	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/22		01/04/2022 22:40	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/23		01/04/2022 23:03	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/24		01/04/2022 23:26	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/25		01/04/2022 23:49	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/26		01/05/2022 00:11	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/27		01/05/2022 00:34	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/28		01/05/2022 00:57	1		UltraCarb5uODS 4.6(mm)
ICV 280-562503/29		01/05/2022 01:20	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/30		01/05/2022 01:43	1	01040030.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/31		01/05/2022 02:06	1	01040031.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/32		01/05/2022 02:29	1	01040032.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/33		01/05/2022 02:52	1	01040033.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/34		01/05/2022 03:15	1	01040034.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/35		01/05/2022 03:38	1	01040035.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/36		01/05/2022 04:01	1	01040036.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/37		01/05/2022 04:24	1	01040037.D	UltraCarb5uODS 4.6(mm)
ICV 280-562503/38		01/05/2022 04:47	1	01040038.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 03/02/2022 21:22

Analysis Batch Number: 567560 End Date: 03/03/2022 07:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-567560/10		03/02/2022 21:22	1	03020010.D	Luna-phenylhex 4.6(mm)
IC 280-567560/11		03/02/2022 21:57	1	03020011.D	Luna-phenylhex 4.6(mm)
IC 280-567560/12		03/02/2022 22:32	1	03020012.D	Luna-phenylhex 4.6(mm)
IC 280-567560/13		03/02/2022 23:07	1	03020013.D	Luna-phenylhex 4.6(mm)
IC 280-567560/14		03/02/2022 23:42	1	03020014.D	Luna-phenylhex 4.6(mm)
IC 280-567560/15		03/03/2022 00:17	1	03020015.D	Luna-phenylhex 4.6(mm)
IC 280-567560/16		03/03/2022 00:53	1	03020016.D	Luna-phenylhex 4.6(mm)
IC 280-567560/17		03/03/2022 01:28	1	03020017.D	Luna-phenylhex 4.6(mm)
IC 280-567560/18		03/03/2022 02:03	1	03020018.D	Luna-phenylhex 4.6(mm)
ICV 280-567560/19		03/03/2022 02:38	1	03020019.D	Luna-phenylhex 4.6(mm)
IC 280-567560/20		03/03/2022 03:13	1	03020020.D	Luna-phenylhex 4.6(mm)
IC 280-567560/21		03/03/2022 03:49	1	03020021.D	Luna-phenylhex 4.6(mm)
IC 280-567560/22		03/03/2022 04:24	1	03020022.D	Luna-phenylhex 4.6(mm)
IC 280-567560/23		03/03/2022 04:59	1	03020023.D	Luna-phenylhex 4.6(mm)
IC 280-567560/24		03/03/2022 05:34	1	03020024.D	Luna-phenylhex 4.6(mm)
IC 280-567560/25		03/03/2022 06:09	1	03020025.D	Luna-phenylhex 4.6(mm)
IC 280-567560/26		03/03/2022 06:44	1	03020026.D	Luna-phenylhex 4.6(mm)
IC 280-567560/27		03/03/2022 07:19	1	03020027.D	Luna-phenylhex 4.6(mm)
ICV 280-567560/28		03/03/2022 07:54	1	03020028.D	Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 05/19/2022 19:42

Analysis Batch Number: 575600 End Date: 05/20/2022 07:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-575600/7		05/19/2022 19:42	1	05190007.D	UltraCarb5uODS 4.6(mm)
CCV 280-575600/8		05/19/2022 20:05	1		UltraCarb5uODS 4.6(mm)
CCV 280-575600/9		05/19/2022 20:28	1	05190009.D	UltraCarb5uODS 4.6(mm)
MB 280-575516/1-A		05/19/2022 20:51	1	05190011.D	UltraCarb5uODS 4.6(mm)
LCS 280-575516/2-A		05/19/2022 21:14	1	05190012.D	UltraCarb5uODS 4.6(mm)
LCS 280-575516/3-A		05/19/2022 21:37	1	05190013.D	UltraCarb5uODS 4.6(mm)
280-162386-1	PZ007-22A	05/19/2022 22:00	1	05190014.D	UltraCarb5uODS 4.6(mm)
280-162386-1 MS	PZ007-22A MS	05/19/2022 22:23	1	05190015.D	UltraCarb5uODS 4.6(mm)
280-162386-1 MSD	PZ007-22A MSD	05/19/2022 22:46	1	05190016.D	UltraCarb5uODS 4.6(mm)
280-162386-1 MS	PZ007-22A MS	05/19/2022 23:08	1	05190017.D	UltraCarb5uODS 4.6(mm)
280-162386-1 MSD	PZ007-22A MSD	05/19/2022 23:31	1	05190018.D	UltraCarb5uODS 4.6(mm)
280-162386-2	G0087-22A	05/19/2022 23:54	1	05190019.D	UltraCarb5uODS 4.6(mm)
280-162386-3	G0117-22A	05/20/2022 00:17	1	05190020.D	UltraCarb5uODS 4.6(mm)
CCV 280-575600/21		05/20/2022 00:40	1	05190021.D	UltraCarb5uODS 4.6(mm)
CCV 280-575600/22		05/20/2022 01:03	1		UltraCarb5uODS 4.6(mm)
CCV 280-575600/23		05/20/2022 01:26	1	05190023.D	UltraCarb5uODS 4.6(mm)
280-162386-4	G0022-22A	05/20/2022 01:49	1	05190024.D	UltraCarb5uODS 4.6(mm)
280-162386-5	G0088-22A	05/20/2022 02:12	1	05190025.D	UltraCarb5uODS 4.6(mm)
280-162386-6	G0116-22A	05/20/2022 02:35	1	05190026.D	UltraCarb5uODS 4.6(mm)
280-162386-7	PZ014-22A	05/20/2022 02:58	1	05190027.D	UltraCarb5uODS 4.6(mm)
280-162386-8	G0092-22A	05/20/2022 03:21	1	05190028.D	UltraCarb5uODS 4.6(mm)
280-162386-9	PZ013-22A	05/20/2022 03:43	1	05190029.D	UltraCarb5uODS 4.6(mm)
280-162386-10	G0081-22A	05/20/2022 04:06	1	05190030.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/20/2022 04:29	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/20/2022 04:52	1		UltraCarb5uODS 4.6(mm)
CCV 280-575600/33		05/20/2022 05:15	1	05190033.D	UltraCarb5uODS 4.6(mm)
CCV 280-575600/34		05/20/2022 05:38	1		UltraCarb5uODS 4.6(mm)
CCV 280-575600/35		05/20/2022 06:01	1	05190035.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/20/2022 06:24	20		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/20/2022 06:47	20		UltraCarb5uODS 4.6(mm)
CCV 280-575600/38		05/20/2022 07:10	1		UltraCarb5uODS 4.6(mm)
CCV 280-575600/39		05/20/2022 07:33	1		UltraCarb5uODS 4.6(mm)
CCV 280-575600/40		05/20/2022 07:56	1		UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 05/20/2022 16:51

Analysis Batch Number: 575712 End Date: 05/21/2022 05:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-575712/7		05/20/2022 16:51	1	05200007.D	Luna-phenylhex 4.6(mm)
CCV 280-575712/8		05/20/2022 17:26	1	05200008.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/20/2022 18:01	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/20/2022 18:36	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/20/2022 19:11	1		Luna-phenylhex 4.6(mm)
280-162386-2	G0087-22A	05/20/2022 19:46	1	05200013.D	Luna-phenylhex 4.6(mm)
280-162386-3	G0117-22A	05/20/2022 20:21	1	05200014.D	Luna-phenylhex 4.6(mm)
280-162386-4	G0022-22A	05/20/2022 20:57	1	05200015.D	Luna-phenylhex 4.6(mm)
280-162386-5	G0088-22A	05/20/2022 21:32	1	05200016.D	Luna-phenylhex 4.6(mm)
280-162386-6	G0116-22A	05/20/2022 22:07	1	05200017.D	Luna-phenylhex 4.6(mm)
280-162386-9	PZ013-22A	05/20/2022 22:42	1	05200018.D	Luna-phenylhex 4.6(mm)
280-162386-10	G0081-22A	05/20/2022 23:17	1	05200019.D	Luna-phenylhex 4.6(mm)
CCV 280-575712/20		05/20/2022 23:52	1	05200020.D	Luna-phenylhex 4.6(mm)
CCV 280-575712/21		05/21/2022 00:27	1	05200021.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/21/2022 01:02	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/21/2022 01:37	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/21/2022 02:12	20		Luna-phenylhex 4.6(mm)
ZZZZZ		05/21/2022 02:47	20		Luna-phenylhex 4.6(mm)
ZZZZZ		05/21/2022 03:22	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/21/2022 03:57	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/21/2022 04:32	1		Luna-phenylhex 4.6(mm)
CCV 280-575712/31		05/21/2022 05:07	1		Luna-phenylhex 4.6(mm)
CCV 280-575712/32		05/21/2022 05:42	1		Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 562503 Batch Start Date: 01/04/22 18:28 Batch Analyst: Zhang, Jian

Batch Method: 8330A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	8330 DMT 00010	8330 LCS 00111	8330_OP_DMT 00012	8330IntermStk 00070	8330Surrogate 00127
IC 280-562503/11		8330A		1.0 mL				250 uL	
IC 280-562503/12		8330A		1.0 mL				100 uL	
IC 280-562503/13		8330A		1.0 mL				70 uL	
IC 280-562503/14		8330A		1.0 mL				40 uL	
IC 280-562503/15		8330A		1.0 mL				25 uL	
IC 280-562503/16		8330A		1.0 mL				10 uL	
IC 280-562503/17		8330A		1.0 mL				5 uL	
IC 280-562503/18		8330A		1.0 mL				2 uL	
IC 280-562503/19		8330A		1.0 mL				1 uL	
ICV 280-562503/20		8330A		1.0 mL		50 uL			50 uL
IC 280-562503/30		8330A			125 uL				
IC 280-562503/31		8330A			50 uL				
IC 280-562503/32		8330A			35 uL				
IC 280-562503/33		8330A			20 uL				
IC 280-562503/34		8330A			12.5 uL				
IC 280-562503/35		8330A			5 uL				
IC 280-562503/36		8330A			2.5 uL				
IC 280-562503/37		8330A			1 uL				
ICV 280-562503/38		8330A					50 uL		

Batch Notes	
Methanol ID	214340

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.: 280-162386-1

SDG No.:

Batch Number: 562503 Batch Start Date: 01/04/22 18:28 Batch Analyst: Zhang, Jian

Batch Method: 8330A 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.: 280-162386-1

SDG No.:

Batch Number: 567560 Batch Start Date: 03/02/22 21:22 Batch Analyst: Zhang, Jian

Batch Method: 8330A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	3,5-DNA LCS 00040	8330 DMT 00010	8330 LCS 00111	8330_ADDs 00031	8330_OP_DMT 00012
IC 280-567560/10		8330A		1.0 mL				125 uL	
IC 280-567560/11		8330A		1.0 mL				50 uL	
IC 280-567560/12		8330A		1.0 mL				35 uL	
IC 280-567560/13		8330A		1.0 mL				20 uL	
IC 280-567560/14		8330A		1.0 mL				12.5 uL	
IC 280-567560/15		8330A		1.0 mL				5 uL	
IC 280-567560/16		8330A		1.0 mL				2.5 uL	
IC 280-567560/17		8330A		1.0 mL				1 uL	
IC 280-567560/18		8330A		1.0 mL				0.5 uL	
ICV 280-567560/19		8330A		1.0 mL	50 uL		50 uL		
IC 280-567560/20		8330A		1.0 mL		125 uL			
IC 280-567560/21		8330A		1.0 mL		50 uL			
IC 280-567560/22		8330A		1.0 mL		35 uL			
IC 280-567560/23		8330A		1.0 mL		20 uL			
IC 280-567560/24		8330A		1.0 mL		12.5 uL			
IC 280-567560/25		8330A		1.0 mL		5 uL			
IC 280-567560/26		8330A		1.0 mL		2.5 uL			
IC 280-567560/27		8330A		1.0 mL		1 uL			
ICV 280-567560/28		8330A							50 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330DiaminLCS 00047	8330IntermStk 00070	8330Surrogate 00127			

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.: 280-162386-1

SDG No.:

Batch Number: 567560 Batch Start Date: 03/02/22 21:22 Batch Analyst: Zhang, Jian

Batch Method: 8330A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330DiaminLCS 00047	8330IntermStk 00070	8330Surrogate 00127			
IC 280-567560/10		8330A			250 uL				
IC 280-567560/11		8330A			100 uL				
IC 280-567560/12		8330A			70 uL				
IC 280-567560/13		8330A			40 uL				
IC 280-567560/14		8330A			25 uL				
IC 280-567560/15		8330A			10 uL				
IC 280-567560/16		8330A			5 uL				
IC 280-567560/17		8330A			2 uL				
IC 280-567560/18		8330A			1 uL				
ICV 280-567560/19		8330A		50 uL		50 uL			
IC 280-567560/20		8330A							
IC 280-567560/21		8330A							
IC 280-567560/22		8330A							
IC 280-567560/23		8330A							
IC 280-567560/24		8330A							
IC 280-567560/25		8330A							
IC 280-567560/26		8330A							
IC 280-567560/27		8330A							
ICV 280-567560/28		8330A							

Batch Notes	
Methanol ID	214340

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.: 280-162386-1

SDG No.:

Batch Number: 567560 Batch Start Date: 03/02/22 21:22 Batch Analyst: Zhang, Jian

Batch Method: 8330A 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.: 280-162386-1

SDG No.:

Batch Number: 575516 Batch Start Date: 05/19/22 14:06 Batch Analyst: Lee, David C

Batch Method: 3535 Batch End Date: 05/19/22 18:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00113	8330_OP_DMT 00014
MB 280-575516/1		3535, 8330A				500 mL	5 mL		
LCS 280-575516/2		3535, 8330A				500 mL	5 mL	0.1 mL	
LCS 280-575516/3		3535, 8330A				500 mL	5 mL		0.1 mL
280-162386-A-1	PZ007-22A	3535, 8330A	T	789.4 g	286.6 g	502.8 mL	5 mL		
280-162386-A-1 MS	PZ007-22A	3535, 8330A	T	793.0 g	286.3 g	506.7 mL	5 mL	0.1 mL	
280-162386-A-1 MSD	PZ007-22A	3535, 8330A	T	802.7 g	286.4 g	516.3 mL	5 mL	0.1 mL	
280-162386-B-1 MS	PZ007-22A	3535, 8330A	T	785.3 g	286.9 g	498.4 mL	5 mL		0.1 mL
280-162386-B-1 MSD	PZ007-22A	3535, 8330A	T	762.3 g	286.1 g	476.2 mL	5 mL		0.1 mL
280-162386-A-2	G0087-22A	3535, 8330A	T	787.4 g	285.7 g	501.7 mL	5 mL		
280-162386-B-3	G0117-22A	3535, 8330A	T	784.5 g	287.2 g	497.3 mL	5 mL		
280-162386-A-4	G0022-22A	3535, 8330A	T	767.7 g	284.9 g	482.8 mL	5 mL		
280-162386-B-5	G0088-22A	3535, 8330A	T	780.7 g	286.2 g	494.5 mL	5 mL		
280-162386-A-6	G0116-22A	3535, 8330A	T	764.0 g	287.2 g	476.8 mL	5 mL		
280-162386-A-7	PZ014-22A	3535, 8330A	T	721.1 g	256.4 g	464.7 mL	5 mL		
280-162386-A-8	G0092-22A	3535, 8330A	T	727.2 g	256.9 g	470.3 mL	5 mL		
280-162386-B-9	PZ013-22A	3535, 8330A	T	780.5 g	288.1 g	492.4 mL	5 mL		
280-162386-A-10	G0081-22A	3535, 8330A	T	775.4 g	286.0 g	489.4 mL	5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330Surrogate 00128	AnalysisComment				
MB 280-575516/1		3535, 8330A		0.1 mL					
LCS 280-575516/2		3535, 8330A		0.1 mL	8330 LCS				
LCS 280-575516/3		3535, 8330A		0.1 mL	DMT				
280-162386-A-1	PZ007-22A	3535, 8330A	T	0.1 mL					
280-162386-A-1 MS	PZ007-22A	3535, 8330A	T	0.1 mL	8330 LCS				
280-162386-A-1 MSD	PZ007-22A	3535, 8330A	T	0.1 mL	8330 LCS				

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.: 280-162386-1

SDG No.:

Batch Number: 575516 Batch Start Date: 05/19/22 14:06 Batch Analyst: Lee, David C

Batch Method: 3535 Batch End Date: 05/19/22 18:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330Surrogate 00128	AnalysisComment				
280-162386-B-1 MS	PZ007-22A	3535, 8330A	T	0.1 mL	DMT				
280-162386-B-1 MSD	PZ007-22A	3535, 8330A	T	0.1 mL	DMT				
280-162386-A-2	G0087-22A	3535, 8330A	T	0.1 mL					
280-162386-B-3	G0117-22A	3535, 8330A	T	0.1 mL					
280-162386-A-4	G0022-22A	3535, 8330A	T	0.1 mL					
280-162386-B-5	G0088-22A	3535, 8330A	T	0.1 mL					
280-162386-A-6	G0116-22A	3535, 8330A	T	0.1 mL					
280-162386-A-7	PZ014-22A	3535, 8330A	T	0.1 mL					
280-162386-A-8	G0092-22A	3535, 8330A	T	0.1 mL					
280-162386-B-9	PZ013-22A	3535, 8330A	T	0.1 mL					
280-162386-A-10	G0081-22A	3535, 8330A	T	0.1 mL					

Batch Notes	
First Start time	05/19/2022 14:36
First End time	05/19/2022 17:37
SPE Cartridge Type	Porapak RDX
SPE Cartridge Lot ID	005231202A
Balance ID	24350888
Pipette/Syringe/Dispenser ID	JiJi, Soot, DOD
Solvent Name	Acetonitrile
Solvent Lot #	Acetonitrile_0065
Rinse Solvent Name	0.1%AAinACN
Rinse Solvent Lot	0.1%AAinACN_00179
Acid Name	Ca2Cl
Acid ID	Ca2Cl_Sol_00080
Analyst ID - Spike Analyst	AA
Analyst ID - Spike Witness Analyst	Reviewer: DL
Batch Comment	DV-OP-0017; Mantel: B

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.: 280-162386-1

SDG No.:

Batch Number: 575516 Batch Start Date: 05/19/22 14:06 Batch Analyst: Lee, David C

Batch Method: 3535 Batch End Date: 05/19/22 18:05

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: 280-162386-1

SDG No.:

Project: Cornhusker (CHAAP)

Client Sample ID	Lab Sample ID
PZ007-22A	280-162386-1
G0087-22A	280-162386-2
G0117-22A	280-162386-3
G0022-22A	280-162386-4
G0088-22A	280-162386-5
G0116-22A	280-162386-6
PZ014-22A	280-162386-7
G0092-22A	280-162386-8
PZ013-22A	280-162386-9
G0081-22A	280-162386-10

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PZ007-22A
Lab Sample ID: 280-162386-1
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 09:15
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.074	0.10	0.050	0.029	mg/L	J		1	350.1
Nitrogen, Total Kjeldahl	0.80	1.0	0.80	0.69	mg/L	U	J1	1	351.2
Nitrate Nitrite as N	0.59	0.10	0.050	0.044	mg/L			1	353.2
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	9034
Sulfate	850	25	13	5.2	mg/L		D M	5	9056A
Total Alkalinity as CaCO3	380	10	6.4	3.1	mg/L		B	1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: PZ007-22A
Lab Sample ID: 280-162386-1
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 09:15
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	4.2	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0087-22A
Lab Sample ID: 280-162386-2
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 13:15
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.029	mg/L	U		1	350.1
Nitrogen, Total Kjeldahl	0.80	1.0	0.80	0.69	mg/L	U		1	351.2
Nitrate Nitrite as N	6.8	0.10	0.050	0.044	mg/L			1	353.2
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	9034
Sulfate	140	5.0	2.5	1.0	mg/L		M	1	9056A
Total Alkalinity as CaCO3	290	10	6.4	3.1	mg/L		B	1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0087-22A
Lab Sample ID: 280-162386-2
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 13:15
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	3.1	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0117-22A
Lab Sample ID: 280-162386-3
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 12:55
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	6.4	0.20	0.10	0.058	mg/L			2	350.1
Nitrogen, Total Kjeldahl	8.7	1.0	0.80	0.69	mg/L			1	351.2
Nitrate Nitrite as N	0.050	0.10	0.050	0.044	mg/L	U		1	353.2
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	9034
Sulfate	380	25	13	5.2	mg/L		D M	5	9056A
Total Alkalinity as CaCO3	890	10	6.4	3.1	mg/L		B	1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0117-22A
Lab Sample ID: 280-162386-3
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 12:55
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	10	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0022-22A
Lab Sample ID: 280-162386-4
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 14:25
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.89	0.10	0.050	0.029	mg/L			1	350.1
Nitrogen, Total Kjeldahl	0.80	1.0	0.80	0.69	mg/L	U		1	351.2
Nitrate Nitrite as N	7.5	0.10	0.050	0.044	mg/L			1	353.2
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	9034
Sulfate	140	5.0	2.5	1.0	mg/L		M	1	9056A
Total Alkalinity as CaCO3	350	10	6.4	3.1	mg/L		B	1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0022-22A
Lab Sample ID: 280-162386-4
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 14:25
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	3.9	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0088-22A
Lab Sample ID: 280-162386-5
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 15:35
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.096	0.10	0.050	0.029	mg/L	J		1	350.1
Nitrogen, Total Kjeldahl	0.80	1.0	0.80	0.69	mg/L	U		1	351.2
Nitrate Nitrite as N	1.4	0.10	0.050	0.044	mg/L			1	353.2
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	9034
Sulfate	280	10	5.0	2.1	mg/L		D M	2	9056A
Total Alkalinity as CaCO3	300	10	6.4	3.1	mg/L		B	1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0088-22A
Lab Sample ID: 280-162386-5
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 15:35
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	2.9	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0116-22A
Lab Sample ID: 280-162386-6
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 14:40
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	12	1.0	0.50	0.29	mg/L			10	350.1
Nitrogen, Total Kjeldahl	14	5.0	4.0	3.4	mg/L		D	5	351.2
Nitrate Nitrite as N	0.050	0.10	0.050	0.044	mg/L	U		1	353.2
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	9034
Sulfate	250	25	13	5.2	mg/L		D M	5	9056A
Total Alkalinity as CaCO3	1000	10	6.4	3.1	mg/L		B	1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0116-22A
Lab Sample ID: 280-162386-6
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 14:40
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	17	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PZ014-22A
Lab Sample ID: 280-162386-7
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 15:50
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.49	0.10	0.050	0.029	mg/L			1	350.1
Nitrogen, Total Kjeldahl	1.5	1.0	0.80	0.69	mg/L			1	351.2
Nitrate Nitrite as N	0.050	0.10	0.050	0.044	mg/L	U		1	353.2
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	9034
Sulfate	490	25	13	5.2	mg/L		D M	5	9056A
Total Alkalinity as CaCO3	590	10	6.4	3.1	mg/L		B	1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: PZ014-22A
Lab Sample ID: 280-162386-7
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 15:50
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	7.8	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0092-22A
Lab Sample ID: 280-162386-8
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/12/2022 14:20
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.050	0.10	0.050	0.029	mg/L	U		1	350.1
Nitrogen, Total Kjeldahl	0.80	1.0	0.80	0.69	mg/L	U		1	351.2
Nitrate Nitrite as N	0.050	0.10	0.050	0.044	mg/L	U		1	353.2
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	9034
Sulfate	410	25	13	5.2	mg/L		D M	5	9056A
Total Alkalinity as CaCO3	330	10	6.4	3.1	mg/L		B	1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0092-22A
Lab Sample ID: 280-162386-8
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/12/2022 14:20
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	3.4	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PZ013-22A
Lab Sample ID: 280-162386-9
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 11:40
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	1.9	0.10	0.050	0.029	mg/L			1	350.1
Nitrogen, Total Kjeldahl	0.90	1.0	0.80	0.69	mg/L	J		1	351.2
Nitrate Nitrite as N	5.7	0.10	0.050	0.044	mg/L			1	353.2
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	9034
Sulfate	340	25	13	5.2	mg/L		D M	5	9056A
Total Alkalinity as CaCO3	810	10	6.4	3.1	mg/L		B	1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: PZ013-22A
Lab Sample ID: 280-162386-9
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 11:40
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	8.6	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0081-22A
Lab Sample ID: 280-162386-10
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 12:05
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.49	0.10	0.050	0.029	mg/L			1	350.1
Nitrogen, Total Kjeldahl	0.80	1.0	0.80	0.69	mg/L	U		1	351.2
Nitrate Nitrite as N	0.13	0.10	0.050	0.044	mg/L			1	353.2
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	9034
Sulfate	170	5.0	2.5	1.0	mg/L		M	1	9056A
Total Alkalinity as CaCO3	320	10	6.4	3.1	mg/L		B	1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0081-22A
Lab Sample ID: 280-162386-10
Lab Name: Eurofins Denver
Job No.: 280-162386-1
SDG ID.:
Matrix: Water
Date Sampled: 05/13/2022 12:05
Reporting Basis: WET
Date Received: 05/14/2022 09:25

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	6.0	1.0	0.80	0.35	mg/L			1	9060A

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Analyst: MMP Batch Start Date: 06/01/2022

Reporting Units: mg/L Analytical Batch No.: 576796

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICV	09:43	Ammonia	2.49	2.51	99	90-110		350.1 ICV_00522
15	ICVL	09:45	Ammonia	0.502	0.501	100	90-110		350.1 ICV_00522
16	ICB	09:47	Ammonia	0.050				U	
28	CCV	10:20	Ammonia	2.53	2.50	101	90-110		350.1 cal_00537
29	CCVL	10:22	Ammonia	0.502	0.500	100	90-110		350.1 cal low_01654
30	CCB	10:25	Ammonia	0.050				U	
42	CCV	10:58	Ammonia	2.55	2.50	102	90-110		350.1 cal_00537
43	CCVL	10:59	Ammonia	0.506	0.500	101	90-110		350.1 cal low_01654
44	CCB	11:02	Ammonia	0.050				U	
88	CCV	13:00	Ammonia	2.52	2.50	101	90-110		350.1 cal_00537
90	CCB	13:05	Ammonia	0.050				U	
102	CCV	13:37	Ammonia	2.53	2.50	101	90-110		350.1 cal_00537
104	CCB	13:42	Ammonia	0.050				U	
132	CCV	14:57	Ammonia	2.55	2.50	102	90-110		350.1 cal_00537
133	CCVL	15:00	Ammonia	0.499	0.500	100	90-110		350.1 cal low_01654
134	CCB	15:02	Ammonia	0.050				U	
148	CCV	15:41	Ammonia	2.55	2.50	102	90-110		350.1 cal_00537
149	CCVL	15:42	Ammonia	0.514	0.500	103	90-110		350.1 cal low_01654
150	CCB	15:45	Ammonia	0.050				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Analyst: SVC Batch Start Date: 05/25/2022

Reporting Units: mg/L Analytical Batch No.: 576217

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
7	ICV	16:57	Nitrogen, Total Kjeldahl	5.24	5.00	105	90-110		TKN 25ppm_00831
8	ICB	16:58	Nitrogen, Total Kjeldahl	1.0				U	
45	CCV	17:14	Nitrogen, Total Kjeldahl	5.14	5.00	103	90-110		TKN ICV 25_00117
46	CCB	17:14	Nitrogen, Total Kjeldahl	0.779				J	
56	CCV	17:19	Nitrogen, Total Kjeldahl	5.18	5.00	104	90-110		TKN ICV 25_00117
57	CCB	17:19	Nitrogen, Total Kjeldahl	1.0				U	
75	CCV	18:30	Nitrogen, Total Kjeldahl	5.12	5.00	102	90-110		TKN ICV 25_00117
76	CCB	18:31	Nitrogen, Total Kjeldahl	1.0				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Analyst: SVC Batch Start Date: 06/02/2022

Reporting Units: mg/L Analytical Batch No.: 576988

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
17	ICV	16:59	Nitrate Nitrite as N	4.97	5.00	99	90-110		NXN ICV INT_00599
18	ICVL	17:01	Nitrate Nitrite as N	2.03	2.00	102	90-110		NXN ICV INT_00599
19	ICB	17:03	Nitrate Nitrite as N	0.050				U	
51	CCV	18:07	Nitrate Nitrite as N	4.86	5.00	97	90-110		NXN CAL INT_00623
52	CCVL	18:09	Nitrate Nitrite as N	1.02	1.00	102	90-110		NXN CAL INT_00623
53	CCB	18:11	Nitrate Nitrite as N	0.050				U	
67	CCV	18:39	Nitrate Nitrite as N	4.87	5.00	97	90-110		NXN CAL INT_00623
68	CCVL	18:41	Nitrate Nitrite as N	1.01	1.00	101	90-110		NXN CAL INT_00623
69	CCB	18:43	Nitrate Nitrite as N	0.050				U	
81	CCV	19:07	Nitrate Nitrite as N	4.93	5.00	99	90-110		NXN CAL INT_00623
82	CCVL	19:09	Nitrate Nitrite as N	1.02	1.00	102	90-110		NXN CAL INT_00623
83	CCB	19:11	Nitrate Nitrite as N	0.050				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Analyst: RAF Batch Start Date: 05/16/2022

Reporting Units: mg/L Analytical Batch No.: 575123

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	19:10	Sulfate	83.8	80.0	105	90-110		IC SO4 ICV_00022
9	ICB	19:26	Sulfate	2.5				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Analyst: CJ Batch Start Date: 05/26/2022

Reporting Units: mg/L Analytical Batch No.: 576257

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	12:13	Sulfate	75.9	80.0	95	90-110		IC SO4 ICV_00022
9	ICB	12:29	Sulfate	2.5				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Analyst: RAF Batch Start Date: 05/31/2022

Reporting Units: mg/L Analytical Batch No.: 576575

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
48	CCV	21:37	Sulfate	100	100	100	90-110		IC LCS_01878
49	CCB	21:53	Sulfate	2.5				U	
60	CCV	00:48	Sulfate	101	100	101	90-110		IC LCS_01878
61	CCB	01:04	Sulfate	2.5				U	
72	CCV	04:00	Sulfate	101	100	101	90-110		IC LCS_01878
73	CCB	04:16	Sulfate	2.5				U	
87	CCV	10:24	Sulfate	102	100	102	90-110		IC LCS_01878
88	CCB	10:40	Sulfate	2.5				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Analyst: RAF Batch Start Date: 06/01/2022

Reporting Units: mg/L Analytical Batch No.: 576718

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	11:09	Sulfate	98.8	100	99	90-110		IC LCS_01879
2	CCB	11:25	Sulfate	2.5				U	
18	CCV	15:44	Sulfate	98.3	100	98	90-110		IC LCS_01879
19	CCB	16:00	Sulfate	2.5				U	
30	CCV	18:54	Sulfate	97.5	100	97	90-110		IC LCS_01879
31	CCB	19:10	Sulfate	2.5				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Analyst: ABW Batch Start Date: 05/26/2022

Reporting Units: mg/L Analytical Batch No.: 576443

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	16:43	Dissolved Organic Carbon - Quad	19.6	20.0	98	90-110		TOC ICV Std_00049
2	ICB	16:58	Dissolved Organic Carbon - Quad	0.80				U	
15	CCV	20:26	Dissolved Organic Carbon - Quad	24.8	25.0	99	90-110		TOC LCS Std_00054
16	CCB	20:47	Dissolved Organic Carbon - Quad	0.80				U	
27	CCV	23:39	Dissolved Organic Carbon - Quad	24.3	25.0	97	90-110		TOC LCS Std_00054
28	CCB	23:56	Dissolved Organic Carbon - Quad	0.80				U	
39	CCV	02:58	Dissolved Organic Carbon - Quad	24.5	25.0	98	90-110		TOC LCS Std_00054
40	CCB	03:14	Dissolved Organic Carbon - Quad	0.80				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Analyst: KEG Batch Start Date: 05/24/2022

Reporting Units: mg/L Analytical Batch No.: 576106

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
17	CCV	12:55	Total Alkalinity as CaCO3	196	200	98	90-110		Alk daily lcs 01041
18	CCB	13:00	Total Alkalinity as CaCO3	4.53				J	
29	CCV	14:17	Total Alkalinity as CaCO3	201	200	100	90-110		Alk daily lcs 01041
30	CCB	14:22	Total Alkalinity as CaCO3	5.10				J	
43	CCV	16:01	Total Alkalinity as CaCO3	199	200	100	90-110		Alk daily lcs 01041
44	CCB	16:06	Total Alkalinity as CaCO3	5.52				J	
55	CCV	17:22	Total Alkalinity as CaCO3	189	200	95	90-110		Alk daily lcs 01041
56	CCB	17:27	Total Alkalinity as CaCO3	6.4				U	

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

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 576796 Date: 06/01/2022 09:55							
350.1	MB 280-576796/19	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 576796 Date: 06/01/2022 13:23							
350.1	MB 280-576796/97	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 576217 Date: 05/25/2022 17:11 Prep Batch: 575901 Date: 05/23/2022 15:54							
351.2	MB 280-575901/2-A	Nitrogen, Total Kjeldahl	0.80	U	mg/L	1.0	1
Batch ID: 576988 Date: 06/02/2022 18:25							
353.2	MB 280-576988/60	Nitrate Nitrite as N	0.050	U	mg/L	0.10	1
Batch ID: 575054 Date: 05/16/2022 11:02 Prep Batch: 575031 Date: 05/16/2022 10:04							
9034	MB 280-575031/2-A	Sulfide	2.0	U	mg/L	4.0	1
Batch ID: 575192 Date: 05/17/2022 10:24 Prep Batch: 575174 Date: 05/17/2022 09:10							
9034	MB 280-575174/2-A	Sulfide	2.0	U	mg/L	4.0	1
Batch ID: 575233 Date: 05/17/2022 12:50 Prep Batch: 575177 Date: 05/17/2022 09:13							
9034	MB 280-575177/2-A	Sulfide	2.0	U	mg/L	4.0	1
Batch ID: 576575 Date: 06/01/2022 00:00							
9056A	MB 280-576575/57	Sulfate	2.5	U	mg/L	5.0	1
Batch ID: 576718 Date: 06/01/2022 12:28							
9056A	MB 280-576718/6	Sulfate	2.5	U	mg/L	5.0	1
Batch ID: 576443 Date: 05/26/2022 22:01							
9060A	MB 280-576248/2-A	Dissolved Organic Carbon - Quad	0.80	U	mg/L	1.0	1
Batch ID: 576106 Date: 05/24/2022 11:33							
SM 2320B	MB 280-576106/6	Total Alkalinity as CaCO3	6.4	U	mg/L	10	1
Batch ID: 576106 Date: 05/24/2022 14:33							
SM 2320B	MB 280-576106/32	Total Alkalinity as CaCO3	5.40	J	mg/L	10	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 576796	Date: 06/01/2022 10:01										
350.1	280-162386-1	Ammonia	0.074	J	mg/L						
350.1	280-162386-1 MS	Ammonia	1.09		mg/L	1.00	101	90-110			
Batch ID: 576217	Date: 05/25/2022 17:12	Prep Batch: 575901	Date: 05/23/2022 15:54								
351.2	280-162386-1	Nitrogen, Total Kjeldahl	0.80	U	mg/L						J1
351.2	280-162386-1 MS	Nitrogen, Total Kjeldahl	3.36		mg/L	3.00	112	90-110			J1
Batch ID: 576988	Date: 06/02/2022 18:29										
353.2	280-162386-1	Nitrate Nitrite as N	0.59		mg/L						
353.2	280-162386-1 MS	Nitrate Nitrite as N	4.47		mg/L	4.00	97	90-110			
Batch ID: 575192	Date: 05/17/2022 10:24	Prep Batch: 575174	Date: 05/17/2022 09:10								
9034	280-162386-1	Sulfide	2.0	U	mg/L						
9034	280-162386-1 MS	Sulfide	12.8		mg/L	19.1	67	44-110			
Batch ID: 576575	Date: 06/01/2022 01:20										
9056A	280-162386-1	Sulfate	850		mg/L						D M
9056A	280-162386-1 MS	Sulfate	1070		mg/L	250	88	87-112			D M J1
Batch ID: 576718	Date: 06/01/2022 16:16										
9056A	280-162386-3	Sulfate	380		mg/L						D M
9056A	280-162386-3 MS	Sulfate	653		mg/L	250	109	87-112			D
Batch ID: 576443	Date: 05/26/2022 22:34										
9060A	280-162386-1	Dissolved Organic Carbon - Quad	4.2		mg/L						
9060A	280-162386-1 MS	Dissolved Organic Carbon - Quad	28.4		mg/L	25.0	97	88-112			

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

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 576796	Date: 06/01/2022 10:03										
350.1	280-162386-1 MSD	Ammonia	1.09		mg/L	1.00	102	90-110	1	10	
Batch ID: 576217	Date: 05/25/2022 17:13	Prep Batch: 575901	Date: 05/23/2022 15:54								
351.2	280-162386-1 MSD	Nitrogen, Total Kjeldahl	3.37		mg/L	3.00	112	90-110	1	25	J1
Batch ID: 576988	Date: 06/02/2022 18:31										
353.2	280-162386-1 MSD	Nitrate Nitrite as N	4.45		mg/L	4.00	96	90-110	0	10	
Batch ID: 575192	Date: 05/17/2022 10:24	Prep Batch: 575174	Date: 05/17/2022 09:10								
9034	280-162386-1 MSD	Sulfide	13.6		mg/L	19.1	71	44-110	6	20	
Batch ID: 576575	Date: 06/01/2022 01:36										
9056A	280-162386-1 MSD	Sulfate	1080		mg/L	250	90	87-112	0	10	D M J1
Batch ID: 576718	Date: 06/01/2022 16:32										
9056A	280-162386-3 MSD	Sulfate	656		mg/L	250	110	87-112	0	10	D M
Batch ID: 576443	Date: 05/26/2022 22:48										
9060A	280-162386-1 MSD	Dissolved Organic Carbon - Quad	28.7		mg/L	25.0	98	88-112	1	15	

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

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 576575 Date: 06/01/2022 00:32								
9056A	PZ007-22A	280-162386-1	Sulfate	850	mg/L			
9056A	PZ007-22A	280-162386-1 DU	Sulfate	834	mg/L	2	10	D M
Batch ID: 576718 Date: 06/01/2022 15:28								
9056A	G0117-22A	280-162386-3	Sulfate	380	mg/L			
9056A	G0117-22A	280-162386-3 DU	Sulfate	380	mg/L	0.2	10	D M

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

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 576796	Date: 06/01/2022 09:50										
						LCS Source: 350.1 cal_00537					
350.1	LCS 280-576796/17	Ammonia	2.50		mg/L	2.50	100	90-110	2	10	
Batch ID: 576796	Date: 06/01/2022 13:18										
						LCS Source: 350.1 cal_00537					
350.1	LCS 280-576796/95	Ammonia	2.37		mg/L	2.50	95	90-110	4	10	
Batch ID: 576217	Date: 05/25/2022 17:11	Prep Batch: 575901	Date: 05/23/2022 15:54								
						LCS Source: TKN 25ppm_00831					
351.2	LCS 280-575901/1-A	Nitrogen, Total Kjeldahl	6.20		mg/L	6.00	103	90-110			
Batch ID: 576988	Date: 06/02/2022 18:23										
						LCS Source: NXN CAL INT_00623					
353.2	LCS 280-576988/59	Nitrate Nitrite as N	4.85		mg/L	5.00	97	90-110			
Batch ID: 575054	Date: 05/16/2022 11:02	Prep Batch: 575031	Date: 05/16/2022 10:04								
						LCS Source: SFD ICV INT_02134					
9034	LCS 280-575031/1-A	Sulfide	13.6		mg/L	19.4	70	44-110			
Batch ID: 575192	Date: 05/17/2022 10:24	Prep Batch: 575174	Date: 05/17/2022 09:10								
						LCS Source: SFD ICV INT_02135					
9034	LCS 280-575174/1-A	Sulfide	12.8		mg/L	19.1	67	44-110			
Batch ID: 575233	Date: 05/17/2022 12:50	Prep Batch: 575177	Date: 05/17/2022 09:13								
						LCS Source: SFD ICV INT_02135					
9034	LCS 280-575177/1-A	Sulfide	12.8		mg/L	19.1	67	44-110			
Batch ID: 576575	Date: 05/31/2022 23:28										
						LCS Source: IC LCS_01878					
9056A	LCS 280-576575/55	Sulfate	100		mg/L	100	100	87-112	1	10	M
Batch ID: 576718	Date: 06/01/2022 11:57										
						LCS Source: IC LCS_01879					
9056A	LCS 280-576718/4	Sulfate	98.3		mg/L	100	98	87-112	1	10	M
Batch ID: 576443	Date: 05/26/2022 21:46										
						LCS Source: TOC LCS Std_00054					
9060A	LCS 280-576248/1-A	Dissolved Organic Carbon - Quad	25.1		mg/L	25.0	100	88-112			
Batch ID: 576106	Date: 05/24/2022 14:28										
						LCS Source: Alk daily lcs_01041					
SM 2320B	LCS 280-576106/31	Total Alkalinity as CaCO3	201		mg/L	200	101	89-109			

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

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 576796	Date: 06/01/2022 09:53										
						LCSD Source: 350.1 cal_00537					
350.1	LCSD 280-576796/18	Ammonia	2.56		mg/L	2.50	103	90-110	2	10	
Batch ID: 576796	Date: 06/01/2022 13:20										
						LCSD Source: 350.1 cal_00537					
350.1	LCSD 280-576796/96	Ammonia	2.46		mg/L	2.50	98	90-110	4	10	
Batch ID: 576575	Date: 05/31/2022 23:44										
						LCSD Source: IC LCS_01878					
9056A	LCSD 280-576575/56	Sulfate	101		mg/L	100	101	87-112	1	10	M
Batch ID: 576718	Date: 06/01/2022 12:13										
						LCSD Source: IC LCS_01879					
9056A	LCSD 280-576718/5	Sulfate	97.7		mg/L	100	98	87-112	1	10	M
Batch ID: 576106	Date: 05/24/2022 11:28										
						LCSD Source: Alk daily lcs_01041					
SM 2320B	LCSD 280-576106/5	Total Alkalinity as CaCO3	186		mg/L	200	93	89-109	2	10	

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

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 576575	Date: 05/31/2022 11:29										
						LCS Source: IC CAL cl/so4_00423					
9056A	MRL 280-576575/3	Sulfate	4.56	J	mg/L	5.00	91	50-150			M
Batch ID: 576718	Date: 06/01/2022 11:41										
						LCS Source: IC CAL cl/so4_00424					
9056A	MRL 280-576718/3	Sulfate	4.07	J	mg/L	5.00	81	50-150			M

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

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_SKALAR_01

Method: 350.1 DL Date: 04/29/2022 13:46

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.029

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_SKALAR_01

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_GAL1

Method: 351.2 DL Date: 02/03/2019 00:00

Prep Method: 351.2

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrogen, Total Kjeldahl		1	0.687

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_GAL1

Method: 351.2 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrogen, Total Kjeldahl		1	0.687

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 2

Method: 353.2 DL Date: 04/15/2022 12:31

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate Nitrite as N		0.1	0.044

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 2

Method: 353.2 XMDL Date: 04/15/2022 12:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate Nitrite as N		0.1	0.044

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9034 DL Date: 04/15/2022 13:08

Prep Method: 9030B

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfide		4	1.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9034 XMDL Date: 04/15/2022 13:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfide		4	1.6

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom13

Method: 9056A DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom13

Method: 9056A XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI5

Method: 9060A DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Dissolved Organic Carbon - Quad		1	0.345

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI5

Method: 9060A XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon - Quad		1	0.345

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Alkalinity as CaCO3		10	3.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-162386-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Alkalinity as CaCO3		10	3.08

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-575901/1-A	05/23/2022 15:54	575901		25	25
MB 280-575901/2-A	05/23/2022 15:54	575901		25	25
280-162386-1	05/23/2022 15:54	575901		25	25
280-162386-1 MS	05/23/2022 15:54	575901		25	25
280-162386-1 MSD	05/23/2022 15:54	575901		25	25
280-162386-2	05/23/2022 15:54	575901		25	25
280-162386-3	05/23/2022 15:54	575901		25	25
280-162386-4	05/23/2022 15:54	575901		25	25
280-162386-5	05/23/2022 15:54	575901		25	25
280-162386-6	05/23/2022 15:54	575901		25	25
280-162386-7	05/23/2022 15:54	575901		25	25
280-162386-8	05/23/2022 15:54	575901		25	25
280-162386-9	05/23/2022 15:54	575901		25	25
280-162386-10	05/23/2022 15:54	575901		25	25

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Prep Method: 9030B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-575031/1-A	05/16/2022 10:04	575031		50	50
MB 280-575031/2-A	05/16/2022 10:04	575031		50	50
280-162386-8	05/16/2022 10:04	575031		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Prep Method: 9030B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-575174/1-A	05/17/2022 09:10	575174		50	50
MB 280-575174/2-A	05/17/2022 09:10	575174		50	50
280-162386-1	05/17/2022 09:10	575174		50	50
280-162386-1 MS	05/17/2022 09:10	575174		50	50
280-162386-1 MSD	05/17/2022 09:10	575174		50	50
280-162386-2	05/17/2022 09:10	575174		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Prep Method: 9030B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-575177/1-A	05/17/2022 09:13	575177		50	50
MB 280-575177/2-A	05/17/2022 09:13	575177		50	50
280-162386-3	05/17/2022 09:13	575177		50	50
280-162386-4	05/17/2022 09:13	575177		50	50
280-162386-5	05/17/2022 09:13	575177		50	50
280-162386-6	05/17/2022 09:13	575177		50	50
280-162386-7	05/17/2022 09:13	575177		50	50
280-162386-9	05/17/2022 09:13	575177		50	50
280-162386-10	05/17/2022 09:13	575177		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 06/01/2022 09:07 End Date: 06/01/2022 15:53

Lab Sample Id	D/F	Type	Time	Analytes
				NH3
ZZZZZZ			09:07	
ZZZZZZ			09:09	
ZZZZZZ			09:13	
ZZZZZZ			09:15	
ZZZZZZ			09:19	
ZZZZZZ			09:21	
ZZZZZZ			09:23	
ZZZZZZ			09:26	
ZZZZZZ			09:29	
ZZZZZZ			09:31	
ZZZZZZ			09:34	
ZZZZZZ			09:37	
ZZZZZZ			09:39	
ICV 280-576796/14	1		09:43	X
ICVL 280-576796/15	1		09:45	X
ICB 280-576796/16	1		09:47	X
LCS 280-576796/17	1	T	09:50	X
LCSD 280-576796/18	1	T	09:53	X
MB 280-576796/19	1	T	09:55	X
280-162386-1	1	T	09:58	X
280-162386-1 MS	1	T	10:01	X
280-162386-1 MSD	1	T	10:03	X
280-162386-2	1	T	10:06	X
ZZZZZZ			10:09	
280-162386-4	1	T	10:11	X
280-162386-5	1	T	10:14	X
ZZZZZZ			10:17	
CCV 280-576796/28	1		10:20	X
CCVL 280-576796/29	1		10:22	X
CCB 280-576796/30	1		10:25	X
280-162386-6	10	T	10:27	X
280-162386-7	1	T	10:30	X
280-162386-8	1	T	10:33	X
280-162386-9	1	T	10:35	X
280-162386-10	1	T	10:38	X
ZZZZZZ			10:41	
ZZZZZZ			10:43	
ZZZZZZ			10:46	
ZZZZZZ			10:49	
ZZZZZZ			10:51	
ZZZZZZ			10:54	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 06/01/2022 09:07 End Date: 06/01/2022 15:53

Lab Sample Id	D/F	Type	Time	Analytes
				NH3
CCV 280-576796/42	1		10:58	X
CCVL 280-576796/43	1		10:59	X
CCB 280-576796/44	1		11:02	X
ZZZZZZ			11:05	
ZZZZZZ			11:07	
ZZZZZZ			11:11	
ZZZZZZ			11:13	
ZZZZZZ			11:15	
ZZZZZZ			11:18	
ZZZZZZ			11:21	
ZZZZZZ			11:23	
ZZZZZZ			11:26	
ZZZZZZ			11:29	
ZZZZZZ			11:31	
ZZZZZZ			11:34	
ZZZZZZ			11:37	
CCV 280-576796/58			11:40	
CCVL 280-576796/59			11:42	
CCB 280-576796/60			11:45	
ZZZZZZ			11:47	
ZZZZZZ			11:50	
ZZZZZZ			11:53	
ZZZZZZ			11:55	
ZZZZZZ			11:58	
ZZZZZZ			12:01	
ZZZZZZ			12:03	
ZZZZZZ			12:06	
ZZZZZZ			12:09	
ZZZZZZ			12:12	
ZZZZZZ			12:14	
CCV 280-576796/72			12:17	
CCVL 280-576796/73			12:20	
CCB 280-576796/74			12:22	
ZZZZZZ			12:25	
ZZZZZZ			12:28	
ZZZZZZ			12:31	
ZZZZZZ			12:33	
ZZZZZZ			12:35	
ZZZZZZ			12:38	
ZZZZZZ			12:41	
ZZZZZZ			12:43	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 06/01/2022 09:07 End Date: 06/01/2022 15:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			12:46																									
ZZZZZZ			12:49																									
ZZZZZZ			12:51																									
ZZZZZZ			12:54																									
ZZZZZZ			12:57																									
CCV 280-576796/88	1		13:00	X																								
CCVL 280-576796/89			13:02																									
CCB 280-576796/90	1		13:05	X																								
ZZZZZZ			13:08																									
ZZZZZZ			13:10																									
ZZZZZZ			13:12																									
ZZZZZZ			13:15																									
LCS 280-576796/95	1	T	13:18	X																								
LCSD 280-576796/96	1	T	13:20	X																								
MB 280-576796/97	1	T	13:23	X																								
ZZZZZZ			13:26																									
ZZZZZZ			13:29																									
ZZZZZZ			13:31																									
ZZZZZZ			13:34																									
CCV 280-576796/102	1		13:37	X																								
CCVL 280-576796/103			13:40																									
CCB 280-576796/104	1		13:42	X																								
ZZZZZZ			13:45																									
ZZZZZZ			13:47																									
ZZZZZZ			13:51																									
ZZZZZZ			13:53																									
ZZZZZZ			13:56																									
ZZZZZZ			13:58																									
ZZZZZZ			14:01																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
ZZZZZZ			14:09																									
ZZZZZZ			14:12																									
ZZZZZZ			14:14																									
ZZZZZZ			14:17																									
CCV 280-576796/118			14:20																									
CCVL 280-576796/119			14:22																									
CCB 280-576796/120			14:25																									
ZZZZZZ			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:33																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 06/01/2022 09:07 End Date: 06/01/2022 15:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			14:36																									
ZZZZZZ			14:38																									
ZZZZZZ			14:41																									
ZZZZZZ			14:44																									
ZZZZZZ			14:46																									
ZZZZZZ			14:49																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
CCV 280-576796/132	1		14:57	X																								
CCVL 280-576796/133	1		15:00	X																								
CCB 280-576796/134	1		15:02	X																								
ZZZZZZ			15:05																									
ZZZZZZ			15:08																									
ZZZZZZ			15:11																									
280-162386-3	2	T	15:13	X																								
ZZZZZZ			15:15																									
ZZZZZZ			15:18																									
ZZZZZZ			15:21																									
ZZZZZZ			15:24																									
ZZZZZZ			15:27																									
ZZZZZZ			15:30																									
ZZZZZZ			15:32																									
ZZZZZZ			15:34																									
ZZZZZZ			15:37																									
CCV 280-576796/148	1		15:41	X																								
CCVL 280-576796/149	1		15:42	X																								
CCB 280-576796/150	1		15:45	X																								
ZZZZZZ			15:48																									
ZZZZZZ			15:50																									
ZZZZZZ			15:53																									

Prep Types:
T = Total/NA

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_GAL1 Analysis Method: 351.2

Start Date: 05/02/2022 16:56 End Date: 05/25/2022 18:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
IC 280-573320/1-A			16:56	X																								
IC 280-573320/2-A			16:56	X																								
IC 280-573320/3-A			16:57	X																								
IC 280-573320/4-A			16:57	X																								
IC 280-573320/5-A			16:57	X																								
IC 280-573320/6-A			16:58	X																								
ICV 280-573320/7-A	1		16:57	X																								
ICB 280-573320/8-A	1		16:58	X																								
ZZZZZZ			16:58																									
ZZZZZZ			16:58																									
ZZZZZZ			16:59																									
ZZZZZZ			16:59																									
ZZZZZZ			16:59																									
ZZZZZZ			16:59																									
ZZZZZZ			17:00																									
ZZZZZZ			17:00																									
ZZZZZZ			17:01																									
ZZZZZZ			17:01																									
ZZZZZZ			17:02																									
ZZZZZZ			17:03																									
CCV 280-573320/9-A			17:03																									
CCB 280-573320/10-A			17:03																									
ZZZZZZ			17:04																									
ZZZZZZ			17:04																									
ZZZZZZ			17:05																									
ZZZZZZ			17:05																									
ZZZZZZ			17:05																									
ZZZZZZ			17:06																									
ZZZZZZ			17:07																									
ZZZZZZ			17:07																									
ZZZZZZ			17:07																									
ZZZZZZ			17:07																									
CCV 280-573320/9-A			17:08																									
CCB 280-573320/10-A			17:09																									
ZZZZZZ			17:09																									
ZZZZZZ			17:10																									
ZZZZZZ			17:10																									
ZZZZZZ			17:10																									
LCS 280-575901/1-A	1	T	17:11	X																								
MB 280-575901/2-A	1	T	17:11	X																								
280-162386-1	1	T	17:12	X																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_GAL1 Analysis Method: 351.2

Start Date: 05/02/2022 16:56 End Date: 05/25/2022 18:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
280-162386-1 MS	1	T	17:12	X																								
280-162386-1 MSD	1	T	17:13	X																								
280-162386-2	1	T	17:13	X																								
CCV 280-573320/9-A	1		17:14	X																								
CCB 280-573320/10-A	1		17:14	X																								
280-162386-3	1	T	17:14	X																								
280-162386-4	1	T	17:15	X																								
280-162386-5	1	T	17:16	X																								
280-162386-7	1	T	17:16	X																								
280-162386-8	1	T	17:16	X																								
280-162386-9	1	T	17:17	X																								
280-162386-10	1	T	17:18	X																								
ZZZZZZ			17:18																									
ZZZZZZ			17:18																									
CCV 280-573320/9-A	1		17:19	X																								
CCB 280-573320/10-A	1		17:19	X																								
ZZZZZZ			17:20																									
ZZZZZZ			17:20																									
ZZZZZZ			17:21																									
ZZZZZZ			17:21																									
ZZZZZZ			17:22																									
ZZZZZZ			17:22																									
ZZZZZZ			17:23																									
ZZZZZZ			17:23																									
CCV 280-573320/9-A			17:25																									
CCB 280-573320/10-A			17:25																									
280-162386-6	5	T	17:29	X																								
ZZZZZZ			17:50																									
ZZZZZZ			18:03																									
ZZZZZZ			18:04																									
ZZZZZZ			18:30																									
ZZZZZZ			18:30																									
ZZZZZZ			18:30																									
CCV 280-573320/9-A	1		18:30	X																								
CCB 280-573320/10-A	1		18:31	X																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 06/02/2022 16:27 End Date: 06/02/2022 20:32

Lab Sample Id	D/F	Type	Time	Analytes
				NNO32
ZZZZZZ			16:27	
ZZZZZZ			16:29	
ZZZZZZ			16:31	
ZZZZZZ			16:33	
IC 280-576988/5			16:35	X
IC 280-576988/6			16:37	X
IC 280-576988/7			16:39	X
IC 280-576988/8			16:41	X
IC 280-576988/9			16:43	X
IC 280-576988/10			16:45	X
IC 280-576988/11			16:47	X
IC 280-576988/12			16:49	X
IC 280-576988/13			16:51	X
ZZZZZZ			16:53	
ZZZZZZ			16:55	
ZZZZZZ			16:57	
ICV 280-576988/17	1		16:59	X
ICVL 280-576988/18	1		17:01	X
ICB 280-576988/19	1		17:03	X
ZZZZZZ			17:05	
ZZZZZZ			17:07	
ZZZZZZ			17:09	
ZZZZZZ			17:11	
ZZZZZZ			17:13	
ZZZZZZ			17:15	
ZZZZZZ			17:17	
ZZZZZZ			17:19	
ZZZZZZ			17:21	
ZZZZZZ			17:23	
ZZZZZZ			17:25	
ZZZZZZ			17:27	
ZZZZZZ			17:29	
RINSE 280-576988/33			17:31	
ZZZZZZ			17:33	
CCV 280-576988/35			17:35	
CCVL 280-576988/36			17:37	
CCB 280-576988/37			17:39	
ZZZZZZ			17:41	
ZZZZZZ			17:43	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 06/02/2022 16:27 End Date: 06/02/2022 20:32

Lab Sample Id	D/F	Type	Time	Analytes
				NNO32
ZZZZZZ			17:45	
ZZZZZZ			17:47	
ZZZZZZ			17:49	
ZZZZZZ			17:51	
ZZZZZZ			17:53	
ZZZZZZ			17:55	
ZZZZZZ			17:57	
ZZZZZZ			17:59	
ZZZZZZ			18:01	
RINSE 280-576988/49			18:03	
ZZZZZZ			18:05	
CCV 280-576988/51	1		18:07	X
CCVL 280-576988/52	1		18:09	X
CCB 280-576988/53	1		18:11	X
ZZZZZZ			18:13	
ZZZZZZ			18:15	
ZZZZZZ			18:17	
ZZZZZZ			18:19	
ZZZZZZ			18:21	
LCS 280-576988/59	1	T	18:23	X
MB 280-576988/60	1	T	18:25	X
280-162386-1	1	T	18:27	X
280-162386-1 MS	1	T	18:29	X
280-162386-1 MSD	1	T	18:31	X
280-162386-2	1	T	18:33	X
RINSE 280-576988/65			18:35	
ZZZZZZ			18:37	
CCV 280-576988/67	1		18:39	X
CCVL 280-576988/68	1		18:41	X
CCB 280-576988/69	1		18:43	X
ZZZZZZ			18:45	
280-162386-3	1	T	18:47	X
280-162386-4	1	T	18:49	X
280-162386-5	1	T	18:51	X
280-162386-6	1	T	18:53	X
280-162386-7	1	T	18:55	X
280-162386-8	1	T	18:57	X
280-162386-9	1	T	18:59	X
280-162386-10	1	T	19:01	X

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 06/02/2022 16:27 End Date: 06/02/2022 20:32

Lab Sample Id	D/F	Type	Time	Analytes
				NNO32
RINSE 280-576988/79			19:03	
ZZZZZZ			19:05	
CCV 280-576988/81	1		19:07	X
CCVL 280-576988/82	1		19:09	X
CCB 280-576988/83	1		19:11	X
ZZZZZZ			19:13	
ZZZZZZ			19:20	
ZZZZZZ			19:22	
ZZZZZZ			19:24	
ZZZZZZ			19:26	
ZZZZZZ			19:28	
ZZZZZZ			19:30	
ZZZZZZ			19:32	
ZZZZZZ			19:34	
ZZZZZZ			19:36	
ZZZZZZ			19:38	
ZZZZZZ			19:40	
ZZZZZZ			19:42	
ZZZZZZ			19:44	
RINSE 280-576988/98			19:46	
ZZZZZZ			19:48	
CCV 280-576988/100			19:50	
CCVL 280-576988/101			19:52	
CCB 280-576988/102			19:54	
ZZZZZZ			19:56	
ZZZZZZ			19:58	
ZZZZZZ			20:00	
ZZZZZZ			20:02	
ZZZZZZ			20:04	
ZZZZZZ			20:06	
ZZZZZZ			20:08	
ZZZZZZ			20:10	
ZZZZZZ			20:12	
ZZZZZZ			20:14	
ZZZZZZ			20:16	
ZZZZZZ			20:18	
ZZZZZZ			20:20	
RINSE 280-576988/116			20:22	
ZZZZZZ			20:24	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 06/02/2022 16:27 End Date: 06/02/2022 20:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				NNO32																								
CCV 280-576988/118			20:26																									
CCVL 280-576988/119			20:28																									
CCB 280-576988/120			20:30																									
ZZZZZZ			20:32																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9034

Start Date: 05/16/2022 11:02 End Date: 05/16/2022 11:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				S2																								
LCS 280-575031/1-A	1	T	11:02	X																								
MB 280-575031/2-A	1	T	11:02	X																								
ZZZZZZ			11:02																									
ZZZZZZ			11:02																									
ZZZZZZ			11:02																									
ZZZZZZ			11:02																									
ZZZZZZ			11:02																									
ZZZZZZ			11:02																									
ZZZZZZ			11:02																									
ZZZZZZ			11:02																									
ZZZZZZ			11:02																									
ZZZZZZ			11:02																									
280-162386-8	1	T	11:02	X																								
ZZZZZZ			11:02																									
ZZZZZZ			11:02																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9034

Start Date: 05/17/2022 10:24 End Date: 05/17/2022 10:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				S2																								
LCS 280-575174/1-A	1	T	10:24	X																								
MB 280-575174/2-A	1	T	10:24	X																								
ZZZZZZ			10:24																									
ZZZZZZ			10:24																									
ZZZZZZ			10:24																									
ZZZZZZ			10:24																									
ZZZZZZ			10:24																									
ZZZZZZ			10:24																									
ZZZZZZ			10:24																									
ZZZZZZ			10:24																									
ZZZZZZ			10:24																									
280-162386-1	1	T	10:24	X																								
280-162386-1 MS	1	T	10:24	X																								
280-162386-1 MSD	1	T	10:24	X																								
280-162386-2	1	T	10:24	X																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9034

Start Date: 05/17/2022 12:50 End Date: 05/17/2022 12:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				S2																								
LCS 280-575177/1-A	1	T	12:50	X																								
MB 280-575177/2-A	1	T	12:50	X																								
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
ZZZZZZ			12:50																									
280-162386-3	1	T	12:50	X																								
280-162386-4	1	T	12:50	X																								
280-162386-5	1	T	12:50	X																								
280-162386-6	1	T	12:50	X																								
280-162386-7	1	T	12:50	X																								
280-162386-9	1	T	12:50	X																								
280-162386-10	1	T	12:50	X																								
ZZZZZZ			12:50																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/26/2022 10:38 End Date: 05/27/2022 03:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
STD 280-576257/2 IC	1		10:38	X																								
STD 280-576257/3 IC	1		10:54	X																								
STD 280-576257/4 IC	1		11:10	X																								
STD 280-576257/5 IC	1		11:25	X																								
STD 280-576257/6 IC	1		11:41	X																								
STD 280-576257/7 IC	1		11:57	X																								
ICV 280-576257/8	1		12:13	X																								
ICB 280-576257/9	1		12:29	X																								
ZZZZZZ			12:45																									
ZZZZZZ			13:01																									
ZZZZZZ			13:16																									
ZZZZZZ			13:32																									
ZZZZZZ			14:48																									
ZZZZZZ			15:04																									
ZZZZZZ			15:19																									
ZZZZZZ			15:35																									
ZZZZZZ			15:51																									
ZZZZZZ			16:07																									
ZZZZZZ			16:23																									
ZZZZZZ			16:39																									
ZZZZZZ			16:55																									
ZZZZZZ			17:10																									
CCV 280-576257/24			17:26																									
CCB 280-576257/25			17:42																									
ZZZZZZ			17:58																									
ZZZZZZ			18:14																									
ZZZZZZ			18:30																									
ZZZZZZ			18:46																									
ZZZZZZ			19:01																									
ZZZZZZ			19:17																									
ZZZZZZ			19:33																									
ZZZZZZ			19:49																									
ZZZZZZ			20:05																									
ZZZZZZ			20:21																									
CCV 280-576257/38			20:37																									
CCB 280-576257/39			20:52																									
ZZZZZZ			21:08																									
ZZZZZZ			21:24																									
ZZZZZZ			21:40																									
ZZZZZZ			21:56																									
ZZZZZZ			22:12																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 05/26/2022 10:38 End Date: 05/27/2022 03:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
ZZZZZZ			22:28																									
ZZZZZZ			22:43																									
ZZZZZZ			22:59																									
ZZZZZZ			23:15																									
ZZZZZZ			23:31																									
ZZZZZZ			23:47																									
ZZZZZZ			00:03																									
ZZZZZZ			00:18																									
CCV 280-576257/50			00:34																									
CCB 280-576257/51			00:50																									
ZZZZZZ			01:06																									
ZZZZZZ			01:22																									
ZZZZZZ			01:38																									
ZZZZZZ			01:54																									
ZZZZZZ			02:09																									
ZZZZZZ			02:25																									
ZZZZZZ			02:41																									
CCV 280-576257/59			02:57																									
CCB 280-576257/60			03:13																									

Prep Types:
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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 06/01/2022 11:09 End Date: 06/02/2022 07:19

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
CCV 280-576718/1	1		11:09	X																								
CCB 280-576718/2	1		11:25	X																								
MRL 280-576718/3	1	T	11:41	X																								
LCS 280-576718/4	1	T	11:57	X																								
LCSD 280-576718/5	1	T	12:13	X																								
MB 280-576718/6	1	T	12:28	X																								
ZZZZZZ			12:51																									
ZZZZZZ			13:07																									
ZZZZZZ			13:23																									
ZZZZZZ			13:39																									
ZZZZZZ			13:55																									
ZZZZZZ			14:11																									
ZZZZZZ			14:26																									
ZZZZZZ			14:42																									
280-162386-3	5	T	15:12	X																								
280-162386-3 DU	5	T	15:28	X																								
CCV 280-576718/18	1		15:44	X																								
CCB 280-576718/19	1		16:00	X																								
280-162386-3 MS	5	T	16:16	X																								
280-162386-3 MSD	5	T	16:32	X																								
280-162386-6	5	T	16:48	X																								
280-162386-7	5	T	17:04	X																								
280-162386-9	5	T	17:19	X																								
ZZZZZZ			17:35																									
ZZZZZZ			17:51																									
ZZZZZZ			18:07																									
ZZZZZZ			18:23																									
ZZZZZZ			18:39																									
CCV 280-576718/30	1		18:54	X																								
CCB 280-576718/31	1		19:10	X																								
ZZZZZZ			19:26																									
ZZZZZZ			19:42																									
ZZZZZZ			19:58																									
ZZZZZZ			20:14																									
ZZZZZZ			20:29																									
ZZZZZZ			20:45																									
ZZZZZZ			21:01																									
ZZZZZZ			21:17																									
ZZZZZZ			21:33																									
ZZZZZZ			21:49																									
CCV 280-576718/42			22:05																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 06/01/2022 11:09 End Date: 06/02/2022 07:19

Lab Sample Id	D/F	Type	Time	Analytes
				SO4
CCB 280-576718/43			22:20	
ZZZZZZ			22:36	
ZZZZZZ			22:52	
ZZZZZZ			23:08	
ZZZZZZ			23:24	
ZZZZZZ			23:40	
ZZZZZZ			23:55	
ZZZZZZ			00:11	
ZZZZZZ			00:27	
ZZZZZZ			00:43	
ZZZZZZ			00:59	
CCV 280-576718/54			01:15	
CCB 280-576718/55			01:31	
ZZZZZZ			01:46	
ZZZZZZ			02:02	
ZZZZZZ			02:18	
ZZZZZZ			02:34	
ZZZZZZ			02:50	
ZZZZZZ			03:06	
ZZZZZZ			03:21	
ZZZZZZ			03:37	
ZZZZZZ			03:53	
ZZZZZZ			04:09	
CCV 280-576718/66			04:25	
CCB 280-576718/67			04:41	
ZZZZZZ			04:56	
ZZZZZZ			05:12	
ZZZZZZ			05:28	
ZZZZZZ			05:44	
ZZZZZZ			06:00	
ZZZZZZ			06:16	
ZZZZZZ			06:32	
ZZZZZZ			06:47	
CCV 280-576718/76			07:03	
CCB 280-576718/77			07:19	

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Method: 9056A

Start Date: 05/16/2022 17:34 End Date: 05/18/2022 08:17

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
STD 280-575123/2 IC	1		17:34	X																								
STD 280-575123/3 IC	1		17:50	X																								
STD 280-575123/4 IC	1		18:06	X																								
STD 280-575123/5 IC	1		18:22	X																								
STD 280-575123/6 IC	1		18:38	X																								
STD 280-575123/7 IC	1		18:54	X																								
ICV 280-575123/8	1		19:10	X																								
ICB 280-575123/9	1		19:26	X																								
ZZZZZZ			19:42																									
ZZZZZZ			19:58																									
ZZZZZZ			20:14																									
ZZZZZZ			20:30																									
ZZZZZZ			11:58																									
ZZZZZZ			12:14																									
ZZZZZZ			12:30																									
ZZZZZZ			12:46																									
ZZZZZZ			13:02																									
ZZZZZZ			13:18																									
ZZZZZZ			13:34																									
ZZZZZZ			13:50																									
ZZZZZZ			14:06																									
ZZZZZZ			14:22																									
CCV 280-575123/24			14:38																									
CCB 280-575123/25			14:54																									
ZZZZZZ			15:10																									
ZZZZZZ			15:26																									
ZZZZZZ			15:43																									
ZZZZZZ			15:59																									
ZZZZZZ			16:15																									
ZZZZZZ			16:31																									
ZZZZZZ			16:47																									
ZZZZZZ			17:03																									
ZZZZZZ			17:19																									
ZZZZZZ			17:35																									
CCV 280-575123/36			17:51																									
CCB 280-575123/37			18:07																									
ZZZZZZ			18:23																									
ZZZZZZ			18:39																									
ZZZZZZ			18:55																									
ZZZZZZ			19:11																									
ZZZZZZ			19:27																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Method: 9056A

Start Date: 05/16/2022 17:34 End Date: 05/18/2022 08:17

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
ZZZZZZ			19:43																									
ZZZZZZ			19:59																									
ZZZZZZ			20:15																									
ZZZZZZ			20:31																									
ZZZZZZ			20:47																									
CCV 280-575123/48			21:03																									
CCB 280-575123/49			21:19																									
ZZZZZZ			21:35																									
ZZZZZZ			21:51																									
ZZZZZZ			22:07																									
ZZZZZZ			22:23																									
ZZZZZZ			22:39																									
ZZZZZZ			22:55																									
ZZZZZZ			23:11																									
ZZZZZZ			23:27																									
ZZZZZZ			23:43																									
ZZZZZZ			23:59																									
CCV 280-575123/60			00:15																									
CCB 280-575123/61			00:31																									
ZZZZZZ			00:47																									
ZZZZZZ			01:03																									
ZZZZZZ			01:19																									
ZZZZZZ			01:35																									
ZZZZZZ			01:51																									
ZZZZZZ			02:07																									
ZZZZZZ			02:23																									
ZZZZZZ			02:39																									
ZZZZZZ			02:55																									
ZZZZZZ			03:11																									
CCV 280-575123/72			03:27																									
CCB 280-575123/73			03:43																									
ZZZZZZ			03:59																									
ZZZZZZ			04:15																									
ZZZZZZ			04:31																									
ZZZZZZ			04:47																									
ZZZZZZ			05:03																									
ZZZZZZ			05:19																									
ZZZZZZ			05:36																									
ZZZZZZ			05:52																									
ZZZZZZ			06:08																									
ZZZZZZ			06:24																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Method: 9056A

Start Date: 05/16/2022 17:34 End Date: 05/18/2022 08:17

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
CCV 280-575123/84			06:40																									
CCB 280-575123/85			06:56																									
ZZZZZZ			07:12																									
ZZZZZZ			07:29																									
ZZZZZZ			07:45																									
CCV 280-575123/121			08:01																									
CCB 280-575123/122			08:17																									

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Method: 9056A

Start Date: 05/31/2022 10:57 End Date: 06/01/2022 13:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
CCV 280-576575/1			10:57																									
CCB 280-576575/2			11:13																									
MRL 280-576575/3	1	T	11:29	X																								
ZZZZZZ			11:45																									
ZZZZZZ			12:00																									
ZZZZZZ			12:16																									
ZZZZZZ			12:32																									
ZZZZZZ			12:48																									
ZZZZZZ			13:04																									
ZZZZZZ			13:20																									
ZZZZZZ			13:36																									
ZZZZZZ			13:52																									
ZZZZZZ			14:08																									
ZZZZZZ			14:24																									
ZZZZZZ			14:40																									
ZZZZZZ			14:56																									
CCV 280-576575/21			15:12																									
CCB 280-576575/22			15:28																									
ZZZZZZ			15:44																									
ZZZZZZ			16:00																									
ZZZZZZ			16:16																									
ZZZZZZ			16:32																									
ZZZZZZ			16:48																									
ZZZZZZ			17:04																									
ZZZZZZ			17:20																									
ZZZZZZ			17:37																									
ZZZZZZ			17:53																									
ZZZZZZ			18:09																									
CCV 280-576575/35			18:25																									
CCB 280-576575/36			18:41																									
ZZZZZZ			18:57																									
ZZZZZZ			19:13																									
ZZZZZZ			19:29																									
ZZZZZZ			19:45																									
ZZZZZZ			20:01																									
ZZZZZZ			20:17																									
ZZZZZZ			20:33																									
ZZZZZZ			20:49																									
ZZZZZZ			21:05																									
ZZZZZZ			21:21																									
CCV 280-576575/48	1		21:37	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Method: 9056A

Start Date: 05/31/2022 10:57 End Date: 06/01/2022 13:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
CCB 280-576575/49	1		21:53	X																								
ZZZZZZ			22:08																									
ZZZZZZ			22:24																									
ZZZZZZ			22:40																									
ZZZZZZ			22:56																									
ZZZZZZ			23:12																									
LCS 280-576575/55	1	T	23:28	X																								
LCSD 280-576575/56	1	T	23:44	X																								
MB 280-576575/57	1	T	00:00	X																								
280-162386-1	5	T	00:16	X																								
280-162386-1 DU	5	T	00:32	X																								
CCV 280-576575/60	1		00:48	X																								
CCB 280-576575/61	1		01:04	X																								
280-162386-1 MS	5	T	01:20	X																								
280-162386-1 MSD	5	T	01:36	X																								
280-162386-2	1	T	01:52	X																								
ZZZZZZ			02:08																									
280-162386-4	1	T	02:24	X																								
280-162386-5	2	T	02:40	X																								
ZZZZZZ			02:56																									
ZZZZZZ			03:12																									
280-162386-8	5	T	03:28	X																								
ZZZZZZ			03:44																									
CCV 280-576575/72	1		04:00	X																								
CCB 280-576575/73	1		04:16	X																								
280-162386-10	1	T	04:32	X																								
ZZZZZZ			04:48																									
ZZZZZZ			05:04																									
ZZZZZZ			05:20																									
ZZZZZZ			05:36																									
ZZZZZZ			05:52																									
ZZZZZZ			06:08																									
ZZZZZZ			06:24																									
ZZZZZZ			06:40																									
ZZZZZZ			10:08																									
CCV 280-576575/87	1		10:24	X																								
CCB 280-576575/88	1		10:40	X																								
ZZZZZZ			10:56																									
ZZZZZZ			11:12																									
ZZZZZZ			11:28																									
ZZZZZZ			11:44																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_IonChrom13 Analysis Method: 9056A

Start Date: 05/31/2022 10:57 End Date: 06/01/2022 13:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
ZZZZZZ			12:00																									
ZZZZZZ			12:16																									
ZZZZZZ			12:32																									
CCV 280-576575/96			12:48																									
CCB 280-576575/97			13:04																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_SHI5 Analysis Method: 9060A

Start Date: 05/26/2022 16:43 End Date: 05/27/2022 12:07

Lab Sample Id	D/F	Type	Time	Analytes
				DOCQ
ICV 280-576443/1	1		16:43	X
ICB 280-576443/2	1		16:58	X
ZZZZZZ			17:14	
ZZZZZZ			17:31	
ZZZZZZ			17:45	
ZZZZZZ			18:03	
ZZZZZZ			18:18	
ZZZZZZ			18:34	
ZZZZZZ			18:50	
ZZZZZZ			19:09	
ZZZZZZ			19:25	
ZZZZZZ			19:43	
ZZZZZZ			19:58	
ZZZZZZ			20:12	
CCV 280-576443/15	1		20:26	X
CCB 280-576443/16	1		20:47	X
ZZZZZZ			21:01	
ZZZZZZ			21:15	
ZZZZZZ			21:30	
LCS 280-576248/1-A	1	D	21:46	X
MB 280-576248/2-A	1	D	22:01	X
280-162386-1	1	D	22:15	X
280-162386-1 MS	1	D	22:34	X
280-162386-1 MSD	1	D	22:48	X
280-162386-2	1	D	23:02	X
280-162386-3	1	D	23:21	X
CCV 280-576443/27	1		23:39	X
CCB 280-576443/28	1		23:56	X
280-162386-4	1	D	00:10	X
280-162386-5	1	D	00:28	X
280-162386-6	1	D	00:45	X
280-162386-7	1	D	01:03	X
280-162386-8	1	D	01:21	X
280-162386-9	1	D	01:37	X
280-162386-10	1	D	01:56	X
ZZZZZZ			02:10	
ZZZZZZ			02:28	
ZZZZZZ			02:43	
CCV 280-576443/39	1		02:58	X
CCB 280-576443/40	1		03:14	X

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC_SHI5 Analysis Method: 9060A

Start Date: 05/26/2022 16:43 End Date: 05/27/2022 12:07

Lab Sample Id	D/F	Type	Time	Analytes
				DOCQ
ZZZZZZ			03:29	
ZZZZZZ			03:43	
ZZZZZZ			03:57	
ZZZZZZ			04:12	
ZZZZZZ			04:26	
ZZZZZZ			04:42	
ZZZZZZ			04:57	
ZZZZZZ			05:11	
ZZZZZZ			05:25	
ZZZZZZ			05:42	
CCV 280-576443/51			05:56	
CCB 280-576443/52			06:10	
ZZZZZZ			06:27	
ZZZZZZ			06:41	
ZZZZZZ			06:55	
ZZZZZZ			07:12	
ZZZZZZ			07:30	
ZZZZZZ			07:44	
ZZZZZZ			08:02	
ZZZZZZ			08:17	
ZZZZZZ			08:31	
ZZZZZZ			08:46	
CCV 280-576443/63			09:00	
CCB 280-576443/64			09:15	
ZZZZZZ			09:29	
ZZZZZZ			09:47	
ZZZZZZ			10:06	
ZZZZZZ			10:20	
ZZZZZZ			10:34	
ZZZZZZ			10:48	
ZZZZZZ			11:02	
ZZZZZZ			11:19	
ZZZZZZ			11:38	
CCV 280-576443/74			11:52	
CCB 280-576443/75			12:07	

Prep Types:
D = Dissolved

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2022 10:56 End Date: 05/25/2022 00:48

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 280-576106/1			10:56																									
ZZZZZZ			11:02																									
ZZZZZZ			11:15																									
ZZZZZZ			11:22																									
LCSD 280-576106/5	1	T	11:28	X																								
MB 280-576106/6	1	T	11:33	X																								
ZZZZZZ			11:43																									
ZZZZZZ			11:52																									
ZZZZZZ			12:00																									
ZZZZZZ			12:05																									
ZZZZZZ			12:13																									
ZZZZZZ			12:21																									
ZZZZZZ			12:27																									
ZZZZZZ			12:35																									
ZZZZZZ			12:40																									
ZZZZZZ			12:50																									
CCV 280-576106/17	1		12:55	X																								
CCB 280-576106/18	1		13:00	X																								
ZZZZZZ			13:07																									
ZZZZZZ			13:15																									
ZZZZZZ			13:20																									
ZZZZZZ			13:25																									
ZZZZZZ			13:31																									
ZZZZZZ			13:37																									
ZZZZZZ			13:44																									
ZZZZZZ			13:50																									
ZZZZZZ			14:00																									
ZZZZZZ			14:12																									
CCV 280-576106/29	1		14:17	X																								
CCB 280-576106/30	1		14:22	X																								
LCS 280-576106/31	1	T	14:28	X																								
MB 280-576106/32	1	T	14:33	X																								
ZZZZZZ			14:43																									
ZZZZZZ			14:54																									
280-162386-1	1	T	15:01	X																								
280-162386-2	1	T	15:07	X																								
280-162386-3	1	T	15:17	X																								
280-162386-4	1	T	15:23	X																								
280-162386-5	1	T	15:30	X																								
280-162386-6	1	T	15:42	X																								
280-162386-7	1	T	15:50	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 05/24/2022 10:56 End Date: 05/25/2022 00:48

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
280-162386-8	1	T	15:56	X																								
CCV 280-576106/43	1		16:01	X																								
CCB 280-576106/44	1		16:06	X																								
280-162386-9	1	T	16:16	X																								
280-162386-10	1	T	16:23	X																								
ZZZZZZ			16:29																									
ZZZZZZ			16:36																									
ZZZZZZ			16:42																									
ZZZZZZ			16:48																									
ZZZZZZ			16:55																									
ZZZZZZ			17:01																									
ZZZZZZ			17:09																									
ZZZZZZ			17:16																									
CCV 280-576106/55	1		17:22	X																								
CCB 280-576106/56	1		17:27	X																								
ZZZZZZ			17:33																									
ZZZZZZ			17:38																									
ZZZZZZ			17:44																									
ZZZZZZ			17:50																									
ZZZZZZ			17:56																									
ZZZZZZ			18:03																									
ZZZZZZ			18:09																									
ZZZZZZ			18:15																									
ZZZZZZ			18:23																									
ZZZZZZ			18:31																									
ZZZZZZ			18:37																									
ZZZZZZ			18:44																									
CCV 280-576106/69			18:49																									
CCB 280-576106/70			18:54																									
ZZZZZZ			19:02																									
ZZZZZZ			19:09																									
ZZZZZZ			19:15																									
ZZZZZZ			19:21																									
ZZZZZZ			19:28																									
ZZZZZZ			19:36																									
ZZZZZZ			19:43																									
ZZZZZZ			19:50																									
ZZZZZZ			19:58																									
ZZZZZZ			20:06																									
CCV 280-576106/81			20:12																									
CCB 280-576106/82			20:16																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-162386-1

SDG No.:

Instrument ID: WC-AT3 | Analysis Method: SM 2320B

Start Date: 05/24/2022 10:56 | End Date: 05/25/2022 00:48

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			20:22																									
ZZZZZZ			20:26																									
ZZZZZZ			20:31																									
ZZZZZZ			20:35																									
ZZZZZZ			20:41																									
ZZZZZZ			20:48																									
ZZZZZZ			20:54																									
ZZZZZZ			20:59																									
ZZZZZZ			21:07																									
ZZZZZZ			21:13																									
ZZZZZZ			21:19																									
ZZZZZZ			21:25																									
CCV 280-576106/95			21:31																									
CCB 280-576106/96			21:36																									
ZZZZZZ			21:44																									
ZZZZZZ			21:53																									
ZZZZZZ			21:58																									
ZZZZZZ			22:04																									
ZZZZZZ			22:10																									
ZZZZZZ			22:16																									
ZZZZZZ			22:22																									
ZZZZZZ			22:28																									
ZZZZZZ			22:39																									
ZZZZZZ			22:46																									
CCV 280-576106/107			22:52																									
CCB 280-576106/108			22:57																									
ZZZZZZ			23:03																									
ZZZZZZ			23:09																									
ZZZZZZ			23:20																									
ZZZZZZ			23:31																									
ZZZZZZ			23:39																									
ZZZZZZ			23:46																									
ZZZZZZ			23:52																									
ZZZZZZ			00:02																									
ZZZZZZ			00:12																									
ZZZZZZ			00:33																									
ZZZZZZ			00:37																									
CCV 280-576106/120			00:43																									
CCB 280-576106/121			00:48																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576796 Batch Start Date: 06/01/22 09:07 Batch Analyst: Peterson, McKenzy M

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00537	350.1 cal low 01654
ICV 280-576796/14		350.1		no	100 mL	100 mL	<2 SU		
ICVL 280-576796/15		350.1		no	100 mL	100 mL	<2 SU		
ICB 280-576796/16		350.1		no	10 mL	10 mL	<2 SU		
LCS 280-576796/17		350.1		no	100 mL	100 mL	<2 SU	2.5 mL	
LCSD 280-576796/18		350.1		no	100 mL	100 mL	<2 SU	2.5 mL	
MB 280-576796/19		350.1		no	10 mL	10 mL	<2 SU		
280-162386-C-1	PZ007-22A	350.1	T	no	10 mL	10 mL	<2 SU		
280-162386-C-1 MS	PZ007-22A	350.1	T	no	10 mL	10 mL	<2 SU	0.1 mL	
280-162386-C-1 MSD	PZ007-22A	350.1	T	no	10 mL	10 mL	<2 SU	0.1 mL	
280-162386-C-2	G0087-22A	350.1	T	no	10 mL	10 mL	<2 SU		
280-162386-C-4	G0022-22A	350.1	T	no	10 mL	10 mL	<2 SU		
280-162386-C-5	G0088-22A	350.1	T	no	10 mL	10 mL	<2 SU		
CCV 280-576796/28		350.1		no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-576796/29		350.1		no	100 mL	100 mL	<2 SU		5 mL
CCB 280-576796/30		350.1		no	10 mL	10 mL	<2 SU		
280-162386-C-6	G0116-22A	350.1	T	no	10 mL	10 mL	<2 SU		
280-162386-C-7	PZ014-22A	350.1	T	no	10 mL	10 mL	<2 SU		
280-162386-C-8	G0092-22A	350.1	T	no	10 mL	10 mL	<2 SU		
280-162386-C-9	PZ013-22A	350.1	T	no	10 mL	10 mL	<2 SU		
280-162386-C-10	G0081-22A	350.1	T	no	10 mL	10 mL	<2 SU		
CCV 280-576796/42		350.1		no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-576796/43		350.1		no	100 mL	100 mL	<2 SU		5 mL
CCB 280-576796/44		350.1		no	10 mL	10 mL	<2 SU		
CCV 280-576796/88		350.1		no	100 mL	100 mL	<2 SU	2.5 mL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576796 Batch Start Date: 06/01/22 09:07 Batch Analyst: Peterson, McKenzy M

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00537	350.1 cal low 01654
CCB 280-576796/90		350.1		no	10 mL	10 mL	<2 SU		
LCS 280-576796/95		350.1		no	100 mL	100 mL	<2 SU	2.5 mL	
LCSD 280-576796/96		350.1		no	100 mL	100 mL	<2 SU	2.5 mL	
MB 280-576796/97		350.1		no	10 mL	10 mL	<2 SU		
CCV 280-576796/102		350.1		no	100 mL	100 mL	<2 SU	2.5 mL	
CCB 280-576796/104		350.1		no	10 mL	10 mL	<2 SU		
CCV 280-576796/132		350.1		no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-576796/133		350.1		no	100 mL	100 mL	<2 SU		5 mL
CCB 280-576796/134		350.1		no	10 mL	10 mL	<2 SU		
280-162386-C-3	G0117-22A	350.1	T	no	10 mL	10 mL	<2 SU		
CCV 280-576796/148		350.1		no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-576796/149		350.1		no	100 mL	100 mL	<2 SU		5 mL
CCB 280-576796/150		350.1		no	10 mL	10 mL	<2 SU		

Lab Sample ID	Client Sample ID	Method Chain	Basis	350.1 ICV 00522					
ICV 280-576796/14		350.1		2.5 mL					
ICVL 280-576796/15		350.1		0.5 mL					
ICB 280-576796/16		350.1							
LCS 280-576796/17		350.1							
LCSD 280-576796/18		350.1							
MB 280-576796/19		350.1							
280-162386-C-1	PZ007-22A	350.1	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576796 Batch Start Date: 06/01/22 09:07 Batch Analyst: Peterson, McKenzy M

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	350.1 ICV 00522					
280-162386-C-1 MS	PZ007-22A	350.1	T						
280-162386-C-1 MSD	PZ007-22A	350.1	T						
280-162386-C-2	G0087-22A	350.1	T						
280-162386-C-4	G0022-22A	350.1	T						
280-162386-C-5	G0088-22A	350.1	T						
CCV 280-576796/28		350.1							
CCVL 280-576796/29		350.1							
CCB 280-576796/30		350.1							
280-162386-C-6	G0116-22A	350.1	T						
280-162386-C-7	PZ014-22A	350.1	T						
280-162386-C-8	G0092-22A	350.1	T						
280-162386-C-9	PZ013-22A	350.1	T						
280-162386-C-10	G0081-22A	350.1	T						
CCV 280-576796/42		350.1							
CCVL 280-576796/43		350.1							
CCB 280-576796/44		350.1							
CCV 280-576796/88		350.1							
CCB 280-576796/90		350.1							
LCS 280-576796/95		350.1							
LCSD 280-576796/96		350.1							
MB 280-576796/97		350.1							
CCV 280-576796/102		350.1							
CCB 280-576796/104		350.1							
CCV 280-576796/132		350.1							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576796 Batch Start Date: 06/01/22 09:07 Batch Analyst: Peterson, McKenzy M

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	350.1 ICV 00522					
CCVL 280-576796/133		350.1							
CCB 280-576796/134		350.1							
280-162386-C-3	G0117-22A	350.1	T						
CCV 280-576796/148		350.1							
CCVL 280-576796/149		350.1							
CCB 280-576796/150		350.1							

Batch Notes	
Acid used for pH adjustment	Sulfuric Acid_00288
Sodium Nitroprusside ID	Na Salicylate: 00010, Na Nitro_00007
Hypochlorite ID	Na Hypo_00006
EDTA Buffer ID	Buffer A_00006
Potassium Sodium Tartrate ID	Buffer B_00008
Carrier Identification	Ammonia Rinse_00007
Sodium Salicylate ID	Sodium Sal_00024
Pipette/Syringe/Dispenser ID	SAH5000, 1000INTERCESSOR, BWH 200

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 573320 Batch Start Date: 04/28/22 16:09 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TKN 25ppm 00831	TKN ICV 25 00117		
ICV 280-573320/7		351.2, 351.2		25 mL	25 mL	5 mL			
ICB 280-573320/8		351.2, 351.2		25 mL	25 mL				
CCV 280-573320/9		351.2, 351.2		25 mL	25 mL		5 mL		
CCB 280-573320/10		351.2, 351.2		25 mL	25 mL				

Batch Notes	
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00146
Oven, Bath or Block Temperature 1	160 Degrees C
Block Digestion Temperature Start Date	04/28/2022 17:00
Oven, Bath or Block Temperature 2	380 Degrees C
Bl;ock Digestion Temperature End Date	04/28/2022 23:00
Pipette/Syringe/Dispenser ID	5000ad, 1000ad
pH Indicator ID	hc902937

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 575901 Batch Start Date: 05/23/22 15:54 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00831		
LCS 280-575901/1		351.2, 351.2			25 mL	25 mL	6 mL		
MB 280-575901/2		351.2, 351.2			25 mL	25 mL			
280-162386-C-1	PZ007-22A	351.2, 351.2	T	<2	25 mL	25 mL			
280-162386-C-1 MS	PZ007-22A	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-162386-C-1 MSD	PZ007-22A	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-162386-C-2	G0087-22A	351.2, 351.2	T	<2	25 mL	25 mL			
280-162386-C-3	G0117-22A	351.2, 351.2	T	<2	25 mL	25 mL			
280-162386-C-4	G0022-22A	351.2, 351.2	T	<2	25 mL	25 mL			
280-162386-C-5	G0088-22A	351.2, 351.2	T	<2	25 mL	25 mL			
280-162386-C-6	G0116-22A	351.2, 351.2	T	<2	25 mL	25 mL			
280-162386-C-7	PZ014-22A	351.2, 351.2	T	<2	25 mL	25 mL			
280-162386-C-8	G0092-22A	351.2, 351.2	T	<2	25 mL	25 mL			
280-162386-C-9	PZ013-22A	351.2, 351.2	T	<2	25 mL	25 mL			
280-162386-C-10	G0081-22A	351.2, 351.2	T	<2	25 mL	25 mL			

Batch Notes	
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00146
Oven, Bath or Block Temperature 1	160 Degrees C
Block Digestion Temperature Start Date	05/23/2022 16:40
Oven, Bath or Block Temperature 2	380 Degrees C
Bl;ock Digestion Temperature End Date	05/23/2022 22:40
Pipette/Syringe/Dispenser ID	5000ad, 1000ad
pH Indicator ID	hc902937

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576217 Batch Start Date: 05/02/22 16:56 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-573320/7-A		351.2		2 mL					
ICB 280-573320/8-A		351.2		2 mL					
LCS 280-575901/1-A		351.2		2 mL					
MB 280-575901/2-A		351.2		2 mL					
280-162386-C-1-A	PZ007-22A	351.2	T	2 mL					
280-162386-C-1-B MS	PZ007-22A	351.2	T	2 mL					
280-162386-C-1-C MSD	PZ007-22A	351.2	T	2 mL					
280-162386-C-2-A	G0087-22A	351.2	T	2 mL					
CCV 280-573320/9-A		351.2		2 mL					
CCB 280-573320/10-A		351.2		2 mL					
280-162386-C-3-A	G0117-22A	351.2	T	2 mL					
280-162386-C-4-A	G0022-22A	351.2	T	2 mL					
280-162386-C-5-A	G0088-22A	351.2	T	2 mL					
280-162386-C-7-A	PZ014-22A	351.2	T	2 mL					
280-162386-C-8-A	G0092-22A	351.2	T	2 mL					
280-162386-C-9-A	PZ013-22A	351.2	T	2 mL					
280-162386-C-10-A	G0081-22A	351.2	T	2 mL					
CCV 280-573320/9-A		351.2		2 mL					
CCB 280-573320/10-A		351.2		2 mL					
280-162386-C-6-A	G0116-22A	351.2	T	2 mL					
CCV 280-573320/9-A		351.2		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.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576217 Batch Start Date: 05/02/22 16:56 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
CCB 280-573320/10-A		351.2		2 mL					

Batch Notes	
Hypochlorite ID	TKN hypo_00677
Buffer Reagent ID	TKN buffer_00134
Pipette/Syringe/Dispenser ID	5000ad, 1000ad
Sodium Nitroprusside ID	sodium nitro_00109

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576988 Batch Start Date: 06/02/22 16:27 Batch Analyst: Cherry, Scott V

Batch Method: 353.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	NXN CAL INT 00623	NXN ICV INT 00599		
ICV 280-576988/17		353.2		100 mL	100 mL		5 mL		
ICVL 280-576988/18		353.2		100 mL	100 mL		2 mL		
ICB 280-576988/19		353.2		100 mL	100 mL				
CCV 280-576988/51		353.2		100 mL	100 mL	5 mL			
CCVL 280-576988/52		353.2		100 mL	100 mL	1 mL			
CCB 280-576988/53		353.2		100 mL	100 mL				
LCS 280-576988/59		353.2		100 mL	100 mL	5 mL			
MB 280-576988/60		353.2		100 mL	100 mL				
280-162386-C-1	PZ007-22A	353.2	T	100 mL	100 mL				
280-162386-C-1 MS	PZ007-22A	353.2	T	5 mL	5 mL	0.2 mL			
280-162386-C-1 MSD	PZ007-22A	353.2	T	5 mL	5 mL	0.2 mL			
280-162386-C-2	G0087-22A	353.2	T	100 mL	100 mL				
CCV 280-576988/67		353.2		100 mL	100 mL	5 mL			
CCVL 280-576988/68		353.2		100 mL	100 mL	1 mL			
CCB 280-576988/69		353.2		100 mL	100 mL				
280-162386-C-3	G0117-22A	353.2	T	100 mL	100 mL				
280-162386-C-4	G0022-22A	353.2	T	100 mL	100 mL				
280-162386-C-5	G0088-22A	353.2	T	100 mL	100 mL				
280-162386-C-6	G0116-22A	353.2	T	100 mL	100 mL				
280-162386-C-7	PZ014-22A	353.2	T	100 mL	100 mL				
280-162386-C-8	G0092-22A	353.2	T	100 mL	100 mL				
280-162386-C-9	PZ013-22A	353.2	T	100 mL	100 mL				
280-162386-C-10	G0081-22A	353.2	T	100 mL	100 mL				
CCV 280-576988/81		353.2		100 mL	100 mL	5 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576988 Batch Start Date: 06/02/22 16:27 Batch Analyst: Cherry, Scott V

Batch Method: 353.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	NXN CAL INT 00623	NXN ICV INT 00599		
CCVL 280-576988/82		353.2		100 mL	100 mL	1 mL			
CCB 280-576988/83		353.2		100 mL	100 mL				

Batch Notes	
pH Indicator ID	hc155968
Buffer Reagent ID	NOXT Buffer_00224
Color Reagent ID	NOXT CR_00124
Pipette/Syringe/Dispenser ID	5000ad, 1000ad
Cadmium Column Lot ID	q11513937102
Copper Sulfate ID	CuSO4 NOXT_0015
Hydrochloric Acid ID	0.5N HCl_0086

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 575031 Batch Start Date: 05/16/22 10:04 Batch Analyst: Mayer, Zachary P

Batch Method: 9030B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	DistillUnitPort	Initial pH	Final pH	AcidVolAdded
LCS 280-575031/1		9030B, 9034		50 mL	50 mL	1	7 SU	<2 SU	5 mL
MB 280-575031/2		9030B, 9034		50 mL	50 mL	2	7 SU	<2 SU	5 mL
280-162386-E-8	G0092-22A	9030B, 9034	T	50 mL	50 mL	13	12+ SU	<2 SU	5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SFD ICV INT 02134					
LCS 280-575031/1		9030B, 9034		1 mL					
MB 280-575031/2		9030B, 9034							
280-162386-E-8	G0092-22A	9030B, 9034	T						

Batch Notes	
Formaldehyde ID	form_00122
Zinc Acetate Buffer ID	znac_00121
Pipette/Syringe/Dispenser ID	Tesla 5000, ARM1000
Sulfuric Acid Reagent ID Number	SulfuricAcid_00288
pH Indicator ID	HC157843
Oven, Bath or Block Temperature 1	80 Degrees C
Distillation Start Time	05/16/2022 10:05
Uncorrected Temperature 2	80 Degrees C
Oven, Bath or Block Temperature 2	80 Degrees C
Distillation End Time	05/16/2022 11:35
Batch Comment	ZM

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 575054 Batch Start Date: 05/16/22 11:02 Batch Analyst: Mayer, Zachary P

Batch Method: 9034 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStart1	BuretStop1	IodineAmount	TitrantVolume1	FinalAmount	
LCS 280-575031/1-A		9034		0 mL	3.3 mL	5 mL	3.3 mL	50 mL	
MB 280-575031/2-A		9034		3.3 mL	4.3 mL	1 mL	1 mL	50 mL	
280-162386-E-8-A	G0092-22A	9034	T	19.1 mL	20.1 mL	1 mL	1 mL	50 mL	

Batch Notes	
Normality of First Titrant	0.0250 N
Normality of Iodine Solution	0.0250 N
Zinc Acetate Buffer ID	znac_00121
Iodine ID	Iod_00275
Hydrochloric Acid ID	HCl Sol_00200
Sodium Thiosulfate ID	Na Thio_00178
Starch Reagent ID	Starch ind_00067
Pipette/Syringe/Dispenser ID	Tesla 5000, ARM1000
Batch Comment	ZM

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 575174 Batch Start Date: 05/17/22 09:10 Batch Analyst: Mayer, Zachary P

Batch Method: 9030B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	DistillUnitPort	Initial pH	Final pH	AcidVolAdded
LCS 280-575174/1		9030B, 9034		50 mL	50 mL	1	7 SU	<2 SU	5 mL
MB 280-575174/2		9030B, 9034		50 mL	50 mL	2	7 SU	<2 SU	5 mL
280-162386-E-1	PZ007-22A	9030B, 9034	T	50 mL	50 mL	12	12+ SU	<2 SU	5 mL
280-162386-E-1 MS	PZ007-22A	9030B, 9034	T	50 mL	50 mL	13	12+ SU	<2 SU	5 mL
280-162386-E-1 MSD	PZ007-22A	9030B, 9034	T	50 mL	50 mL	14	12+ SU	<2 SU	5 mL
280-162386-E-2	G0087-22A	9030B, 9034	T	50 mL	50 mL	15	12+ SU	<2 SU	5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SFD ICV INT 02135					
LCS 280-575174/1		9030B, 9034		1 mL					
MB 280-575174/2		9030B, 9034							
280-162386-E-1	PZ007-22A	9030B, 9034	T						
280-162386-E-1 MS	PZ007-22A	9030B, 9034	T	1 mL					
280-162386-E-1 MSD	PZ007-22A	9030B, 9034	T	1 mL					
280-162386-E-2	G0087-22A	9030B, 9034	T						

Batch Notes	
Formaldehyde ID	form_00122
Zinc Acetate Buffer ID	znac_00121
Pipette/Syringe/Dispenser ID	Tesla 5000, ARM1000
Sulfuric Acid Reagent ID Number	SulfuricAcid_00288
pH Indicator ID	HC157843
Oven, Bath or Block Temperature 1	80 Degrees C
Distillation Start Time	05/17/2022 09:50
Uncorrected Temperature 2	80 Degrees C
Oven, Bath or Block Temperature 2	80 Degrees C
Distillation End Time	05/17/2022 11:20
Batch Comment	ZM

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 575174 Batch Start Date: 05/17/22 09:10 Batch Analyst: Mayer, Zachary P

Batch Method: 9030B Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 575177 Batch Start Date: 05/17/22 09:12 Batch Analyst: Mayer, Zachary P

Batch Method: 9030B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	DistillUnitPort	Initial pH	Final pH	AcidVolAdded
LCS 280-575177/1		9030B, 9034		50 mL	50 mL	1	7 SU	<2 SU	5 mL
MB 280-575177/2		9030B, 9034		50 mL	50 mL	2	7 SU	<2 SU	5 mL
280-162386-E-3	G0117-22A	9030B, 9034	T	50 mL	50 mL	6	12+ SU	<2 SU	5 mL
280-162386-E-4	G0022-22A	9030B, 9034	T	50 mL	50 mL	7	12+ SU	<2 SU	5 mL
280-162386-E-5	G0088-22A	9030B, 9034	T	50 mL	50 mL	8	12+ SU	<2 SU	5 mL
280-162386-E-6	G0116-22A	9030B, 9034	T	50 mL	50 mL	9	12+ SU	<2 SU	5 mL
280-162386-E-7	PZ014-22A	9030B, 9034	T	50 mL	50 mL	10	12+ SU	<2 SU	5 mL
280-162386-E-9	PZ013-22A	9030B, 9034	T	50 mL	50 mL	11	12+ SU	<2 SU	5 mL
280-162386-E-10	G0081-22A	9030B, 9034	T	50 mL	50 mL	12	12+ SU	<2 SU	5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SFD ICV INT 02135					
LCS 280-575177/1		9030B, 9034		1 mL					
MB 280-575177/2		9030B, 9034							
280-162386-E-3	G0117-22A	9030B, 9034	T						
280-162386-E-4	G0022-22A	9030B, 9034	T						
280-162386-E-5	G0088-22A	9030B, 9034	T						
280-162386-E-6	G0116-22A	9030B, 9034	T						
280-162386-E-7	PZ014-22A	9030B, 9034	T						
280-162386-E-9	PZ013-22A	9030B, 9034	T						
280-162386-E-10	G0081-22A	9030B, 9034	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 575177 Batch Start Date: 05/17/22 09:12 Batch Analyst: Mayer, Zachary P

Batch Method: 9030B Batch End Date:

Batch Notes	
Formaldehyde ID	form_00122
Zinc Acetate Buffer ID	znac_00121
Pipette/Syringe/Dispenser ID	Tesla 5000, ARM1000
Sulfuric Acid Reagent ID Number	SulfuricAcid_00288
pH Indicator ID	HC157843
Oven, Bath or Block Temperature 1	80 Degrees C
Distillation Start Time	05/17/2022 12:50
Uncorrected Temperature 2	80 Degrees C
Oven, Bath or Block Temperature 2	80 Degrees C
Distillation End Time	05/17/2022 14:20
Batch Comment	ZM

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 575192 Batch Start Date: 05/17/22 10:24 Batch Analyst: Mayer, Zachary P

Batch Method: 9034 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStart1	BuretStop1	IodineAmount	TitrantVolume1	FinalAmount	
LCS 280-575174/1-A		9034		0 mL	3.4 mL	5 mL	3.4 mL	50 mL	
MB 280-575174/2-A		9034		3.8 mL	4.9 mL	1 mL	1.1 mL	50 mL	
280-162386-E-1-A	PZ007-22A	9034	T	19 mL	20 mL	1 mL	1 mL	50 mL	
280-162386-E-1-B MS	PZ007-22A	9034	T	20 mL	23.4 mL	5 mL	3.4 mL	50 mL	
280-162386-E-1-C MSD	PZ007-22A	9034	T	6.1 mL	9.4 mL	5 mL	3.3 mL	50 mL	
280-162386-E-2-A	G0087-22A	9034	T	9.4 mL	10.5 mL	1 mL	1.1 mL	50 mL	

Batch Notes	
Normality of First Titrant	0.0250 N
Normality of Iodine Solution	0.0250 N
Zinc Acetate Buffer ID	znac_00121
Iodine ID	Iod_00275
Hydrochloric Acid ID	HCl Sol_00200
Sodium Thiosulfate ID	Na Thio_00178
Starch Reagent ID	Starch ind_00067
Pipette/Syringe/Dispenser ID	Tesla 5000, ARM1000
Batch Comment	ZM

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 575233 Batch Start Date: 05/17/22 12:50 Batch Analyst: Mayer, Zachary P

Batch Method: 9034 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStart1	BuretStop1	IodineAmount	TitrantVolume1	FinalAmount	
LCS 280-575177/1-A		9034		0 mL	3.4 mL	5 mL	3.4 mL	50 mL	
MB 280-575177/2-A		9034		3.4 mL	4.4 mL	1 mL	1 mL	50 mL	
280-162386-E-3-A	G0117-22A	9034	T	12.3 mL	13.3 mL	1 mL	1 mL	50 mL	
280-162386-E-4-A	G0022-22A	9034	T	13.3 mL	14.3 mL	1 mL	1 mL	50 mL	
280-162386-E-5-A	G0088-22A	9034	T	14.3 mL	15.3 mL	1 mL	1 mL	50 mL	
280-162386-E-6-A	G0116-22A	9034	T	15.3 mL	16.3 mL	1 mL	1 mL	50 mL	
280-162386-E-7-A	PZ014-22A	9034	T	16.3 mL	17.3 mL	1 mL	1 mL	50 mL	
280-162386-E-9-A	PZ013-22A	9034	T	17.3 mL	18.3 mL	1 mL	1 mL	50 mL	
280-162386-E-10-A	G0081-22A	9034	T	18.3 mL	19.3 mL	1 mL	1 mL	50 mL	

Batch Notes	
Normality of First Titrant	0.0250 N
Normality of Iodine Solution	0.0250 N
Zinc Acetate Buffer ID	znac_00121
Iodine ID	Iod_00275
Hydrochloric Acid ID	HCl Sol_00200
Sodium Thiosulfate ID	Na Thio_00178
Starch Reagent ID	Starch ind_00067
Pipette/Syringe/Dispenser ID	Tesla 5000, ARM1000
Batch Comment	ZM

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 575123 Batch Start Date: 05/16/22 17:34 Batch Analyst: Fox, Regan A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Cl ICV Std 00005	IC CAL cl/so4 00419	IC Cal low 00637	IC ICV 5 00364
STD 280-575123/2 IC		9056A		5 mL	5 mL		0.02 mL	0.02 mL	
STD 280-575123/3 IC		9056A		5 mL	5 mL		0.05 mL	0.05 mL	
STD 280-575123/4 IC		9056A		5 mL	5 mL		0.1 mL	0.1 mL	
STD 280-575123/5 IC		9056A		5 mL	5 mL		1.2 mL	0.4 mL	
STD 280-575123/6 IC		9056A		5 mL	5 mL		2.4 mL	0.8 mL	
STD 280-575123/7 IC		9056A		5 mL	5 mL		4 mL	1 mL	
ICV 280-575123/8		9056A		5 mL	5 mL	0.8 mL			0.8 mL
ICB 280-575123/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00022					
STD 280-575123/2 IC		9056A							
STD 280-575123/3 IC		9056A							
STD 280-575123/4 IC		9056A							
STD 280-575123/5 IC		9056A							
STD 280-575123/6 IC		9056A							
STD 280-575123/7 IC		9056A							
ICV 280-575123/8		9056A		0.8 mL					
ICB 280-575123/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 575123 Batch Start Date: 05/16/22 17:34 Batch Analyst: Fox, Regan A

Batch Method: 9056A Batch End Date:

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	ARM5000, 1000HEX, 200CJ, IC100
Sufficient Volume for Batch QC	yes
Eluent 1 ID	IC10 Eluent_00003
Batch Comment	Run by JM, reviewed by RF

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576257 Batch Start Date: 05/26/22 10:38 Batch Analyst: Jindarat, Chanida

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Cl ICV Std 00005	IC CAL cl/so4 00423	IC Cal low 00641	IC ICV 5 00366
STD 280-576257/2 IC		9056A		5 mL	5 mL		0.02 mL	0.02 mL	
STD 280-576257/3 IC		9056A		5 mL	5 mL		0.05 mL	0.05 mL	
STD 280-576257/4 IC		9056A		5 mL	5 mL		0.1 mL	0.1 mL	
STD 280-576257/5 IC		9056A		5 mL	5 mL		1.2 mL	0.4 mL	
STD 280-576257/6 IC		9056A		5 mL	5 mL		2.4 mL	0.8 mL	
STD 280-576257/7 IC		9056A		5 mL	5 mL		4 mL	1 mL	
ICV 280-576257/8		9056A		5 mL	5 mL	0.4 mL			0.4 mL
ICB 280-576257/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00022					
STD 280-576257/2 IC		9056A							
STD 280-576257/3 IC		9056A							
STD 280-576257/4 IC		9056A							
STD 280-576257/5 IC		9056A							
STD 280-576257/6 IC		9056A							
STD 280-576257/7 IC		9056A							
ICV 280-576257/8		9056A		0.4 mL					
ICB 280-576257/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576257 Batch Start Date: 05/26/22 10:38 Batch Analyst: Jindarat, Chanida

Batch Method: 9056A Batch End Date:

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	ARM5000,1000HEX,200CJ,ic100
Sufficient Volume for Batch QC	Yes
Eluent 1 ID	AS14 Eluent_00024

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576575 Batch Start Date: 05/31/22 10:57 Batch Analyst: Fox, Regan A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00423	IC Cal low 00641	IC LCS 01878	ICMS/MSD WEEK 00759
MRL 280-576575/3		9056A		10 mL	10 mL	0.2 mL	0.1 mL		
CCV 280-576575/48		9056A		10 mL	10 mL			10 mL	
CCB 280-576575/49		9056A		10 mL	10 mL				
LCS 280-576575/55		9056A		10 mL	10 mL			10 mL	
LCSD 280-576575/56		9056A		10 mL	10 mL			10 mL	
MB 280-576575/57		9056A		10 mL	10 mL				
280-162386-F-1	PZ007-22A	9056A	T	10 mL	10 mL				
280-162386-F-1 DU	PZ007-22A	9056A	T	10 mL	10 mL				
CCV 280-576575/60		9056A		10 mL	10 mL			10 mL	
CCB 280-576575/61		9056A		10 mL	10 mL				
280-162386-F-1 MS	PZ007-22A	9056A	T	10 mL	10 mL				0.1 mL
280-162386-F-1 MSD	PZ007-22A	9056A	T	10 mL	10 mL				0.1 mL
280-162386-F-2	G0087-22A	9056A	T	10 mL	10 mL				
280-162386-F-4	G0022-22A	9056A	T	10 mL	10 mL				
280-162386-F-5	G0088-22A	9056A	T	10 mL	10 mL				
280-162386-F-8	G0092-22A	9056A	T	10 mL	10 mL				
CCV 280-576575/72		9056A		10 mL	10 mL			10 mL	
CCB 280-576575/73		9056A		10 mL	10 mL				
280-162386-F-10	G0081-22A	9056A	T	10 mL	10 mL				
CCV 280-576575/87		9056A		10 mL	10 mL			10 mL	
CCB 280-576575/88		9056A		10 mL	10 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576575 Batch Start Date: 05/31/22 10:57 Batch Analyst: Fox, Regan A

Batch Method: 9056A Batch End Date:

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	ARM5000, 1000HEX, 200CJ, IC100
Sufficient Volume for Batch QC	yes
Eluent 1 ID	IC10 Eluent_00003
Batch Comment	RAF

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576718 Batch Start Date: 06/01/22 11:09 Batch Analyst: Fox, Regan A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00424	IC Cal low 00642	IC LCS 01879	ICMS/MSD WEEK 00760
CCV 280-576718/1		9056A		5 mL	5 mL			5 mL	
CCB 280-576718/2		9056A		5 mL	5 mL				
MRL 280-576718/3		9056A		5 mL	5 mL	0.1 mL	0.05 mL		
LCS 280-576718/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-576718/5		9056A		5 mL	5 mL			5 mL	
MB 280-576718/6		9056A		5 mL	5 mL				
280-162386-F-3	G0117-22A	9056A	T	5 mL	5 mL				
280-162386-F-3 DU	G0117-22A	9056A	T	5 mL	5 mL				
CCV 280-576718/18		9056A		5 mL	5 mL			5 mL	
CCB 280-576718/19		9056A		5 mL	5 mL				
280-162386-F-3 MS	G0117-22A	9056A	T	5 mL	5 mL				0.05 mL
280-162386-F-3 MSD	G0117-22A	9056A	T	5 mL	5 mL				0.05 mL
280-162386-F-6	G0116-22A	9056A	T	5 mL	5 mL				
280-162386-F-7	PZ014-22A	9056A	T	5 mL	5 mL				
280-162386-F-9	PZ013-22A	9056A	T	5 mL	5 mL				
CCV 280-576718/30		9056A		5 mL	5 mL			5 mL	
CCB 280-576718/31		9056A		5 mL	5 mL				

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	ARM5000, 1000HEX, 200CJ, IC100
Sufficient Volume for Batch QC	yes
Eluent 1 ID	AS14 Eluent_00021
Batch Comment	RAF

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576718 Batch Start Date: 06/01/22 11:09 Batch Analyst: Fox, Regan A

Batch Method: 9056A Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576442 Batch Start Date: 05/26/22 16:43 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	TOC LCS Std 00054	AnalysisComment	
LCS 280-576248/1-A		9060A		200 mL	200 mL	<2 SU	5 mL	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
MB 280-576248/2-A		9060A		20 mL	20 mL	<2 SU		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
280-162386-D-1-A	PZ007-22A	9060A	D	20 mL	20 mL	>2 SU		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
280-162386-D-1-B MS	PZ007-22A	9060A	D	50 mL	50 mL	>2 SU	1.25 mL	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
280-162386-D-1-C MSD	PZ007-22A	9060A	D	50 mL	50 mL	>2 SU	1.25 mL	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
280-162386-D-2-A	G0087-22A	9060A	D	20 mL	20 mL	>2 SU		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
280-162386-D-3-A	G0117-22A	9060A	D	20 mL	20 mL	>2 SU		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576442 Batch Start Date: 05/26/22 16:43 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	TOC LCS Std 00054	AnalysisComment	
280-162386-D-4-A	G0022-22A	9060A	D	20 mL	20 mL	>2 SU		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
280-162386-D-5-A	G0088-22A	9060A	D	20 mL	20 mL	>2 SU		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
280-162386-D-6-A	G0116-22A	9060A	D	20 mL	20 mL	>2 SU		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
280-162386-D-7-A	PZ014-22A	9060A	D	20 mL	20 mL	>2 SU		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
280-162386-D-8-A	G0092-22A	9060A	D	20 mL	20 mL	>2 SU		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
280-162386-D-9-A	PZ013-22A	9060A	D	20 mL	20 mL	>2 SU		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	
280-162386-D-10-A	G0081-22A	9060A	D	20 mL	20 mL	>2 SU		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576442 Batch Start Date: 05/26/22 16:43 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Batch Notes	
Acid ID	0.2% H2SO4_00431, H2SO4_00214
Combustion Catylyst ID	19003D-03
Pipette/Syringe/Dispenser ID	BWH 5000, 1000 MS, 1272995
Batch Comment	Run and reviewed by ABW

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576443 Batch Start Date: 05/26/22 16:43 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	Final pH	TOC ICV Std 00049	TOC LCS Std 00054
ICV 280-576443/1		9060A		50 mL	50 mL	<2 SU	<2 SU	1 mL	
ICB 280-576443/2		9060A		20 mL	20 mL	<2 SU	<2 SU		
CCV 280-576443/15		9060A		200 mL	200 mL	<2 SU	<2 SU		5 mL
CCB 280-576443/16		9060A		20 mL	20 mL	<2 SU	<2 SU		
LCS 280-576248/1-A		9060A		200 mL	200 mL	<2 SU	<2 SU		5 mL
MB 280-576248/2-A		9060A		20 mL	20 mL	<2 SU	<2 SU		
280-162386-D-1-A	PZ007-22A	9060A	D	20 mL	20 mL	>2 SU	>2 SU		
280-162386-D-1-B MS	PZ007-22A	9060A	D	50 mL	50 mL	>2 SU	>2 SU		1.25 mL
280-162386-D-1-C MSD	PZ007-22A	9060A	D	50 mL	50 mL	>2 SU	>2 SU		1.25 mL
280-162386-D-2-A	G0087-22A	9060A	D	20 mL	20 mL	>2 SU	>2 SU		
280-162386-D-3-A	G0117-22A	9060A	D	20 mL	20 mL	>2 SU	>2 SU		
CCV 280-576443/27		9060A		200 mL	200 mL	<2 SU	<2 SU		5 mL
CCB 280-576443/28		9060A		20 mL	20 mL	<2 SU	<2 SU		
280-162386-D-4-A	G0022-22A	9060A	D	20 mL	20 mL	>2 SU	>2 SU		
280-162386-D-5-A	G0088-22A	9060A	D	20 mL	20 mL	>2 SU	>2 SU		
280-162386-D-6-A	G0116-22A	9060A	D	20 mL	20 mL	>2 SU	>2 SU		
280-162386-D-7-A	PZ014-22A	9060A	D	20 mL	20 mL	>2 SU	>2 SU		
280-162386-D-8-A	G0092-22A	9060A	D	20 mL	20 mL	>2 SU	>2 SU		
280-162386-D-9-A	PZ013-22A	9060A	D	20 mL	20 mL	>2 SU	>2 SU		
280-162386-D-10-A	G0081-22A	9060A	D	20 mL	20 mL	>2 SU	>2 SU		
CCV 280-576443/39		9060A		200 mL	200 mL	<2 SU	<2 SU		5 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576443 Batch Start Date: 05/26/22 16:43 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	Final pH	TOC ICV Std 00049	TOC LCS Std 00054
CCB 280-576443/40		9060A		20 mL	20 mL	<2 SU	<2 SU		

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
ICV 280-576443/1		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
ICB 280-576443/2		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCV 280-576443/15		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-576443/16		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
LCS 280-576248/1-A		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
MB 280-576248/2-A		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576443 Batch Start Date: 05/26/22 16:43 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
280-162386-D-1-A	PZ007-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-162386-D-1-B MS	PZ007-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-162386-D-1-C MSD	PZ007-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-162386-D-2-A	G0087-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-162386-D-3-A	G0117-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCV 280-576443/27		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-576443/28		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576443 Batch Start Date: 05/26/22 16:43 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
280-162386-D-4-A	G0022-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-162386-D-5-A	G0088-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-162386-D-6-A	G0116-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-162386-D-7-A	PZ014-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-162386-D-8-A	G0092-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-162386-D-9-A	PZ013-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-162386-D-10-A	G0081-22A	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576443 Batch Start Date: 05/26/22 16:43 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
CCV 280-576443/39		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-576443/40		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

Batch Notes	
Acid ID	0.2% H2SO4_00431, H2SO4_00214
Combustion Catylyst ID	19003D-03
Pipette/Syringe/Dispenser ID	BWH 5000, 1000 MS, 1272995
Filter ID	R1MB55774-2036-DS
pH Paper ID	HC178690
Batch Comment	Run and reviewed by ABW

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576106 Batch Start Date: 05/24/22 10:56 Batch Analyst: Guillen, Kristela E

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 01041				
LCSD 280-576106/5		SM 2320B		InitialAmount is blank	10 mL				
MB 280-576106/6		SM 2320B		InitialAmount is blank					
CCV 280-576106/17		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-576106/18		SM 2320B		InitialAmount is blank					
CCV 280-576106/29		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-576106/30		SM 2320B		InitialAmount is blank					
LCS 280-576106/31		SM 2320B		InitialAmount is blank	10 mL				
MB 280-576106/32		SM 2320B		InitialAmount is blank					
280-162386-F-1	PZ007-22A	SM 2320B	T	InitialAmount is blank					
280-162386-F-2	G0087-22A	SM 2320B	T	InitialAmount is blank					
280-162386-F-3	G0117-22A	SM 2320B	T	InitialAmount is blank					
280-162386-F-4	G0022-22A	SM 2320B	T	InitialAmount is blank					
280-162386-F-5	G0088-22A	SM 2320B	T	InitialAmount is blank					
280-162386-F-6	G0116-22A	SM 2320B	T	InitialAmount is blank					
280-162386-F-7	PZ014-22A	SM 2320B	T	InitialAmount is blank					
280-162386-F-8	G0092-22A	SM 2320B	T	InitialAmount is blank					
CCV 280-576106/43		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-576106/44		SM 2320B		InitialAmount is blank					
280-162386-F-9	PZ013-22A	SM 2320B	T	InitialAmount is blank					
280-162386-F-10	G0081-22A	SM 2320B	T	InitialAmount is blank					
CCV 280-576106/55		SM 2320B		InitialAmount is blank	10 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-162386-1

SDG No.:

Batch Number: 576106 Batch Start Date: 05/24/22 10:56 Batch Analyst: Guillen, Kristela E

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 01041				
CCB 280-576106/56		SM 2320B		InitialAmount is blank					

Batch Notes	
Nominal Amount Used	10 mL
Acid ID	0.02 H2SO4_00296
Normality of First Titrant	0.02 N
Sodium Carbonate ID	Alk Stk Std_00022
pH Buffer 1 ID	pH 2.0 buffer_00096
pH Buffer 2 ID	pH 4.0 buffer_00207
pH Buffer 3 ID	pH 7.0 buffer_00312
pH Buffer 4 ID	pH 7.0 buffer_00313
pH Buffer 5 ID	pH 10 buffer_00156
pH Buffer 6 ID	pH 12 buffer_00178
Probe ID	PCE 80 pH 1200D_8918
Batch Comment	KG

Basis	Basis Description
T	Total/NA

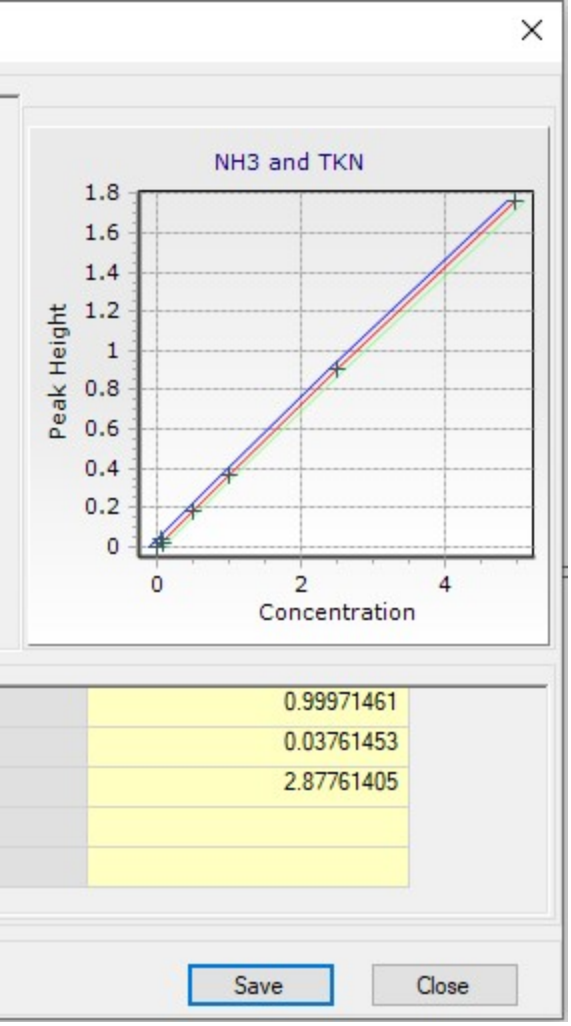
The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Select/deselect Standards

	SerialNumber	Cup position	Sample Type	Identity	Concentration	Corrected Height	Result	Use this	Y Residuals	Relative Error(%)
1	4	ST1	S1	0 mg/L	0.000	-0.002	-0.001	☑		
2	5	ST2	S2	0.05	0.050	0.037	0.105	☑	54.65%	109.28%
3	6	ST3	S3	0.1	0.100	0.017	0.052	☑	-102.86%	-48.34%
4	7	ST4	S4	0.5	0.500	0.179	0.494	☑	-1.24%	-1.22%
5	8	ST5	S5	1	1.000	0.361	0.995	☑	-0.53%	-0.53%
6	9	ST6	S6	2.5	2.500	0.901	2.507	☑	0.29%	0.3%
7	10	ST7	S7	5	5.000	1.762	4.998	☑	-0.03%	-0.03%

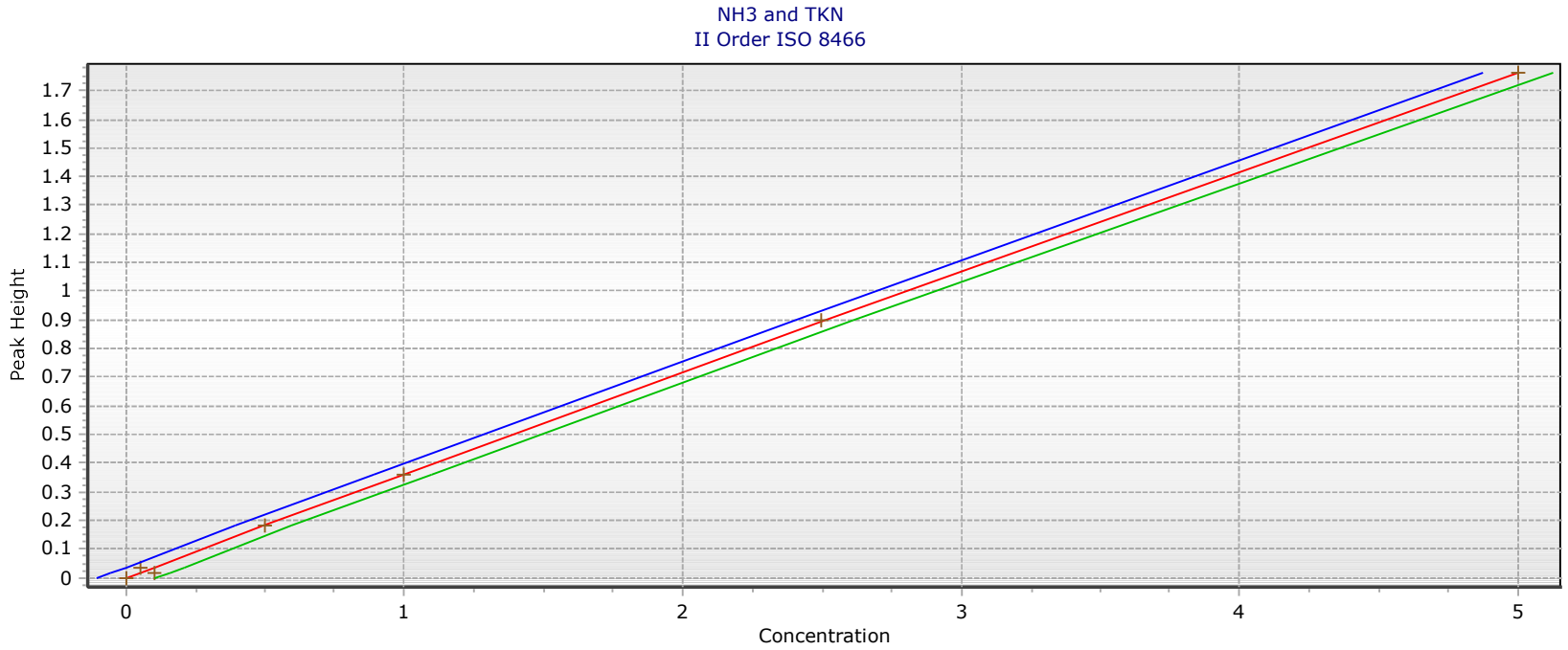
Method Name	Ammonia	a	-0.00172550	R Squared
Module Name	NH3 and TKN	b	0.36747134	Constant Sx0
Calibration Order	II Order ISO 8466	c	-0.00290949	Constant Vx0
Residual Std. Dev. (Sy)	0.01353615544568	d		
		Correlation Coefficient	0.99979994	

Calibration Order: II Order ISO 8466


NH3 and TKN
Peak Height
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
2
4
Concentration
0.99971461
0.03761453
2.87761405
Save
Close

FlowAccessV3

Date:Jun 1 2022 4:06PM

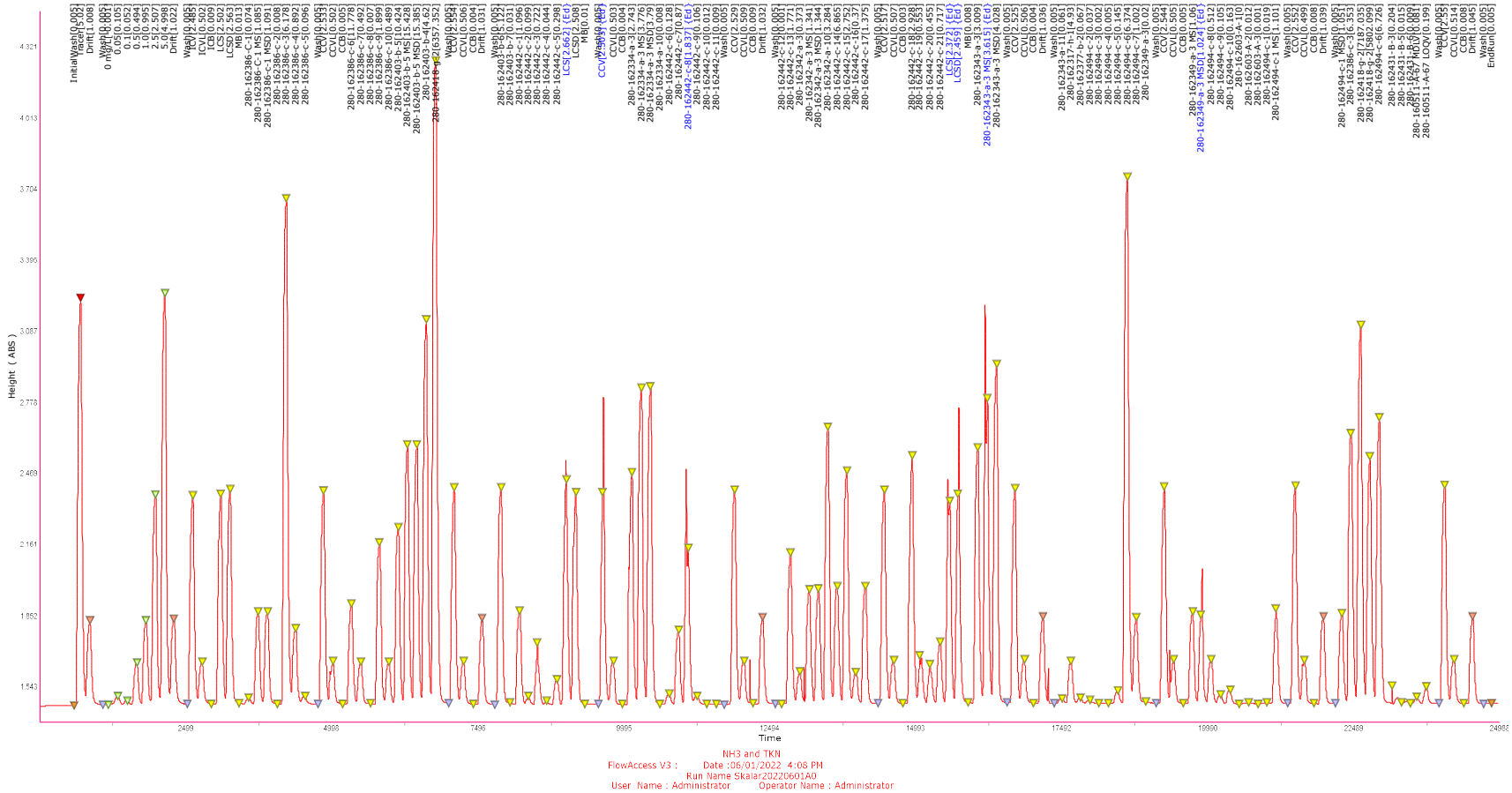


a = -0.0017254979352379 b = 0.3674713380244040 c =-0.0029094888767160 RSD = 0.01353615544568

r =0.99979994027810 R2 = 0.99971461164894

Run Name : Skalar20220601A0

User Name : Administrator Operator Name : Administrator


Height (ABS)
4.321
4.013
3.704
3.395
3.087
2.778
2.469
2.161
1.852
1.543
2499
4998
7496
9995
12494
14993
17492
19990
22489
24988
Time
NH3 and TKN
FlowAccess V3 : Date :06/01/2022 4:08 PM
Run Name Skalar20220601A0
User Name : Administrator Operator Name : Administrator

FlowAccessV3 Results Report

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution
1	IW	IW	InitialWash		1.0000
2	ST7	T	Tracer		1.0000
3	ST5	D	Drift		1.0000
4	WT	W	Wash		1.0000
5	ST1	S1	0 mg/L		1.0000
6	ST2	S2	0.05		1.0000
7	ST3	S3	0.1		1.0000
8	ST4	S4	0.5		1.0000
9	ST5	S5	1.0		1.0000
10	ST6	S6	2.5		1.0000
11	ST7	S7	5.0		1.0000
12	ST5	D	Drift		1.0000
13	WT	W	Wash		1.0000
14	ST8	U	ICV		1.0000
15	ST9	U	ICVL		1.0000
16	WT	U	ICB		1.0000
17	D29	U	LCS		1.0000
18	D29	U	LCSD		1.0000
19	WT	U	MB		1.0000
20	A1	U	280-162386-C-1		1.0000
21	A2	U	280-162386-C-1 MS		1.0000
22	A3	U	280-162386-c-1 MSI		1.0000
23	A4	U	280-162386-c-2		1.0000
24	A5	U	280-162386-c-3		1.0000
25	A6	U	280-162386-c-4		1.0000
26	A7	U	280-162386-c-5		1.0000
27	WT	W	Wash		1.0000
28	ST6	U	CCV		1.0000
29	ST4	U	CCVL		1.0000
30	WT	U	CCB		1.0000
31	A8	U	280-162386-c-6		10.0000
32	A9	U	280-162386-c-7		1.0000
33	A10	U	280-162386-c-8		1.0000
34	A11	U	280-162386-c-9		1.0000
35	A12	U	280-162386-c-10		1.0000
36	A13	U	280-162403-b-5		5.0000
37	A14	U	280-162403-b-5 MS		5.0000
38	A15	U	280-162403-b-5 MSI		5.0000
39	A16	U	280-162403-b-4		1.0000
40	A17	U	280-162418-g-2		800.0000

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution
41	WT	W	Wash		1.0000
42	ST6	U	CCV		1.0000
43	ST4	U	CCVL		1.0000
44	WT	U	CCB		1.0000
45	ST5	D	Drift		1.0000
46	WT	W	Wash		1.0000
47	A18	U	280-162403-b-6		2.0000
48	A19	U	280-162403-b-7		1.0000
49	A20	U	280-162442-c-1		1.0000
50	A21	U	280-162442-c-2		1.0000
51	A22	U	280-162442-c-3		1.0000
52	A23	U	280-162442-c-4		1.0000
53	A24	U	280-162442-c-5		1.0000
54	D29	U	LCS		1.0000
55	D29	U	LCSD		1.0000
56	WT	U	MB		1.0000
57	WT	W	Wash		1.0000
58	ST6	U	CCV		1.0000
59	ST4	U	CCVL		1.0000
60	WT	U	CCB		1.0000
61	A25	U	280-162334-a-3		1.0000
62	A26	U	280-162334-a-3 MS		1.0000
63	A27	U	280-162334-a-3 MSI		1.0000
64	A28	U	280-162334-a-10		1.0000
65	A29	U	280-162442-c-6		1.0000
66	A30	U	280-162442-c-7		1.0000
67	A31	U	280-162442-c-8		1.0000
68	A32	U	280-162442-c-9		1.0000
69	A33	U	280-162442-c-10		1.0000
70	A34	U	280-162442-c-11		1.0000
71	WT	W	Wash		1.0000
72	ST6	U	CCV		1.0000
73	ST4	U	CCVL		1.0000
74	WT	U	CCB		1.0000
75	ST5	D	Drift		1.0000
76	WT	W	Wash		1.0000
77	A35	U	280-162442-c-12		1.0000
78	B1	U	280-162442-c-13		1.0000
79	B2	U	280-162342-a-3		1.0000
80	B3	U	280-162342-a-3 MS		1.0000

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution
81	B4	U	280-162342-a-3 MSI		1.0000
82	B5	U	280-162342-a-10		1.0000
83	B6	U	280-162442-c-14		5.0000
84	B7	U	280-162442-c-15		1.0000
85	B8	U	280-162442-c-16		1.0000
86	B9	U	280-162442-c-17		1.0000
87	WT	W	Wash		1.0000
88	ST6	U	CCV		1.0000
89	ST4	U	CCVL		1.0000
90	WT	U	CCB		1.0000
91	B10	U	280-162442-c-18		1.0000
92	B11	U	280-162442-c-19		1.0000
93	B12	U	280-162442-c-20		1.0000
94	B13	U	280-162442-c-21		1.0000
95	D30	U	LCS		1.0000
96	D30	U	LCSD		1.0000
97	WT	U	MB		1.0000
98	B14	U	280-162343-a-3		1.0000
99	B15	U	280-162343-a-3 MS		1.0000
100	B16	U	280-162343-a-3 MSI		1.0000
101	WT	W	Wash		1.0000
102	ST6	U	CCV		1.0000
103	ST4	U	CCVL		1.0000
104	WT	U	CCB		1.0000
105	ST5	D	Drift		1.0000
106	WT	W	Wash		1.0000
107	B17	U	280-162343-a-11		1.0000
108	B18	U	280-162317-h-1	RERUN FOR HF	10.0000
109	B19	U	280-162377-b-2	RERUN FOR HF	1.0000
110	B20	U	280-162494-c-2		1.0000
111	B21	U	280-162494-c-3		1.0000
112	B22	U	280-162494-c-4		1.0000
113	B23	U	280-162494-c-5		1.0000
114	B24	U	280-162494-c-6		1.0000
115	B25	U	280-162494-c-7		1.0000
116	B26	U	280-162349-a-3		1.0000
117	WT	W	Wash		1.0000
118	ST6	U	CCV		1.0000
119	ST4	U	CCVL		1.0000
120	WT	U	CCB		1.0000

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution
121	B27	U	280-162349-a-3 MS		1.0000
122	B28	U	280-162349-a-3 MSI		1.0000
123	B29	U	280-162494-c-8		1.0000
124	B30	U	280-162494-c-9		1.0000
125	B31	U	280-162494-c-10		1.0000
126	B32	U	280-162603-A-1		1.0000
127	B33	U	280-162603-A-2		1.0000
128	B34	U	280-162603-A-3		1.0000
129	B35	U	280-162494-c-1		1.0000
130	C1	U	280-162494-c-1 MS		1.0000
131	WT	W	Wash		1.0000
132	ST6	U	CCV		1.0000
133	ST4	U	CCVL		1.0000
134	WT	U	CCB		1.0000
135	ST5	D	Drift		1.0000
136	WT	W	Wash		1.0000
137	C2	U	280-162494-c-1 MSI		1.0000
138	C3	U	280-162386-c-3	RERUN FOR DILUTION	2.0000
139	C4	U	280-162418-g-2	RERUN FOR HIGHE DILUT	1600.0000
140	C5	U	280-162418-g-2	TESTING A HIGHER DILUT	2000.0000
141	C6	U	280-162494-c-6	RERUN FOR DILUTION	2.0000
142	C7	U	280-162431-B-3		1.0000
143	C8	U	280-162431-B-5		1.0000
144	C9	U	280-162431-B-6		1.0000
145	C10	U	280-160511-A-67 MI		1.0000
146	C11	U	280-160511-A-67 LC		1.0000
147	WT	W	Wash		1.0000
148	ST6	U	CCV		1.0000
149	ST4	U	CCVL		1.0000
150	WT	U	CCB		1.0000
151	ST5	D	Drift		1.0000
152	WT	W	Wash		1.0000
153	E	E	EndRun		1.0000

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN- Results	NH3 and TKN-	NH3 and TKN-
1	0.005	0.0000	Jun 1 2022 9:07AM
2	5.020	1.7696	Jun 1 2022 9:09AM
3	1.008	0.3658	Jun 1 2022 9:13AM
4	0.005	0.0000	Jun 1 2022 9:15AM
5	-0.001	-0.0020	Jun 1 2022 9:19AM
6	0.105	0.0367	Jun 1 2022 9:21AM
7	0.052	0.0173	Jun 1 2022 9:23AM
8	0.494	0.1791	Jun 1 2022 9:26AM
9	0.995	0.3609	Jun 1 2022 9:29AM
10	2.507	0.9014	Jun 1 2022 9:31AM
11	4.998	1.7623	Jun 1 2022 9:34AM
12	1.022	0.3708	Jun 1 2022 9:37AM
13	0.005	0.0000	Jun 1 2022 9:39AM
14	2.485	0.8934	Jun 1 2022 9:43AM
15	0.502	0.1822	Jun 1 2022 9:45AM
16	0.009	0.0015	Jun 1 2022 9:47AM
17	2.502	0.8996	Jun 1 2022 9:50AM
18	2.563	0.9210	Jun 1 2022 9:53AM
19	0.013	0.0031	Jun 1 2022 9:55AM
20	0.074	0.0256	Jun 1 2022 9:58AM
21	1.085	0.3934	Jun 1 2022 10:01AM
22	1.091	0.3957	Jun 1 2022 10:03AM
23	0.008	0.0011	Jun 1 2022 10:06AM
24	6.178	2.1576	Jun 1 2022 10:09AM
25	0.892	0.3237	Jun 1 2022 10:11AM
26	0.096	0.0335	Jun 1 2022 10:14AM
27	0.005	0.0000	Jun 1 2022 10:17AM
28	2.533	0.9104	Jun 1 2022 10:20AM
29	0.502	0.1822	Jun 1 2022 10:22AM
30	0.005	0.0000	Jun 1 2022 10:25AM
31	11.778	0.4271	Jun 1 2022 10:27AM
32	0.492	0.1785	Jun 1 2022 10:30AM
33	0.007	0.0009	Jun 1 2022 10:33AM
34	1.899	0.6855	Jun 1 2022 10:35AM
35	0.489	0.1772	Jun 1 2022 10:38AM
36	10.424	0.7517	Jun 1 2022 10:41AM
37	15.428	1.1044	Jun 1 2022 10:43AM
38	15.385	1.1014	Jun 1 2022 10:46AM
39	4.620	1.6340	Jun 1 2022 10:49AM
40	6357.352	2.7347	Jun 1 2022 10:51AM

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN- Results	NH3 and TKN-	NH3 and TKN-
41	0.005	0.0000	Jun 1 2022 10:54AM
42	2.554	0.9176	Jun 1 2022 10:58AM
43	0.506	0.1835	Jun 1 2022 10:59AM
44	0.004	-0.0003	Jun 1 2022 11:02AM
45	1.031	0.3740	Jun 1 2022 11:05AM
46	0.005	0.0000	Jun 1 2022 11:07AM
47	5.122	0.9203	Jun 1 2022 11:11AM
48	0.031	0.0096	Jun 1 2022 11:13AM
49	1.096	0.3977	Jun 1 2022 11:15AM
50	0.099	0.0345	Jun 1 2022 11:18AM
51	0.722	0.2620	Jun 1 2022 11:21AM
52	0.044	0.0144	Jun 1 2022 11:23AM
53	0.298	0.1076	Jun 1 2022 11:26AM
54	2.662	0.9559	Jun 1 2022 11:29AM
55	2.508	0.9014	Jun 1 2022 11:31AM
56	0.010	0.0021	Jun 1 2022 11:34AM
57	0.005	0.0000	Jun 1 2022 11:37AM
58	2.503	0.8998	Jun 1 2022 11:40AM
59	0.503	0.1825	Jun 1 2022 11:42AM
60	0.004	-0.0003	Jun 1 2022 11:45AM
61	2.743	0.9845	Jun 1 2022 11:47AM
62	3.776	1.3443	Jun 1 2022 11:50AM
63	3.790	1.3491	Jun 1 2022 11:53AM
64	0.008	0.0013	Jun 1 2022 11:55AM
65	0.128	0.0454	Jun 1 2022 11:58AM
66	0.870	0.3156	Jun 1 2022 12:01PM
67	1.837	0.6633	Jun 1 2022 12:03PM
68	0.106	0.0372	Jun 1 2022 12:06PM
69	0.012	0.0028	Jun 1 2022 12:09PM
70	0.009	0.0014	Jun 1 2022 12:12PM
71	0.005	0.0000	Jun 1 2022 12:14PM
72	2.529	0.9092	Jun 1 2022 12:17PM
73	0.509	0.1846	Jun 1 2022 12:20PM
74	0.009	0.0016	Jun 1 2022 12:22PM
75	1.032	0.3743	Jun 1 2022 12:25PM
76	0.005	0.0000	Jun 1 2022 12:28PM
77	0.001	-0.0012	Jun 1 2022 12:31PM
78	1.771	0.6399	Jun 1 2022 12:33PM
79	0.373	0.1350	Jun 1 2022 12:35PM
80	1.341	0.4857	Jun 1 2022 12:38PM

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN- Results	NH3 and TKN-	NH3 and TKN-
81	1.344	0.4870	Jun 1 2022 12:41PM
82	3.284	1.1736	Jun 1 2022 12:43PM
83	6.865	0.4974	Jun 1 2022 12:46PM
84	2.752	0.9876	Jun 1 2022 12:49PM
85	0.370	0.1338	Jun 1 2022 12:51PM
86	1.375	0.4980	Jun 1 2022 12:54PM
87	0.005	0.0000	Jun 1 2022 12:57PM
88	2.517	0.9046	Jun 1 2022 1:00PM
89	0.507	0.1840	Jun 1 2022 1:02PM
90	0.003	-0.0006	Jun 1 2022 1:05PM
91	2.928	1.0492	Jun 1 2022 1:08PM
92	0.553	0.2006	Jun 1 2022 1:10PM
93	0.455	0.1650	Jun 1 2022 1:12PM
94	0.717	0.2602	Jun 1 2022 1:15PM
95	2.372	0.8535	Jun 1 2022 1:18PM
96	2.459	0.8844	Jun 1 2022 1:20PM
97	0.008	0.0011	Jun 1 2022 1:23PM
98	3.009	1.0777	Jun 1 2022 1:26PM
99	3.615	1.2887	Jun 1 2022 1:29PM
100	4.028	1.4314	Jun 1 2022 1:31PM
101	0.005	0.0000	Jun 1 2022 1:34PM
102	2.525	0.9076	Jun 1 2022 1:37PM
103	0.506	0.1836	Jun 1 2022 1:40PM
104	0.004	-0.0004	Jun 1 2022 1:42PM
105	1.036	0.3758	Jun 1 2022 1:45PM
106	0.005	0.0000	Jun 1 2022 1:47PM
107	0.061	0.0205	Jun 1 2022 1:51PM
108	4.930	0.1787	Jun 1 2022 1:53PM
109	0.067	0.0230	Jun 1 2022 1:56PM
110	0.037	0.0118	Jun 1 2022 1:58PM
111	0.002	-0.0010	Jun 1 2022 2:01PM
112	0.005	0.0000	Jun 1 2022 2:04PM
113	0.145	0.0515	Jun 1 2022 2:06PM
114	6.374	2.2225	Jun 1 2022 2:09PM
115	1.002	0.3635	Jun 1 2022 2:12PM
116	0.020	0.0057	Jun 1 2022 2:14PM
117	0.005	0.0000	Jun 1 2022 2:17PM
118	2.544	0.9143	Jun 1 2022 2:20PM
119	0.505	0.1832	Jun 1 2022 2:22PM
120	0.005	0.0000	Jun 1 2022 2:25PM

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN- Results	NH3 and TKN-	NH3 and TKN-
121	1.060	0.3847	Jun 1 2022 2:28PM
122	1.024	0.3715	Jun 1 2022 2:30PM
123	0.512	0.1855	Jun 1 2022 2:33PM
124	0.105	0.0367	Jun 1 2022 2:36PM
125	0.163	0.0580	Jun 1 2022 2:38PM
126	0.000	-0.0017	Jun 1 2022 2:41PM
127	0.012	0.0027	Jun 1 2022 2:44PM
128	0.001	-0.0012	Jun 1 2022 2:46PM
129	0.019	0.0053	Jun 1 2022 2:49PM
130	1.101	0.3993	Jun 1 2022 2:52PM
131	0.005	0.0000	Jun 1 2022 2:54PM
132	2.552	0.9172	Jun 1 2022 2:57PM
133	0.499	0.1808	Jun 1 2022 3:00PM
134	0.008	0.0014	Jun 1 2022 3:02PM
135	1.039	0.3771	Jun 1 2022 3:05PM
136	0.005	0.0000	Jun 1 2022 3:08PM
137	1.051	0.3812	Jun 1 2022 3:11PM
138	6.353	1.1361	Jun 1 2022 3:13PM
139	7187.035	1.5902	Jun 1 2022 3:15PM
140	5802.099	1.0398	Jun 1 2022 3:18PM
141	6.726	1.2012	Jun 1 2022 3:21PM
142	0.204	0.0732	Jun 1 2022 3:24PM
143	0.015	0.0037	Jun 1 2022 3:27PM
144	0.009	0.0018	Jun 1 2022 3:30PM
145	0.081	0.0281	Jun 1 2022 3:32PM
146	0.199	0.0714	Jun 1 2022 3:34PM
147	0.005	0.0000	Jun 1 2022 3:37PM
148	2.550	0.9163	Jun 1 2022 3:41PM
149	0.514	0.1863	Jun 1 2022 3:42PM
150	0.008	0.0011	Jun 1 2022 3:45PM
151	1.045	0.3793	Jun 1 2022 3:48PM
152	0.005	0.0000	Jun 1 2022 3:50PM
153	0.005	0.0000	Jun 1 2022 3:53PM

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN-
1	0.005
2	5.020
3	1.008
4	0.005
5	-0.001
6	0.105
7	0.052
8	0.494
9	0.995
10	2.507
11	4.998
12	1.022
13	0.005
14	2.485
15	0.502
16	0.009
17	2.502
18	2.563
19	0.013
20	0.074
21	1.085
22	1.091
23	0.008
24	6.178
25	0.892
26	0.096
27	0.005
28	2.533
29	0.502
30	0.005
31	1.178
32	0.492
33	0.007
34	1.899
35	0.489
36	2.085
37	3.086
38	3.077
39	4.620
40	7.947

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN-
41	0.005
42	2.554
43	0.506
44	0.004
45	1.031
46	0.005
47	2.561
48	0.031
49	1.096
50	0.099
51	0.722
52	0.044
53	0.298
54	2.662
55	2.508
56	0.010
57	0.005
58	2.503
59	0.503
60	0.004
61	2.743
62	3.776
63	3.790
64	0.008
65	0.128
66	0.870
67	1.837
68	0.106
69	0.012
70	0.009
71	0.005
72	2.529
73	0.509
74	0.009
75	1.032
76	0.005
77	0.001
78	1.771
79	0.373
80	1.341

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN-
81	1.344
82	3.284
83	1.373
84	2.752
85	0.370
86	1.375
87	0.005
88	2.517
89	0.507
90	0.003
91	2.928
92	0.553
93	0.455
94	0.717
95	2.372
96	2.459
97	0.008
98	3.009
99	3.615
100	4.028
101	0.005
102	2.525
103	0.506
104	0.004
105	1.036
106	0.005
107	0.061
108	0.493
109	0.067
110	0.037
111	0.002
112	0.005
113	0.145
114	6.374
115	1.002
116	0.020
117	0.005
118	2.544
119	0.505
120	0.005

Run Name : Skalar20220601A0
DateTime :Jun 1 2022 8:57AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN-
121	1.060
122	1.024
123	0.512
124	0.105
125	0.163
126	0.000
127	0.012
128	0.001
129	0.019
130	1.101
131	0.005
132	2.552
133	0.499
134	0.008
135	1.039
136	0.005
137	1.051
138	3.176
139	4.492
140	2.901
141	3.363
142	0.204
143	0.015
144	0.009
145	0.081
146	0.199
147	0.005
148	2.550
149	0.514
150	0.008
151	1.045
152	0.005
153	0.005

Calibration results

TKN Version number 1.5 WC_GAL1

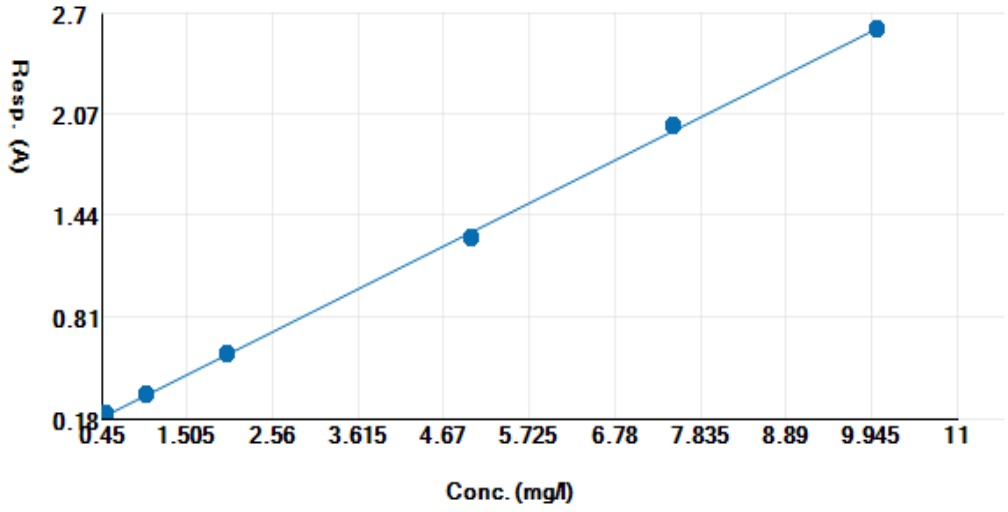
Date 5/25/2022 **User** Dealer

Time 6:59:00PM **Software version: 7.0**

Analyzer name WC_GAL1

Test	TKN	**Coeff. of deter.**	0.999549
Status	Accepted	**Total factor**	3.957
Accepted	5/2/2022 5:00 PM		
Checked	5/2/2022 5:00 PM		
User name	Dealer		
Comment			
Errors			
Factor	3.957		
Bias	0.073		

Cal/Ctrl	Response	Calc. conc.	Given conc.	Lot	Errors
TKN 10.0	0.212	0.54704120	0.50000000	Default	
TKN 10.0	0.328	1.00753300	1.00000000	Default	
TKN 10.0	0.579	1.99932900	2.00000000	Default	
TKN 10.0	1.299	4.85103300	5.00000000	Default	
TKN 7.5	1.993	7.59420700	7.50000000	Default	
TKN 10.0	2.601	10.00086000	10.00000000	Default	



Test results report

WC_GAL1

Test name TKN

Date 5/25/2022 **User** Dealer

Time 6:56:59PM **Software version: 7.0**

Test TKN **Group ID** [All] **Acceptance** Not accepted

Sample ID [All] **Group name** [All] **Request type** All

Test	Sample/ctrl ID	Test version	Result	Unit	Note	Dil. 1 +	Status	Errors
TKN	icv	1.5	5.2361430	mg/l		0.0	calc	
TKN	icb	1.5	0.1789618	mg/l		0.0	calc	
TKN	LCS 280-575900/1-A	1.5	6.2151200	mg/l		0.0	calc	
TKN	MB 280-575900/2-A	1.5	0.1768689	mg/l		0.0	calc	
TKN	280-162320-C-7-A	1.5	0.3500878	mg/l		0.0	calc	
TKN	280-162320-C-7-B MS	1.5	3.4698930	mg/l		0.0	calc	
TKN	280-162320-C-7-C MSD	1.5	3.4773920	mg/l		0.0	calc	
TKN	280-162320-C-1-A	1.5	2.0320460	mg/l		0.0	calc	
TKN	280-162320-C-2-A	1.5	0.4434713	mg/l		0.0	calc	
TKN	280-162320-C-3-A	1.5	1.6513210	mg/l		0.0	calc	
TKN	280-162320-C-4-A	1.5	0.0346841	mg/l		0.0	calc	
TKN	280-162320-C-5-A	1.5	2.7528830	mg/l		0.0	calc	
TKN	280-162320-C-6-A	1.5	0.0506394	mg/l		0.0	calc	
TKN	280-162320-C-8-A	1.5	0.2451449	mg/l		0.0	calc	
TKN	ccv1	1.5	5.1238750	mg/l		0.0	calc	
TKN	ccb1	1.5	0.1770924	mg/l		0.0	calc	
TKN	280-162320-C-9-A	1.5	0.1733599	mg/l		0.0	calc	
TKN	280-162320-C-10-A	1.5	6.1551500	mg/l		0.0	calc	
TKN	280-162320-C-11-A	1.5	2.0627890	mg/l		0.0	calc	
TKN	280-162320-C-11-B MS	1.5	4.9892110	mg/l		0.0	calc	
TKN	280-162320-C-11-C MS	1.5	4.9795860	mg/l		0.0	calc	

Test	Sample/ctrl ID	Test version	Result	Unit	Note	Dil. 1 +	Status	Errors
TKN	280-162478-A-1-B	1.5	0.0096681	mg/l		0.0	calc	
TKN	280-162478-A-2-B	1.5	0.0059109	mg/l		0.0	calc	
TKN	280-162478-A-3-B	1.5	0.0008050	mg/l		0.0	calc	
TKN	280-162262-C-1-A	1.5	0.0832922	mg/l		0.0	calc	
TKN	280-162262-C-2-A	1.5	0.0310414	mg/l		0.0	calc	
TKN	ccv2	1.5	5.1545710	mg/l		0.0	calc	
TKN	ccb2	1.5	0.1758141	mg/l		0.0	calc	
TKN	280-162262-C-3-A	1.5	0.0252055	mg/l		0.0	calc	
TKN	280-162262-C-4-A	1.5	0.8264584	mg/l		0.0	calc	
TKN	280-162262-C-5-A	1.5	0.0238894	mg/l		0.0	calc	
TKN	280-162262-C-6-A	1.5	0.2892899	mg/l		0.0	calc	
TKN	LCS 280-575901/1-A	1.5	6.1965440	mg/l		0.0	calc	
TKN	MB 280-575901/2-A	1.5	0.1789612	mg/l		0.0	calc	
TKN	280-162386-C-1-A	1.5	0.4103609	mg/l		0.0	calc	
TKN	280-162386-C-1-B MS	1.5	3.3570040	mg/l		0.0	calc	
TKN	280-162386-C-1-C MSD	1.5	3.3745940	mg/l		0.0	calc	
TKN	280-162386-C-2-A	1.5	0.0728850	mg/l		0.0	calc	
TKN	ccv3	1.5	5.1406460	mg/l		0.0	calc	
TKN	ccb3	1.5	0.7794068	mg/l		0.0	calc	
TKN	280-162386-C-3-A	1.5	8.7226750	mg/l		0.0	calc	
TKN	280-162386-C-4-A	1.5	0.6324500	mg/l		0.0	calc	
TKN	280-162386-C-5-A	1.5	0.5653923	mg/l		0.0	calc	
TKN	280-162386-C-7-A	1.5	1.5387240	mg/l		0.0	calc	
TKN	280-162386-C-8-A	1.5	0.5389127	mg/l		0.0	calc	
TKN	280-162386-C-9-A	1.5	0.9030471	mg/l		0.0	calc	
TKN	280-162386-C-10-A	1.5	0.4837691	mg/l		0.0	calc	

Test	Sample/ctrl ID	Test version	Result	Unit	Note	Dil. 1 +	Status	Errors
TKN	590-17556-G-1-A	1.5	0.0607386	mg/l		0.0	calc	
TKN	590-17556-G-1-B MS	1.5	3.2342070	mg/l		0.0	calc	
TKN	ccv4	1.5	5.1796490	mg/l		0.0	calc	
TKN	ccb4	1.5	0.1853429	mg/l		0.0	calc	
TKN	590-17556-G-1-C MSD	1.5	3.2624000	mg/l		0.0	calc	
TKN	280-162603-A-1-A	1.5	0.0030466	mg/l		0.0	calc	
TKN	280-162603-A-2-A	1.5	-0.0016121	mg/l		0.0	calc	
TKN	280-162603-A-3-A	1.5	-0.0023877	mg/l		0.0	calc	
TKN	280-162488-A-1-C	1.5	1.1200880	mg/l		0.0	calc	
TKN	280-162488-A-2-C	1.5	0.7965457	mg/l		0.0	calc	
TKN	LCS 280-575902/1-A	1.5	6.2586950	mg/l		0.0	calc	
TKN	MB 280-575902/2-A	1.5	0.2414814	mg/l		0.0	calc	
TKN	ccv5	1.5	5.2199890	mg/l		0.0	calc	
TKN	ccb5	1.5	0.2025160	mg/l		0.0	calc	
TKN	280-162386-C-6-A	1.5	14.3845100	mg/l		4.0	calc	
TKN	580-113991-A-1-A	1.5	87.7498900	mg/l		9.0	calc	
TKN	580-113991-A-1-B MS	1.5	109.6138000	mg/l		19.0	calc	
TKN	580-113991-A-1-C MSD	1.5	110.5301000	mg/l		19.0	calc	
TKN	d580-113991-A-1-A	1.5	116.5689000	mg/l		0.0	calc	
TKN	d580-113991-A-1-B MS	1.5	134.9070000	mg/l		0.0	calc	
TKN	d580-113991-A-1-C MS	1.5	135.0968000	mg/l		0.0	calc	
TKN	ccv6	1.5	5.1208540	mg/l		0.0	calc	
TKN	ccb6	1.5	0.1918174	mg/l		0.0	calc	

Run Results Report

Facility Name
Facility Location
Department
Operator Name svc
Operator ID svc
Platform FS III/IV/3100
Software Rev Code 240
Data system ID 54

Result path C:\FLOW_4\060222A.RST
Sample table path C:\FLOW_4\060222.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 02-Jun-22
Time acquired 20:39

Date	Time	Cup	Name
02-Jun-22	16:27	109	SYNC
02-Jun-22	16:29	0	Carryover
02-Jun-22	16:31	0	Carryover (Statistics)
02-Jun-22	16:33	0	read baseline
02-Jun-22	16:35	101	Cal 0.00 ppb
02-Jun-22	16:37	102	Cal 50.0 ppb
02-Jun-22	16:39	103	Cal 100 ppb
02-Jun-22	16:41	104	Cal 500 ppb
02-Jun-22	16:43	105	Cal 1000 ppb
02-Jun-22	16:45	106	Cal 2500 ppb
02-Jun-22	16:47	107	Cal 5000 ppb
02-Jun-22	16:49	108	Cal 7500 ppb
02-Jun-22	16:51	109	Cal 10000 ppb
02-Jun-22	16:53	0	Blank
02-Jun-22	16:55	0	Read Baseline
02-Jun-22	16:57	110	5000 PPB NO2
02-Jun-22	16:59	111	ICV 5000 PPB
02-Jun-22	17:01	112	ICV 2000 PPB
02-Jun-22	17:03	0	ICB
02-Jun-22	17:05	0	Read Baseline
02-Jun-22	17:07	107	LCS
02-Jun-22	17:09	0	MB
02-Jun-22	17:11	113	280-162286-A-1
02-Jun-22	17:13	114	ms 280-162286-A-1
02-Jun-22	17:15	115	msd 280-162286-A-1
02-Jun-22	17:17	116	280-162286-A-2
02-Jun-22	17:19	117	280-162430-A-1
02-Jun-22	17:21	118	280-162571-B-4
02-Jun-22	17:23	119	280-162442-C-13
02-Jun-22	17:25	120	280-162442-C-14
02-Jun-22	17:27	121	280-162442-C-15
02-Jun-22	17:29	122	280-162442-C-16
02-Jun-22	17:31	0	Rinse
02-Jun-22	17:33	0	Read Baseline
02-Jun-22	17:35	107	CCV 5000 ppb
02-Jun-22	17:37	105	CCVL 1000 ppb
02-Jun-22	17:39	0	CCB
02-Jun-22	17:41	0	Read Baseline
02-Jun-22	17:43	123	280-162442-C-17
02-Jun-22	17:45	124	280-162442-C-18
02-Jun-22	17:47	125	280-162666-F-2
02-Jun-22	17:49	126	ms 280-162666-F-2
02-Jun-22	17:51	127	msd 280-162666-F-2
02-Jun-22	17:53	128	280-162442-C-21

Result path C:\FLOW_4\060222A.RST
Sample table path C:\FLOW_4\060222.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 02-Jun-22
Time acquired 20:39

Date	Time	Cup	Name
02-Jun-22	17:55	129	280-162603-A-1
02-Jun-22	17:57	130	280-162603-A-2
02-Jun-22	17:59	131	280-162603-A-3
02-Jun-22	18:01	132	580-113804-G-1
02-Jun-22	18:03	0	Rinse
02-Jun-22	18:05	0	Read Baseline
02-Jun-22	18:07	107	CCV 5000 ppb
02-Jun-22	18:09	105	CCVL 1000 ppb
02-Jun-22	18:11	0	CCB
02-Jun-22	18:13	0	Read Baseline
02-Jun-22	18:15	133	580-113804-G-2
02-Jun-22	18:17	134	280-162681-B-1
02-Jun-22	18:19	135	280-162681-B-2
02-Jun-22	18:21	136	280-162681-B-3
02-Jun-22	18:23	107	LCS
02-Jun-22	18:25	0	MB
02-Jun-22	18:27	137	280-162386-C-1
02-Jun-22	18:29	138	ms 280-162386-C-1
02-Jun-22	18:31	139	msd 280-162386-C-1
02-Jun-22	18:33	140	280-162386-C-2
02-Jun-22	18:35	0	Rinse
02-Jun-22	18:37	0	Read Baseline
02-Jun-22	18:39	107	CCV 5000 ppb
02-Jun-22	18:41	105	CCVL 1000 ppb
02-Jun-22	18:43	0	CCB
02-Jun-22	18:45	0	Read Baseline
02-Jun-22	18:47	141	280-162386-C-3
02-Jun-22	18:49	142	280-162386-C-4
02-Jun-22	18:51	143	280-162386-C-5
02-Jun-22	18:53	144	280-162386-C-6
02-Jun-22	18:55	145	280-162386-C-7
02-Jun-22	18:57	146	280-162386-C-8
02-Jun-22	18:59	147	280-162386-C-9
02-Jun-22	19:01	148	280-162386-C-10
02-Jun-22	19:03	0	Rinse
02-Jun-22	19:05	0	Read Baseline
02-Jun-22	19:07	107	CCV 5000 ppb
02-Jun-22	19:09	105	CCVL 1000 ppb
02-Jun-22	19:11	0	CCB
02-Jun-22	19:13	0	Read Baseline
02-Jun-22	19:20	107	LCS
02-Jun-22	19:22	0	MB
02-Jun-22	19:24	149	280-162495-A-1
02-Jun-22	19:26	150	280-162495-A-1 MS
02-Jun-22	19:28	151	280-162495-A-1 MSD
02-Jun-22	19:30	152	280-162495-A-2
02-Jun-22	19:32	153	280-162495-A-3
02-Jun-22	19:34	154	280-162495-A-4
02-Jun-22	19:36	155	280-162495-A-5
02-Jun-22	19:38	156	280-162442-C-1
02-Jun-22	19:40	157	280-162442-C-2
02-Jun-22	19:42	158	280-162442-C-3
02-Jun-22	19:44	159	280-162442-C-4
02-Jun-22	19:46	0	Rinse
02-Jun-22	19:48	0	Read Baseline
02-Jun-22	19:50	107	CCV 5000 ppb
02-Jun-22	19:52	105	CCVL 1000 ppb

Result path	C:\FLOW_4\060222A.RST
Sample table path	C:\FLOW_4\060222.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	02-Jun-22
Time acquired	20:39

Date	Time	Cup	Name
02-Jun-22	19:54	0	CCB
02-Jun-22	19:56	0	Read Baseline
02-Jun-22	19:58	160	280-162442-C-5
02-Jun-22	20:00	201	280-162442-C-6
02-Jun-22	20:02	202	ms 280-162442-C-6
02-Jun-22	20:04	203	msd 280-162442-C-6
02-Jun-22	20:06	204	280-162442-C-7
02-Jun-22	20:08	205	280-162442-C-8
02-Jun-22	20:10	206	280-162442-C-9
02-Jun-22	20:12	207	280-162442-C-11
02-Jun-22	20:14	208	280-162442-C-10
02-Jun-22	20:16	209	280-162442-C-12
02-Jun-22	20:18	210	280-162442-C-19
02-Jun-22	20:20	211	280-162442-C-20
02-Jun-22	20:22	0	Rinse
02-Jun-22	20:24	0	Read Baseline
02-Jun-22	20:26	107	CCV 5000 ppb
02-Jun-22	20:28	105	CCVL 1000 ppb
02-Jun-22	20:30	0	CCB
02-Jun-22	20:32	0	Read Baseline

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	svc
Operator ID	svc
Platform	FS III/IV/3100
Software Rev Code	240
Data system ID	54
Result path	C:\FLOW_4\060222A.RST
Sample table path	C:\FLOW_4\060222.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	02-Jun-22
Time acquired	20:39

	Nitrate as N					
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]	
SYNC	2413628	9919.627				
Carryover	3304	0.126				
Carryover	917	-9.340	LO			
(Statistics)				2110	-4.607	N
read baseline	0	-12.974	BL			
Cal 0.00 ppb	752	-9.994	LO			
Cal 50.0 ppb	12829	37.902				
Cal 100 ppb	25882	89.688				
Cal 500 ppb	127179	492.298				
Cal 1000 ppb	261191	1026.900				
Cal 2500 ppb	630282	2510.829				
Cal 5000 ppb	1261690	5088.711				
Cal 7500 ppb	1809040	7363.557				
Cal 10000 ppb	2444201	10050.091	HI			
Blank	-879	-16.460	LO			
Read Baseline	0	-12.974	BL			
5000 PPB NO2	1205581	4857.623				
ICV 5000 PPB	1233479	4972.475				
ICV 2000 PPB	511330	2030.730				
ICB	378	-11.477	LO			
Read Baseline	0	-12.974	BL			
LCS	1211553	4882.202				
MB	-79	-13.287	LO			
280-162286-A-1	1303355	10521.128				
ms 280-162286-A-1	2118682	17333.943				
msd 280-162286-A-1	2143491	17543.848				
280-162286-A-2	373583	14769.747				
280-162430-A-1	42909	157.275				
280-162571-B-4	141104	547.744				
280-162442-C-13	495664	19676.303				
280-162442-C-14	2691	-2.304	LO			
280-162442-C-15	111815	431.153				
280-162442-C-16	23552	80.446				
Rinse	54	-12.760	LO			
Read Baseline	0	-12.974	BL			
CCV 5000 ppb	1230631	4960.743				
CCVL 1000 ppb	258692	1016.910				
CCB	55	-12.757	LO			
Read Baseline	0	-12.974	BL			
280-162442-C-17	4813	6.112				
280-162442-C-18	2956	-1.254	LO			
280-162666-F-2	369097	1458.980				
ms 280-162666-F-2	1314679	5307.309				
msd 280-162666-F-2	1310261	5289.070				
280-162442-C-21	936	-9.264	LO			

Result path C:\FLOW_4\060222A.RST
Sample table path C:\FLOW_4\060222.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 02-Jun-22
Time acquired 20:39

	Nitrate as N				
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]
280-162603-A-1	303876	598822.938			
280-162603-A-2	298021	587106.375			
280-162603-A-3	307922	606920.812			
580-113804-G-1	112380	433.400			
Rinse	52	-12.770	LO		
Read Baseline	0	-12.974	BL		
CCV 5000 ppb	1206788	4862.589			
CCVL 1000 ppb	258434	1015.879			
CCB	286	-11.842	LO		
Read Baseline	0	-12.974	BL		
580-113804-G-2	12160	35.249			
280-162681-B-1	2566	-2.801	LO		
280-162681-B-2	-222	-13.856	LO		
280-162681-B-3	1628	-6.521	LO		
LCS	1203481	4848.983			
MB	-733	-15.882	LO		
280-162386-C-1	152832	594.461			
ms 280-162386-C-1	1110630	4467.453			
msd 280-162386-C-1	1106497	4450.499			
280-162386-C-2	1664564	6759.476			
Rinse	-703	-15.761	LO		
Read Baseline	0	-12.974	BL		
CCV 5000 ppb	1209561	4874.001			
CCVL 1000 ppb	256229	1007.065			
CCB	-141	-13.533	LO		
Read Baseline	0	-12.974	BL		
280-162386-C-3	1325	-7.721	LO		
280-162386-C-4	1848534	7529.138			
280-162386-C-5	359095	1418.871			
280-162386-C-6	3678	1.608			
280-162386-C-7	1316	-7.755	LO		
280-162386-C-8	14027	42.655			
280-162386-C-9	1411063	5705.822			
280-162386-C-10	36078	130.158			
Rinse	251	-11.980	LO		
Read Baseline	0	-12.974	BL		
CCV 5000 ppb	1223096	4929.717			
CCVL 1000 ppb	258374	1015.636			
CCB	-85	-13.311	LO		
Read Baseline	0	-12.974	BL		
LCS	1218848	4912.227			
MB	300	-11.783	LO		
280-162495-A-1	1490	-7.065	LO		
280-162495-A-1 MS	965169	3871.911			
280-162495-A-1 MSD	952263	3819.196			
280-162495-A-2	2030	-4.925	LO		
280-162495-A-3	1401830	566759.625			
280-162495-A-4	3667	1.567			
280-162495-A-5	11526	32.735			
280-162442-C-1	18828	61.699			
280-162442-C-2	23417	79.907			
280-162442-C-3	1143884	4603.975			
280-162442-C-4	1032154	8291.659			
Rinse	-411	-14.604	LO		
Read Baseline	0	-12.974	BL		
CCV 5000 ppb	1195661	4816.809			
CCVL 1000 ppb	260663	1024.788			

Result path C:\FLOW_4\060222A.RST
Sample table path C:\FLOW_4\060222.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 02-Jun-22
Time acquired 20:39

	Nitrate as N				
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]
CCB	-10	-13.015	LO		
Read Baseline	0	-12.974	BL		
280-162442-C-5	2295372	9416.087			
280-162442-C-6	1140298	4589.243			
ms 280-162442-C-6	1966015	8022.843			
msd 280-162442-C-6	1983844	8097.917			
280-162442-C-7	951	-9.204	LO		
280-162442-C-8	3688	1.650			
280-162442-C-9	557357	2216.288			
280-162442-C-11	1328599	53647.910			
280-162442-C-10	1340138	54124.590			
280-162442-C-12	360927	1426.216			
280-162442-C-19	11060	30.888			
280-162442-C-20	768	-9.930	LO		
Rinse	347	-11.600	LO		
Read Baseline	0	-12.974	BL		
CCV 5000 ppb	1206428	4861.110			
CCVL 1000 ppb	256874	1009.643			
CCB	366	-11.521	LO		
Read Baseline	0	-12.974	BL		

Peak Table:Nitrate as N

File name: C:\FLOW_4\060222A.RST
Date: 02-Jun-22
Operator: svc

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	109	SYNC	1	SYNC	1	1	2413628	9919.626953	
2	0	Carryover	1	CO	1	1	3304	0.125577	
3	0	Carryover	2	CO	1	1	917	-9.340362	LO
B	0	read baseline	1	RB	1	1	0	-12.974363	BL
5	101	Cal 0.00 ppb	1	C	1	1	752	-9.993859	LO
6	102	Cal 50.0 ppb	1	C	1	1	12829	37.901566	
7	103	Cal 100 ppb	1	C	1	1	25882	89.688034	
8	104	Cal 500 ppb	1	C	1	1	127179	492.298065	
9	105	Cal 1000 ppb	1	C	1	1	261191	1026.900391	
10	106	Cal 2500 ppb	1	C	1	1	630282	2510.829102	
11	107	Cal 5000 ppb	1	C	1	1	1261690	5088.711426	
12	108	Cal 7500 ppb	1	C	1	1	1809040	7363.556641	
13	109	Cal 10000 ppb	1	C	1	1	2444201	10050.090820	HI
14	0	Blank	1	BLNK	1	1	-879	-16.459982	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
16	110	5000 PPB NO2	1	U	1	1	1205581	4857.623047	
17	111	ICV 5000 PPB	1	CCV	1	1	1233479	4972.475098	
18	112	ICV 2000 PPB	1	CCV	1	1	511330	2030.730347	
19	0	ICB	1	U	1	1	378	-11.476748	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
21	107	LCS	1	U	1	1	1211553	4882.202148	
22	0	MB	1	U	1	1	-79	-13.286958	LO
23	113	280-162286-A-1	1	U	2	1	1303355	10521.127930	
24	114	ms 280-162286-A-1	1	U	2	1	2118682	17333.943359	
25	115	msd 280-162286-A-1	1	U	2	1	2143491	17543.847656	
26	116	280-162286-A-2	1	U	10	1	373583	14769.747070	
27	117	280-162430-A-1	1	U	1	1	42909	157.275055	
28	118	280-162571-B-4	1	U	1	1	141104	547.743835	
29	119	280-162442-C-13	1	U	10	1	495664	19676.302734	
30	120	280-162442-C-14	1	U	1	1	2691	-2.304246	LO
31	121	280-162442-C-15	1	U	1	1	111815	431.152740	
32	122	280-162442-C-16	1	U	1	1	23552	80.446182	
33	0	Rinse	1	U	1	1	54	-12.759633	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
35	107	CCV 5000 ppb	1	CCV	1	1	1230631	4960.743164	
36	105	CCVL 1000 ppb	1	CCV	1	1	258692	1016.910156	
37	0	CCB	1	U	1	1	55	-12.757339	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
39	123	280-162442-C-17	1	U	1	1	4813	6.112453	
40	124	280-162442-C-18	1	U	1	1	2956	-1.253975	LO
41	125	280-162666-F-2	1	U	1	1	369097	1458.980469	
42	126	ms 280-162666-F-2	1	U	1	1	1314679	5307.309082	
43	127	msd 280-162666-F-2	1	U	1	1	1310261	5289.069824	
44	128	280-162442-C-21	1	U	1	1	936	-9.263852	LO
45	129	280-162603-A-1	1	U	500	1	303876	598822.937500	
46	130	280-162603-A-2	1	U	500	1	298021	587106.375000	
47	131	280-162603-A-3	1	U	500	1	307922	606920.812500	
48	132	580-113804-G-1	1	U	1	1	112380	433.400238	
49	0	Rinse	1	U	1	1	52	-12.770129	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
51	107	CCV 5000 ppb	1	CCV	1	1	1206788	4862.588867	
52	105	CCVL 1000 ppb	1	CCV	1	1	258434	1015.878662	
53	0	CCB	1	U	1	1	286	-11.842133	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
55	133	580-113804-G-2	1	U	1	1	12160	35.248932	
56	134	280-162681-B-1	1	U	1	1	2566	-2.800617	LO
57	135	280-162681-B-2	1	U	1	1	-222	-13.856076	LO
58	136	280-162681-B-3	1	U	1	1	1628	-6.520581	LO
59	107	LCS	1	U	1	1	1203481	4848.982910	
60	0	MB	1	U	1	1	-733	-15.882087	LO
61	137	280-162386-C-1	1	U	1	1	152832	594.461365	
62	138	ms 280-162386-C-1	1	U	1	1	1110630	4467.453125	
63	139	msd 280-162386-C-1	1	U	1	1	1106497	4450.499023	
64	140	280-162386-C-2	1	U	1	1	1664564	6759.475586	
65	0	Rinse	1	U	1	1	-703	-15.761398	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
67	107	CCV 5000 ppb	1	CCV	1	1	1209561	4874.000977	
68	105	CCVL 1000 ppb	1	CCV	1	1	256229	1007.064758	
69	0	CCB	1	U	1	1	-141	-13.533270	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	141	280-162386-C-3	1	U	1	1	1325	-7.721020	LO
72	142	280-162386-C-4	1	U	1	1	1848534	7529.138184	
73	143	280-162386-C-5	1	U	1	1	359095	1418.870850	
74	144	280-162386-C-6	1	U	1	1	3678	1.608110	
75	145	280-162386-C-7	1	U	1	1	1316	-7.755369	LO
76	146	280-162386-C-8	1	U	1	1	14027	42.655087	
77	147	280-162386-C-9	1	U	1	1	1411063	5705.822266	
78	148	280-162386-C-10	1	U	1	1	36078	130.157562	
79	0	Rinse	1	U	1	1	251	-11.980407	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
81	107	CCV 5000 ppb	1	CCV	1	1	1223096	4929.717285	
82	105	CCVL 1000 ppb	1	CCV	1	1	258374	1015.636475	
83	0	CCB	1	U	1	1	-85	-13.310726	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
85	107	LCS	1	U	1	1	1218848	4912.227051	
86	0	MB	1	U	1	1	300	-11.783435	LO
87	149	280-162495-A-1	1	U	1	1	1490	-7.064593	LO
88	150	280-162495-A-1 MS	1	U	1	1	965169	3871.911133	
89	151	280-162495-A-1 MSD	1	U	1	1	952263	3819.195801	
90	152	280-162495-A-2	1	U	1	1	2030	-4.924751	LO
91	153	280-162495-A-3	1	U	100	1	1401830	566759.625000	
92	154	280-162495-A-4	1	U	1	1	3667	1.566757	
93	155	280-162495-A-5	1	U	1	1	11526	32.734600	
94	156	280-162442-C-1	1	U	1	1	18828	61.699371	
95	157	280-162442-C-2	1	U	1	1	23417	79.907013	
96	158	280-162442-C-3	1	U	1	1	1143884	4603.975098	
97	159	280-162442-C-4	1	U	2	1	1032154	8291.659180	
98	0	Rinse	1	U	1	1	-411	-14.604144	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
100	107	CCV 5000 ppb	1	CCV	1	1	1195661	4816.809082	
101	105	CCVL 1000 ppb	1	CCV	1	1	260663	1024.788208	
102	0	CCB	1	U	1	1	-10	-13.014542	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
104	160	280-162442-C-5	1	U	1	1	2295372	9416.086914	
105	201	280-162442-C-6	1	U	1	1	1140298	4589.243164	
106	202	ms 280-162442-C-6	1	U	1	1	1966015	8022.842773	
107	203	msd 280-162442-C-6	1	U	1	1	1983844	8097.916504	
108	204	280-162442-C-7	1	U	1	1	951	-9.203904	LO
109	205	280-162442-C-8	1	U	1	1	3688	1.649907	
110	206	280-162442-C-9	1	U	1	1	557357	2216.288330	
111	207	280-162442-C-11	1	U	10	1	1328599	53647.910156	
112	208	280-162442-C-10	1	U	10	1	1340138	54124.589844	
113	209	280-162442-C-12	1	U	1	1	360927	1426.216064	
114	210	280-162442-C-19	1	U	1	1	11060	30.888081	
115	211	280-162442-C-20	1	U	1	1	768	-9.929794	LO
116	0	Rinse	1	U	1	1	347	-11.599570	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL
118	107	CCV 5000 ppb	1	CCV	1	1	1206428	4861.109863	
119	105	CCVL 1000 ppb	1	CCV	1	1	256874	1009.642639	
120	0	CCB	1	U	1	1	366	-11.521465	LO
B	0	Read Baseline	1	RB	1	1	0	-12.974363	BL

Nitrate as N:Calibration 1: Peak 5-121

File name: C:\FLOW_4\060222A.RST
Date: 02-Jun-22
Operator: svc

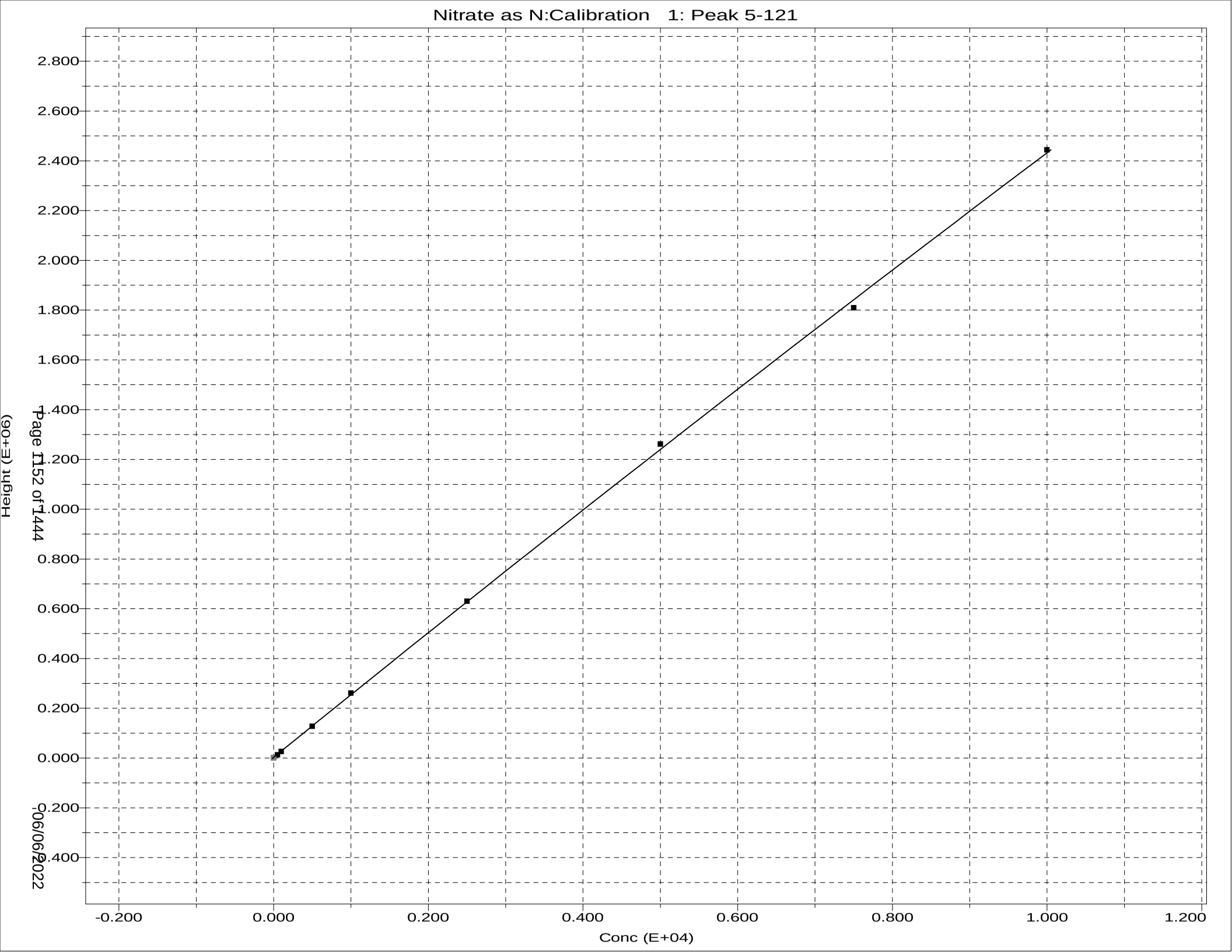
*	Name	Conc	Height
*	Cal 0.00 ppb	0.000000	751.690552
*	Cal 50.0 ppb	50.000000	12828.605469
*	Cal 100 ppb	100.000000	25881.503906
*	Cal 500 ppb	500.000000	127178.617188
*	Cal 1000 ppb	1000.000000	261191.437500
*	Cal 2500 ppb	2500.000000	630282.375000
*	Cal 5000 ppb	5000.000000	1261690.000000
*	Cal 7500 ppb	7500.000000	1809040.125000
*	Cal 10000 ppb	10000.000000	2444201.000000

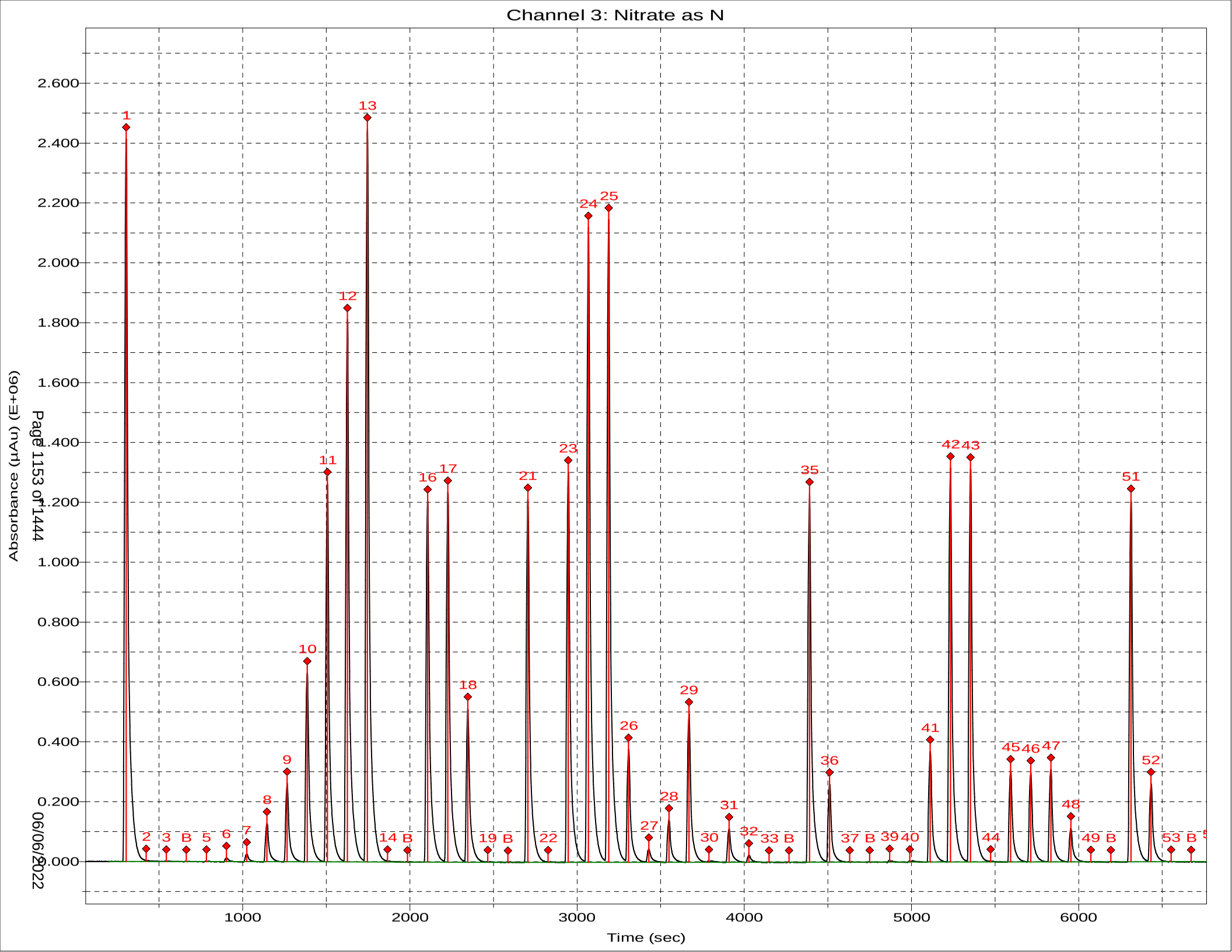
Calib Coef:
x=cyy+by+a
a: (intercept) -1.2974e+01
b: 3.9650e-03
c: 6.2228e-11

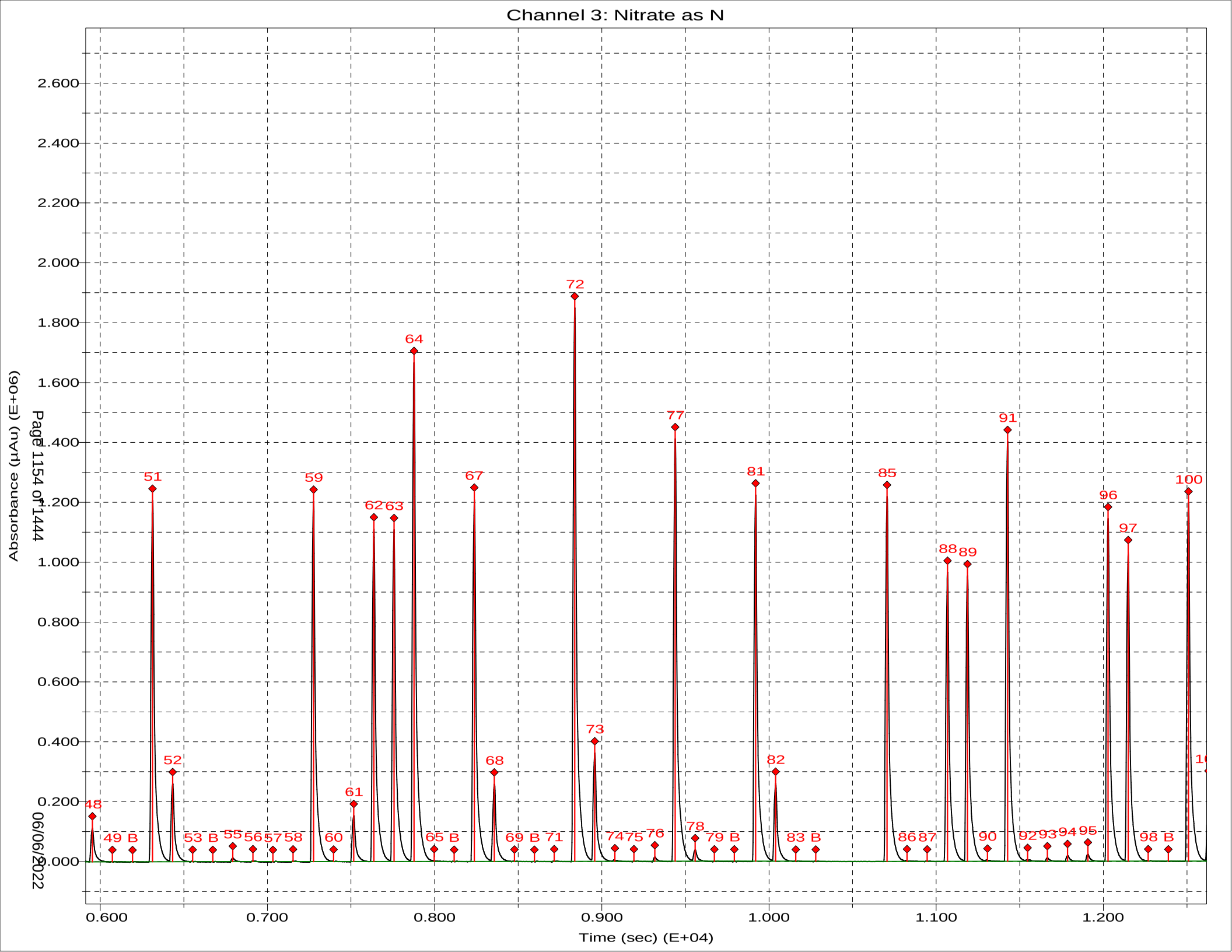
Corr Coef: 0.999862

Carryover: 0.137%

No Drift Peaks


Nitrate as N:Calibration 1: Peak 5-121
Height (E+06)
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
-0.400
-0.200
0.000
0.200
0.400
0.600
0.800
1.000
1.200
Conc (E+04)


Channel 3: Nitrate as N
Absorbance (µAu) (E+06)
Time (sec)
Page 1153 of 1444
06/06/2022
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
1000
2000
3000
4000
5000
6000
1 2 3 B 5 6 7 8 9 10 11 12 13 14 B 16 17 18 19 B 21 22 23 24 25 26 27 28 29 30 31 32 33 B 35 36 37 B 39 40 41 42 43 44 45 46 47 48 49 B 51 52 53 B


Channel 3: Nitrate as N
Absorbance (µAu) (E+06)
Time (sec) (E+04)
Page 1154 of 1444
06/06/2022
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
0.600
0.700
0.800
0.900
1.000
1.100
1.200
48
49 B
51
52
53 B
55
56
57
58
59
60
61
62
63
64
65 B
67
68
69 B
71
72
73
74
75
76
77
78
79 B
81
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83 B
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86
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88
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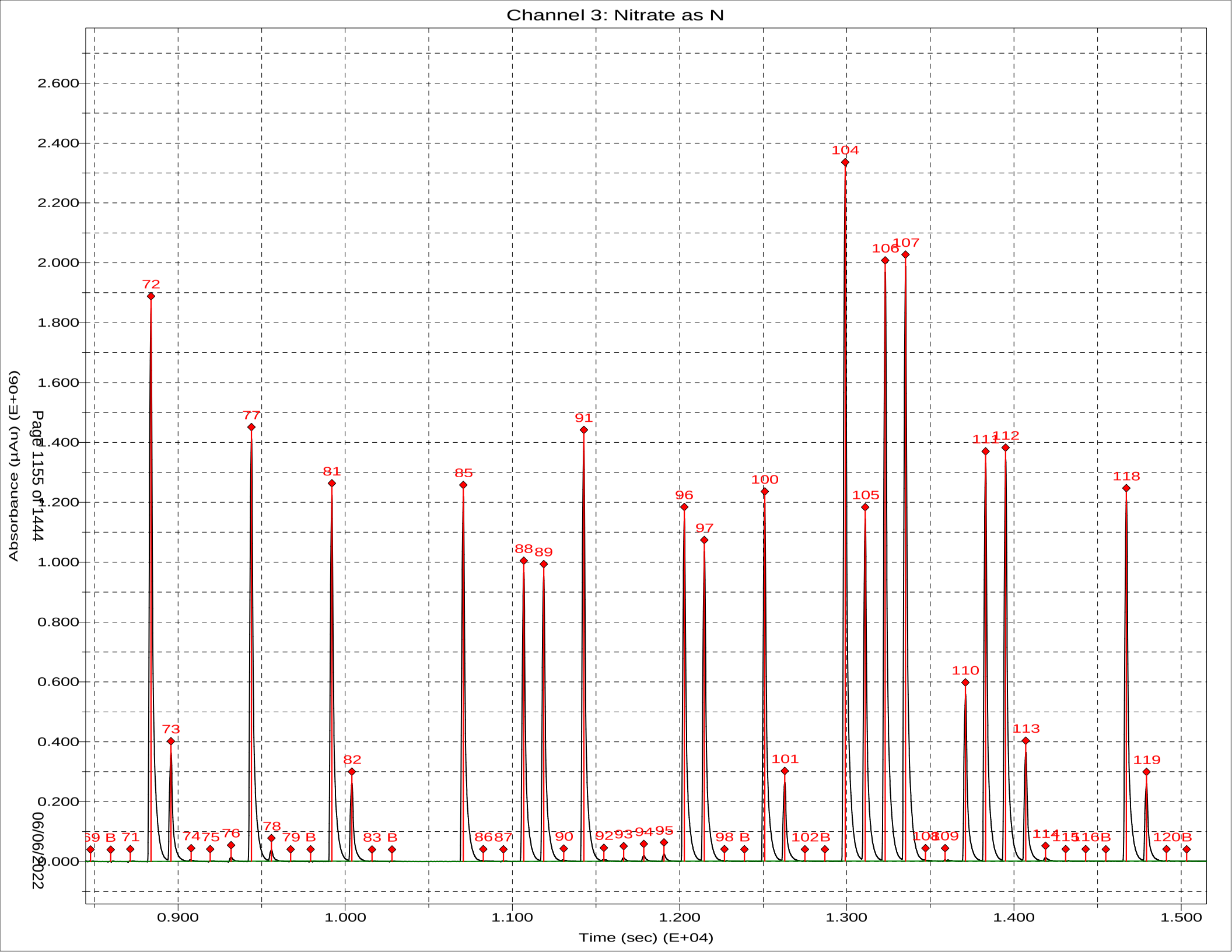
90
91
92
93
94
95
96
97
98 B
100


Channel 3: Nitrate as N
Absorbance (µAu) (E+06)
Time (sec) (E+04)
Page 1155 of 1444
06/06/2022
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2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
0.900
1.000
1.100
1.200
1.300
1.400
1.500
69 B
71
72
73
74
75
76
77
78
79 B
81
82
83 B
85
86
87
88
89
90
91
92
93
94
95
96
97
98 B
100
101
102B
104
105
106
107
108
109
110
111
112
113
114
115
116B
118
119
120B

Sample Table - 060222.tbl

File name: C:\FLOW_4\060222.TBL
Date: 02-Jun-22

Cup	Name	Type	R	Dil	Wt	Vial	Comment
109	SYNC	SYNC	1	1	1		
0	Carryover	CO	1	1	1		
0	Carryover	CO	1	1	1		
0	read baseline	RB	1	1	1		
101	Cal 0.00 ppb	C	1	1	1		
102	Cal 50.0 ppb	C	1	1	1		
103	Cal 100 ppb	C	1	1	1		
104	Cal 500 ppb	C	1	1	1		
105	Cal 1000 ppb	C	1	1	1		
106	Cal 2500 ppb	C	1	1	1		
107	Cal 5000 ppb	C	1	1	1		
108	Cal 7500 ppb	C	1	1	1		
109	Cal 10000 ppb	C	1	1	1		
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
110	5000 PPB NO2	U	1	1	1		
111	ICV 5000 PPB	CCV	1	1	1		
112	ICV 2000 PPB	CCV	1	1	1		
0	ICB	U	1	1	1		
0	Read Baseline	RB	1	1	1		pH
107	LCS	U	1	1	1		
0	MB	U	1	1	1		
113	280-162286-A-1	U	1	2	1		
114	ms 280-162286-A-1	U	1	2	1	1	
115	msd 280-162286-A-1	U	1	2	1	1	
116	280-162286-A-2	U	1	10	1		
117	280-162430-A-1	U	1	1	1		
118	280-162571-B-4	U	1	1	1		
119	280-162442-C-13	U	1	10	1		
120	280-162442-C-14	U	1	1	1		
121	280-162442-C-15	U	1	1	1		
122	280-162442-C-16	U	1	1	1		
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
123	280-162442-C-17	U	1	1	1		
124	280-162442-C-18	U	1	1	1		
125	280-162666-F-2	U	1	1	1		
126	ms 280-162666-F-2	U	1	1	1	1	
127	msd 280-162666-F-2	U	1	1	1	1	
128	280-162442-C-21	U	1	1	1		
129	280-162603-A-1	U	1	500	1		
130	280-162603-A-2	U	1	500	1		
131	280-162603-A-3	U	1	500	1		
132	580-113804-G-1	U	1	1	1		
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
133	580-113804-G-2	U	1	1	1		
134	280-162681-B-1	U	1	1	1		
135	280-162681-B-2	U	1	1	1		
136	280-162681-B-3	U	1	1	1		
107	LCS	U	1	1	1		
0	MB	U	1	1	1		
137	280-162386-C-1	U	1	1	1		

Cup	Name	Type	R	Dil	Wt	Vial	Comment
138	ms 280-162386-C-1 U		1	1	1	1	∠L
139	msd 280-162386-C-1 U		1	1	1	1	∠L
140	280-162386-C-2	U	1	1	1		∠L
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
141	280-162386-C-3	U	1	1	1		∠L
142	280-162386-C-4	U	1	1	1		∠L
143	280-162386-C-5	U	1	1	1		∠L
144	280-162386-C-6	U	1	1	1		∠L
145	280-162386-C-7	U	1	1	1		∠L
146	280-162386-C-8	U	1	1	1		∠L
147	280-162386-C-9	U	1	1	1		∠L
148	280-162386-C-10	U	1	1	1		∠L
0	Rinse	U	1	1	1		~~∠L~~
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	LCS	U	1	1	1		
0	MB	U	1	1	1		
149	280-162495-A-1	U	1	1	1		∠L
150	280-162495-A-1 MS	U	1	1	1		∠L
151	280-162495-A-1 MSD	U	1	1	1		∠L
152	280-162495-A-2	U	1	1	1		∠L
153	280-162495-A-3	U	1	100 ~~1~~	1		∠L
154	280-162495-A-4	U	1	1	1		∠L
155	280-162495-A-5	U	1	1	1		∠L
156	280-162442-C-1	U	1	1	1		∠L
157	280-162442-C-2	U	1	1	1		∠L
158	280-162442-C-3	U	1	1	1		∠L
159	280-162442-C-4	U	1	2 ~~1~~	1		∠L
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
160	280-162442-C-5	U	1	1 ~~1~~	1		∠L
201	280-162442-C-6	U	1	1	1		∠L
202	ms 280-162442-C-6	U	1	1	1		∠L
203	msd 280-162442-C-6	U	1	1	1		∠L
204	280-162442-C-7	U	1	1	1		∠L
205	280-162442-C-8	U	1	1	1		∠L
206	280-162442-C-9	U	1	1	1		∠L
207	280-162442-C-11	U	1	10 ~~1~~	1		∠L
208	280-162442-C-10	U	1	10 ~~1~~	1		∠L
209	280-162442-C-12	U	1	1	1		∠L
210	280-162442-C-19	U	1	1	1		∠L
211	280-162442-C-20	U	1	1	1		∠L
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		

General Chemistry Raw Data Report

Job ID: 280-162386-1

Batch: 575054 **Analyst Initials: ZPM**

Method: 9034 **Instrument: No Equipment Used for this Test**

Lab Sample ID: LCS 280-575031/1-A **Analysis Date: May 16, 2022 11:02**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	13.6	mg/L	50 mL	50 mL

Lab Sample ID: MB 280-575031/2-A **Analysis Date: May 16, 2022 11:02**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-8-A **Analysis Date: May 16, 2022 11:02**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Sulfide by Titration

Analyst:	ZM	SOP Information:	
Date:	5/16/2022-2	Number:	91
Titration Solutions		**Calibration Information**	
Solution 1:	Iodine	Source/Ver-Lot#:	INT_0215
TALS ID	Iod_00275	Prep Date:	4/5/2022
Normality:	0.025	Made By:	LRB
Solution 2:	sodium thiosulfate	Concentration:	1600
TALS ID	Na Thio_00178	Expiration Date:	7/5/2022
Normality:	0.025		
	Starch Indicator		
TALS ID	Starch IND_00067		

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
CAL	5			20	0.00	1600.000
CAL	5			20	0.00	1600.000

ICV Information	
Source/Ver-Lot#:	INT_0211
Prep Date:	4/5/2022
Made By:	LRB
Concentration:	968
Expiration Date:	7/5/2022

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
ICV	5	0.00	7.90	20	7.90	968.000
ICV	5	5.20	13.10	20	7.90	968.000

TALS Raw Data Report

Job Number: 280-113807-1
LIMS Batch: 575054
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-575031/1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		13.6 mg/L	mg/L	70	44 110		
Sulfide as H2S		14.45 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-575031/2-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 3 Lab ID: **280-162238-E-1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 4 Lab ID: **280-162238-E-1-B MS** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	66	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 5 Lab ID: **280-162238-E-1-C MSD** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12 mg/L	mg/L	62	44 110	6	20
Sulfide as H2S		12.75 mg/L	mg/L				

RS# 14 Lab ID: **580-113807-A-1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 15 Lab ID: **580-113807-A-2-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-162238-1
LIMS Batch: 575054
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-575031/1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		13.6 mg/L	mg/L	70	44	110		
Sulfide as H2S		14.45 mg/L	mg/L					

RS# 2 Lab ID: **MB 280-575031/2-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L					
Sulfide as H2S		0 mg/L	mg/L					

RS# 3 Lab ID: **280-162238-E-1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L					
Sulfide as H2S		0 mg/L	mg/L					

RS# 4 Lab ID: **280-162238-E-1-B MS** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	66	44	110		
Sulfide as H2S		13.6 mg/L	mg/L					

RS# 5 Lab ID: **280-162238-E-1-C MSD** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		12 mg/L	mg/L	62	44	110	6	20
Sulfide as H2S		12.75 mg/L	mg/L					

TALS Raw Data Report

Job Number: 280-162317-1
LIMS Batch: 575054
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-575031/1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		13.6 mg/L	mg/L	70	44 110		
Sulfide as H2S		14.45 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-575031/2-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 3 Lab ID: **280-162238-E-1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 4 Lab ID: **280-162238-E-1-B MS** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	66	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 5 Lab ID: **280-162238-E-1-C MSD** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12 mg/L	mg/L	62	44 110	6	20
Sulfide as H2S		12.75 mg/L	mg/L				

RS# 11 Lab ID: **280-162317-K-1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 12 Lab ID: **280-162317-K-2-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-162320-1
LIMS Batch: 575054
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-575031/1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		13.6 mg/L	mg/L	70	44 110		
Sulfide as H2S		14.45 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-575031/2-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 3 Lab ID: **280-162238-E-1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 4 Lab ID: **280-162238-E-1-B MS** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	66	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 5 Lab ID: **280-162238-E-1-C MSD** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12 mg/L	mg/L	62	44 110	6	20
Sulfide as H2S		12.75 mg/L	mg/L				

RS# 6 Lab ID: **280-162320-E-1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.8 mg/L	2.0 U mg/L				
Sulfide as H2S		0.85 mg/L	2.1 U mg/L				

RS# 7 Lab ID: **280-162320-E-2-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 8 Lab ID: **280-162320-E-3-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 9 Lab ID: **280-162320-E-4-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 10 Lab ID: **280-162320-E-5-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

TALS Raw Data Report

Job Number: 280-162386-1
LIMS Batch: 575054
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-575031/1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		13.6 mg/L	mg/L	70	44 110		
Sulfide as H2S		14.45 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-575031/2-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 3 Lab ID: **280-162238-E-1-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 4 Lab ID: **280-162238-E-1-B MS** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	66	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 5 Lab ID: **280-162238-E-1-C MSD** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12 mg/L	mg/L	62	44 110	6	20
Sulfide as H2S		12.75 mg/L	mg/L				

RS# 13 Lab ID: **280-162386-E-8-A** Inj Date: 5/16/2022 11:02:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

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Titration Data Review Checklist

LIMS Batch Number: 575084	Method (circle one):	QC Type (circle):
Analyst/1st Reviewer: ZM	2310B 2320B 2340C	Standard DoD QAPP Other
Date: 5/16/22	4500 S2 F 4500 SO3 B 9030B/9034	
Matrix (circle): Water Solid	Automated or Manual (circle one)	Instrument ID (circle one if applicable): AT2 AT3

Review Items	Yes	No	2nd Rev	If No, why is data reportable?
A. Sample Storage and Pretreatment				
1. Is sample pH verified and documented prior to analysis? (if required)	✓		✓	
2. For samples requiring pH adjustment is the amount of acid/base used documented?	✓		✓	If no, list details:
3. Are samples analyzed within the required hold time?	✓		✓	NCM:
4. Pre-treatment reagents used to remove interferences are documented.	✓		✓	
B. Calibration / Instrument				
5. Was the normality of the titrant verified and found acceptable?	✓		✓	Comments:
6. For potentiometric titration, the pH meter is calibrated with 5 buffers bracketing range of samples and QC.	✓		✓	Comments:
7. Calibration standards are analyzed at the beginning and end of the analytical sequence and after every 10 sample analyses. (samples/dilutions/reanalyses).	✓		✓	Comments:
8. Calibrations standards (ICV/CCV) are within 90-110% recovery.	✓		✓	
C. Sample and Batch QC				
9. Blanks are analyzed at the beginning, end and after every 10 sample analyses in the sequence.	✓		✓	
10. Results of blank analyses (MB, ICB, CCB) are < ½ RL (<RL for alkalinity unless DoD)	✓		✓	□ No analyte > ½ RL in associated samples □ Sample results >10x blank
11. A standard from a second source (SRM, CRM, LCS) is included in the analytical sequence.	✓		✓	
12. The recovery of the 2nd source material falls within 90-110% or manufacturer's limits.	✓		✓	
13. Samples analyses are bracketing by acceptable CCV/CCBs.	✓		✓	□ No analyte > RL in associated samples □ Sample results >10x blank □ Sample results qualified
14. MS/MSD analyzed at required frequency and recoveries within limits. (If recoveries out of limits, verify not due to lab error) (Required for 2340C, 4500 S2 F, 9030B/9034)	✓		✓	□ Non-conformance (NCM) added □ Sample results >4X spike conc.
15. Duplicate analyzed at required frequency and RPD within limits. (Required for 2310B, 2320B, 4500 SO3 B)	✓		✓	□ Non-conformance (NCM) added □ Sample results ND or <2X RL

Review Items	Yes	No	2nd Rev	If No, why is data reportable?
16. Are all MS/MSD RPDs <50%? Note: Excessive RPDs (>50%) require evaluation, correction or explanation.	✓		✓	☐ Non-conformance (NCM) added
D. Raw Data & TALS Data Entry				
17. Raw Data				
a. Unused data is clearly identified with reason	✓		✓	
b. All crossed out data is initialed and dated	✓		✓	
c. Out of control QC is clearly identified	✓		✓	
d. Any data that has a qualifier is commented on with appropriate action taken	✓		✓	
e. The first page of the run includes the filename, instrument, and analyst initials/signature	✓		✓	
f. 100% of manual calculations are verified.	✓		✓	
18. TALS Samples Tab				
a. LIMS Sample IDs / Containers are correct	✓		✓	
b. Method and matrix are correct	✓		✓	
c. Date and time match raw data	✓		✓	
d. Dilutions are correct	✓		✓	
e. Correct suffix designated (where applicable)	✓		✓	
19. TALS Worksheet Tab is complete and correct	✓		✓	
20. TALS Reagent Tab is complete and correct	✓		✓	
21. TALS QC Links Tab is correct	✓		✓	
22. TALS Sample Results Tab	✓			
a. All unused data are marked Rejected or Accepted	✓		✓	
b. All reported analytes are marked Primary or Secondary	✓		✓	
c. Data manually transcribed from benchsheet into TALS verified 100% including significant figures SM 4500 SO3 B).	✓		✓	
d. TALS Batch Information Screen documentation is complete	✓		✓	
e. TALS Status set to appropriate review level	✓		✓	
E. Final Report and NCMs (2nd level review only)				
f. Were all job/project requirements met?			✓	
g. Results for samples and QC correct on final report?			✓	
h. Are all necessary scanned documents in TALS?			✓	
i. NCMs reviewed for applicability, correct references to batches, grammar/typographical errors?			✓	

Comments: _____

2nd Reviewer: UCB **Review Date:** 5/18/22

General Chemistry Raw Data Report

Job ID: 280-162386-1

Batch: 575192 **Analyst Initials: ZPM**

Method: 9034 **Instrument: No Equipment Used for this Test**

Lab Sample ID: LCS 280-575174/1-A **Analysis Date: May 17, 2022 10:24**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	12.8	mg/L	50 mL	50 mL

Lab Sample ID: MB 280-575174/2-A **Analysis Date: May 17, 2022 10:24**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	-0.8	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-1-A **Analysis Date: May 17, 2022 10:24**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-1-B MS **Analysis Date: May 17, 2022 10:24**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	12.8	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-1-C MSD **Analysis Date: May 17, 2022 10:24**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	13.6	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-2-A **Analysis Date: May 17, 2022 10:24**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	-0.8	mg/L	50 mL	50 mL

Sulfide by Titration

Analyst:	ZM	SOP Information:	
Date:	5/17/2022	Number:	91
Titration Solutions		**Calibration Information**	
Solution 1:	Iodine	Source/Ver-Lot#:	INT_0215
TALS ID	Iod_00275	Prep Date:	4/5/2022
Normality:	0.025	Made By:	LRB
Solution 2:	sodium thiosulfate	Concentration:	1600
TALS ID	Na Thio_00178	Expiration Date:	7/5/2022
Normality:	0.025		
	Starch Indicator		
TALS ID	Starch IND_00067		

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
CAL	5			20	0.00	1600.000
CAL	5			20	0.00	1600.000

ICV Information	
Source/Ver-Lot#:	INT_0211
Prep Date:	4/5/2022
Made By:	LRB
Concentration:	956
Expiration Date:	7/5/2022

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
ICV	5	0.00	8.10	20	8.10	952.000
ICV	5	8.10	16.10	20	8.00	960.000

TALS Raw Data Report

Job Number: 280-162320-1
LIMS Batch: 575192
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-575174/1-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-575174/2-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		-0.8 mg/L	2.0 U mg/L				
Sulfide as H2S		-0.85 mg/L	2.1 U mg/L				

RS# 3 Lab ID: **280-162320-E-7-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		-0.8 mg/L	2.0 U mg/L				
Sulfide as H2S		-0.85 mg/L	2.1 U mg/L				

RS# 4 Lab ID: **280-162320-E-7-B MS** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		11.2 mg/L	mg/L	59	44 110		
Sulfide as H2S		11.9 mg/L	mg/L				

RS# 5 Lab ID: **280-162320-E-7-C MSD** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110	13	20
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 6 Lab ID: **280-162320-E-6-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 7 Lab ID: **280-162320-E-8-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 8 Lab ID: **280-162320-E-9-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 9 Lab ID: **280-162320-E-10-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

TALS Raw Data Report

Job Number: 280-162383-1
LIMS Batch: 575192
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-575174/1-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-575174/2-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		-0.8 mg/L	mg/L				
Sulfide as H2S		-0.85 mg/L	mg/L				

RS# 3 Lab ID: **280-162320-E-7-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		-0.8 mg/L	mg/L				
Sulfide as H2S		-0.85 mg/L	mg/L				

RS# 4 Lab ID: **280-162320-E-7-B MS** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		11.2 mg/L	mg/L	59	44 110		
Sulfide as H2S		11.9 mg/L	mg/L				

RS# 5 Lab ID: **280-162320-E-7-C MSD** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110	13	20
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 10 Lab ID: **280-162383-F-2-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 11 Lab ID: **280-162383-F-4-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-162386-1
LIMS Batch: 575192
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-575174/1-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-575174/2-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		-0.8 mg/L	2.0 U mg/L				
Sulfide as H2S		-0.85 mg/L	2.1 U mg/L				

RS# 12 Lab ID: **280-162386-E-1-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 13 Lab ID: **280-162386-E-1-B MS** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 14 Lab ID: **280-162386-E-1-C MSD** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		13.6 mg/L	mg/L	71	44 110	6	20
Sulfide as H2S		14.45 mg/L	mg/L				

RS# 15 Lab ID: **280-162386-E-2-A** Inj Date: 5/17/2022 10:24:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		-0.8 mg/L	2.0 U mg/L				
Sulfide as H2S		-0.85 mg/L	2.1 U mg/L				

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Titration Data Review Checklist

LIMS Batch Number: 575 192	**Method (circle one):**	**QC Type (circle):**
Analyst/1st Reviewer: ZM	**2310B 2320B 2340C**	**Standard DoD QAPP Other**
Date: 5/17/22	**4500 S2 F 4500 SO3 B 9030B/9034**	
Matrix (circle): Water Solid	**Automated or Manual (circle one)**	**Instrument ID (circle one if applicable):**
		AT2 AT3

Review Items	Yes	No	2nd Rev	If No, why is data reportable?
A. Sample Storage and Pretreatment				
1. Is sample pH verified and documented prior to analysis? (if required)	✓		✓	
2. For samples requiring pH adjustment is the amount of acid/base used documented?	✓		✓	If no, list details:
3. Are samples analyzed within the required hold time?	✓		✓	NCM:
4. Pre-treatment reagents used to remove interferences are documented.	✓		✓	
B. Calibration / Instrument				
5. Was the normality of the titrant verified and found acceptable?	✓		✓	Comments:
6. For potentiometric titration, the pH meter is calibrated with 5 buffers bracketing range of samples and QC.	✓		✓	Comments:
7. Calibration standards are analyzed at the beginning and end of the analytical sequence and after every 10 sample analyses. (samples/dilutions/reanalyses).	✓		✓	Comments:
8. Calibrations standards (ICV/CCV) are within 90-110% recovery.	✓		✓	
C. Sample and Batch QC				
9. Blanks are analyzed at the beginning, end and after every 10 sample analyses in the sequence.	✓		✓	
10. Results of blank analyses (MB, ICB, CCB) are < ½ RL (<RL for alkalinity unless DoD)	✓		✓	□ No analyte > ½ RL in associated samples □ Sample results >10x blank
11. A standard from a second source (SRM, CRM, LCS) is included in the analytical sequence.	✓		✓	
12. The recovery of the 2nd source material falls within 90-110% or manufacturer's limits.	✓		✓	
13. Samples analyses are bracketing by acceptable CCV/CCBs.	✓		✓	□ No analyte > RL in associated samples □ Sample results >10x blank □ Sample results qualified
14. MS/MSD analyzed at required frequency and recoveries within limits. (If recoveries out of limits, verify not due to lab error) (Required for 2340C, 4500 S2 F, 9030B/9034)	✓		✓	□ Non-conformance (NCM) added □ Sample results >4X spike conc.
15. Duplicate analyzed at required frequency and RPD within limits. (Required for 2310B, 2320B, 4500 SO3 B)	✓		✓	□ Non-conformance (NCM) added □ Sample results ND or <2X RL

Review Items	Yes	No	2nd Rev	If No, why is data reportable?
16. Are all MS/MSD RPDs <50%? Note: Excessive RPDs (>50%) require evaluation, correction or explanation.	✓		✓	□ Non-conformance (NCM) added
D. Raw Data & TALS Data Entry				
17. Raw Data				
a. Unused data is clearly identified with reason	✓		✓	
b. All crossed out data is initialed and dated	✓		✓	
c. Out of control QC is clearly identified	✓		✓	
d. Any data that has a qualifier is commented on with appropriate action taken	✓		✓	
e. The first page of the run includes the filename, instrument, and analyst initials/signature	✓		✓	
f. 100% of manual calculations are verified.	✓		✓	
18. TALS Samples Tab				
a. LIMS Sample IDs / Containers are correct	✓		✓	
b. Method and matrix are correct	✓		✓	
c. Date and time match raw data	✓		✓	
d. Dilutions are correct	✓		✓	
e. Correct suffix designated (where applicable)	✓		✓	
19. TALS Worksheet Tab is complete and correct	✓		✓	
20. TALS Reagent Tab is complete and correct	✓		✓	
21. TALS QC Links Tab is correct	✓		✓	
22. TALS Sample Results Tab	✓			
a. All unused data are marked Rejected or Accepted	✓		✓	
b. All reported analytes are marked Primary or Secondary	✓		✓	
c. Data manually transcribed from benchsheet into TALS verified 100% including significant figures SM 4500 SO3 B).	✓		✓	
d. TALS Batch Information Screen documentation is complete	✓		✓	
e. TALS Status set to appropriate review level	✓		✓	
E. Final Report and NCMs (2nd level review only)				
f. Were all job/project requirements met?			✓	
g. Results for samples and QC correct on final report?			✓	
h. Are all necessary scanned documents in TALS?			✓	
i. NCMs reviewed for applicability, correct references to batches, grammar/typographical errors?			✓	

Comments: _____

_____

_____

2nd Reviewer: WMB **Review Date:** 5/18/22

General Chemistry Raw Data Report

Job ID: 280-162386-1

Batch: 575233 **Analyst Initials: ZPM**

Method: 9034 **Instrument: No Equipment Used for this Test**

Lab Sample ID: LCS 280-575177/1-A **Analysis Date: May 17, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	12.8	mg/L	50 mL	50 mL

Lab Sample ID: MB 280-575177/2-A **Analysis Date: May 17, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-3-A **Analysis Date: May 17, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-4-A **Analysis Date: May 17, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-5-A **Analysis Date: May 17, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-6-A **Analysis Date: May 17, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-7-A **Analysis Date: May 17, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-9-A **Analysis Date: May 17, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-162386-E-10-A **Analysis Date: May 17, 2022 12:50**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Sulfide by Titration

Analyst:	ZM	SOP Information:	
Date:	5/17/2022	Number:	91
Titration Solutions		**Calibration Information**	
Solution 1:	Iodine	Source/Ver-Lot#:	INT_0215
TALS ID	Iod_00275	Prep Date:	4/5/2022
Normality:	0.025	Made By:	LRB
Solution 2:	sodium thiosulfate	Concentration:	1600
TALS ID	Na Thio_00178	Expiration Date:	7/5/2022
Normality:	0.025		
	Starch Indicator		
TALS ID	Starch IND_00067		

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
CAL	5			20	0.00	1600.000
CAL	5			20	0.00	1600.000

ICV Information	
Source/Ver-Lot#:	INT_0211
Prep Date:	4/5/2022
Made By:	LRB
Concentration:	956
Expiration Date:	7/5/2022

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
ICV	5	0.00	8.10	20	8.10	952.000
ICV	5	8.10	16.10	20	8.00	960.000

TALS Raw Data Report

Job Number: 280-160511-1
LIMS Batch: 575233
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-575177/1-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-575177/2-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	0.793 U mg/L				
Sulfide as H2S		0 mg/L	0.841 U mg/L				

RS# 13 Lab ID: **280-160511-A-4-D MDLV** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		1.6 mg/L	1.60 J mg/L	84			
Sulfide as H2S		1.7 mg/L	1.70 J mg/L				

TALS Raw Data Report

Job Number: 280-162320-1
LIMS Batch: 575233
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-575177/1-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-575177/2-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 3 Lab ID: **280-162320-E-11-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		-0.8 mg/L	2.0 U mg/L				
Sulfide as H2S		-0.85 mg/L	2.1 U mg/L				

RS# 4 Lab ID: **280-162320-E-11-B MS** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 5 Lab ID: **280-162320-E-11-C MSD** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110	0	20
Sulfide as H2S		13.6 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-162386-1
LIMS Batch: 575233
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-575177/1-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-575177/2-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 3 Lab ID: **280-162320-E-11-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		-0.8 mg/L	2.0 U mg/L				
Sulfide as H2S		-0.85 mg/L	2.1 U mg/L				

RS# 4 Lab ID: **280-162320-E-11-B MS** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110		
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 5 Lab ID: **280-162320-E-11-C MSD** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12.8 mg/L	mg/L	67	44 110	0	20
Sulfide as H2S		13.6 mg/L	mg/L				

RS# 6 Lab ID: **280-162386-E-3-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 7 Lab ID: **280-162386-E-4-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 8 Lab ID: **280-162386-E-5-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 9 Lab ID: **280-162386-E-6-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 10 Lab ID: **280-162386-E-7-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 11 Lab ID: **280-162386-E-9-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 12 Lab ID: **280-162386-E-10-A** Inj Date: 5/17/2022 12:50:00PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

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THE LEADER IN ENVIRONMENTAL TESTING

Titration Data Review Checklist

LIMS Batch Number: 575233	**Method (circle one):**	**QC Type (circle):**
Analyst/1st Reviewer: ZM	2310B 2320B 2340C	Standard DoD QAPP Other
Date: 5/17/22	4500 S2 F 4500 SO3 B 9030B/9034	
Matrix (circle): Water Solid	**Automated or Manual (circle one)**	**Instrument ID (circle one if applicable):** AT2 AT3

Review Items	Yes	No	2nd Rev	If No, why is data reportable?
A. Sample Storage and Pretreatment				
1. Is sample pH verified and documented prior to analysis? (if required)	✓		✓	
2. For samples requiring pH adjustment is the amount of acid/base used documented?	✓		✓	If no, list details:
3. Are samples analyzed within the required hold time?	✓		✓	NCM:
4. Pre-treatment reagents used to remove interferences are documented.	✓		✓	
B. Calibration / Instrument				
5. Was the normality of the titrant verified and found acceptable?	✓		✓	Comments:
6. For potentiometric titration, the pH meter is calibrated with 5 buffers bracketing range of samples and QC.	✓		✓	Comments:
7. Calibration standards are analyzed at the beginning and end of the analytical sequence and after every 10 sample analyses. (samples/dilutions/reanalyses).	✓		✓	Comments:
8. Calibrations standards (ICV/CCV) are within 90-110% recovery.	✓		✓	
C. Sample and Batch QC				
9. Blanks are analyzed at the beginning, end and after every 10 sample analyses in the sequence.	✓		✓	
10. Results of blank analyses (MB, ICB, CCB) are < ½ RL (<RL for alkalinity unless DoD)	✓		✓	□ No analyte > ½ RL in associated samples □ Sample results >10x blank
11. A standard from a second source (SRM, CRM, LCS) is included in the analytical sequence.	✓		✓	
12. The recovery of the 2nd source material falls within 90-110% or manufacturer's limits.	✓		✓	
13. Samples analyses are bracketing by acceptable CCV/CCBs.	✓		✓	□ No analyte > RL in associated samples □ Sample results >10x blank □ Sample results qualified
14. MS/MSD analyzed at required frequency and recoveries within limits. (If recoveries out of limits, verify not due to lab error) (Required for 2340C, 4500 S2 F, 9030B/9034)	✓		✓	□ Non-conformance (NCM) added □ Sample results >4X spike conc.
15. Duplicate analyzed at required frequency and RPD within limits. (Required for 2310B, 2320B, 4500 SO3 B)	✓		✓	□ Non-conformance (NCM) added □ Sample results ND or <2X RL

Review Items	Yes	No	2nd Rev	If No, why is data reportable?
16. Are all MS/MSD RPDs <50%? Note: Excessive RPDs (>50%) require evaluation, correction or explanation.	✓		✓	☐ Non-conformance (NCM) added
D. Raw Data & TALS Data Entry				
17. Raw Data	✓			
a. Unused data is clearly identified with reason	✓		✓	
b. All crossed out data is initialed and dated	✓		✓	
c. Out of control QC is clearly identified	✓		✓	
d. Any data that has a qualifier is commented on with appropriate action taken	✓		✓	
e. The first page of the run includes the filename, instrument, and analyst initials/signature	✓		✓	
f. 100% of manual calculations are verified.	✓		✓	
18. TALS Samples Tab				
a. LIMS Sample IDs / Containers are correct	✓		✓	
b. Method and matrix are correct	✓		✓	
c. Date and time match raw data	✓		✓	
d. Dilutions are correct	✓		✓	
e. Correct suffix designated (where applicable)	✓		✓	
19. TALS Worksheet Tab is complete and correct	✓		✓	
20. TALS Reagent Tab is complete and correct	✓		✓	
21. TALS QC Links Tab is correct	✓		✓	
22. TALS Sample Results Tab	✓		✓	
a. All unused data are marked Rejected or Accepted	✓		✓	
b. All reported analytes are marked Primary or Secondary	✓		✓	
c. Data manually transcribed from benchsheet into TALS verified 100% including significant figures SM 4500 SO3 B).	✓		✓	
d. TALS Batch Information Screen documentation is complete	✓		✓	
e. TALS Status set to appropriate review level	✓		✓	
E. Final Report and NCMs (2nd level review only)				
f. Were all job/project requirements met?			✓	
g. Results for samples and QC correct on final report?			✓	
h. Are all necessary scanned documents in TALS?			✓	
i. NCMs reviewed for applicability, correct references to batches, grammar/typographical errors?			✓	

Comments: _____

_____

_____

2nd Reviewer: URB **Review Date:** 5/18/22

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0003.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 26-May-2022 10:38:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111372-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 27-May-2022 12:31:39 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1619

First Level Reviewer: foxr Date: 26-May-2022 12:36:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.558	2.558	0.000	2517329	0.2000	0.2419	M
2 Chloride	3.733	3.733	0.000	10490612	1.00	1.31	M
3 Nitrite as N	4.508	4.508	0.000	4992670	NC	NC	M
4 Bromide	5.450	5.450	0.000	967422	0.2000	0.2098	
5 Nitrate as N	6.075	6.075	0.000	5412365	NC	NC	M
7 Orthophosphate as P	9.183	9.183	0.000	1114901	NC	NC	M
6 Sulfate	10.167	10.167	0.000	7664956	1.00	1.29	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

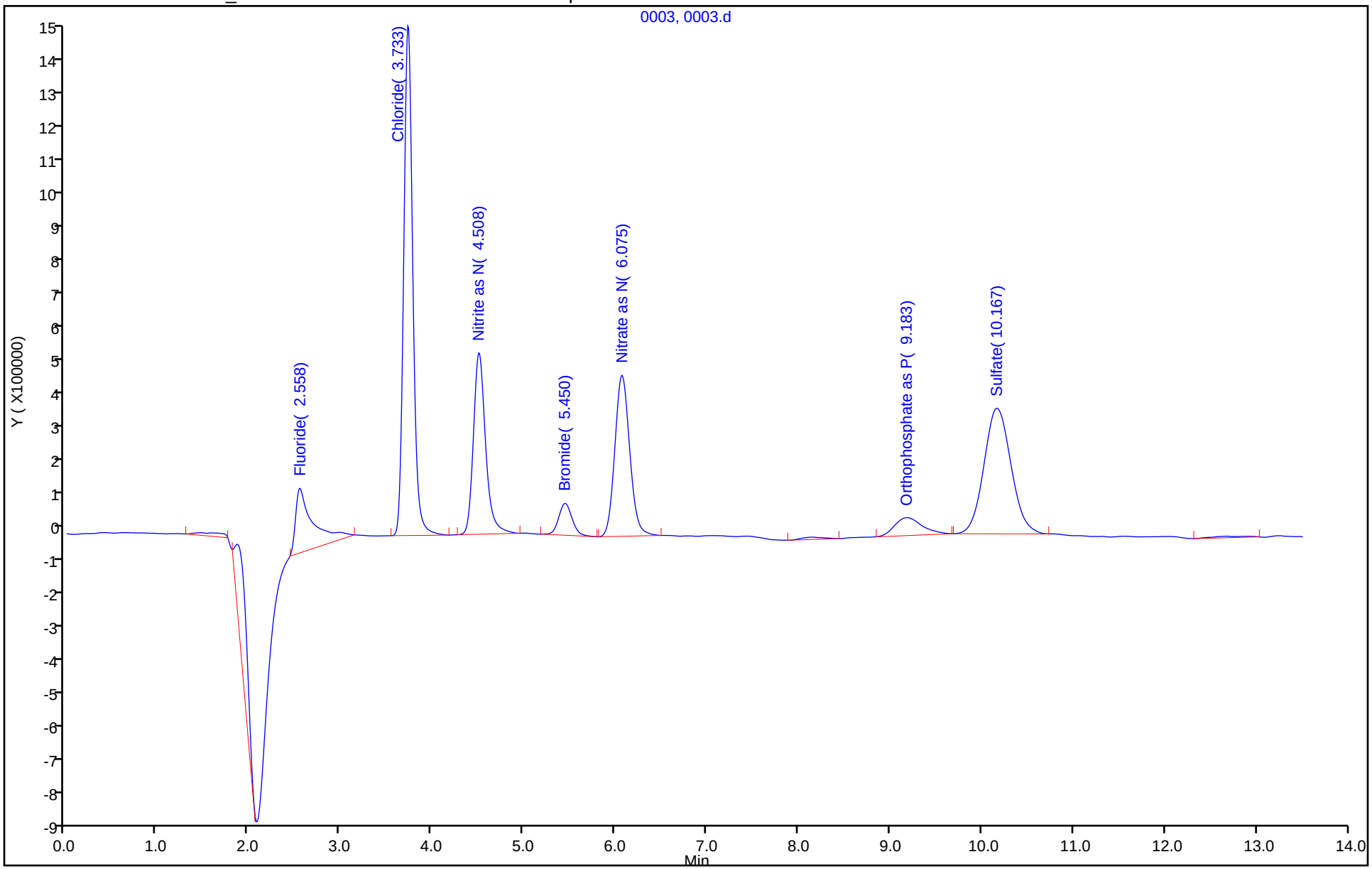
IC Cal low_00641 Amount Added: 0.02 Units: mL
IC CAL cl/so4_00423 Amount Added: 0.02 Units: mL

Report Date: 27-May-2022 12:31:39 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0003.d

Injection Date:	26-May-2022 10:38:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

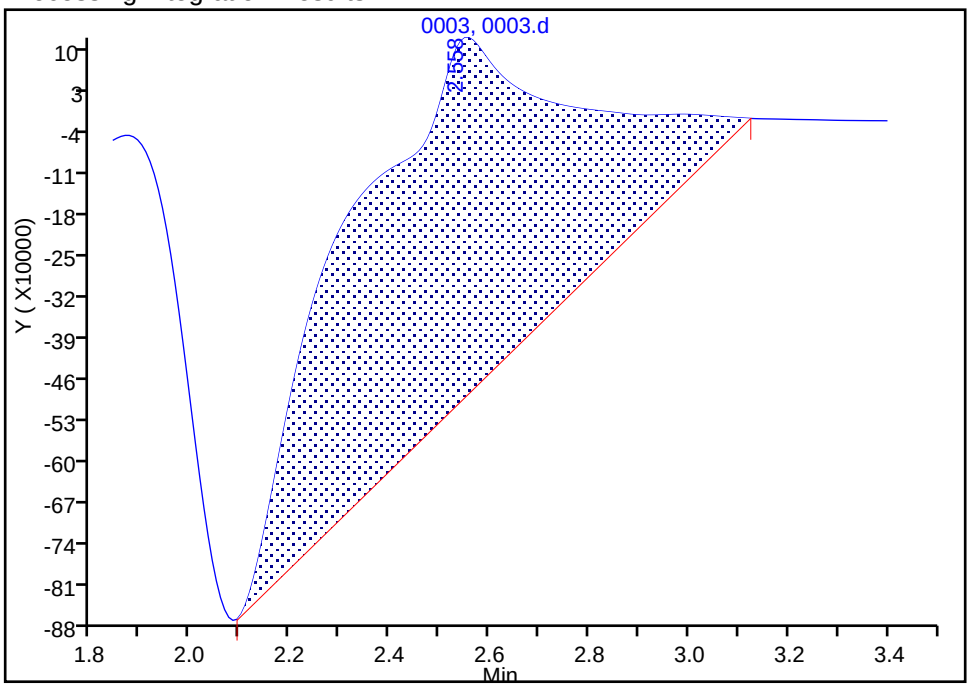
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0003.d
Injection Date: 26-May-2022 10:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

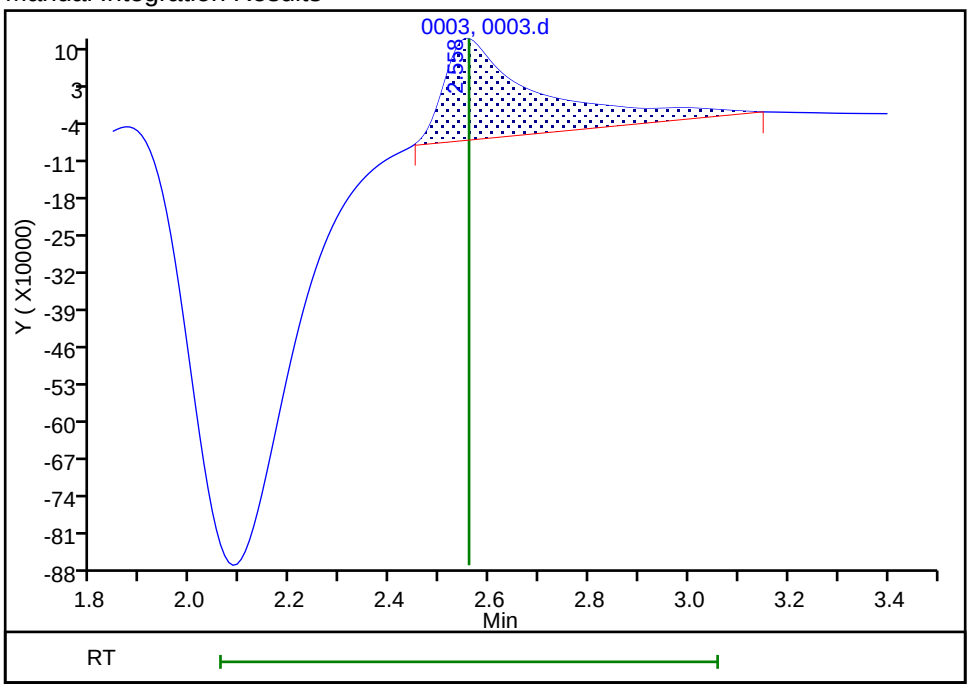
RT: 2.56
Area: 20311793
Amount: -0.099410
Amount Units: ug/ml

Processing Integration Results



RT: 2.56
Area: 2517329
Amount: 0.241888
Amount Units: ug/ml

Manual Integration Results



Reviewer: foxr, 26-May-2022 12:36:18
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

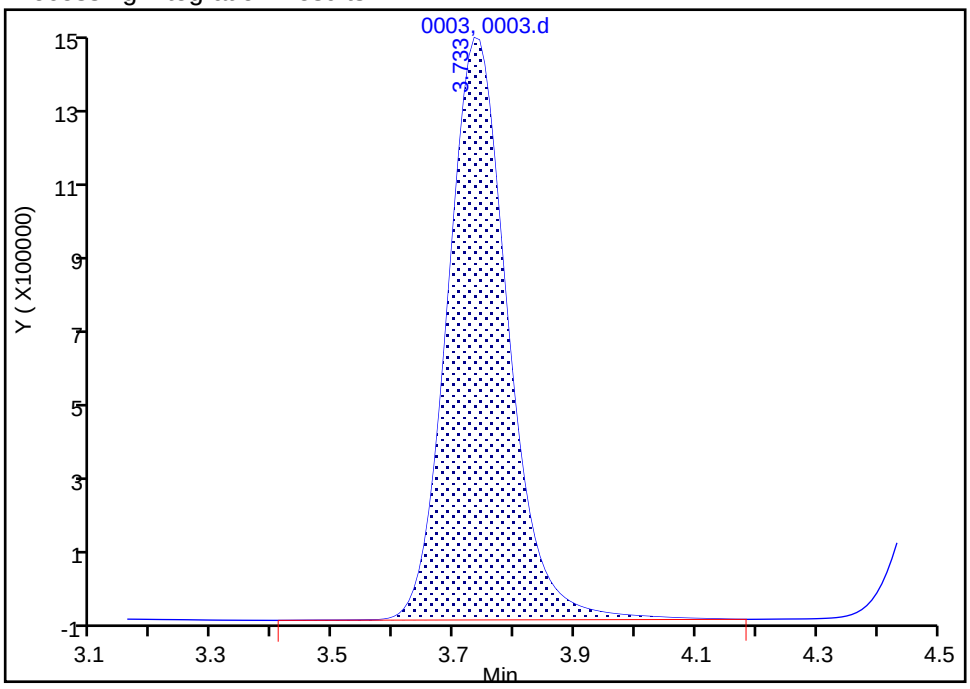
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0003.d
Injection Date: 26-May-2022 10:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

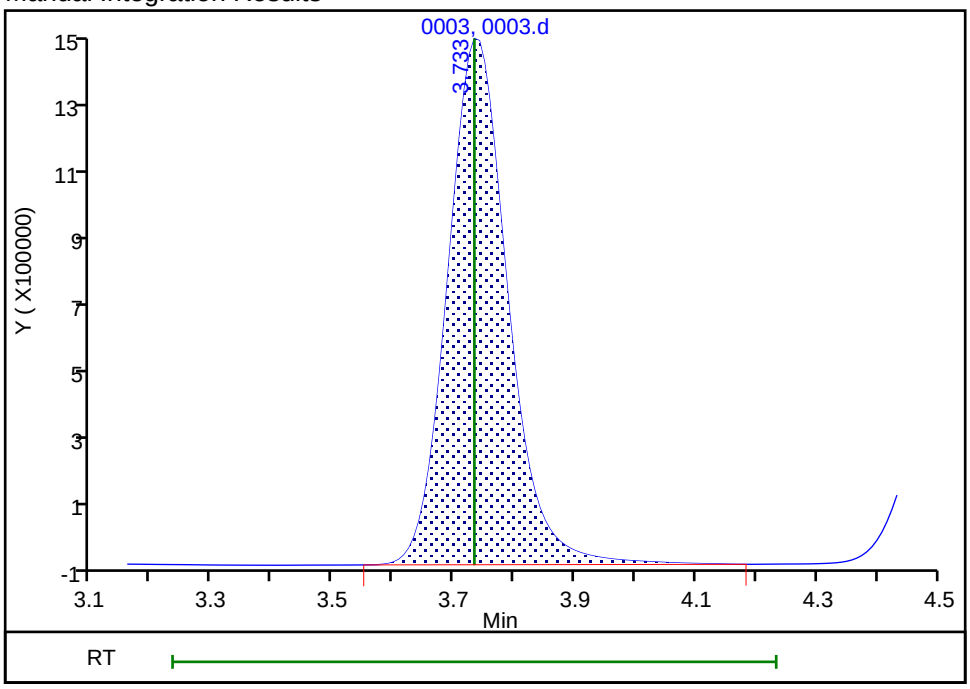
Processing Integration Results

RT: 3.73
Area: 10501100
Amount: 1.307736
Amount Units: ug/ml



Manual Integration Results

RT: 3.73
Area: 10490612
Amount: 1.307500
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:35:51
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

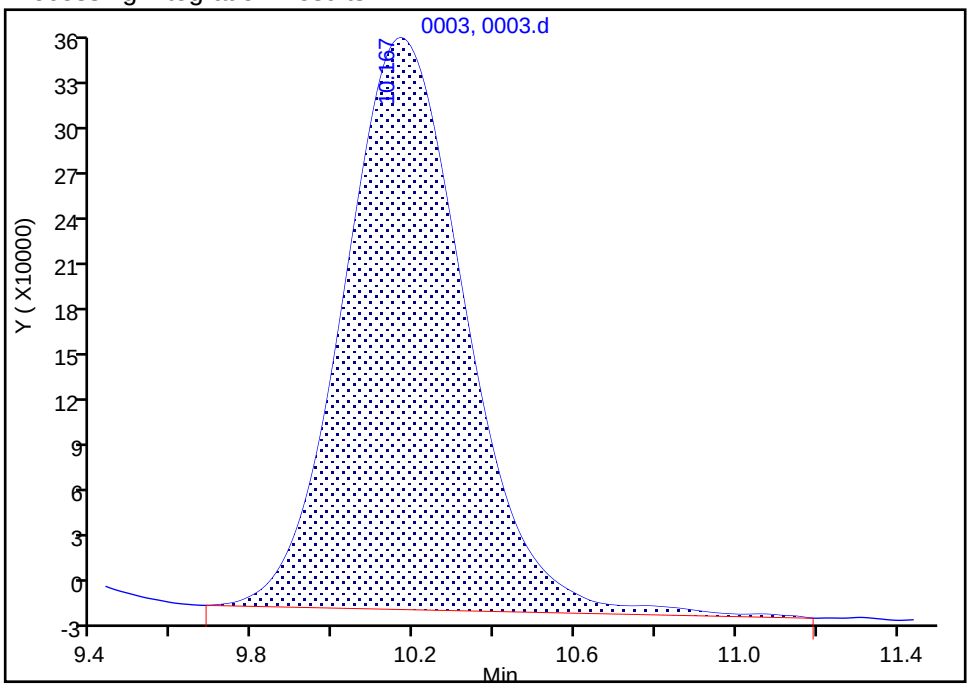
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0003.d
Injection Date: 26-May-2022 10:38:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

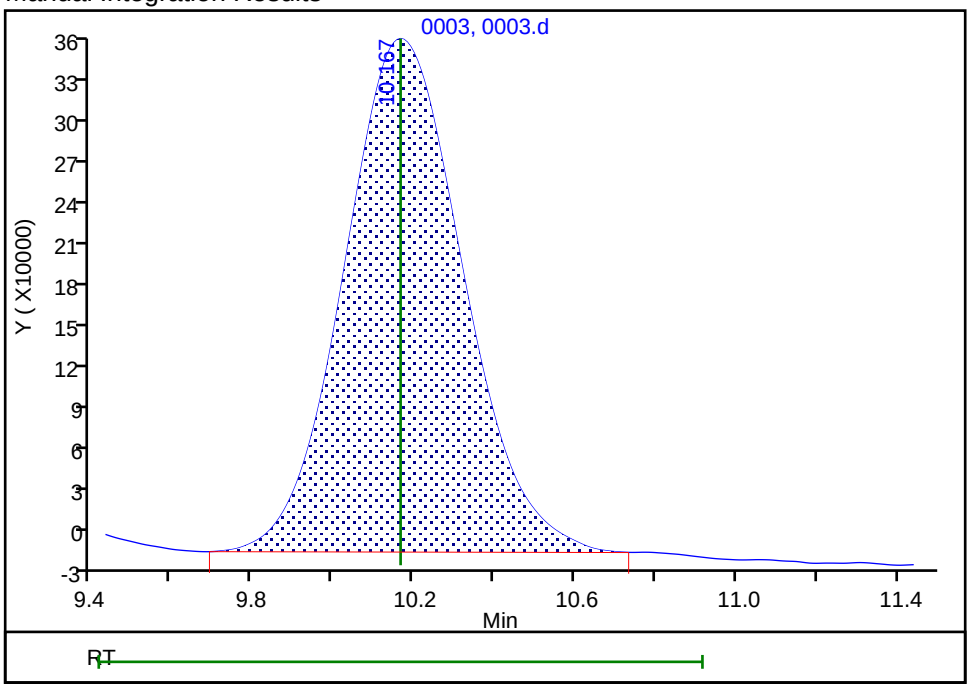
Processing Integration Results

RT: 10.17
Area: 7910021
Amount: 1.299005
Amount Units: ug/ml



Manual Integration Results

RT: 10.17
Area: 7664956
Amount: 1.292658
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:36:09
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0004.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 26-May-2022 10:54:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111372-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 27-May-2022 12:31:40 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1619

First Level Reviewer: foxr Date: 26-May-2022 12:37:04

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.558	2.558	0.000	5219727	0.5000	0.4467	M
2 Chloride	3.742	3.742	0.000	26634615	2.50	2.29	
3 Nitrite as N	4.517	4.517	0.000	12430822	NC	NC	M
4 Bromide	5.458	5.458	0.000	2290153	0.5000	0.4912	
5 Nitrate as N	6.075	6.075	0.000	13346070	NC	NC	M
7 Orthophosphate as P	9.192	9.192	0.000	2814874	NC	NC	M
6 Sulfate	10.175	10.175	0.000	18940873	2.50	2.35	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

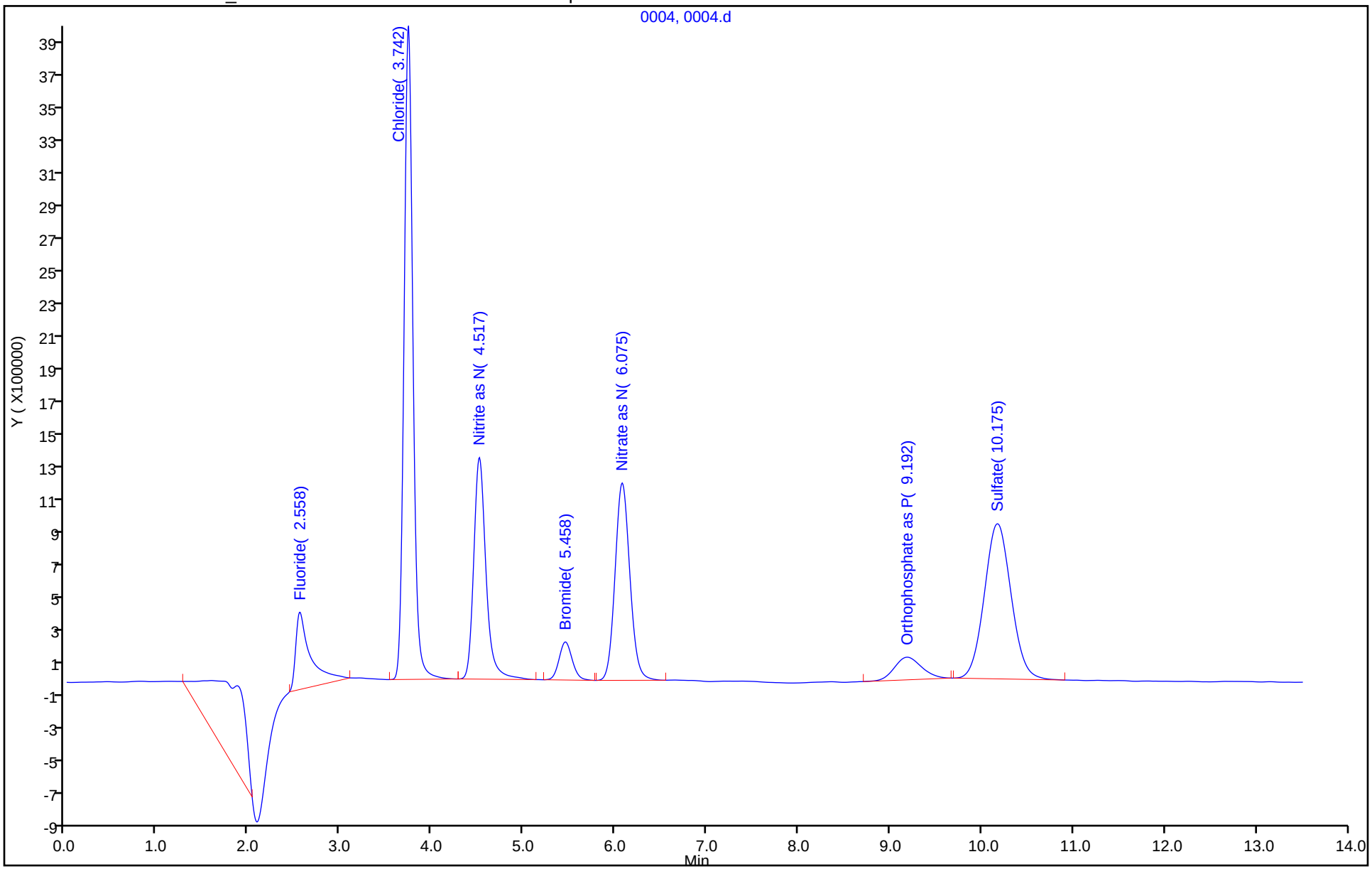
IC Cal low_00641 Amount Added: 0.05 Units: mL
IC CAL cl/so4_00423 Amount Added: 0.05 Units: mL

Report Date: 27-May-2022 12:31:40 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0004.d

Injection Date:	26-May-2022 10:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

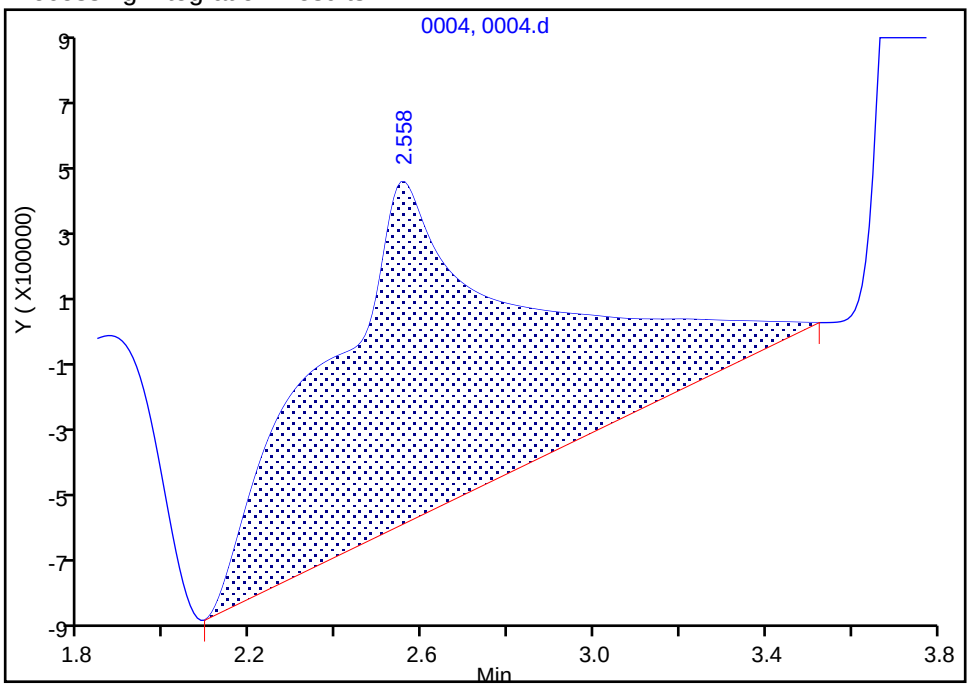
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0004.d
Injection Date: 26-May-2022 10:54:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

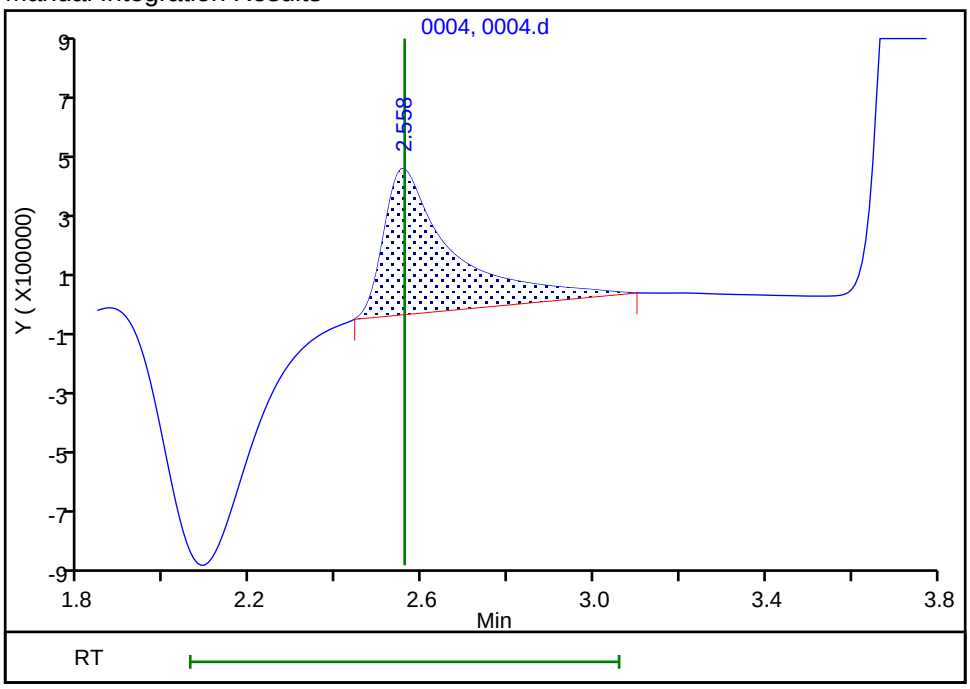
Processing Integration Results

RT: 2.56
Area: 33363075
Amount: 1.762284
Amount Units: ug/ml



Manual Integration Results

RT: 2.56
Area: 5219727
Amount: 0.446654
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:36:37
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

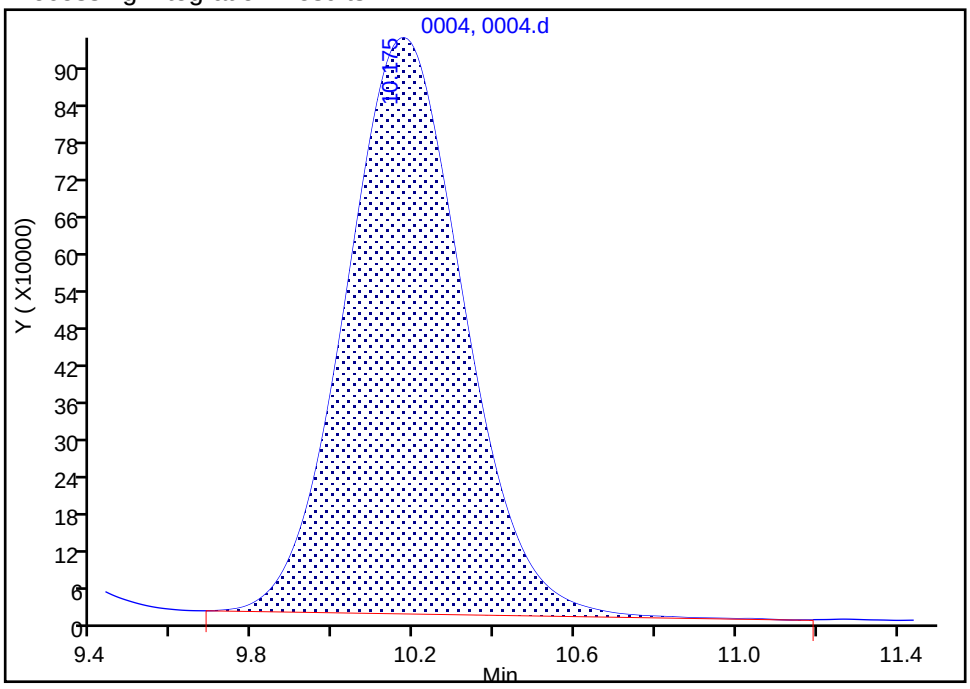
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0004.d
Injection Date: 26-May-2022 10:54:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

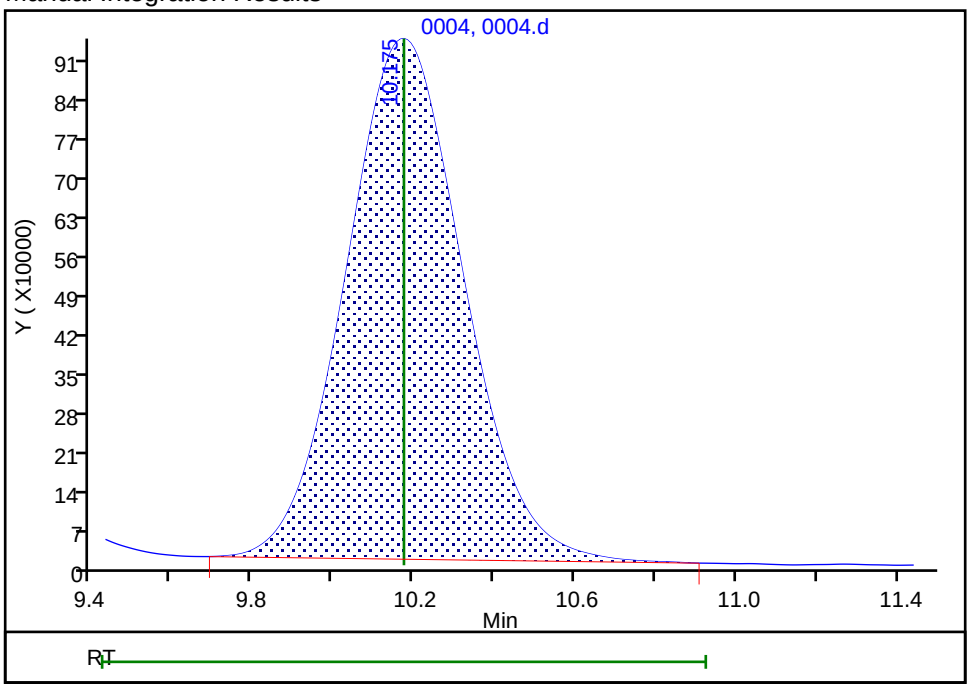
Processing Integration Results

RT: 10.18
Area: 18981907
Amount: 2.354369
Amount Units: ug/ml



Manual Integration Results

RT: 10.18
Area: 18940873
Amount: 2.353060
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:37:00
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0005.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 26-May-2022 11:10:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111372-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 27-May-2022 12:31:41 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1619

First Level Reviewer: foxr Date: 26-May-2022 12:37:31

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.558	2.558	0.000	11338695	1.00	0.9103	M
2 Chloride	3.742	3.742	0.000	54995610	5.00	4.02	
3 Nitrite as N	4.517	4.517	0.000	25675354	NC	NC	
4 Bromide	5.458	5.458	0.000	4595846	1.00	0.9817	
5 Nitrate as N	6.075	6.075	0.000	27022389	NC	NC	
7 Orthophosphate as P	9.192	9.192	0.000	6383013	NC	NC	
6 Sulfate	10.183	10.183	0.000	37920723	5.00	4.14	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

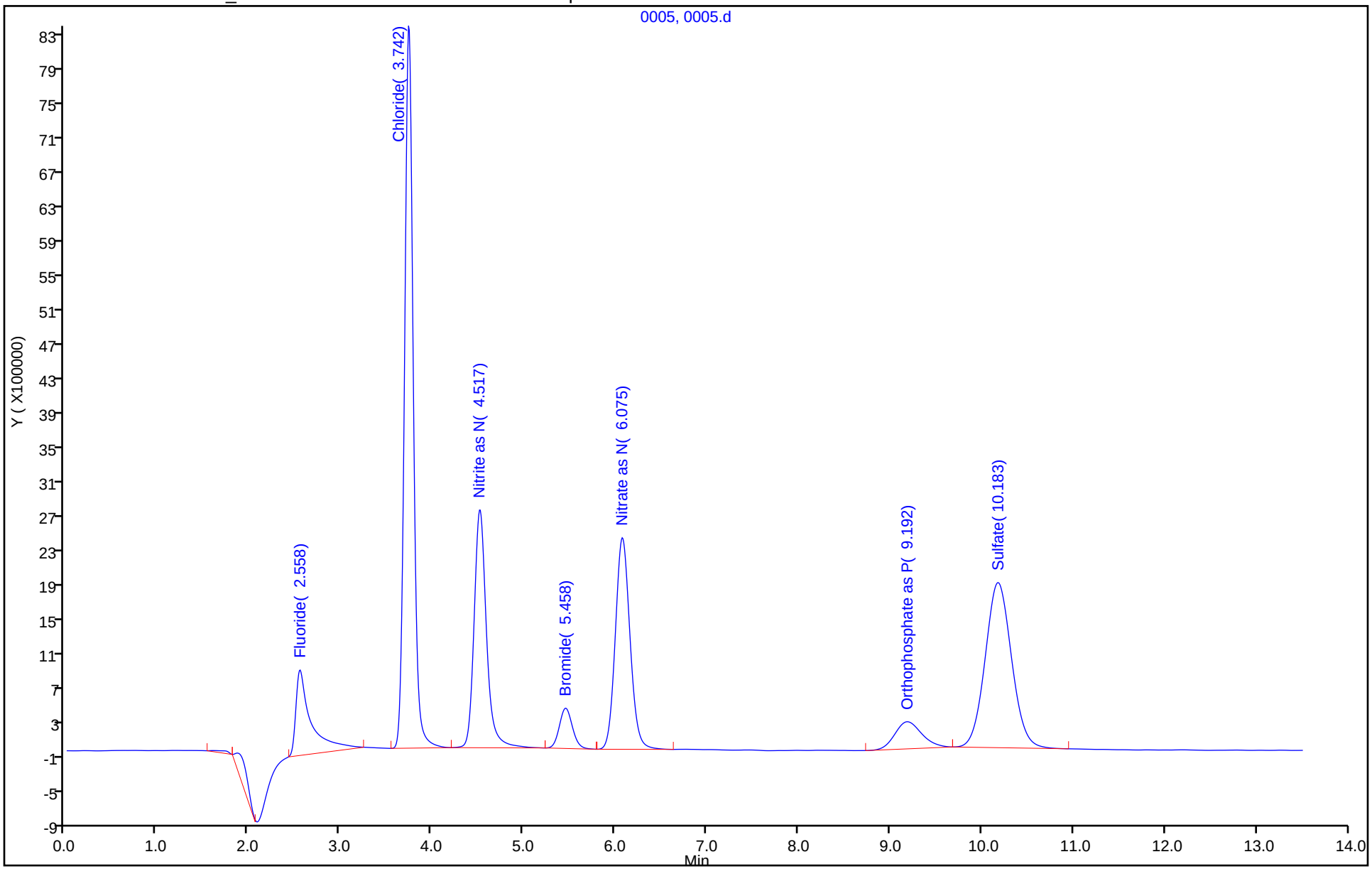
IC Cal low_00641 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00423 Amount Added: 0.10 Units: mL

Report Date: 27-May-2022 12:31:41 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0005.d

Injection Date:	26-May-2022 11:10:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

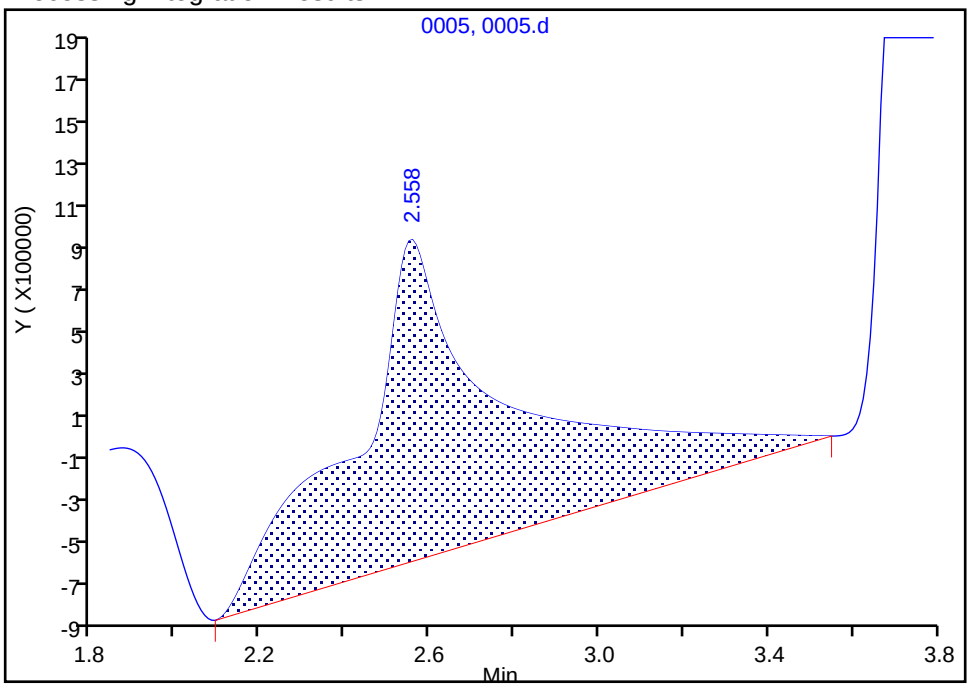
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0005.d
Injection Date: 26-May-2022 11:10:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

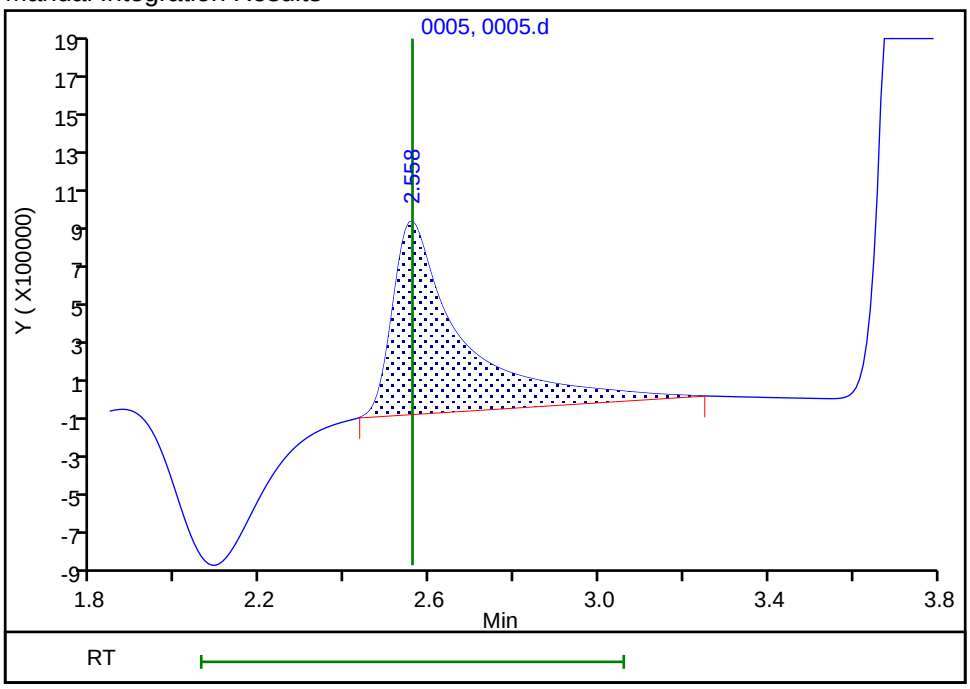
Processing Integration Results

RT: 2.56
Area: 38639447
Amount: 2.553611
Amount Units: ug/ml



Manual Integration Results

RT: 2.56
Area: 11338695
Amount: 0.910300
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:37:16
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

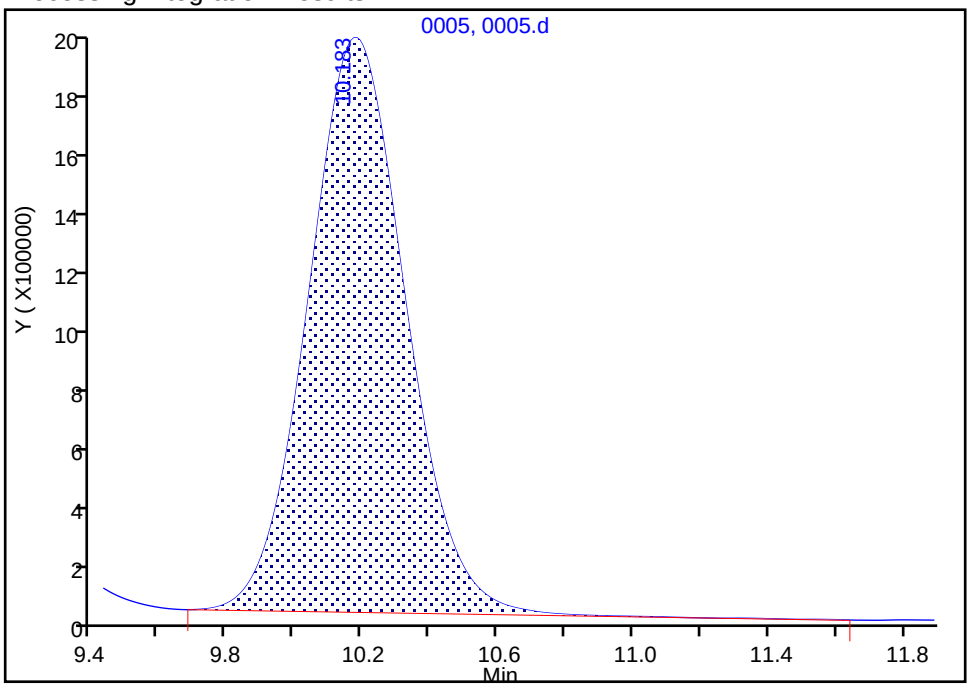
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0005.d
Injection Date: 26-May-2022 11:10:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

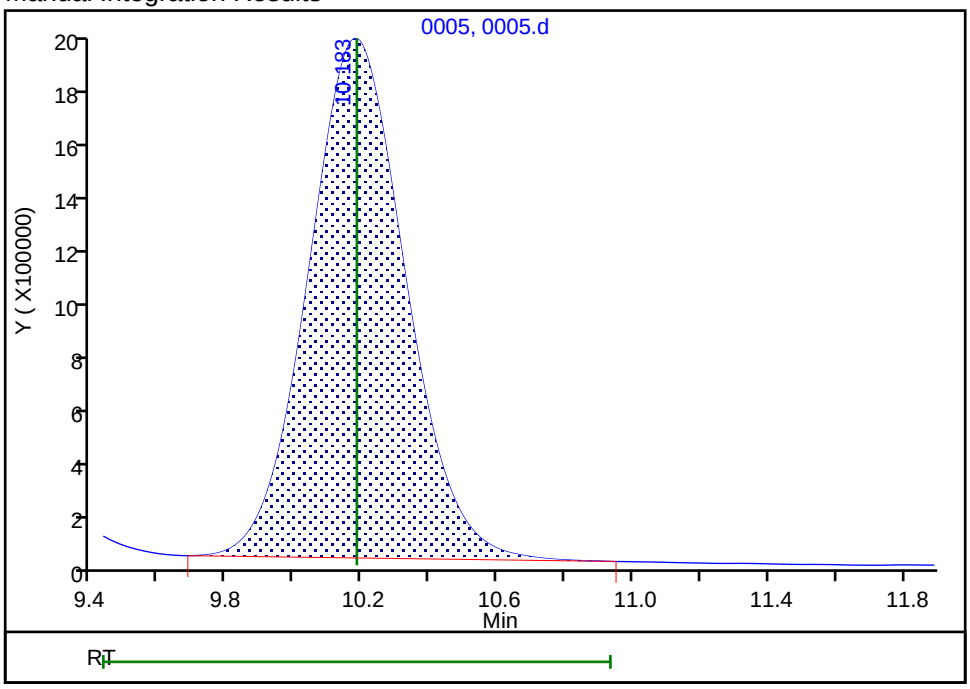
Processing Integration Results

RT: 10.18
Area: 38035188
Amount: 4.146443
Amount Units: ug/ml



Manual Integration Results

RT: 10.18
Area: 37920723
Amount: 4.137949
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:37:27
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0006.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 26-May-2022 11:25:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111372-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 27-May-2022 12:31:42 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1619

First Level Reviewer: foxr Date: 26-May-2022 12:37:57

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.558	2.558	0.000	49965260	4.00	3.84	M
2 Chloride	3.792	3.792	0.000	932518975	60.0	57.4	
3 Nitrite as N	4.533	4.533	0.000	111213133	NC	NC	
4 Bromide	5.450	5.450	0.000	18294969	4.00	3.90	
5 Nitrate as N	6.067	6.067	0.000	117829461	NC	NC	M
7 Orthophosphate as P	9.167	9.167	0.000	31283707	NC	NC	
6 Sulfate	10.242	10.242	0.000	574628610	60.0	54.6	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

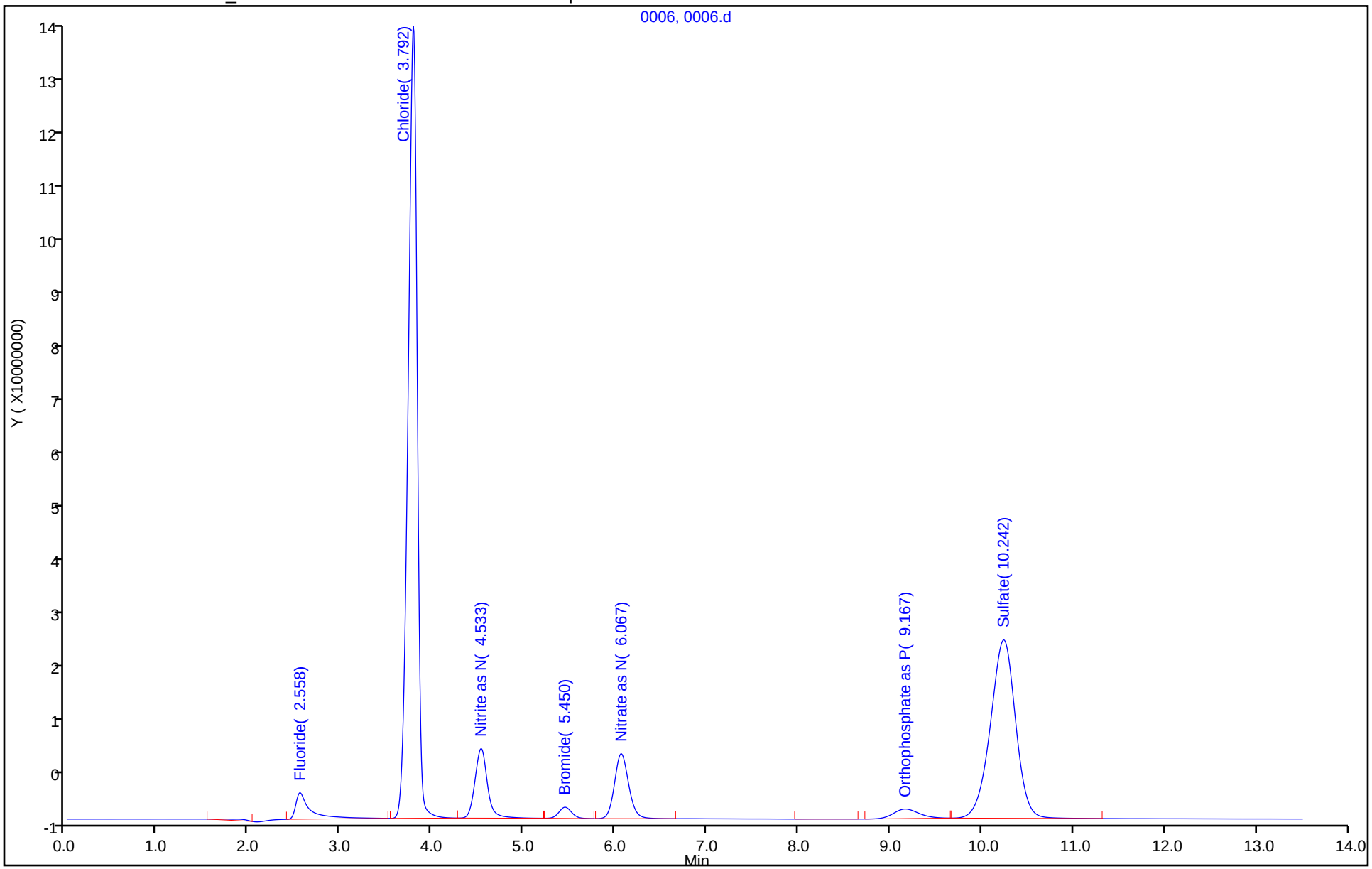
IC Cal low_00641 Amount Added: 0.40 Units: mL
IC CAL cl/so4_00423 Amount Added: 1.20 Units: mL

Report Date: 27-May-2022 12:31:42 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0006.d

Injection Date:	26-May-2022 11:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

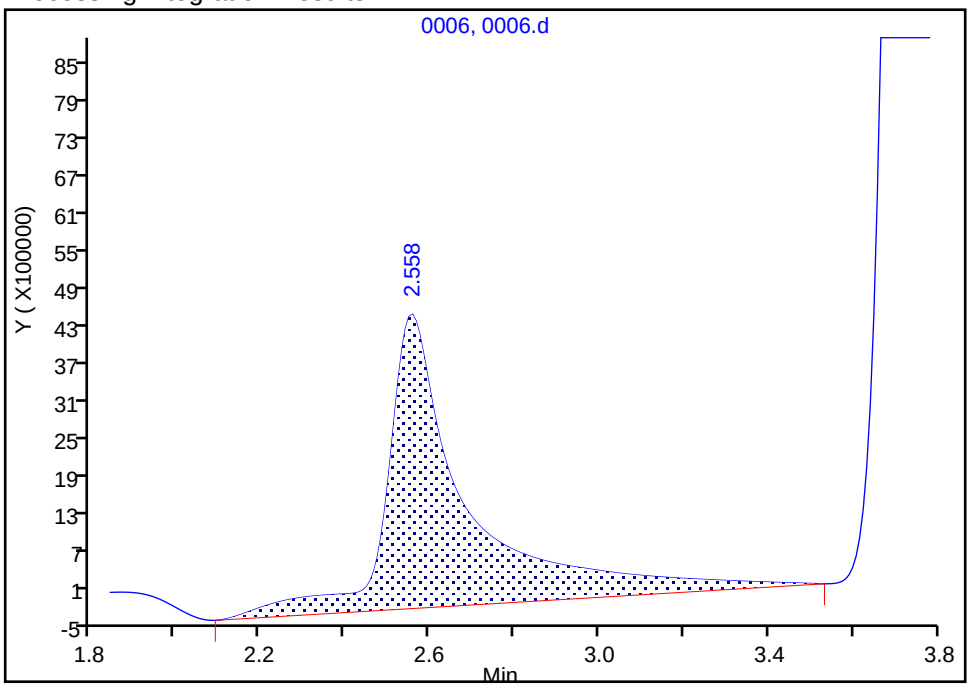
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0006.d
Injection Date: 26-May-2022 11:25:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

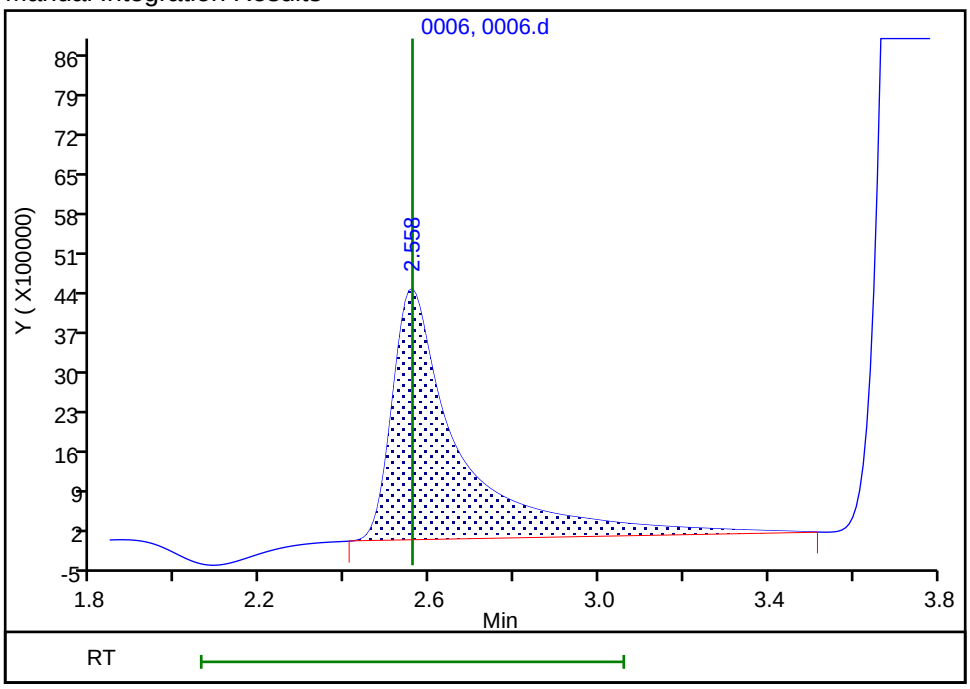
Processing Integration Results

RT: 2.56
Area: 64048182
Amount: 4.675537
Amount Units: ug/ml



Manual Integration Results

RT: 2.56
Area: 49965260
Amount: 3.837110
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:37:43
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

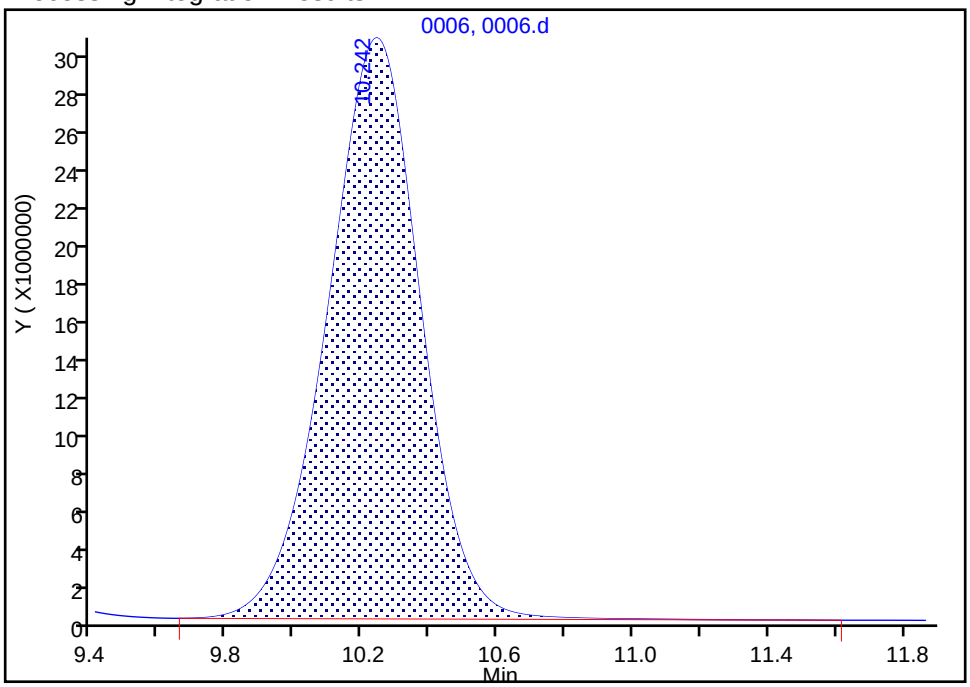
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0006.d
Injection Date: 26-May-2022 11:25:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

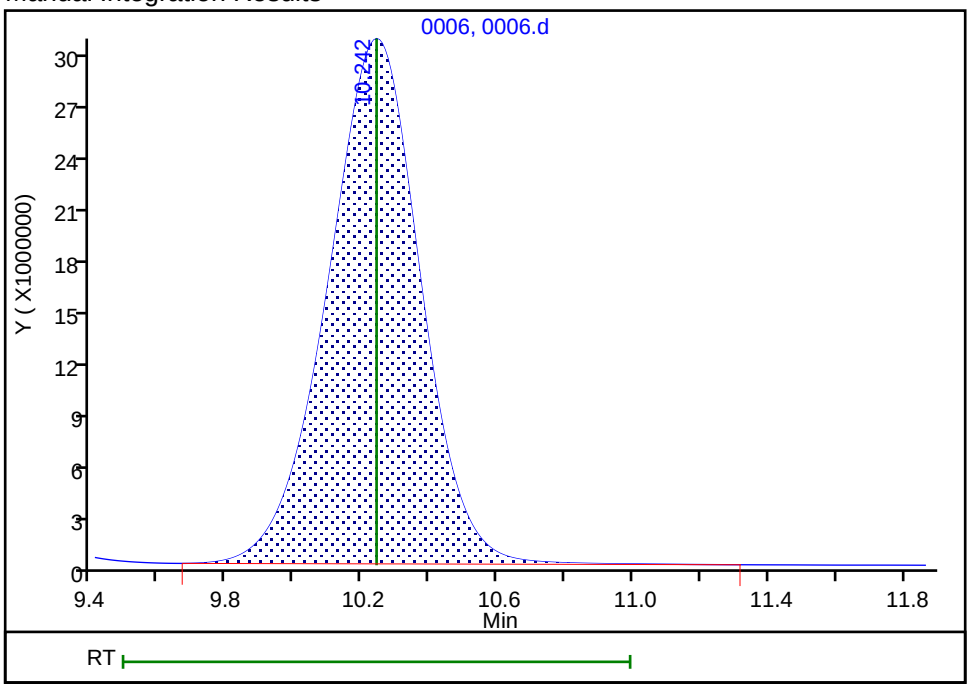
Processing Integration Results

RT: 10.24
Area: 575024925
Amount: 54.628375
Amount Units: ug/ml



Manual Integration Results

RT: 10.24
Area: 574628610
Amount: 54.610638
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:37:54
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0007.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 26-May-2022 11:41:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111372-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 27-May-2022 12:31:42 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1619

First Level Reviewer: foxr Date: 26-May-2022 12:38:26

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.558	2.558	0.000	105574056	8.00	8.05	M
2 Chloride	3.842	3.842	0.000	1953390847	120.0	119.6	
3 Nitrite as N	4.558	4.558	0.000	232166488	NC	NC	
4 Bromide	5.450	5.450	0.000	37732662	8.00	8.03	
5 Nitrate as N	6.058	6.058	0.000	256790050	NC	NC	M
7 Orthophosphate as P	9.150	9.150	0.000	71067229	NC	NC	
6 Sulfate	10.308	10.308	0.000	1263008535	120.0	119.3	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

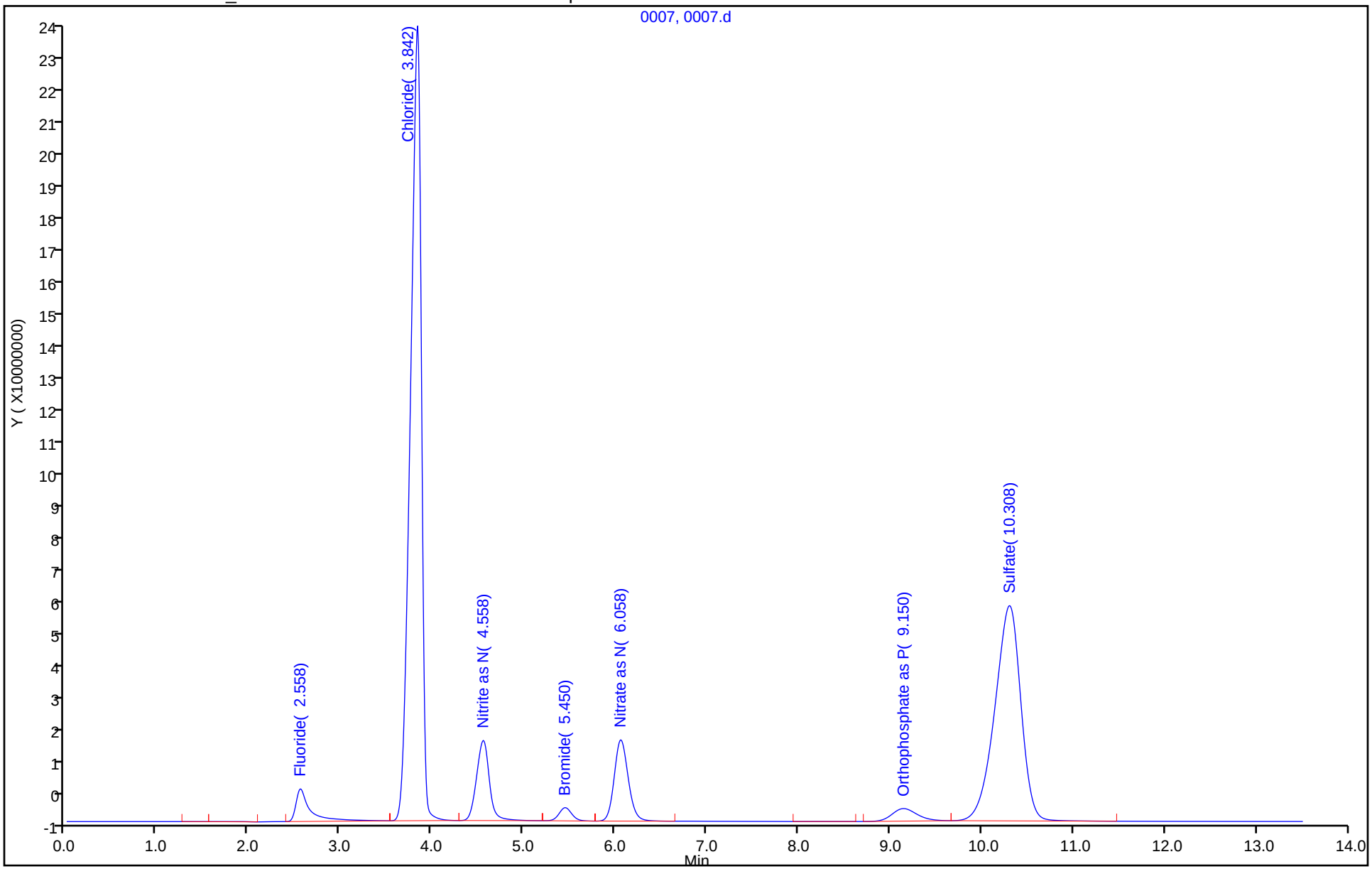
IC Cal low_00641 Amount Added: 0.80 Units: mL
IC CAL cl/so4_00423 Amount Added: 2.40 Units: mL

Report Date: 27-May-2022 12:31:43 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0007.d

Injection Date:	26-May-2022 11:41:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

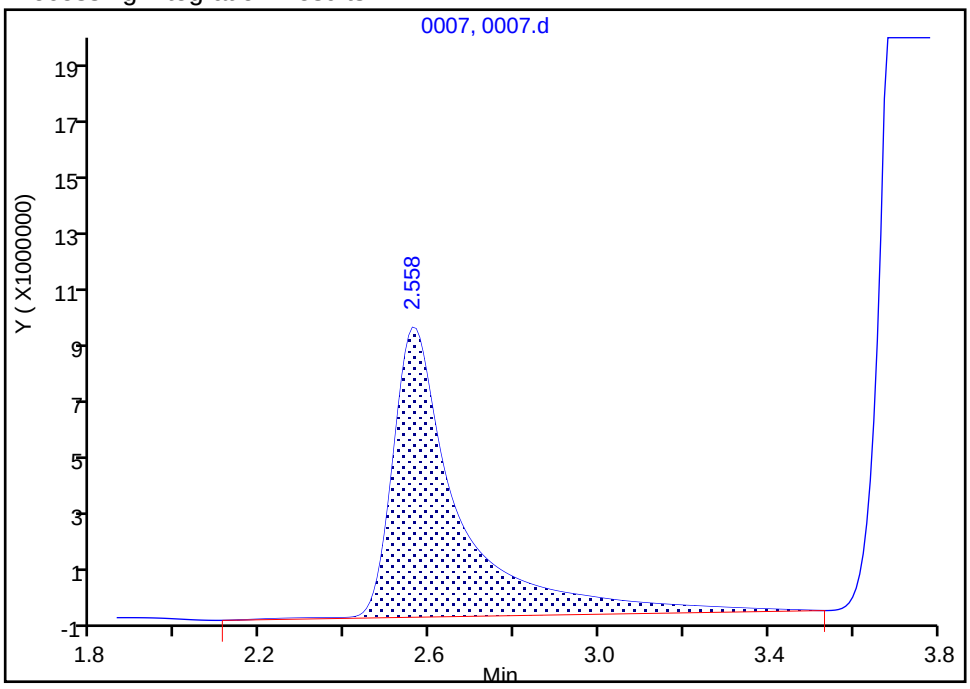
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0007.d				
Injection Date:	26-May-2022 11:41:00	Instrument ID:	WC_IonChrom11		
Lims ID:	std L5				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

1 Fluoride, CAS: 16984-48-8

Signal: 1

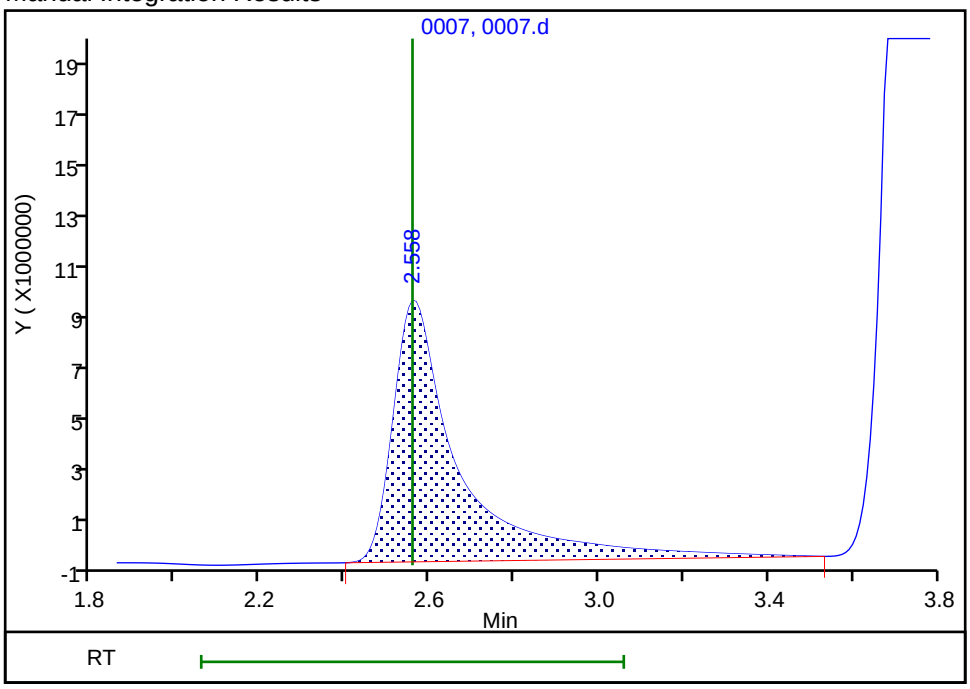
Processing Integration Results

RT: 2.56
Area: 106761759
Amount: 8.108157
Amount Units: ug/ml



Manual Integration Results

RT: 2.56
Area: 105574056
Amount: 8.050697
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:38:09
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

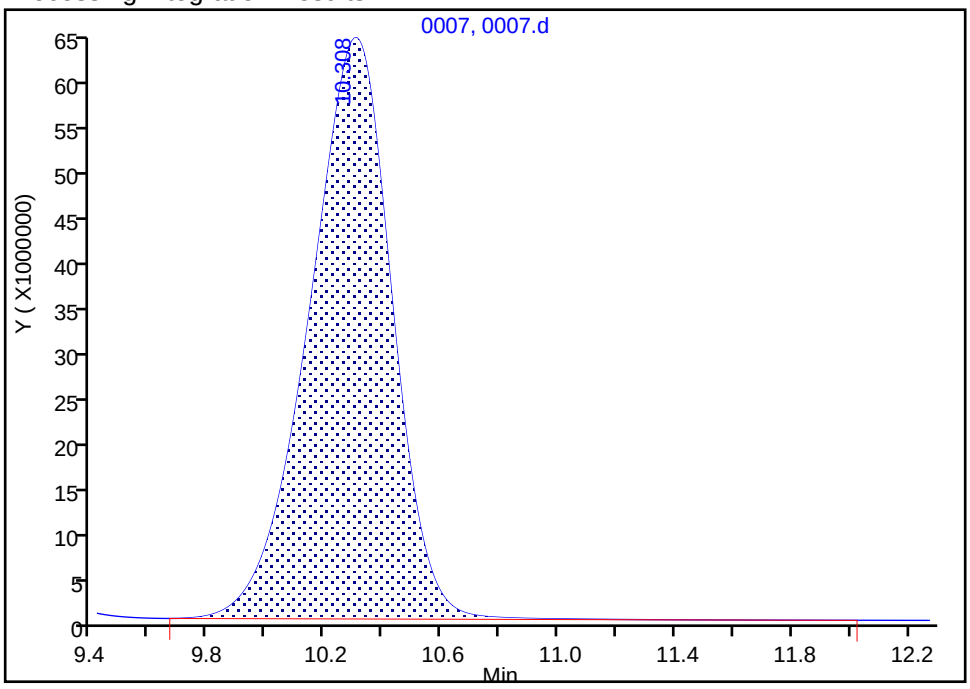
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0007.d
Injection Date: 26-May-2022 11:41:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

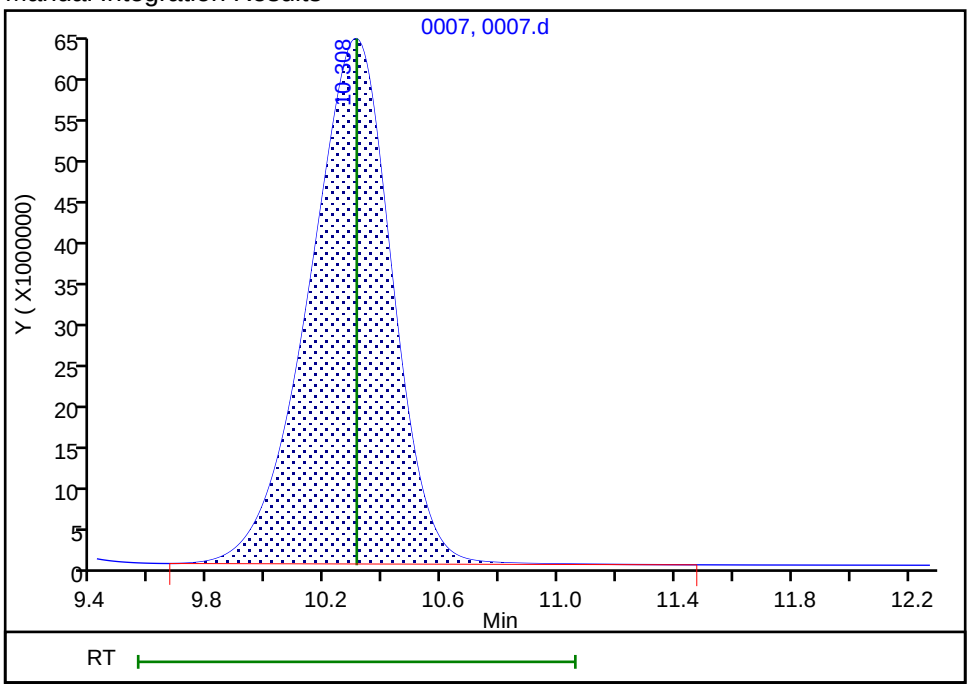
Processing Integration Results

RT: 10.31
Area: 1263421851
Amount: 119.3537
Amount Units: ug/ml



Manual Integration Results

RT: 10.31
Area: 1263008535
Amount: 119.3468
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:38:23
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 26-May-2022 11:57:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111372-007
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 27-May-2022 12:31:43 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1619

First Level Reviewer: foxr Date: 26-May-2022 12:38:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.558	2.558	0.000	134115666	10.0	10.2	
2 Chloride	3.883	3.883	0.000	3338209746	200.0	203.9	
3 Nitrite as N	4.567	4.567	0.000	297186668	NC	NC	
4 Bromide	5.450	5.450	0.000	47405131	10.0	10.1	
5 Nitrate as N	6.058	6.058	0.000	330425787	NC	NC	
7 Orthophosphate as P	9.133	9.133	0.000	92281418	NC	NC	
6 Sulfate	10.358	10.358	0.000	2192517280	200.0	206.8	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

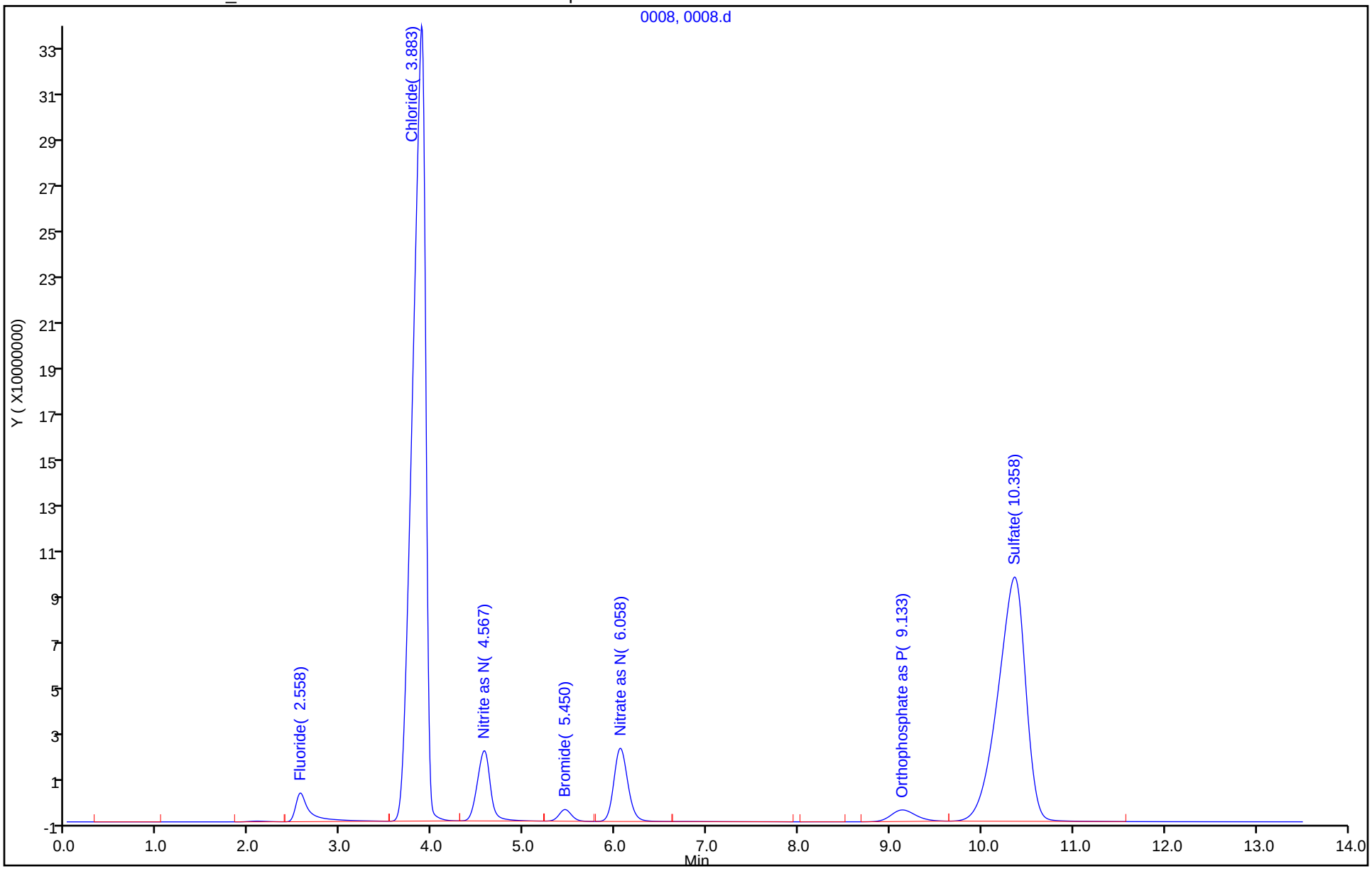
IC Cal low_00641 Amount Added: 1.00 Units: mL
IC CAL cl/so4_00423 Amount Added: 4.00 Units: mL

Report Date: 27-May-2022 12:31:43 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Injection Date:	26-May-2022 11:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

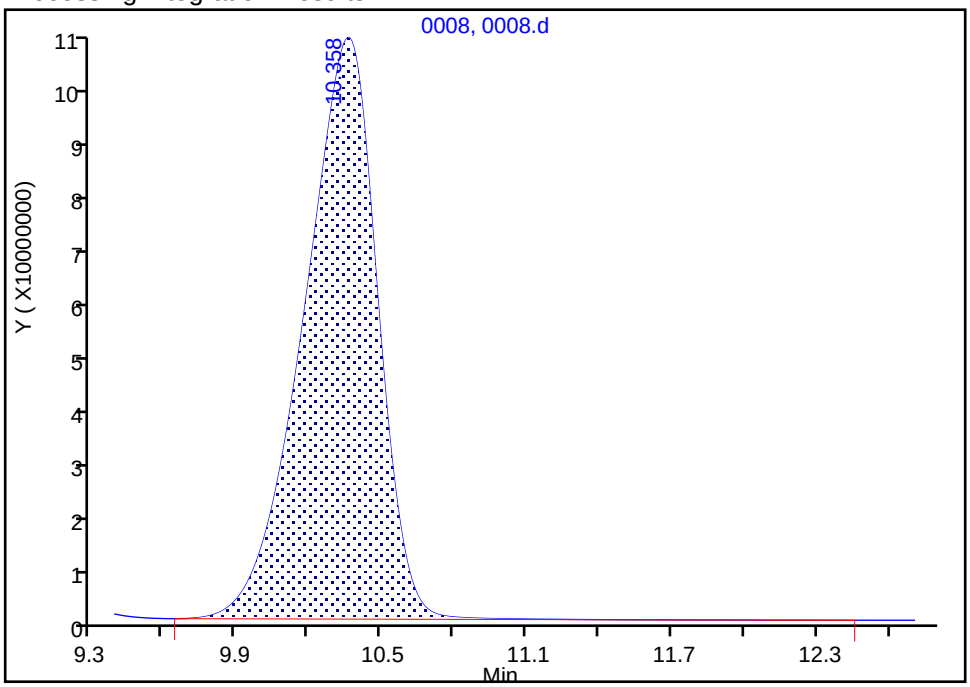
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d
Injection Date: 26-May-2022 11:57:00 Instrument ID: WC_IonChrom11
Lims ID: std L6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

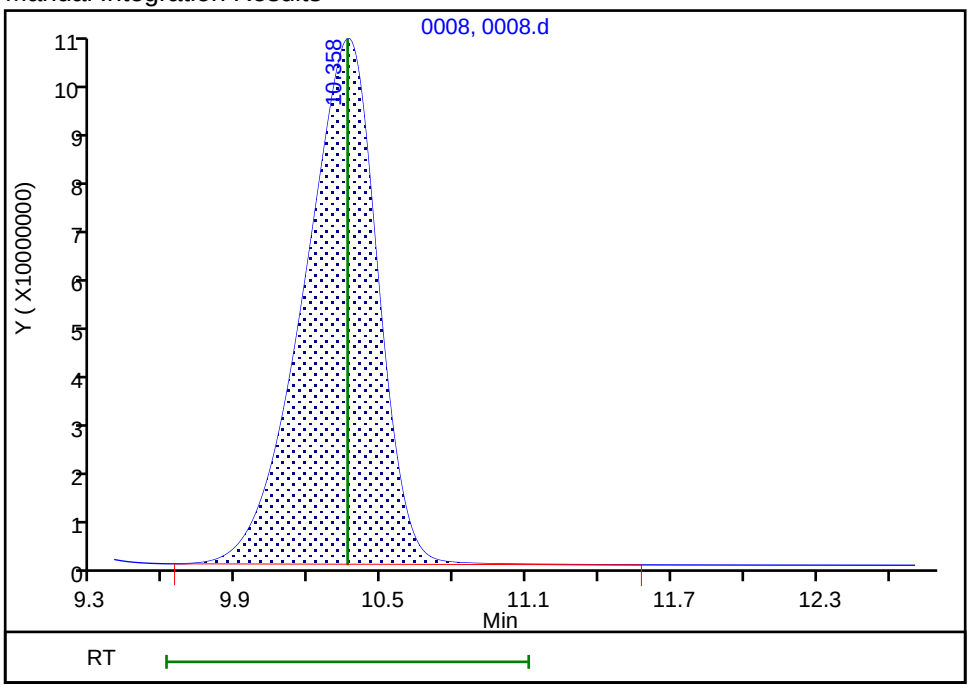
Processing Integration Results

RT: 10.36
Area: 2193191665
Amount: 206.7877
Amount Units: ug/ml



Manual Integration Results

RT: 10.36
Area: 2192517280
Amount: 206.7589
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:38:42
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

IC Instrument Information

WL: 111372 **Inst ID:** ICV **Analysis Date:** 5/26/2022 **Analyst:** CJ

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	162169	2	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	162320	11	F Cl NO2 Br NO3 PO4 SO4	MS/D 4/11	
☐	162317	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	162489	14	F Cl NO2 Br NO3 PO4 SO4	MS/D 8	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
317	1	F Cl NO2 Br NO3 PO4 SO4	50X	rerun
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Eurofins Environment Testing America
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	27-May-2022 12:31:35

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b
Inj Date : 26-May-2022 10:38:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions 28D				Wet - Anions			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride	-674991	1319749		0.998				
2 Chloride	-109886	1642772		1.000				
3 Nitrite as N					-158663	2924831		0.999
4 Bromide	-18634	4700337		1.000				
5 Nitrate as N					-211435	3221570		0.999
7 Orthophosphate as P					-120257	8951923		0.995
6 Sulfate	-608069	1063363		0.997				

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	27-May-2022 12:36:13

No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-13.500 No. Points: 1561

Calibration File Names

Level: 1	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0003.d		
	Inj Date: 26-May-2022 10:38:00	Worklist: 111372	Sample#: 2
Level: 2	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0004.d		
	Inj Date: 26-May-2022 10:54:00	Worklist: 111372	Sample#: 3
Level: 3	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0005.d		
	Inj Date: 26-May-2022 11:10:00	Worklist: 111372	Sample#: 4
Level: 4	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0006.d		
	Inj Date: 26-May-2022 11:25:00	Worklist: 111372	Sample#: 5
Level: 5	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0007.d		
	Inj Date: 26-May-2022 11:41:00	Worklist: 111372	Sample#: 6
Level: 6	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d		
	Inj Date: 26-May-2022 11:57:00	Worklist: 111372	Sample#: 7

Start Cal Date: 26-May-2022 10:22:00 End Cal Date: 26-May-2022 11:57:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
24963350	24861644	25675354	27803283	29020811	29718667	-1586638			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		29248311		
M4992670	M12430822	25675354	111213133	232166488	297186668				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				
5 Nitrate as N				Signal: 1					
Error: CorrCoef									
27061825	26692140	27022389	29457365	32098756	33042579	-2114359			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		32215708		
M5412365	M13346070	27022389	M117829461	M256790050	330425787				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				
7 Orthophosphate as P				Signal: 1					
5574505	5629748	6383013	7820927	8883404	9228142	-1202572			0.995
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		8951923		
M1114901	M2814874	6383013	31283707	71067229	92281418				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 27-May-2022 12:31:35
No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-13.500 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0003.d
Inj Date: 26-May-2022 10:38:00 Worklist: 111372 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0004.d
Inj Date: 26-May-2022 10:54:00 Worklist: 111372 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0005.d
Inj Date: 26-May-2022 11:10:00 Worklist: 111372 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0006.d
Inj Date: 26-May-2022 11:25:00 Worklist: 111372 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0007.d
Inj Date: 26-May-2022 11:41:00 Worklist: 111372 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d
Inj Date: 26-May-2022 11:57:00 Worklist: 111372 Sample#: 7

Start Cal Date: 26-May-2022 10:22:00 End Cal Date: 26-May-2022 11:57:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: CorrCoef Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
1 Fluoride				Signal: 1					
Error: raw_COD									
12586645	10439454	11338695	12491315	13196757	13411567	-674991			0.998
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		13197497		
M2517329	M5219727	M11338695	M49965260	M105574056	134115666				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				
2 Chloride				Signal: 1					
10490612	10653846	10999122	15541983	16278257	16691049	-10988650			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		16427728		
M10490612	26634615	54995610	932518975	1953390847	3338209746				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				
4 Bromide				Signal: 1					
4837110	4580306	4595846	4573742	4716583	4740513	-18634			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		4700337		
967422	2290153	4595846	18294969	37732662	47405131				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				
6 Sulfate				Signal: 1					
Error: raw_COD									
7664956	7576349	7584145	9577144	10525071	10962586	-6080692			0.997
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		10633630		
M7664956	M18940873	M37920723	M574628610	M1263008535	M2192517280				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0009.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 26-May-2022 12:13:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111372-008
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 27-May-2022 13:00:49 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1619

First Level Reviewer: foxr Date: 26-May-2022 12:40:10

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.558	2.558	0.000	50105606	4.00	3.85	M
2 Chloride	3.817	3.817	0.000	1298948516	80.0	79.7	
3 Nitrite as N	4.533	4.533	0.000	103024016	NC	NC	
4 Bromide	5.450	5.450	0.000	18252164	4.00	3.89	
5 Nitrate as N	6.067	6.067	0.000	114182014	NC	NC	M
7 Orthophosphate as P	9.167	9.167	0.000	29859783	NC	NC	
6 Sulfate	10.258	10.258	0.000	801034337	80.0	75.9	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

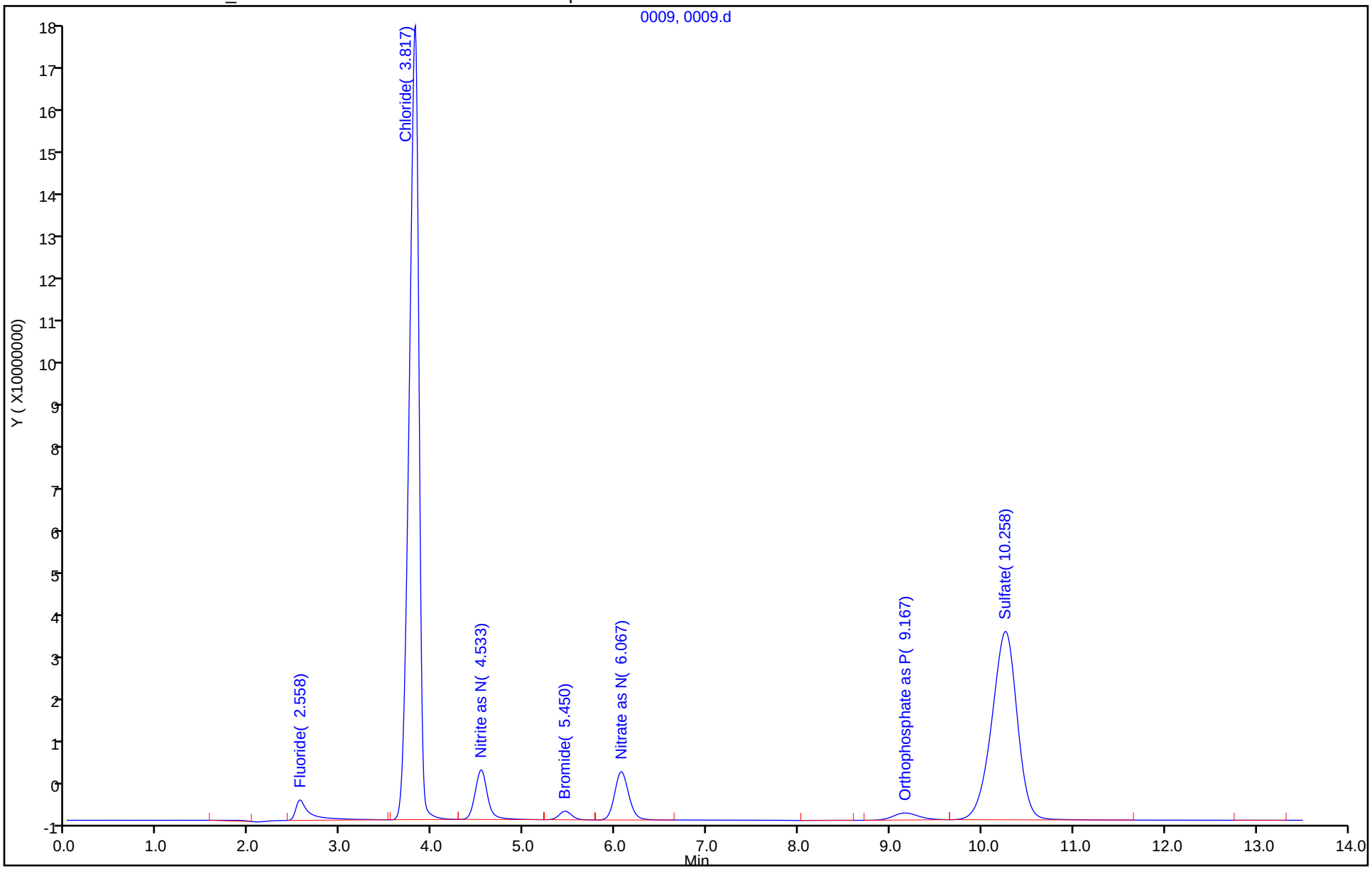
IC SO4 ICV_00022	Amount Added:	0.40	Units: mL
Cl ICV Std_00005	Amount Added:	0.40	Units: mL
IC ICV 5_00366	Amount Added:	0.40	Units: mL

Report Date: 27-May-2022 13:00:49 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0009.d

Injection Date:	26-May-2022 12:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

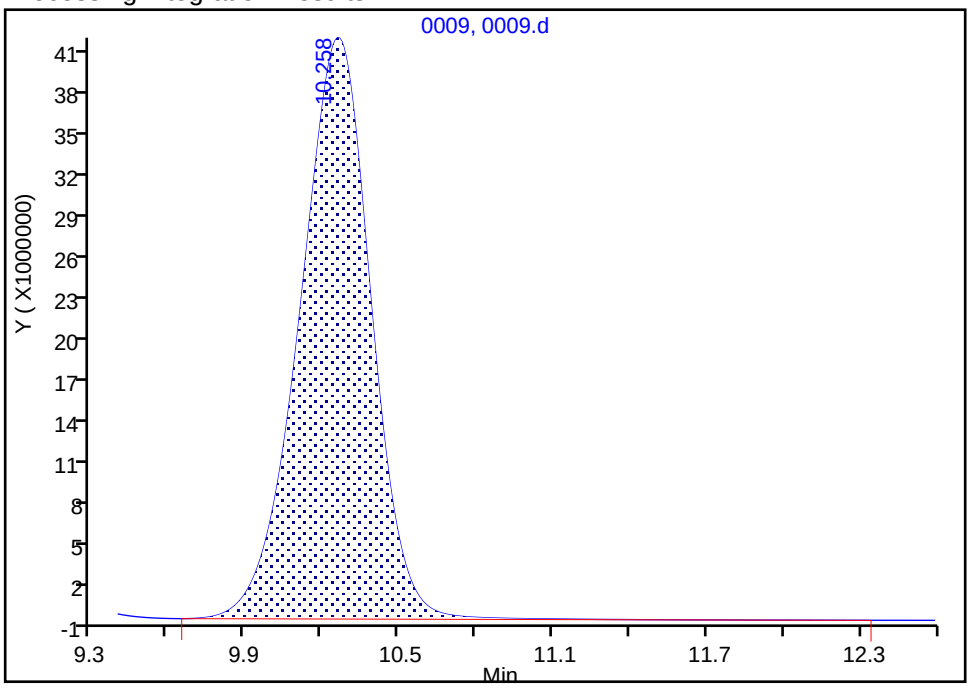
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0009.d
Injection Date: 26-May-2022 12:13:00 Instrument ID: WC_IonChrom11
Lims ID: ICV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

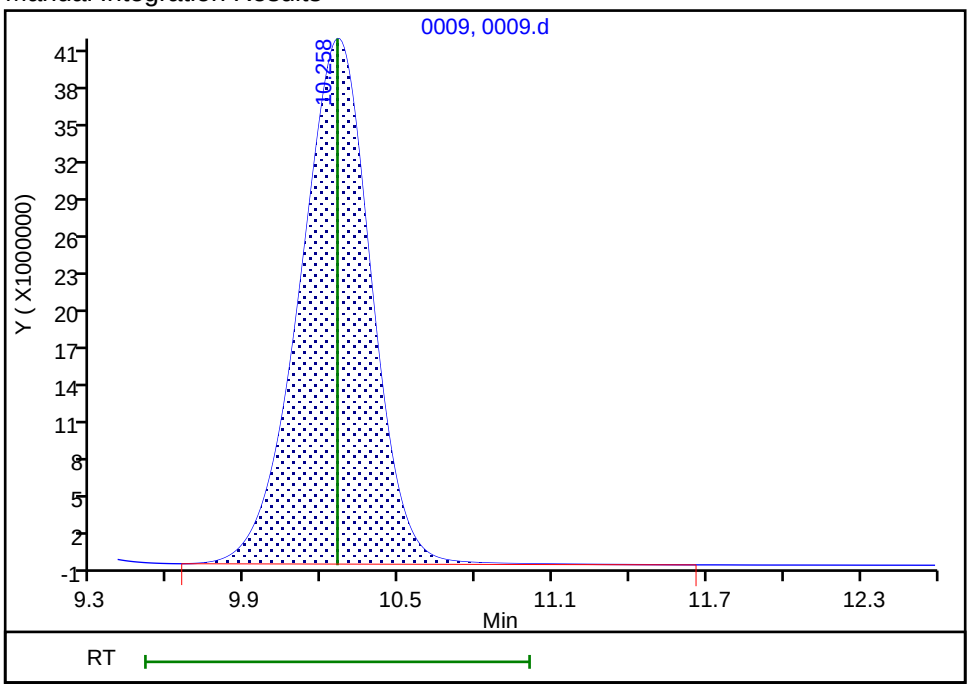
Processing Integration Results

RT: 10.26
Area: 801258136
Amount: 75.923166
Amount Units: ug/ml



Manual Integration Results

RT: 10.26
Area: 801034337
Amount: 75.902119
Amount Units: ug/ml



Reviewer: foxr, 26-May-2022 12:39:12
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0010.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 26-May-2022 12:29:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111372-009
Misc. Info.: 10
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 27-May-2022 13:00:49 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1619

First Level Reviewer: jindaratc Date: 27-May-2022 12:30:27

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.558				ND	
2 Chloride		3.817				ND	U
3 Nitrite as N		4.533				ND	U
4 Bromide		5.450				ND	U
5 Nitrate as N		6.067				ND	U
7 Orthophosphate as P	9.350	9.167	0.183	260525		NC	
6 Sulfate		10.258				ND	

QC Flag Legend

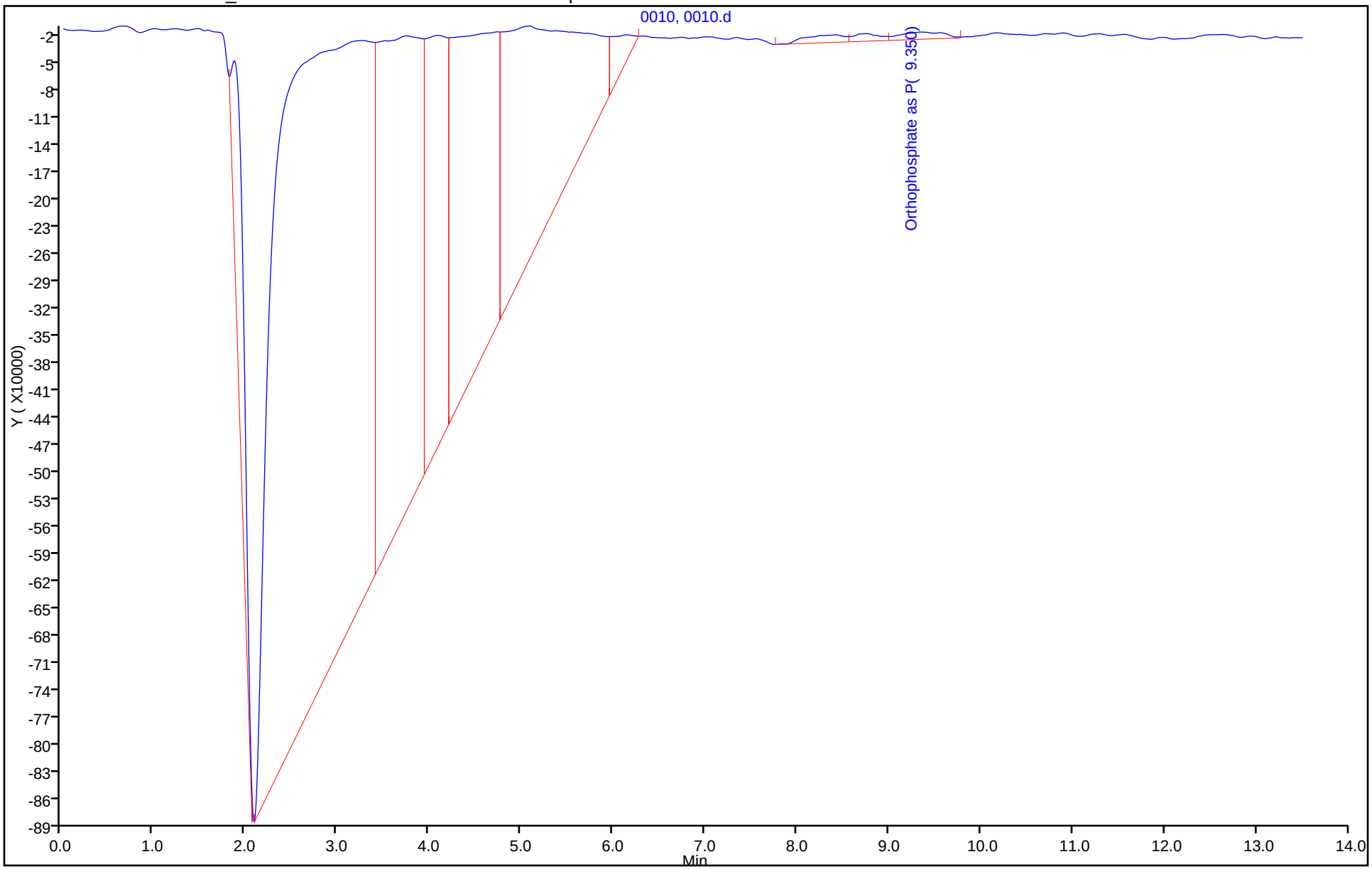
Processing Flags
NC - Not Calibrated
Review Flags
U - Marked Undetected

Report Date: 27-May-2022 13:00:50 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0010.d

Injection Date:	26-May-2022 12:29:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



IC Instrument Information

WL: 111492 **Inst ID:** IC11 **Analysis Date:** 6-01-22 **Analyst:** RF

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	162673	2	(F) Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	162098	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162930	1	(F) Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	162386	4	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162342	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162343	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162699	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162493	1	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162494	10	F Cl NO2 Br NO3 PO4 (SO4)	(MS/D) # 1	
☐	162479	9	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
673	1	(F) Cl NO2 Br NO3 PO4 SO4	5x10x20x	rerun
098	1	F Cl NO2 Br NO3 PO4 (SO4)	20x	rerun
386	4	F Cl NO2 Br NO3 PO4 (SO4)	5x	rerun
342	1	F Cl NO2 Br NO3 PO4 (SO4)	50x	rerun
343	1	F Cl NO2 Br NO3 PO4 (SO4)	50x	rerun
699	1	F Cl NO2 Br NO3 PO4 (SO4)	50x	test
493	1	F (Cl) NO2 Br NO3 PO4 (SO4)	10x	test
494	7	F Cl NO2 Br NO3 PO4 (SO4)	5x10x	test
479	7	F (Cl) NO2 Br NO3 PO4 (SO4)	5x10x20x	test

Eurofins Environment Testing America
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	27-May-2022 12:31:35

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b
Inj Date : 26-May-2022 10:38:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions 28D				Wet - Anions			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride	-674991	1319749		0.998				
2 Chloride	-109886	1642772		1.000				
3 Nitrite as N					-158663	2924831		0.999
4 Bromide	-18634	4700337		1.000				
5 Nitrate as N					-211435	3221570		0.999
7 Orthophosphate as P					-120257	8951923		0.995
6 Sulfate	-608069	1063363		0.997				

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	27-May-2022 12:36:13

No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-13.500 No. Points: 1561

Calibration File Names

Level: 1	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0003.d		
	Inj Date: 26-May-2022 10:38:00	Worklist: 111372	Sample#: 2
Level: 2	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0004.d		
	Inj Date: 26-May-2022 10:54:00	Worklist: 111372	Sample#: 3
Level: 3	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0005.d		
	Inj Date: 26-May-2022 11:10:00	Worklist: 111372	Sample#: 4
Level: 4	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0006.d		
	Inj Date: 26-May-2022 11:25:00	Worklist: 111372	Sample#: 5
Level: 5	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0007.d		
	Inj Date: 26-May-2022 11:41:00	Worklist: 111372	Sample#: 6
Level: 6	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d		
	Inj Date: 26-May-2022 11:57:00	Worklist: 111372	Sample#: 7

Start Cal Date: 26-May-2022 10:22:00 End Cal Date: 26-May-2022 11:57:00

Individual Compound Calibration Parameters

Quant Method: ESTD	RF Calibration: Replace	
Rule Name: Linear1	Curve: Linear	Weighting: Conc
Origin: None	Error: raw_COD	Error Limit: 1.00
RF %Dif: 0.0	SPCC Limit: 0.0	CCC Limit: 0.0
Dependent Variable: Resp		

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
24963350	24861644	25675354	27803283	29020811	29718667	-1586638			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		29248311		
M4992670	M12430822	25675354	111213133	232166488	297186668				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				
5 Nitrate as N				Signal: 1					
Error: CorrCoef									
27061825	26692140	27022389	29457365	32098756	33042579	-2114359			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		32215708		
M5412365	M13346070	27022389	M117829461	M256790050	330425787				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				
7 Orthophosphate as P				Signal: 1					
5574505	5629748	6383013	7820927	8883404	9228142	-1202572			0.995
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		8951923		
M1114901	M2814874	6383013	31283707	71067229	92281418				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 27-May-2022 12:31:35
No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-13.500 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0003.d
Inj Date: 26-May-2022 10:38:00 Worklist: 111372 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0004.d
Inj Date: 26-May-2022 10:54:00 Worklist: 111372 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0005.d
Inj Date: 26-May-2022 11:10:00 Worklist: 111372 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0006.d
Inj Date: 26-May-2022 11:25:00 Worklist: 111372 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0007.d
Inj Date: 26-May-2022 11:41:00 Worklist: 111372 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d
Inj Date: 26-May-2022 11:57:00 Worklist: 111372 Sample#: 7

Start Cal Date: 26-May-2022 10:22:00 End Cal Date: 26-May-2022 11:57:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: CorrCoef Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
1 Fluoride				Signal: 1					
Error: raw_COD									
12586645	10439454	11338695	12491315	13196757	13411567	-674991			0.998
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		13197497		
M2517329	M5219727	M11338695	M49965260	M105574056	134115666				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				
2 Chloride				Signal: 1					
10490612	10653846	10999122	15541983	16278257	16691049	-10988650			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		16427728		
M10490612	26634615	54995610	932518975	1953390847	3338209746				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				
4 Bromide				Signal: 1					
4837110	4580306	4595846	4573742	4716583	4740513	-18634			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		4700337		
967422	2290153	4595846	18294969	37732662	47405131				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				
6 Sulfate				Signal: 1					
Error: raw_COD									
7664956	7576349	7584145	9577144	10525071	10962586	-6080692			0.997
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		10633630		
M7664956	M18940873	M37920723	M574628610	M1263008535	M2192517280				
111372(2)	111372(3)	111372(4)	111372(5)	111372(6)	111372(7)				

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0002.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 01-Jun-2022 11:09:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111492-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub5

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:52:56 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 01-Jun-2022 11:29:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.550	2.550	0.000	62732932	5.00	4.80	Ma
2 Chloride	3.800	3.800	0.000	1651592049	100.0	101.2	
3 Nitrite as N	4.500	4.500	0.000	148441244	NC	NC	
4 Bromide	5.392	5.392	0.000	23399178	5.00	4.98	
5 Nitrate as N	6.000	6.000	0.000	152951417	NC	NC	
7 Orthophosphate as P	8.975	8.975	0.000	40658538	NC	NC	
6 Sulfate	10.067	10.067	0.000	1044051146	100.0	98.8	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

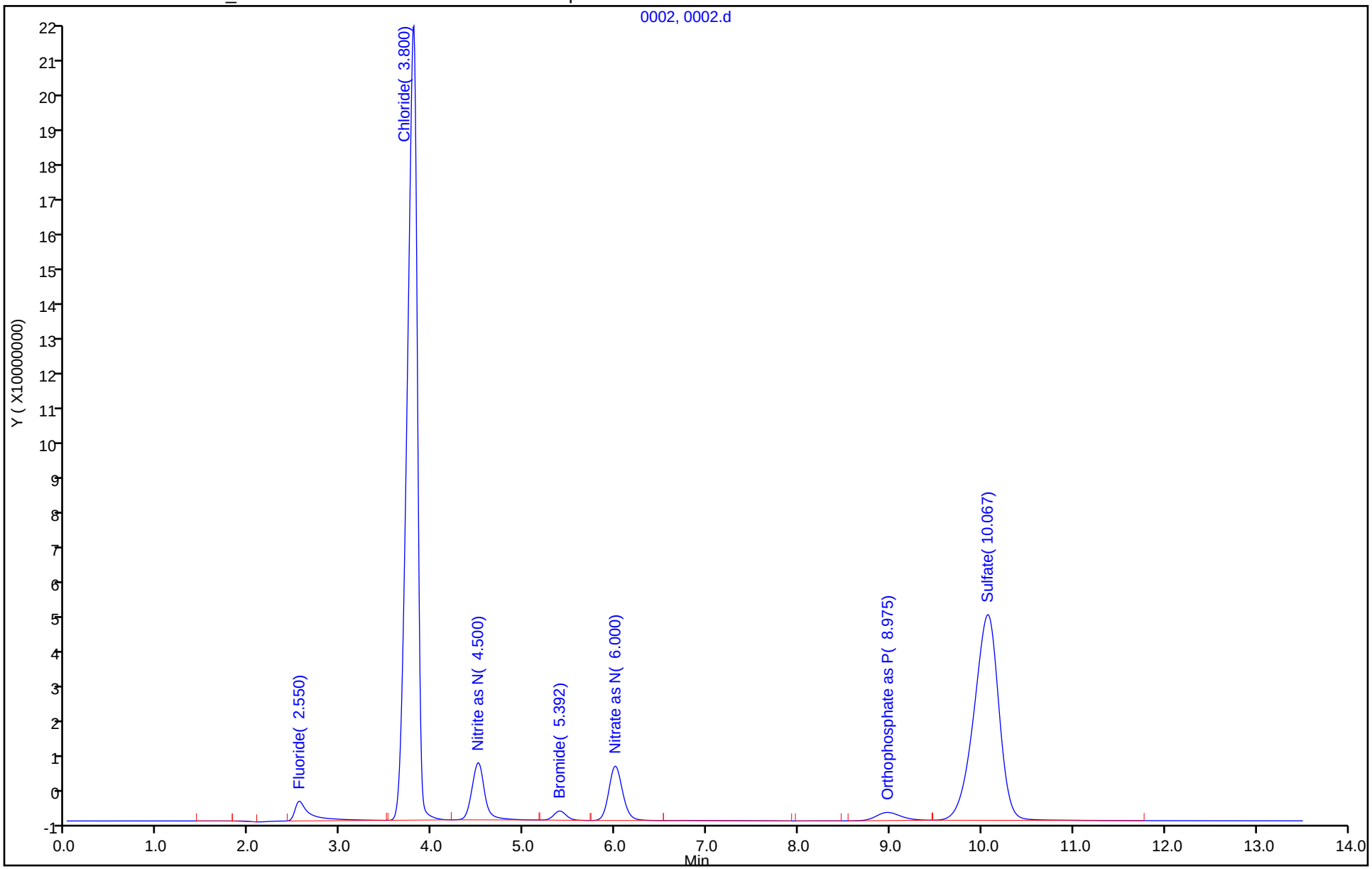
IC LCS_01879 Amount Added: 5.00 Units: mL

Report Date: 02-Jun-2022 11:52:56 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0002.d

Injection Date:	01-Jun-2022 11:09:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

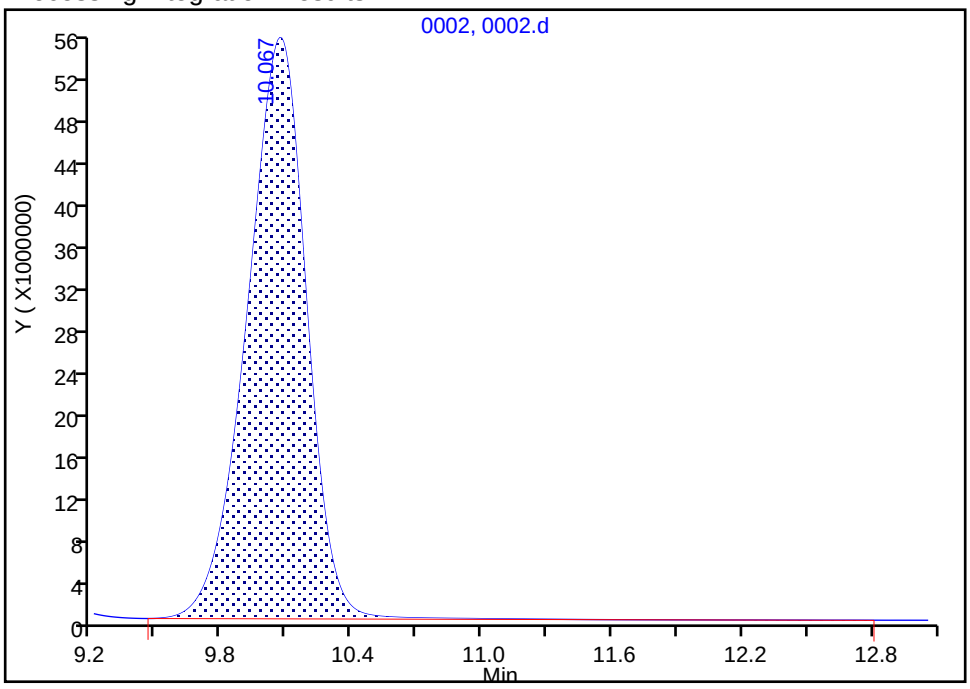
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0002.d				
Injection Date:	01-Jun-2022 11:09:00	Instrument ID:	WC_IonChrom11		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

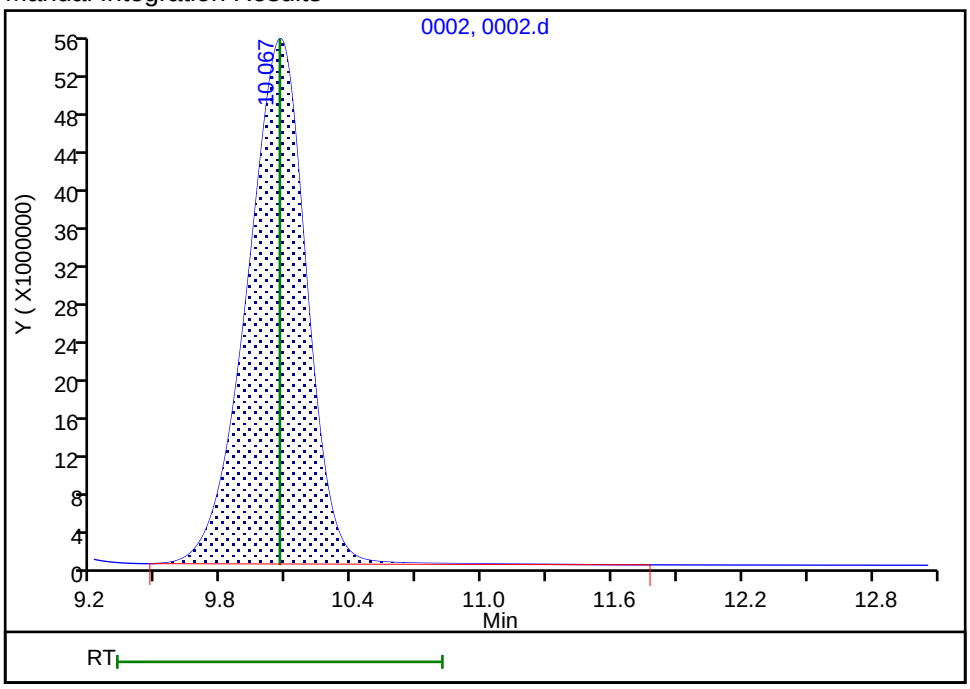
Processing Integration Results

RT: 10.07
Area: 1044547209
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 10.07
Area: 1044051146
Amount: 98.755728
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:29:39
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0003.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 01-Jun-2022 11:25:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111492-002
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:52:56 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 01-Jun-2022 12:24:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.550				ND	U
2 Chloride	3.708	3.708	0.000	566556		0.7034	M
3 Nitrite as N		4.500				ND	
4 Bromide		5.392				ND	
5 Nitrate as N	6.025	6.025	0.000	165543		NC	
7 Orthophosphate as P		8.975				ND	U
6 Sulfate	9.950	9.950	0.000	771865		0.6444	

QC Flag Legend

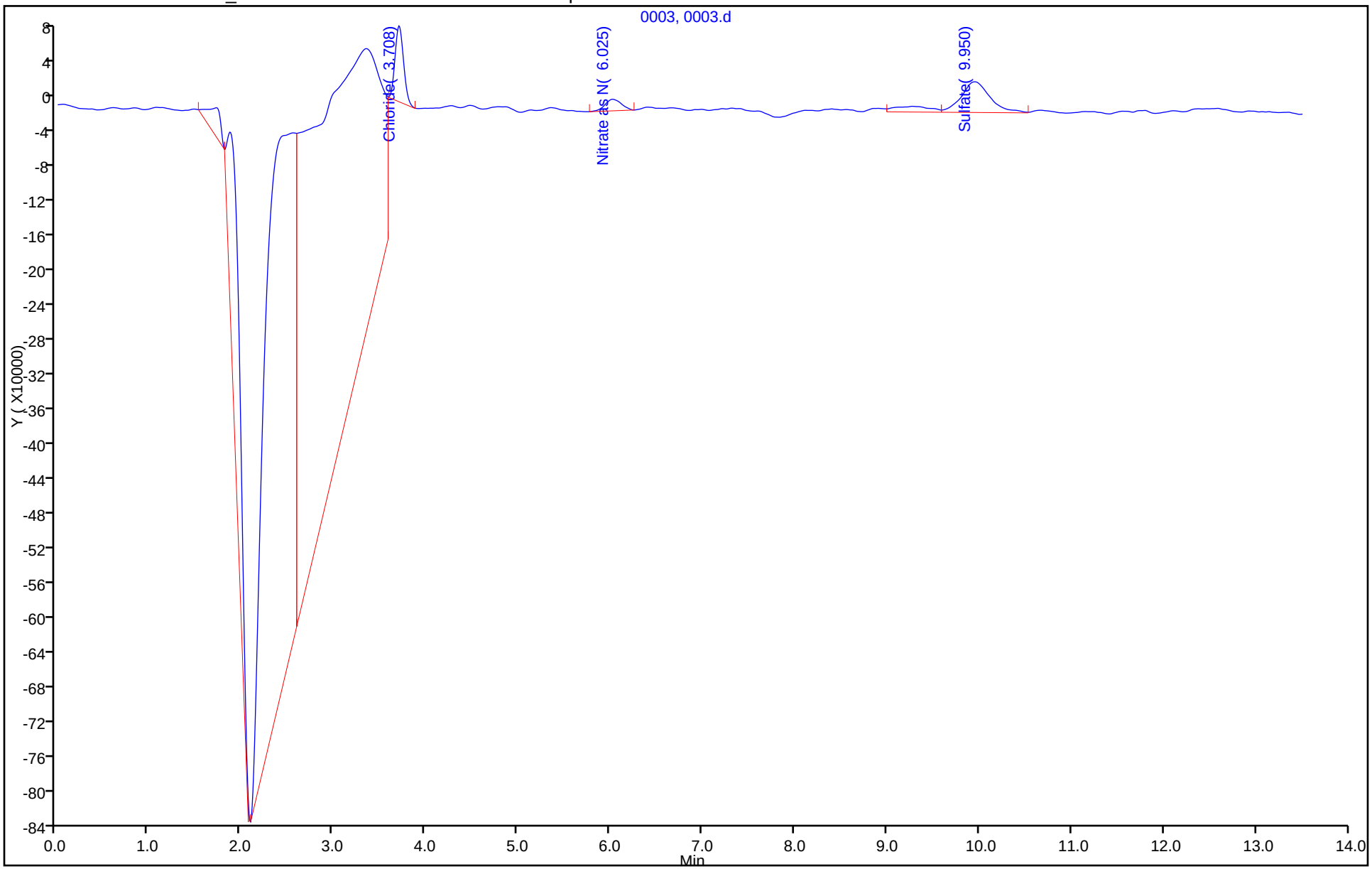
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 02-Jun-2022 11:52:56 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0003.d

Injection Date:	01-Jun-2022 11:25:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0004.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 01-Jun-2022 11:41:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111492-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:52:57 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 01-Jun-2022 12:25:04

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.550	2.550	0.000	3997199	0.5000	0.3540	M
2 Chloride	3.725	3.725	0.000	54739733	5.00	4.00	M
3 Nitrite as N	4.483	4.483	0.000	12585217	NC	NC	
4 Bromide	5.417	5.417	0.000	2245093	0.5000	0.4816	
5 Nitrate as N	6.033	6.033	0.000	13029682	NC	NC	
7 Orthophosphate as P	9.017	9.017	0.000	2887656	NC	NC	
6 Sulfate	9.950	9.950	0.000	37169300	5.00	4.07	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

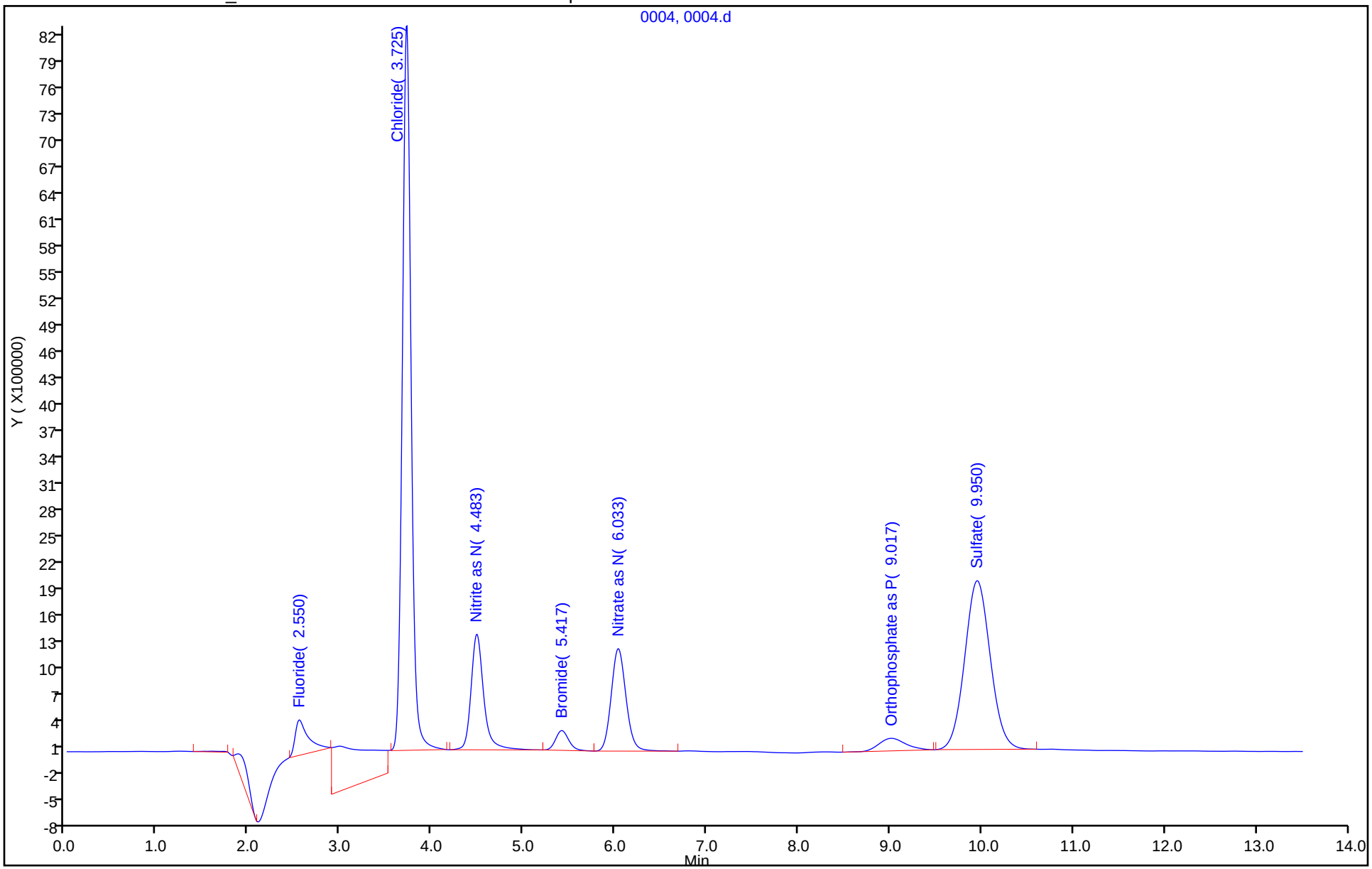
IC Cal low_00642 Amount Added: 0.05 Units: mL
IC CAL cl/so4_00424 Amount Added: 0.10 Units: mL

Report Date: 02-Jun-2022 11:52:57 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0004.d

Injection Date:	01-Jun-2022 11:41:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

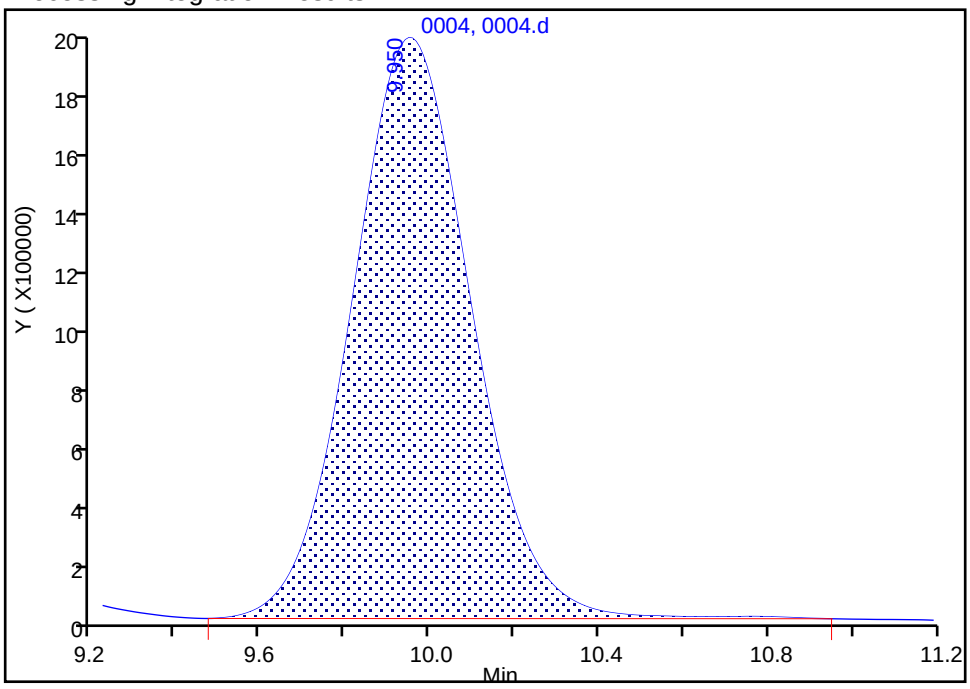
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0004.d
Injection Date: 01-Jun-2022 11:41:00 Instrument ID: WC_IonChrom11
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

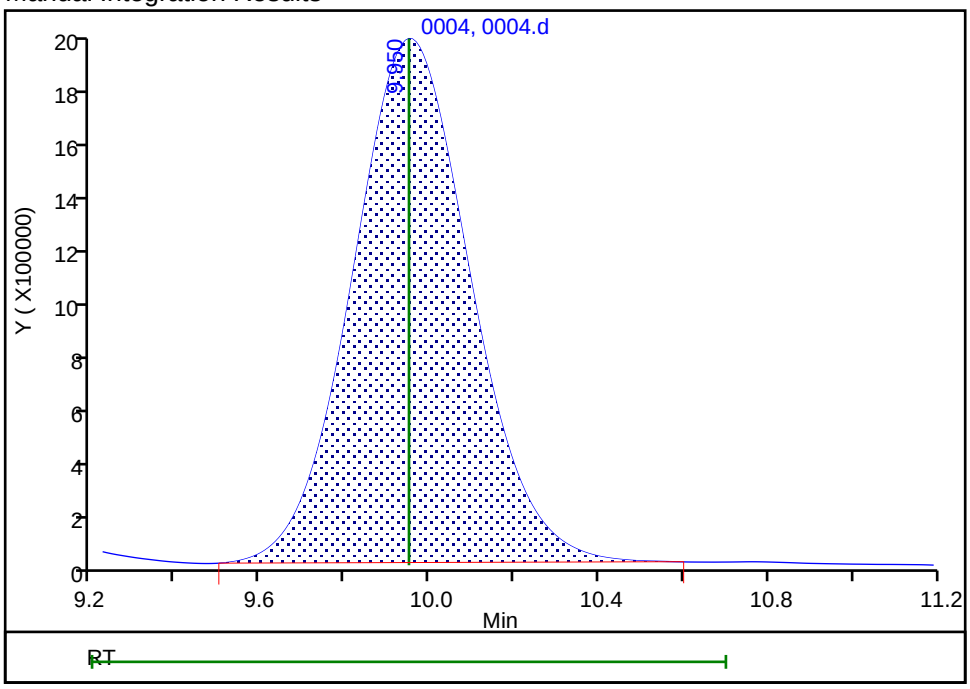
Processing Integration Results

RT: 9.95
Area: 37565892
Amount: 4.104580
Amount Units: ug/ml



Manual Integration Results

RT: 9.95
Area: 37169300
Amount: 4.067284
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 12:24:56
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0005.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 01-Jun-2022 11:57:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111492-004
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:52:57 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 01-Jun-2022 12:25:38

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.550	2.550	0.000	61908899	5.00	4.74	M
2 Chloride	3.800	3.800	0.000	1639417624	100.0	100.5	
3 Nitrite as N	4.517	4.517	0.000	146806416	NC	NC	
4 Bromide	5.417	5.417	0.000	23241189	5.00	4.95	
5 Nitrate as N	6.025	6.025	0.000	151406322	NC	NC	
7 Orthophosphate as P	8.975	8.975	0.000	40855496	NC	NC	
6 Sulfate	10.058	10.058	0.000	1038833553	100.0	98.3	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

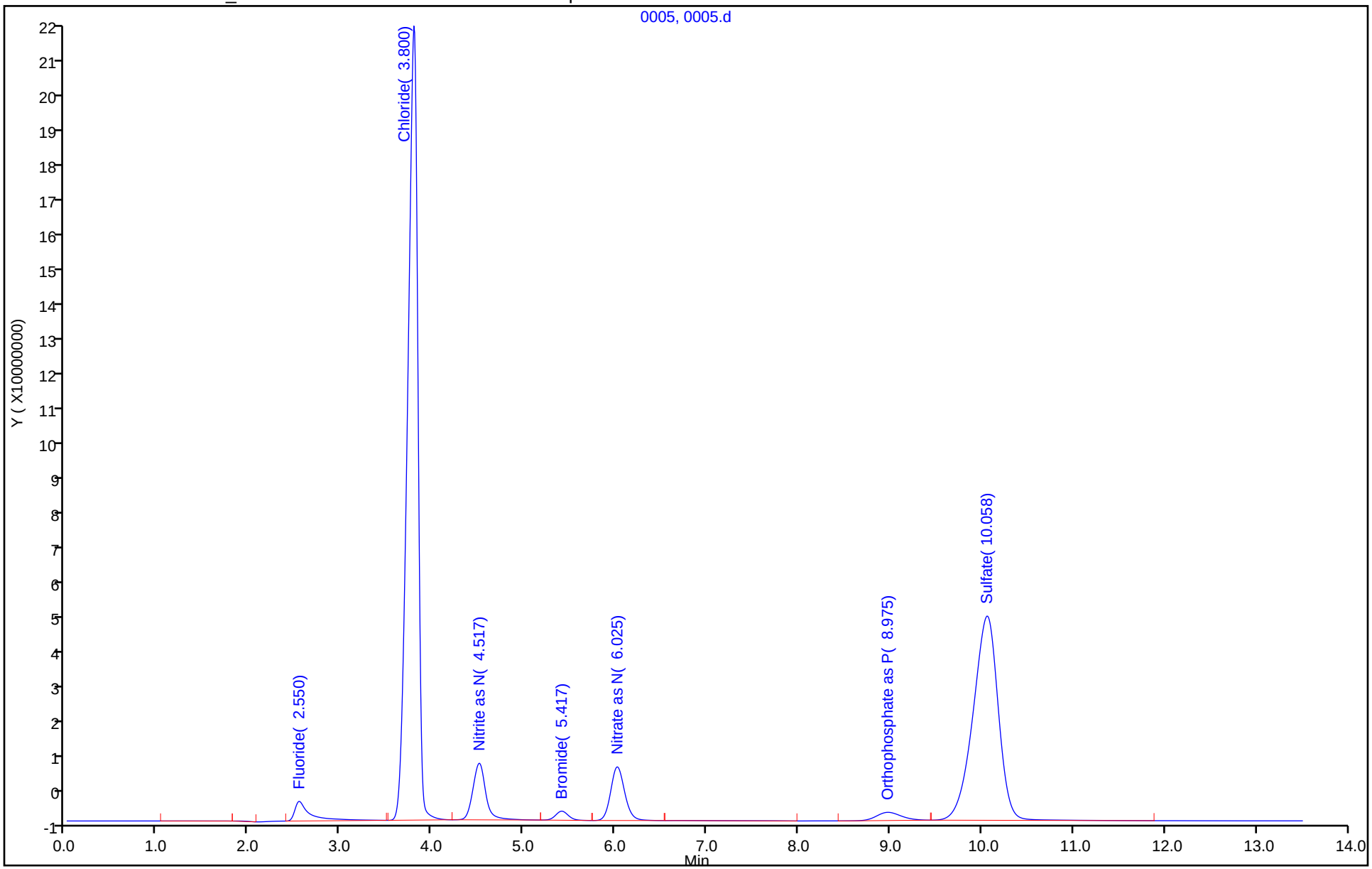
IC LCS_01879 Amount Added: 5.00 Units: mL

Report Date: 02-Jun-2022 11:52:57 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0005.d

Injection Date:	01-Jun-2022 11:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

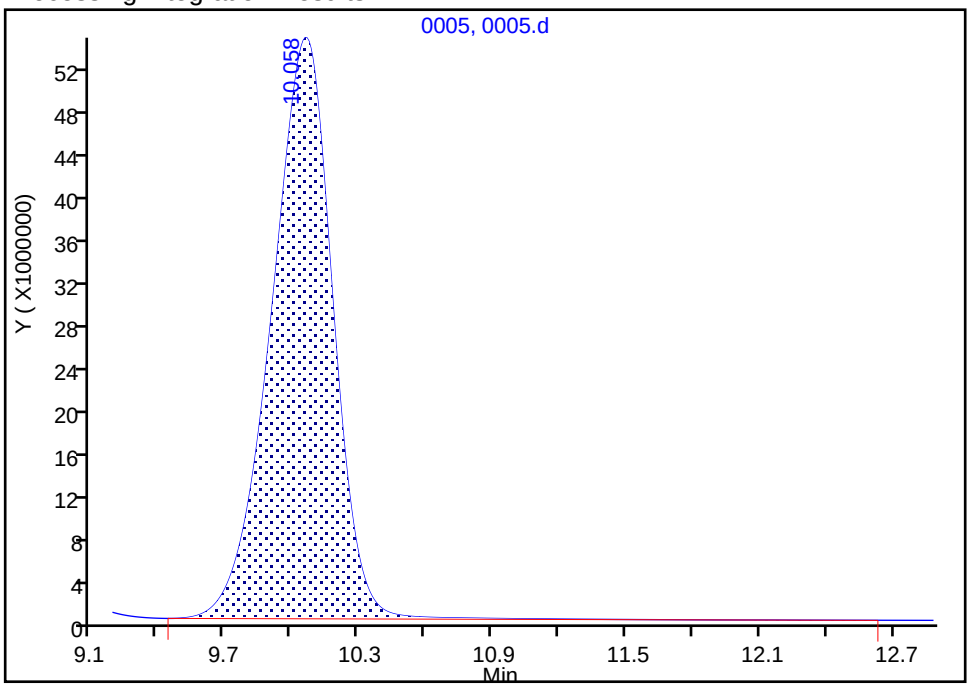
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0005.d
Injection Date: 01-Jun-2022 11:57:00 Instrument ID: WC_IonChrom11
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

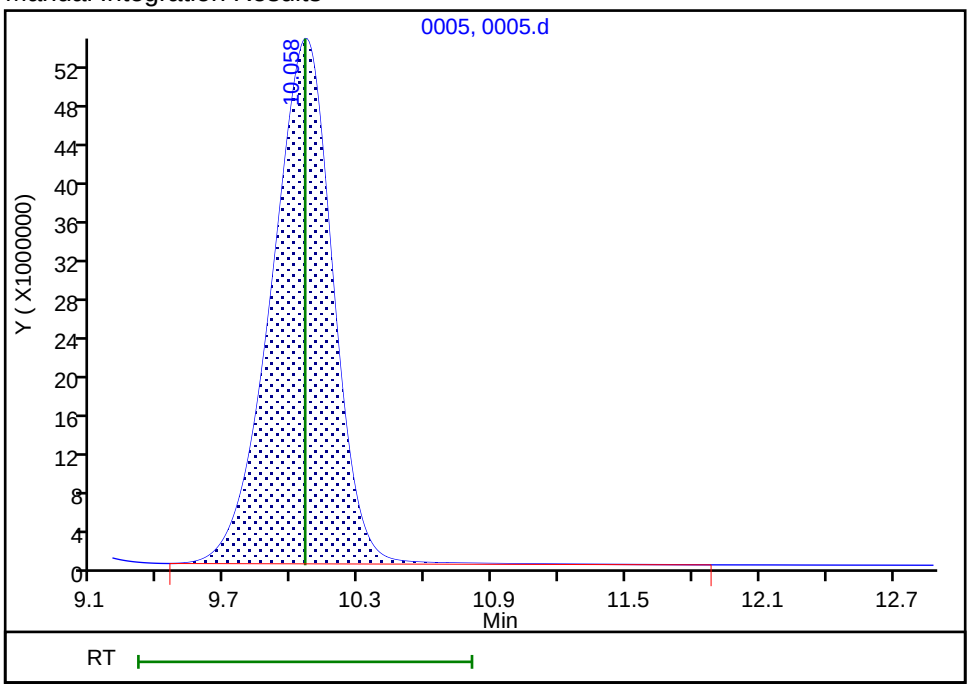
Processing Integration Results

RT: 10.06
Area: 1039060093
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 10.06
Area: 1038833553
Amount: 98.265059
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 12:25:28
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0006.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 01-Jun-2022 12:13:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111492-005
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:52:58 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 01-Jun-2022 12:37:30

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.550	2.550	0.000	61957599	5.00	4.75	M
2 Chloride	3.808	3.808	0.000	1632135685	100.0	100.0	
3 Nitrite as N	4.517	4.517	0.000	146793776	NC	NC	
4 Bromide	5.425	5.425	0.000	23188067	5.00	4.94	
5 Nitrate as N	6.025	6.025	0.000	150822327	NC	NC	
7 Orthophosphate as P	8.983	8.983	0.000	41232492	NC	NC	
6 Sulfate	10.067	10.067	0.000	1033144108	100.0	97.7	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

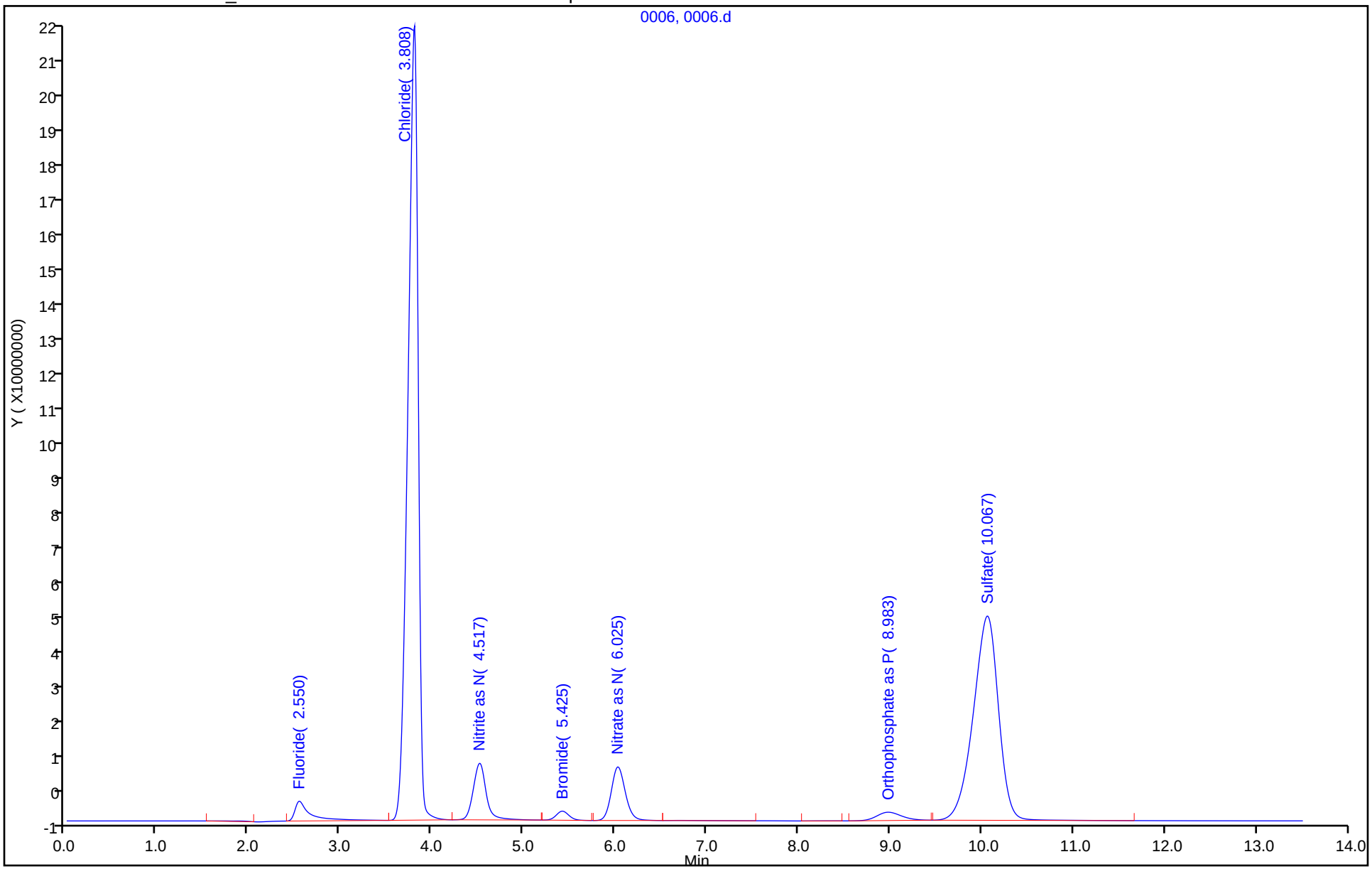
IC LCS_01879 Amount Added: 5.00 Units: mL

Report Date: 02-Jun-2022 11:52:58 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0006.d

Injection Date:	01-Jun-2022 12:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

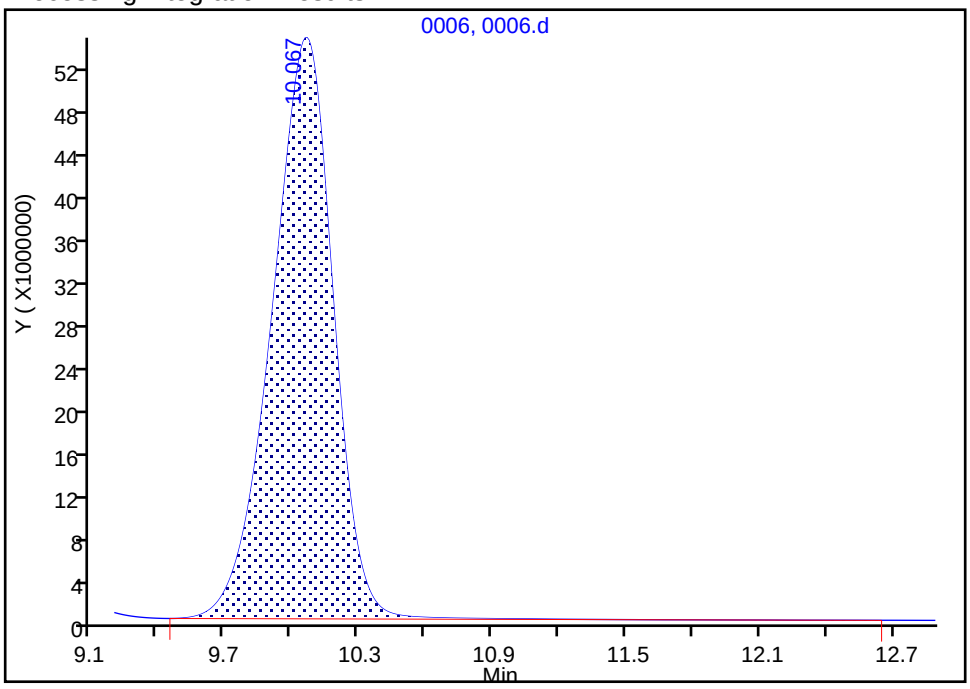
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0006.d
Injection Date: 01-Jun-2022 12:13:00 Instrument ID: WC_IonChrom11
Lims ID: LCSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

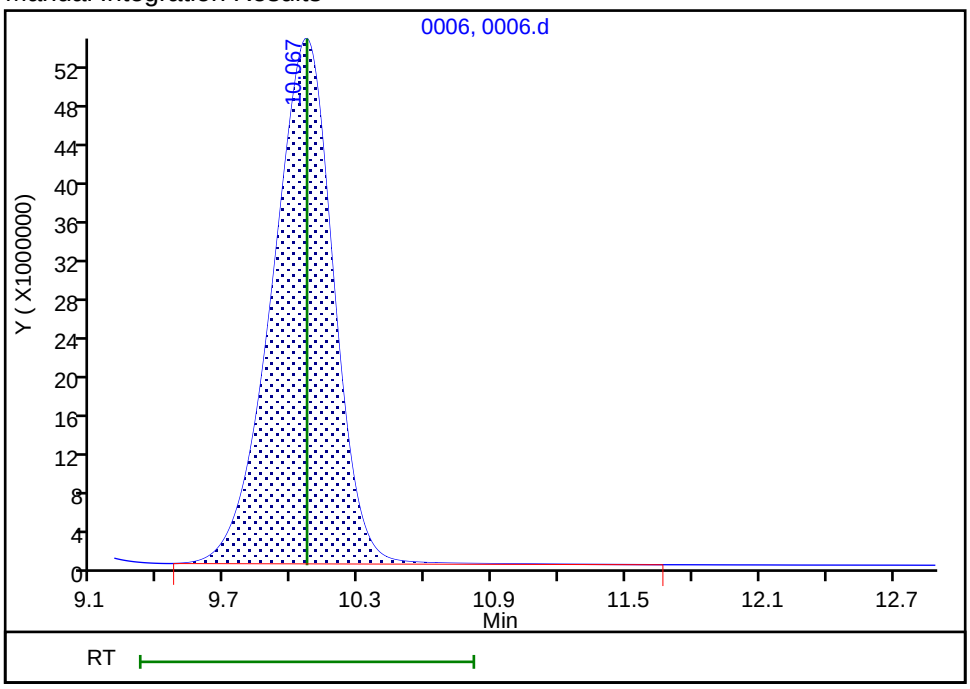
Processing Integration Results

RT: 10.07
Area: 1033243688
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 10.07
Area: 1033144108
Amount: 97.730016
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 12:37:21
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0007.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 01-Jun-2022 12:28:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111492-006
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:52:58 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 01-Jun-2022 12:50:10

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	60808		0.0558	M
2 Chloride	3.725	3.725	0.000	35259		0.6711	M
3 Nitrite as N		4.517				ND	
4 Bromide		5.425				ND	
5 Nitrate as N	6.050	6.050	0.000	110149		NC	
7 Orthophosphate as P		8.983				ND	
6 Sulfate		10.067				ND	

QC Flag Legend

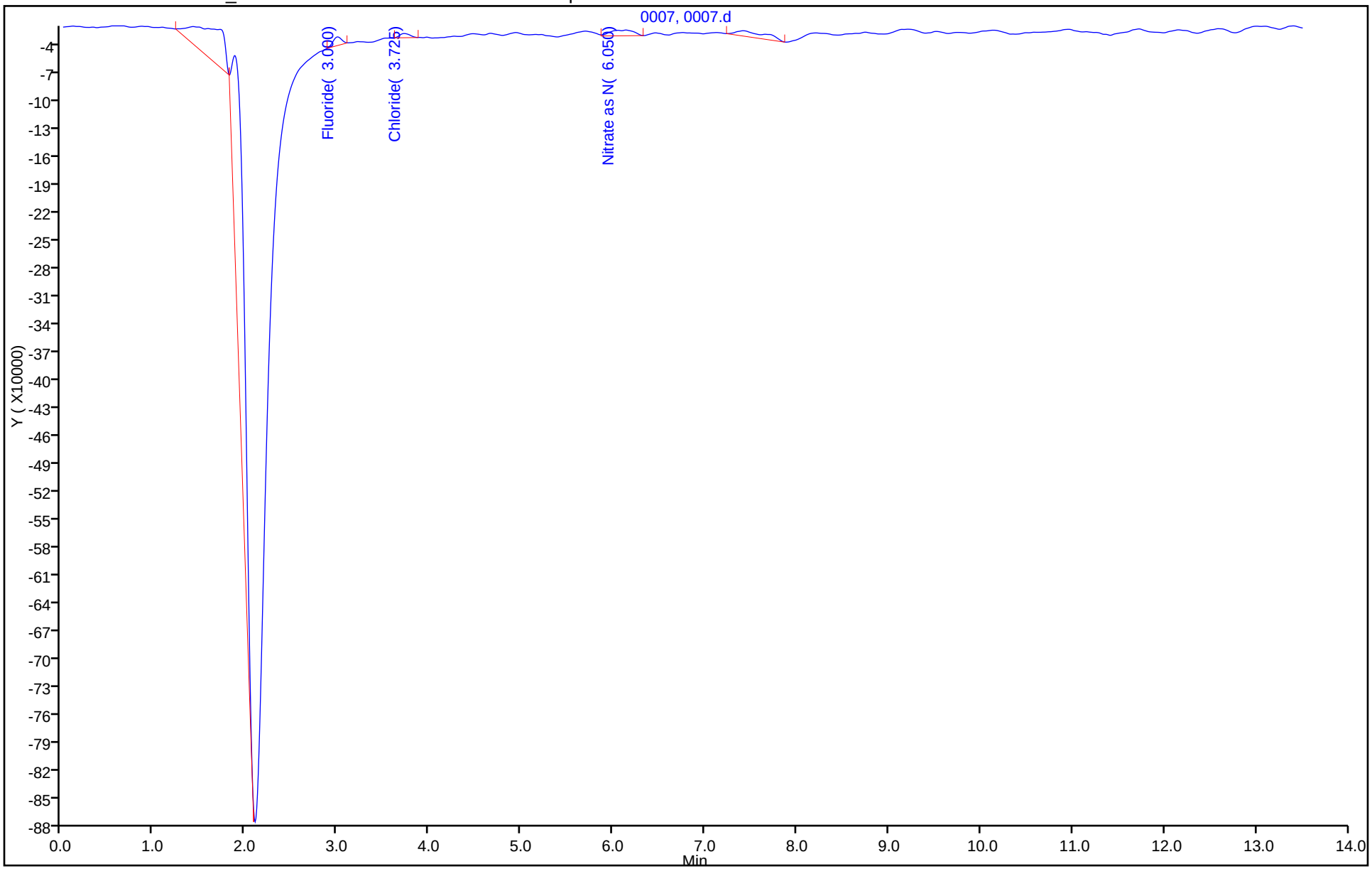
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 02-Jun-2022 11:52:58 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0007.d

Injection Date:	01-Jun-2022 12:28:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0016.d
Lims ID: 280-162386-F-3
Client ID: G0117-22A
Sample Type: Client
Inject. Date: 01-Jun-2022 15:12:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111492-016
Misc. Info.: 2574
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:52:58 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 01-Jun-2022 16:05:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.000			ND	U
2 Chloride	3.733	3.725	0.008	178472597	11.5	M
3 Nitrite as N		4.517			ND	U
4 Bromide	5.467	5.425	0.042	422039	0.0938	M
5 Nitrate as N		6.050			ND	U
7 Orthophosphate as P		8.983			ND	U
6 Sulfate	10.042	10.067	-0.025	804249207	76.2	M

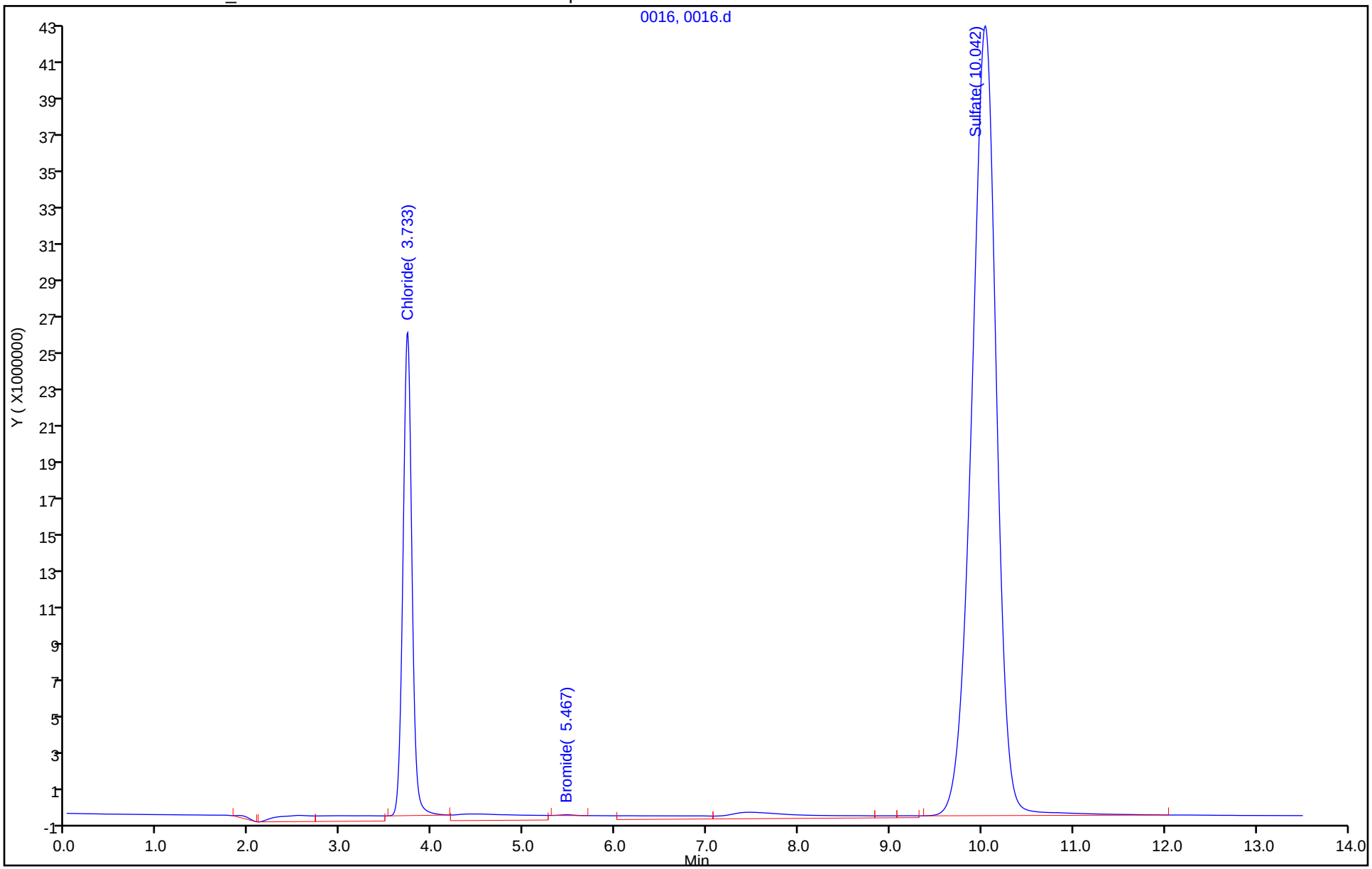
QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 02-Jun-2022 11:53:03 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0016.d				
Injection Date:	01-Jun-2022 15:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-162386-F-3	Lab Sample ID:	280-162386-3	Worklist Smp#:	16
Client ID:	G0117-22A				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

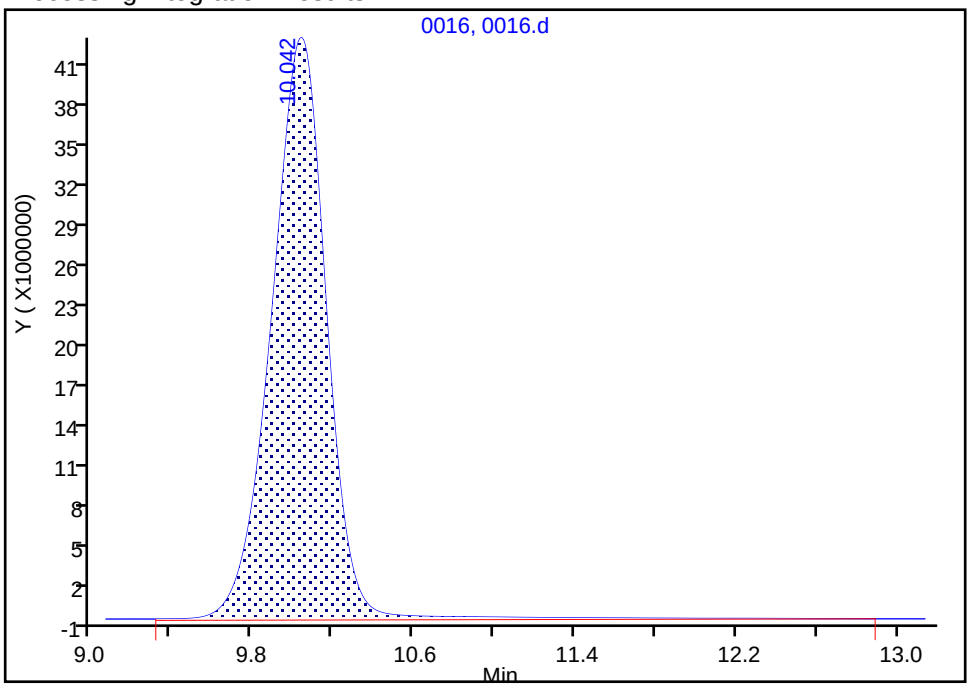
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0016.d
Injection Date: 01-Jun-2022 15:12:00 Instrument ID: WC_IonChrom11
Lims ID: 280-162386-F-3 Lab Sample ID: 280-162386-3
Client ID: G0117-22A
Operator ID: ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

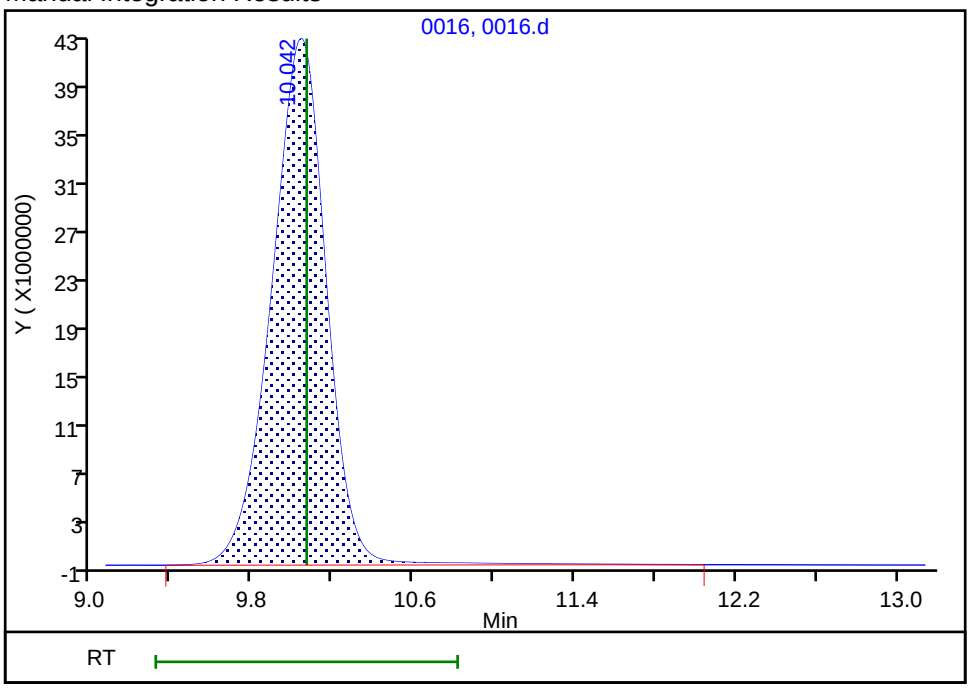
Processing Integration Results

RT: 10.04
Area: 817800750
Amount: 77.478854
Amount Units: ug/ml



Manual Integration Results

RT: 10.04
Area: 804249207
Amount: 76.204450
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 16:04:39
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0017.d
Lims ID: 280-162386-F-3 DU
Client ID:
Sample Type: DU
Inject. Date: 01-Jun-2022 15:28:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111492-017
Misc. Info.: 11090
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:52:58 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 01-Jun-2022 16:06:07

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.000				ND	U
2 Chloride	3.725	3.725	0.000	178515638		11.5	M
3 Nitrite as N		4.517				ND	U
4 Bromide	5.467	5.425	0.042	404380		0.0900	M
5 Nitrate as N		6.050				ND	U
7 Orthophosphate as P		8.983				ND	U
6 Sulfate	10.042	10.067	-0.025	802798016		76.1	M

QC Flag Legend

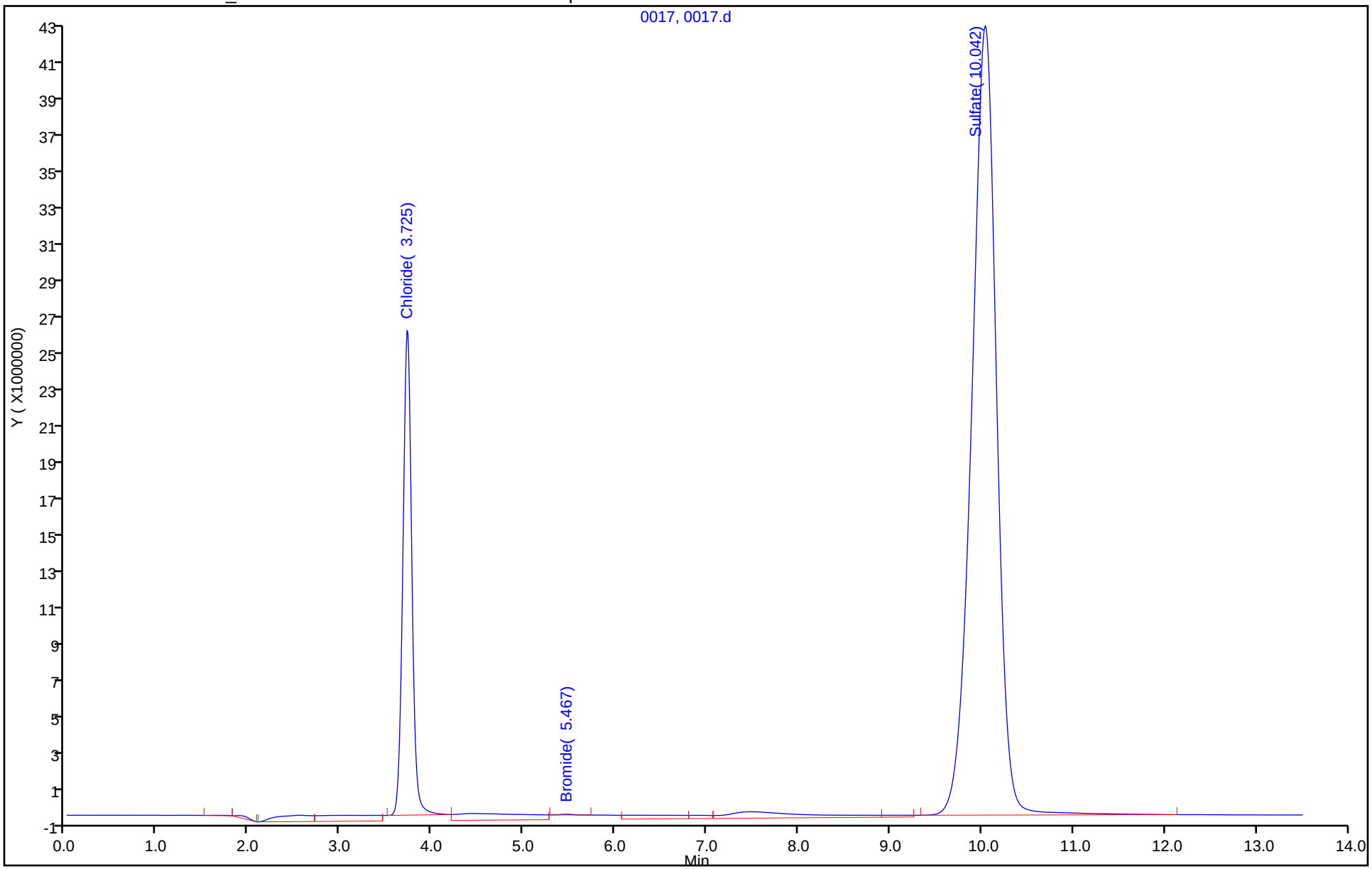
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 02-Jun-2022 11:53:03 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0017.d

Injection Date:	01-Jun-2022 15:28:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-162386-F-3 DU			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

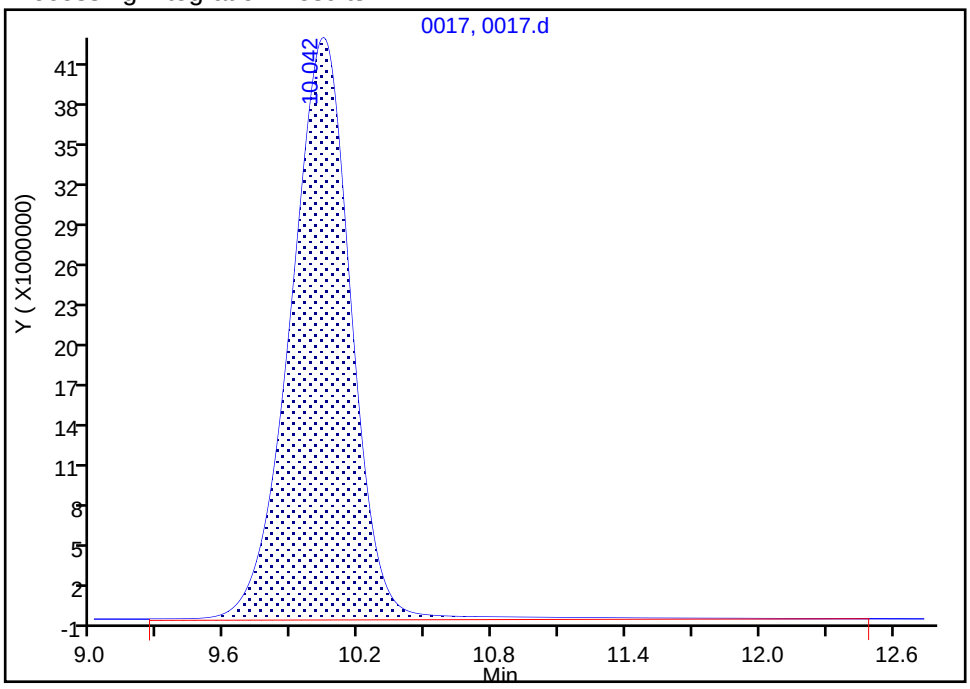
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0017.d
Injection Date: 01-Jun-2022 15:28:00 Instrument ID: WC_IonChrom11
Lims ID: 280-162386-F-3 DU
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

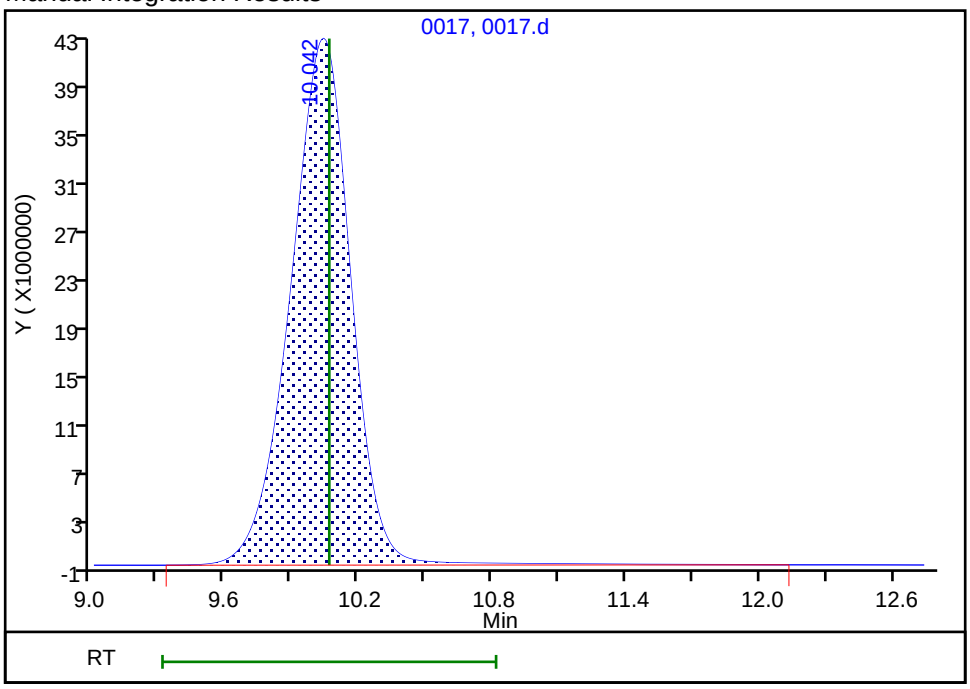
Processing Integration Results

RT: 10.04
Area: 812349637
Amount: 76.966225
Amount Units: ug/ml



Manual Integration Results

RT: 10.04
Area: 802798016
Amount: 76.067978
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 16:06:04
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0018.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 01-Jun-2022 15:44:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111492-018
Misc. Info.: 11007
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub5

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:53:04 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 01-Jun-2022 16:06:36

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.550	3.000	-0.450	62013201	5.00	4.75	M
2 Chloride	3.800	3.725	0.075	1646651137	100.0	100.9	
3 Nitrite as N	4.508	4.517	-0.009	147326768	NC	NC	
4 Bromide	5.408	5.425	-0.017	23315400	5.00	4.96	
5 Nitrate as N	6.017	6.050	-0.033	151758399	NC	NC	
7 Orthophosphate as P	8.942	8.983	-0.041	41717444	NC	NC	
6 Sulfate	10.025	10.067	-0.042	1039107706	100.0	98.3	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

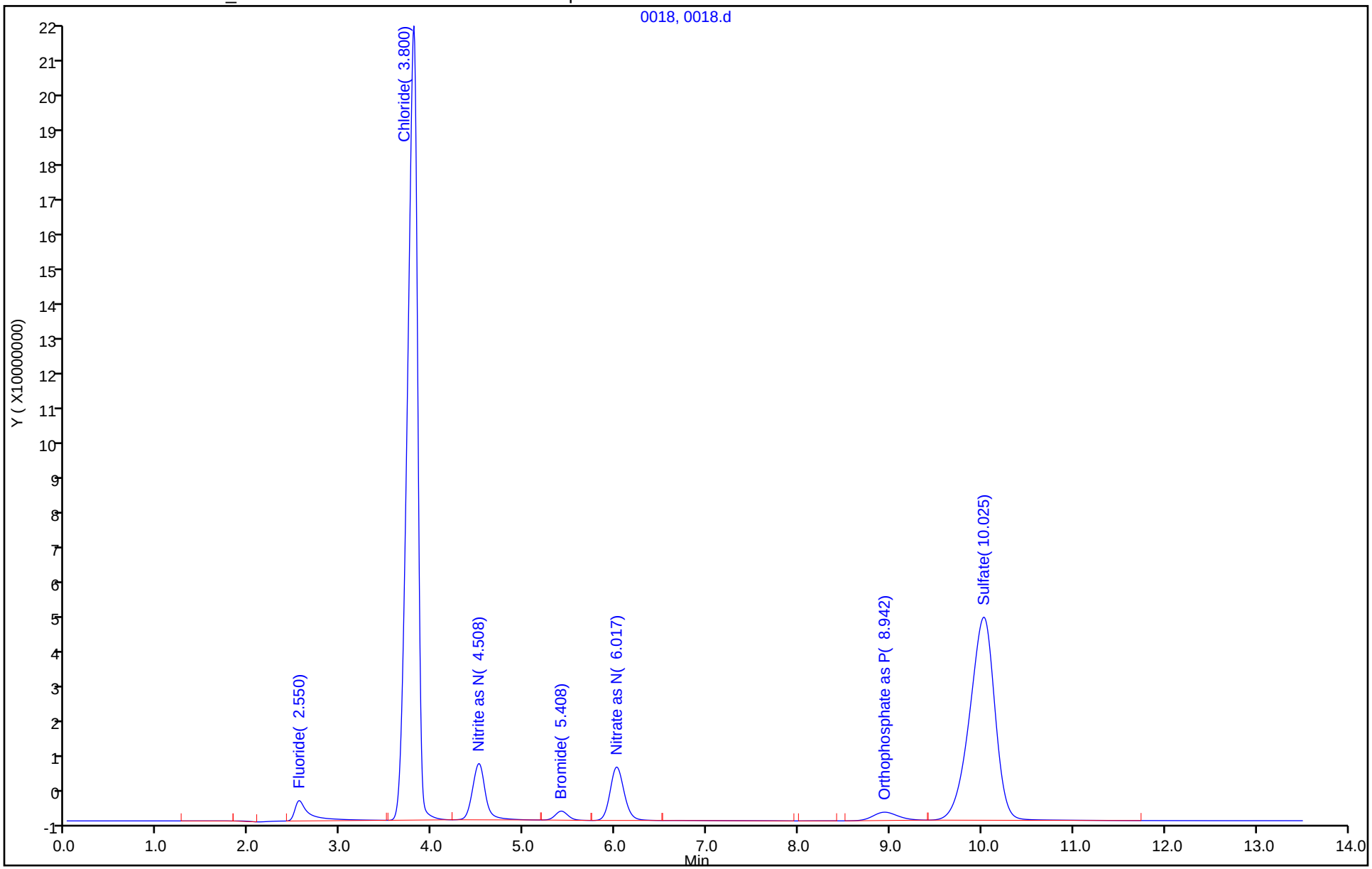
IC LCS_01879 Amount Added: 5.00 Units: mL

Report Date: 02-Jun-2022 11:53:04 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0018.d

Injection Date:	01-Jun-2022 15:44:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

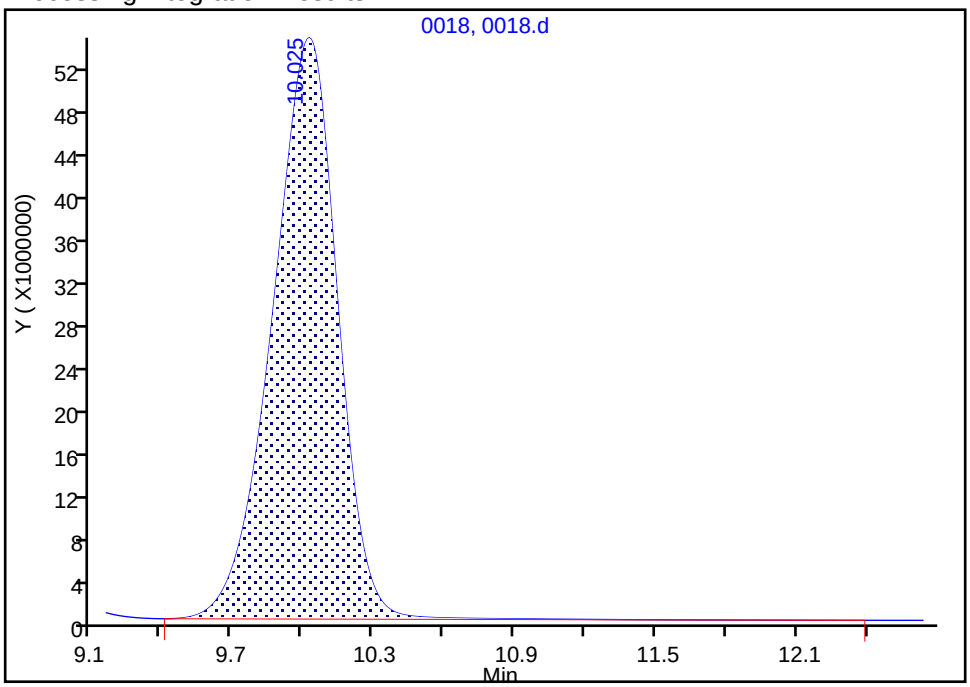
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0018.d
Injection Date: 01-Jun-2022 15:44:00 Instrument ID: WC_IonChrom11
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

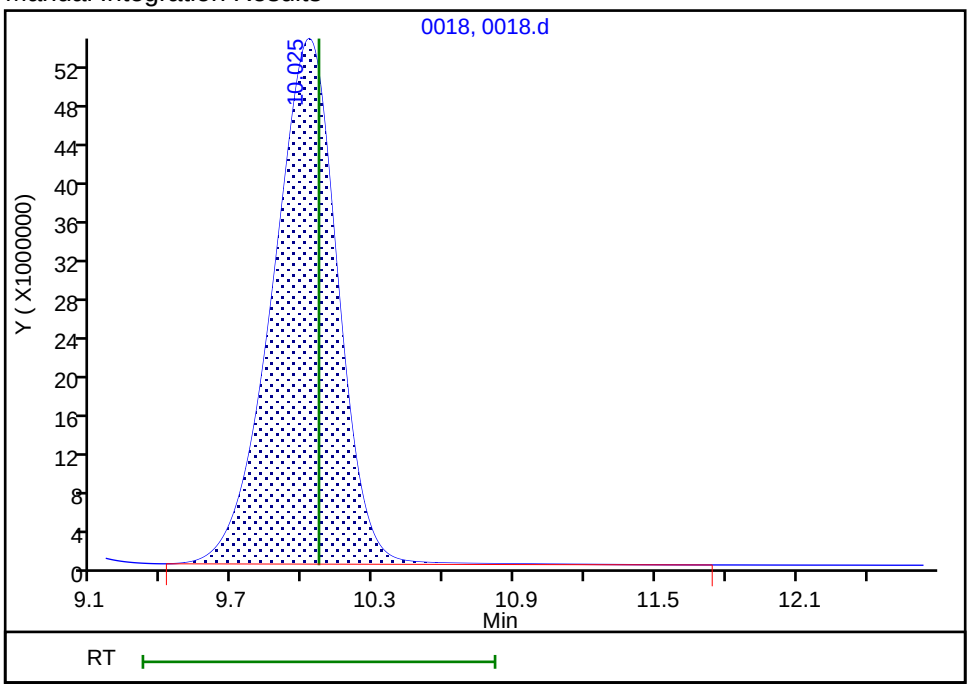
Processing Integration Results

RT: 10.03
Area: 1039250888
Amount: 98.304306
Amount Units: ug/ml



Manual Integration Results

RT: 10.03
Area: 1039107706
Amount: 98.290840
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 16:06:33
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0019.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	01-Jun-2022 16:00:00	ALS Bottle#:	0	Worklist Smp#:	19
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0111492-019				
Misc. Info.:	16958				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jun-2022 11:53:04	Calib Date:	26-May-2022 11:57:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d				
Column 1 :			Det: 0005		
Process Host:	CTX1617				
First Level Reviewer: foxr		Date:	02-Jun-2022 11:35:21		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.000				ND	U
2 Chloride		3.725				ND	U
3 Nitrite as N		4.517				ND	
4 Bromide		5.425				ND	
5 Nitrate as N		6.050				ND	
7 Orthophosphate as P		8.983				ND	
6 Sulfate		10.067				ND	

QC Flag Legend

Processing Flags

Review Flags

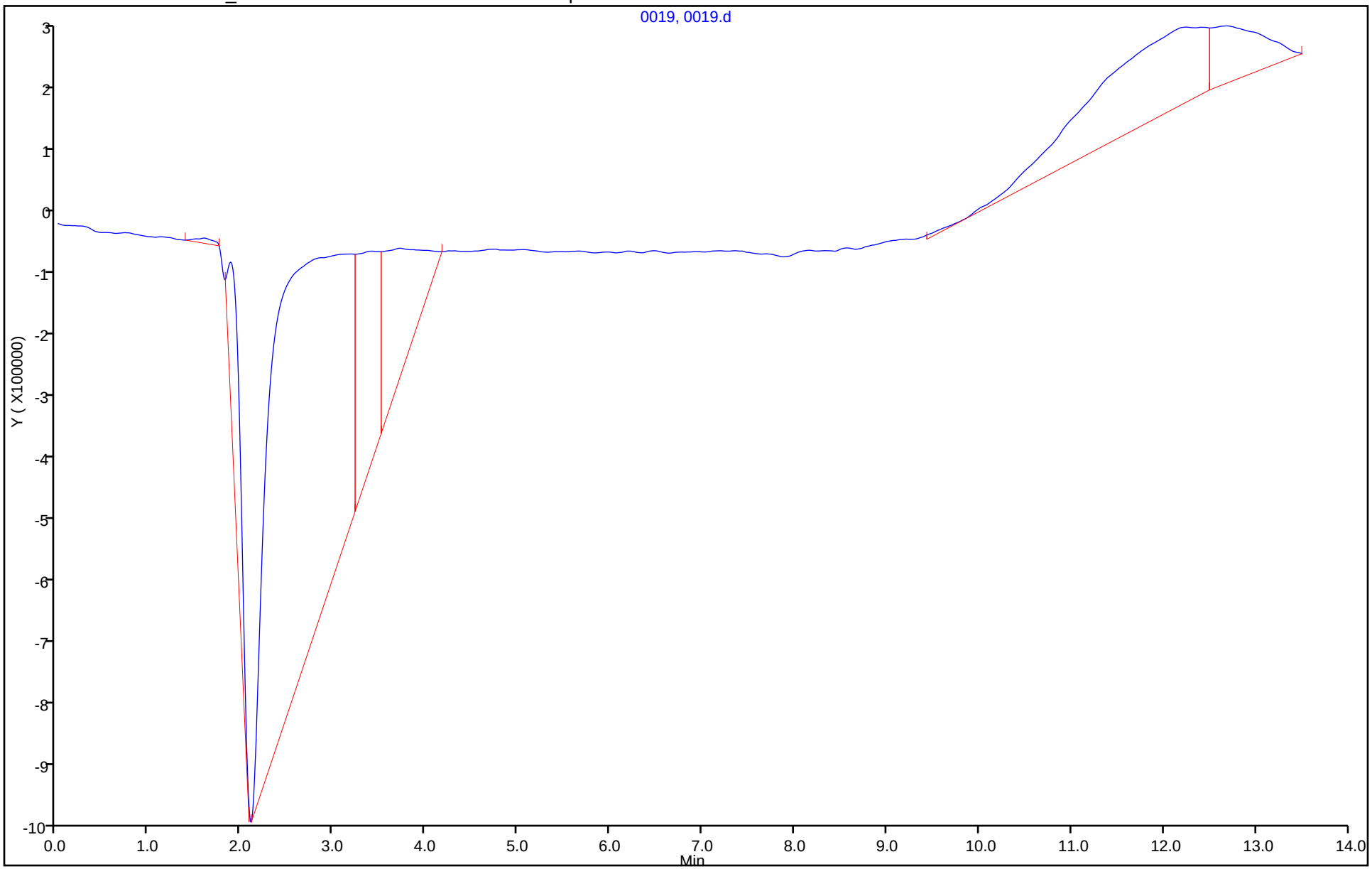
U - Marked Undetected

Report Date: 02-Jun-2022 11:53:04 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0019.d

Injection Date:	01-Jun-2022 16:00:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	19
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0020.d
Lims ID: 280-162386-F-3 MS
Client ID:
Sample Type: MS
Inject. Date: 01-Jun-2022 16:16:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111492-020
Misc. Info.: 14235
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:53:04 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.550	3.000	-0.450	60039988	1.00	4.60	
2 Chloride	3.767	3.725	0.042	1015381849	10.0	62.5	
3 Nitrite as N	4.525	4.517	0.008	131654566	NC	NC	
4 Bromide	5.458	5.425	0.033	22164697	1.00	4.72	
5 Nitrate as N	6.100	6.050	0.050	144092719	NC	NC	
7 Orthophosphate as P	8.975	8.983	-0.008	41406017	NC	NC	
6 Sulfate	10.108	10.067	0.041	1383717305	10.0	130.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

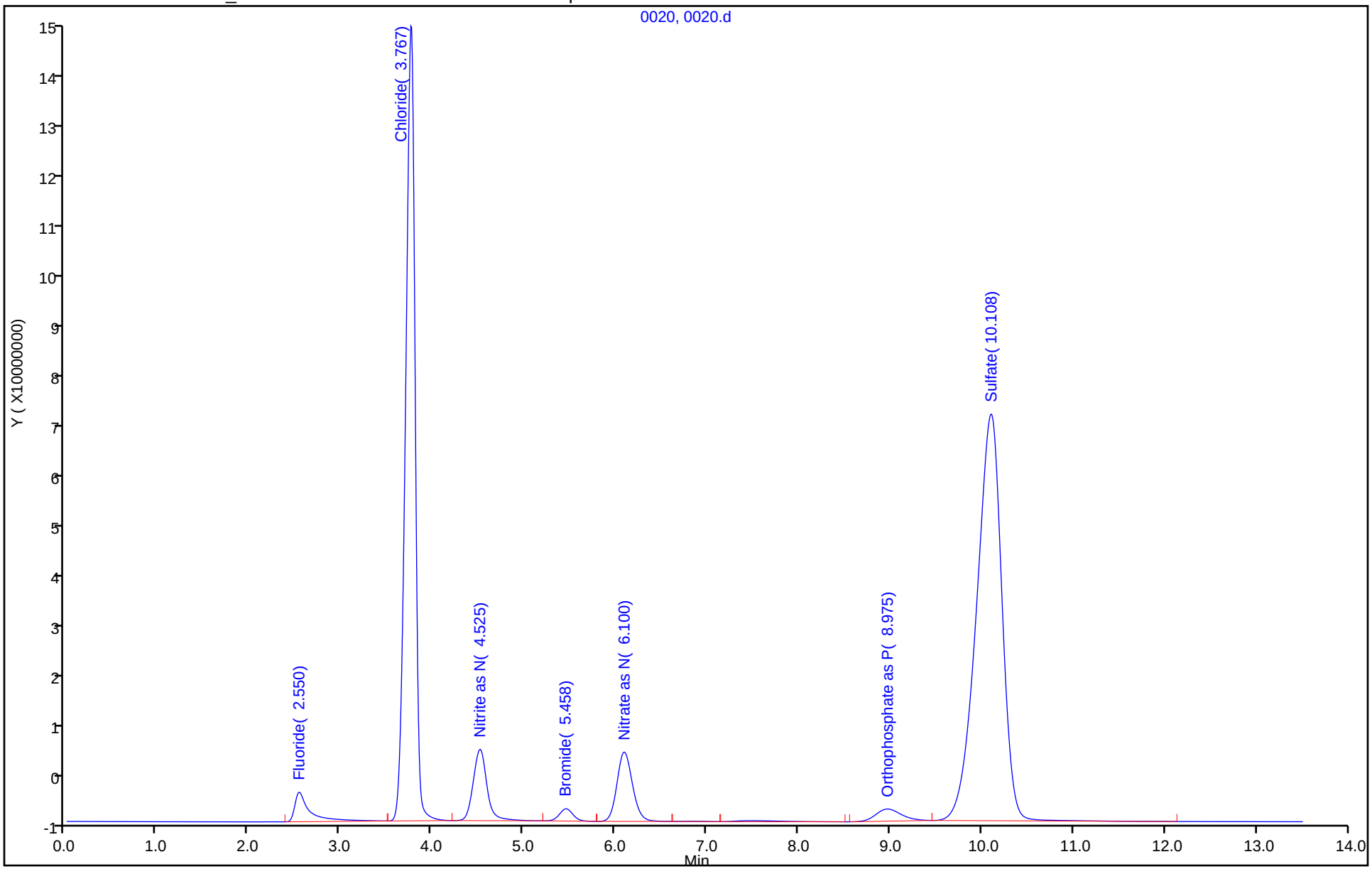
ICMS/MSD WEEK_00760 Amount Added: 0.05 Units: mL

Report Date: 02-Jun-2022 11:53:05 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0020.d

Injection Date:	01-Jun-2022 16:16:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-162386-F-3 MS			Worklist Smp#:	20
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0021.d
Lims ID: 280-162386-F-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 01-Jun-2022 16:32:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111492-021
Misc. Info.: 27745
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:53:04 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 02-Jun-2022 11:35:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.550	3.000	-0.450	60455044	1.00	4.63	
2 Chloride	3.775	3.725	0.050	1021069519	10.0	62.8	
3 Nitrite as N	4.525	4.517	0.008	132285989	NC	NC	
4 Bromide	5.467	5.425	0.042	22299700	1.00	4.75	
5 Nitrate as N	6.100	6.050	0.050	144944034	NC	NC	
7 Orthophosphate as P	8.975	8.983	-0.008	41904193	NC	NC	
6 Sulfate	10.108	10.067	0.041	1389846089	10.0	131.3	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

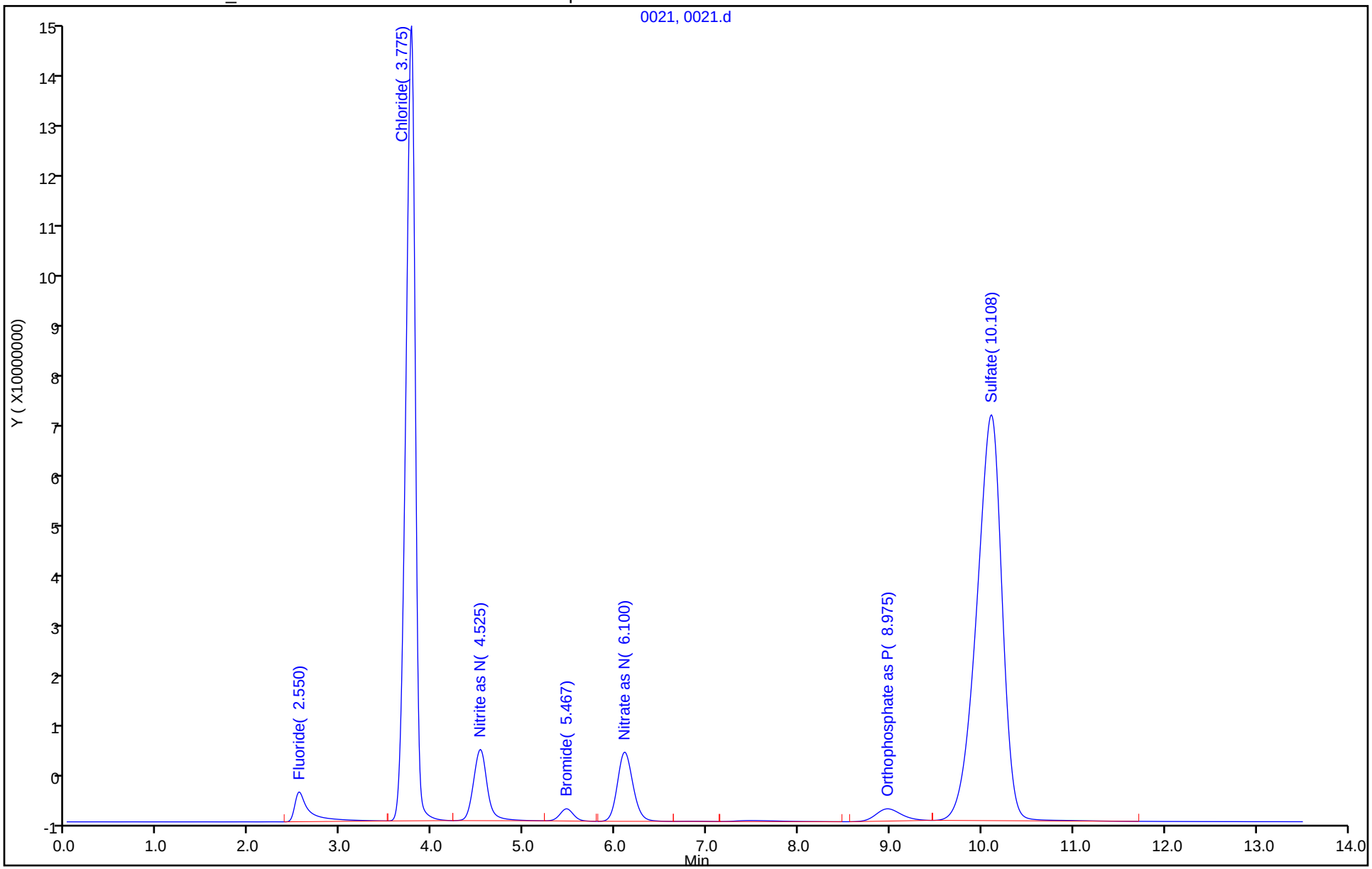
ICMS/MSD WEEK_00760 Amount Added: 0.05 Units: mL

Report Date: 02-Jun-2022 11:53:05 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0021.d

Injection Date:	01-Jun-2022 16:32:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-162386-F-3 MSD			Worklist Smp#:	21
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

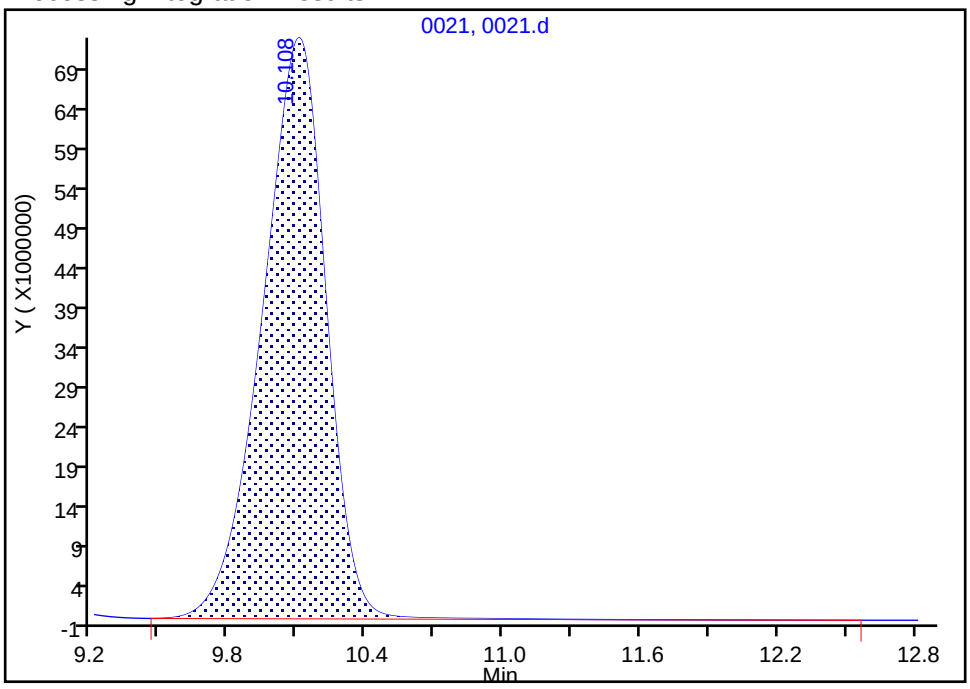
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0021.d
Injection Date: 01-Jun-2022 16:32:00 Instrument ID: WC_IonChrom11
Lims ID: 280-162386-F-3 MSD
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

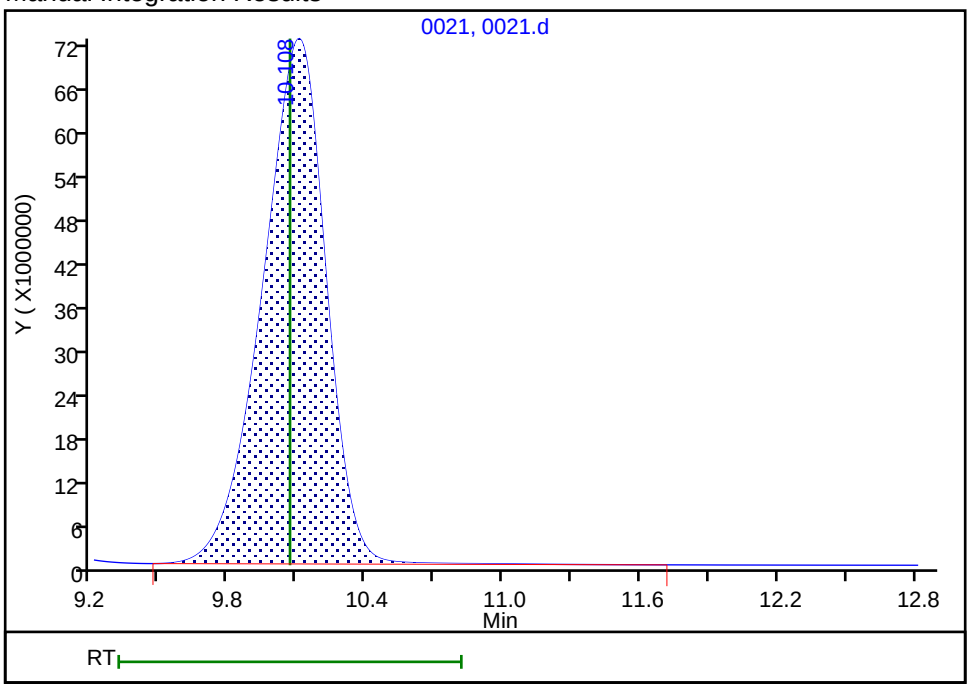
Processing Integration Results

RT: 10.11
Area: 1390313852
Amount: 131.3187
Amount Units: ug/ml



Manual Integration Results

RT: 10.11
Area: 1389846089
Amount: 131.2747
Amount Units: ug/ml



Reviewer: foxr, 02-Jun-2022 11:35:48
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0022.d
Lims ID: 280-162386-F-6
Client ID: G0116-22A
Sample Type: Client
Inject. Date: 01-Jun-2022 16:48:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111492-022
Misc. Info.: 31978
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:53:04 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 02-Jun-2022 11:36:14

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.025	3.000	0.025	14168656	1.12	
2 Chloride	3.733	3.725	0.008	206674610	13.2	
3 Nitrite as N	4.500	4.517	-0.017	22077004	NC	
4 Bromide	5.483	5.425	0.058	10401037	2.22	
5 Nitrate as N	6.175	6.050	0.125	3063975	NC	
7 Orthophosphate as P	9.033	8.983	0.050	7246539	NC	
6 Sulfate	10.025	10.067	-0.042	521701799	49.6	M

QC Flag Legend

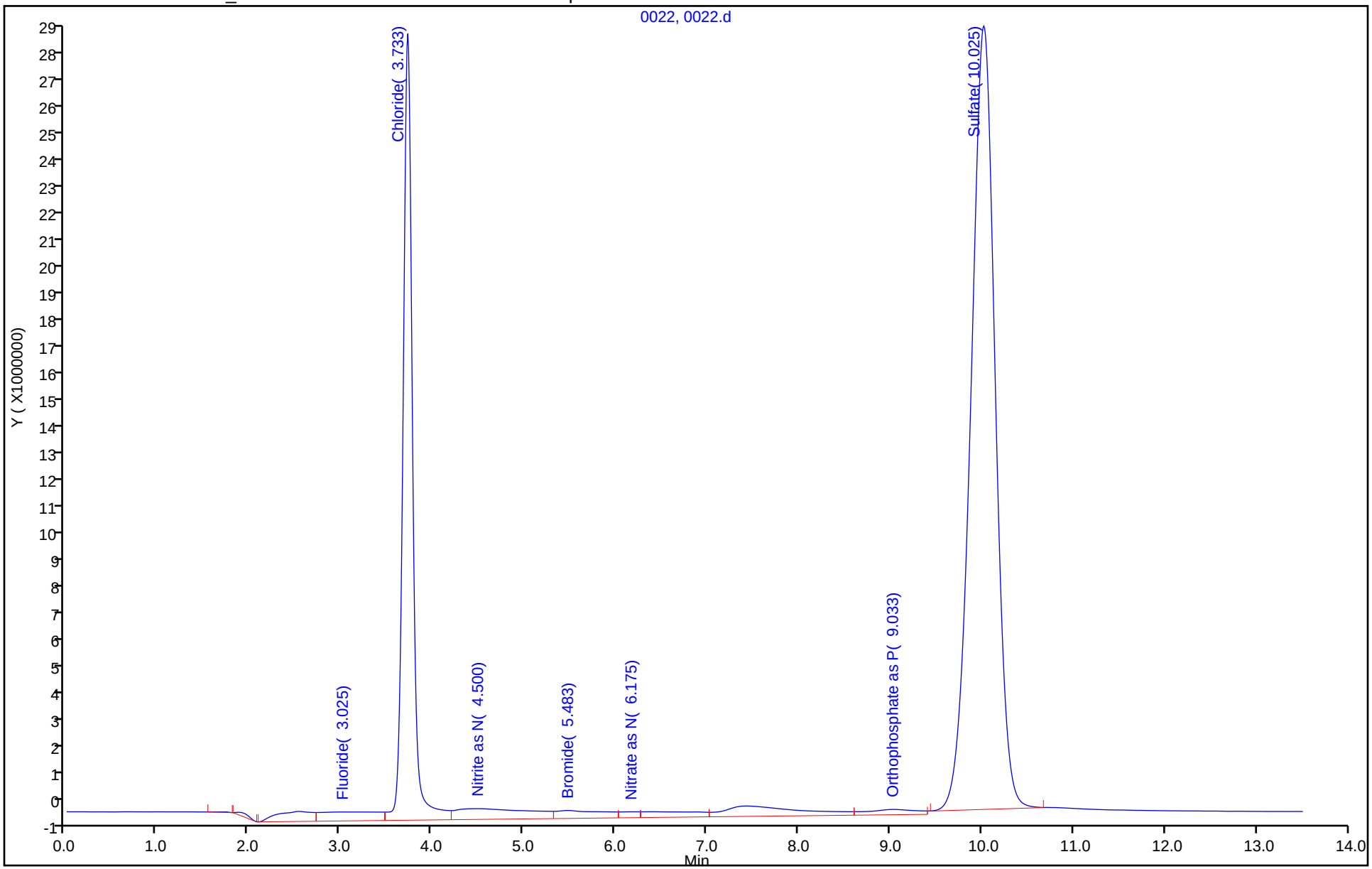
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 02-Jun-2022 11:53:06 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0022.d

Injection Date:	01-Jun-2022 16:48:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-162386-F-6	Lab Sample ID:	280-162386-6	Worklist Smp#:	22
Client ID:	G0116-22A				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

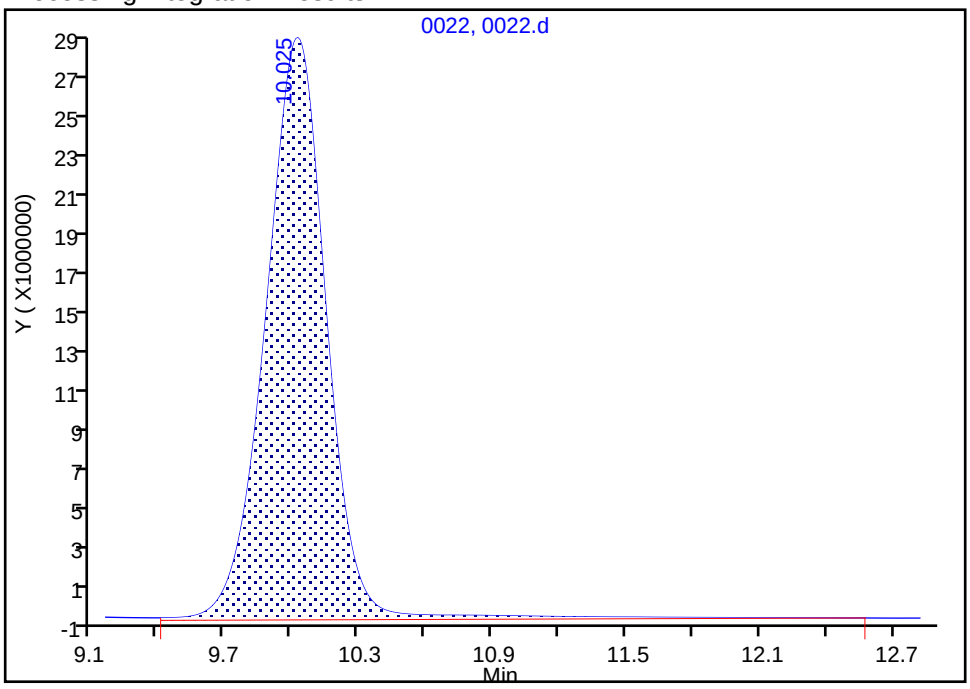
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0022.d				
Injection Date:	01-Jun-2022 16:48:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-162386-F-6	Lab Sample ID:	280-162386-6		
Client ID:	G0116-22A				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	22
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

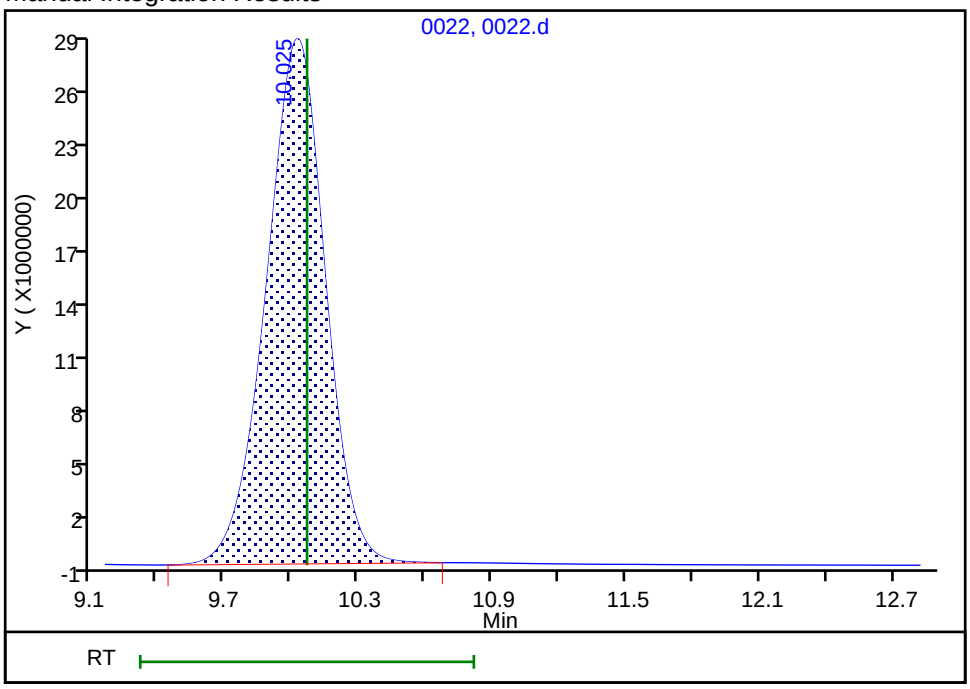
Processing Integration Results

RT: 10.03
Area: 542700602
Amount: 51.608088
Amount Units: ug/ml



Manual Integration Results

RT: 10.03
Area: 521701799
Amount: 49.633334
Amount Units: ug/ml



Reviewer: foxr, 02-Jun-2022 11:36:06
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0023.d
Lims ID: 280-162386-F-7
Client ID: PZ014-22A
Sample Type: Client
Inject. Date: 01-Jun-2022 17:04:00 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111492-023
Misc. Info.: 13937
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:53:04 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 02-Jun-2022 11:36:27

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.225	3.000	0.225	12862104	1.03	
2 Chloride	3.725	3.725	0.000	196934440	12.7	
3 Nitrite as N	4.442	4.517	-0.075	12333106	NC	
4 Bromide	5.442	5.425	0.017	2350391	0.5040	
5 Nitrate as N		6.050			ND	
7 Orthophosphate as P		8.983			ND	
6 Sulfate	10.067	10.067	0.000	1027700689	97.2	M

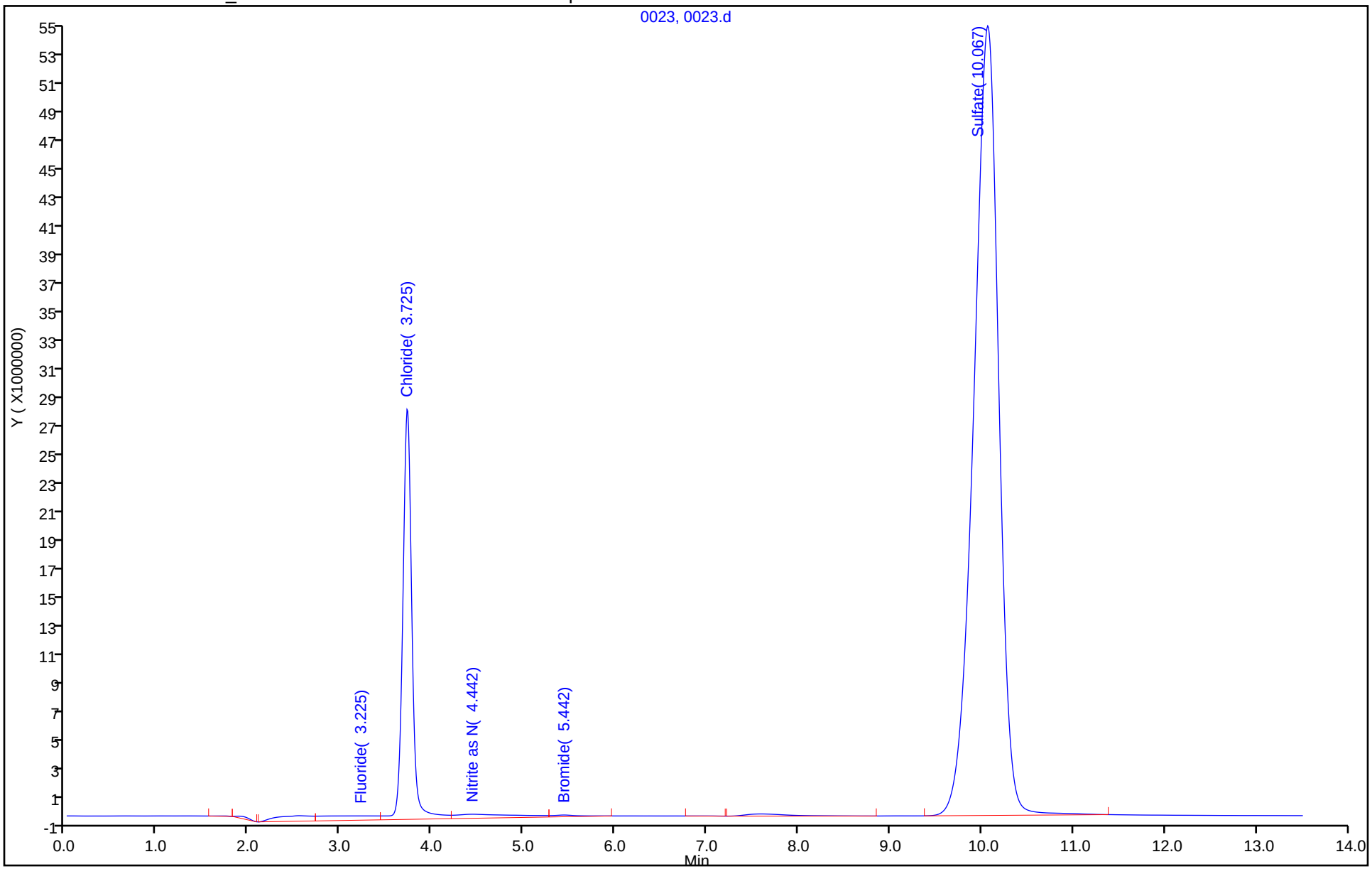
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 02-Jun-2022 11:53:06 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0023.d				
Injection Date:	01-Jun-2022 17:04:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-162386-F-7	Lab Sample ID:	280-162386-7	Worklist Smp#:	23
Client ID:	PZ014-22A				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

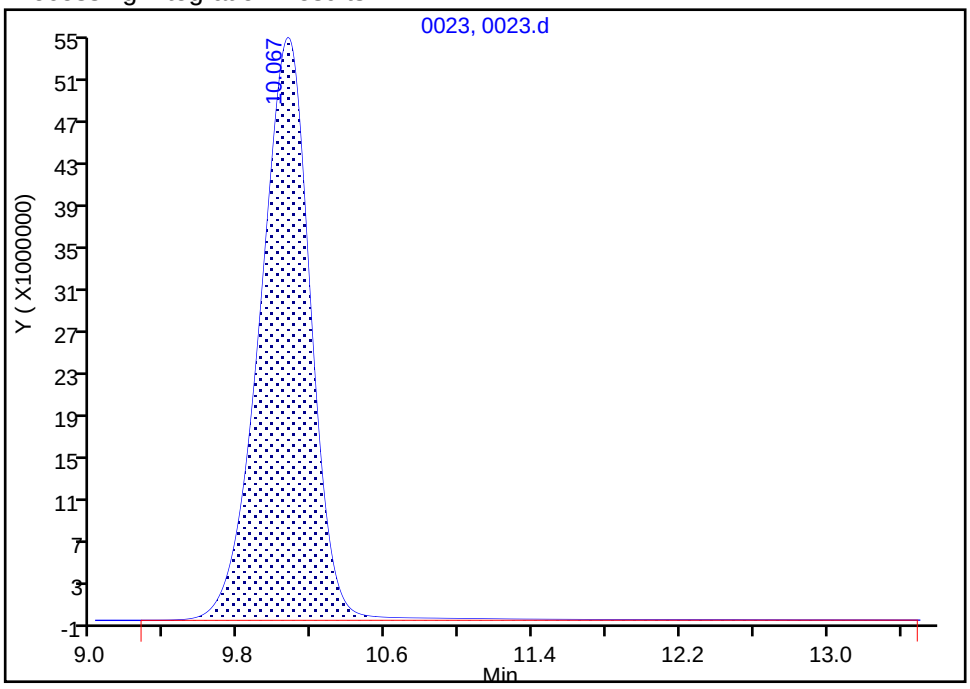
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0023.d				
Injection Date:	01-Jun-2022 17:04:00	Instrument ID:	WC_IonChrom11		
Lims ID:	280-162386-F-7	Lab Sample ID:	280-162386-7		
Client ID:	PZ014-22A				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	23
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

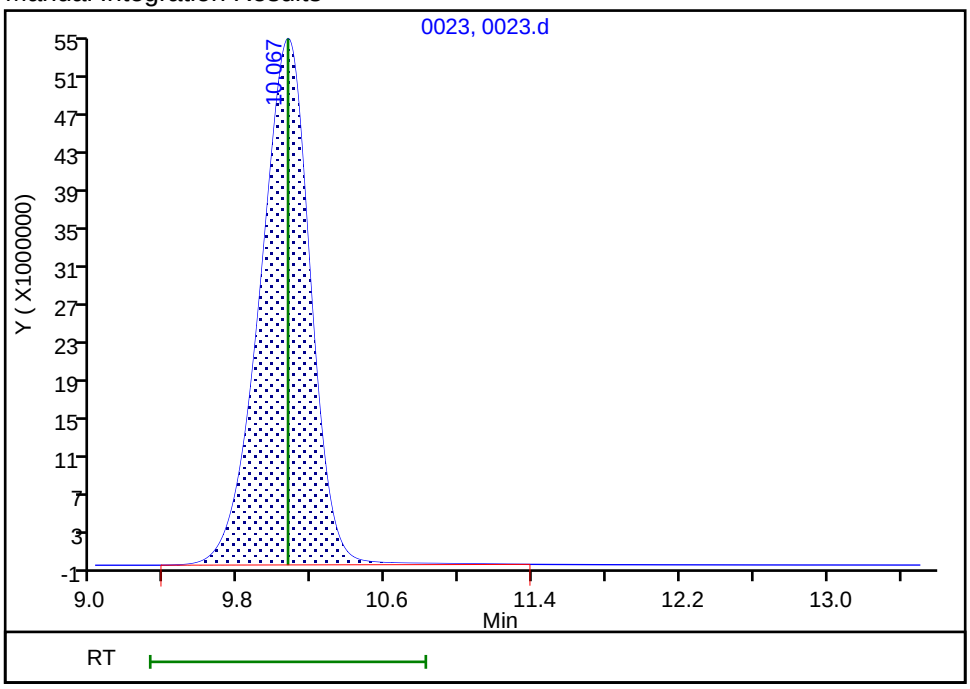
Processing Integration Results

RT: 10.07
Area: 1035860545
Amount: 97.985473
Amount Units: ug/ml



Manual Integration Results

RT: 10.07
Area: 1027700689
Amount: 97.218110
Amount Units: ug/ml



Reviewer: foxr, 02-Jun-2022 11:36:24

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0024.d
Lims ID: 280-162386-F-9
Client ID: PZ013-22A
Sample Type: Client
Inject. Date: 01-Jun-2022 17:19:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111492-024
Misc. Info.: 8553
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:53:04 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 02-Jun-2022 11:36:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.958	3.000	-0.042	9484824	0.7698	
2 Chloride	3.725	3.725	0.000	152405585	9.95	
3 Nitrite as N	4.425	4.517	-0.092	20054118	NC	
4 Bromide	5.458	5.425	0.033	7439672	1.59	
5 Nitrate as N	6.092	6.050	0.042	41545593	NC	
7 Orthophosphate as P	9.042	8.983	0.059	4256171	NC	
6 Sulfate	10.042	10.067	-0.025	707123265	67.1	M

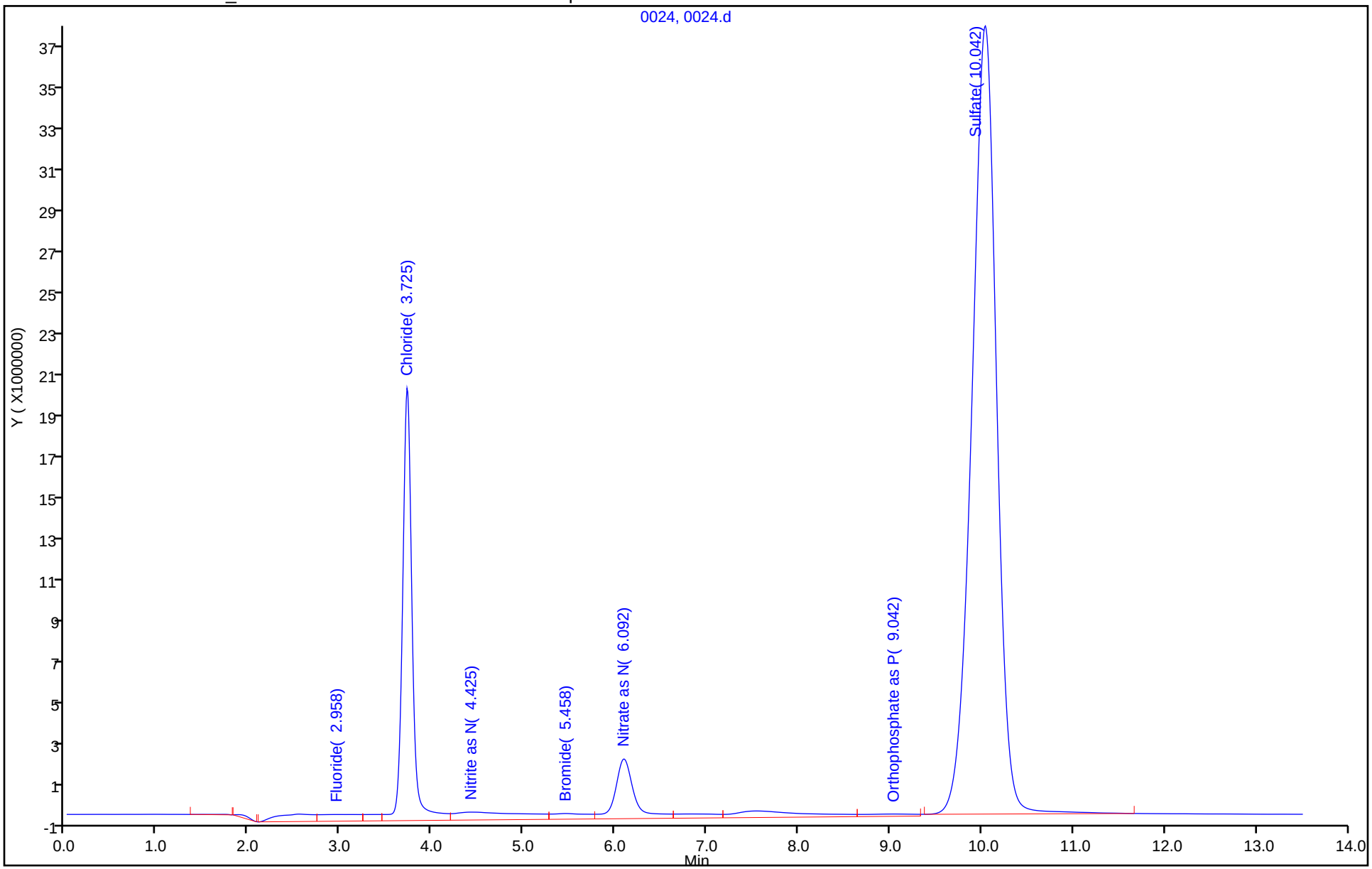
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 02-Jun-2022 11:53:06 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0024.d				
Injection Date:	01-Jun-2022 17:19:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-162386-F-9	Lab Sample ID:	280-162386-9	Worklist Smp#:	24
Client ID:	PZ013-22A				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

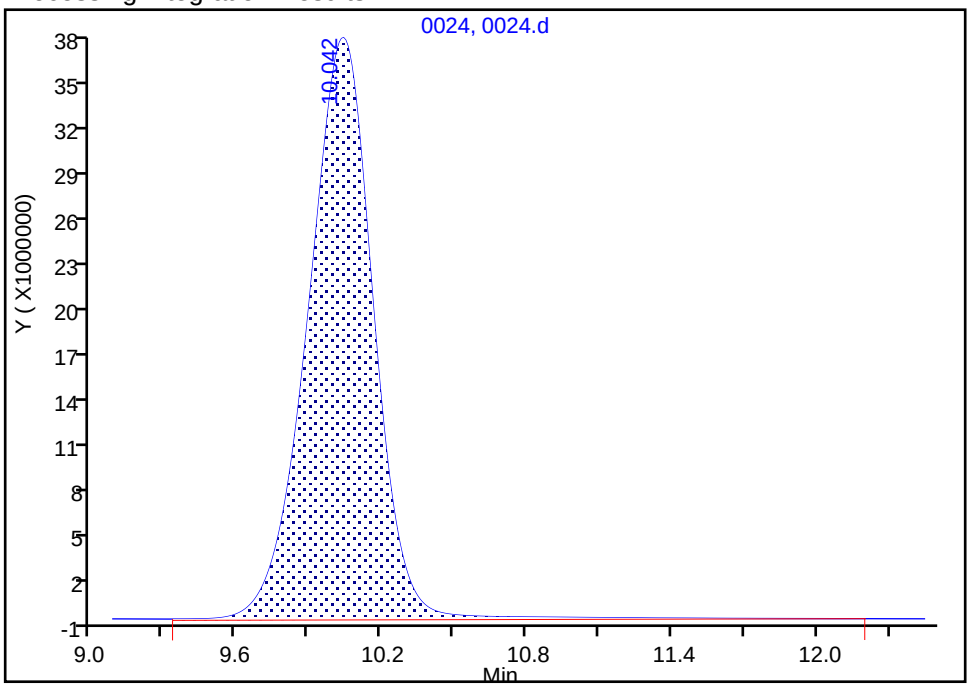
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0024.d
Injection Date: 01-Jun-2022 17:19:00 Instrument ID: WC_IonChrom11
Lims ID: 280-162386-F-9 Lab Sample ID: 280-162386-9
Client ID: PZ013-22A
Operator ID: ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

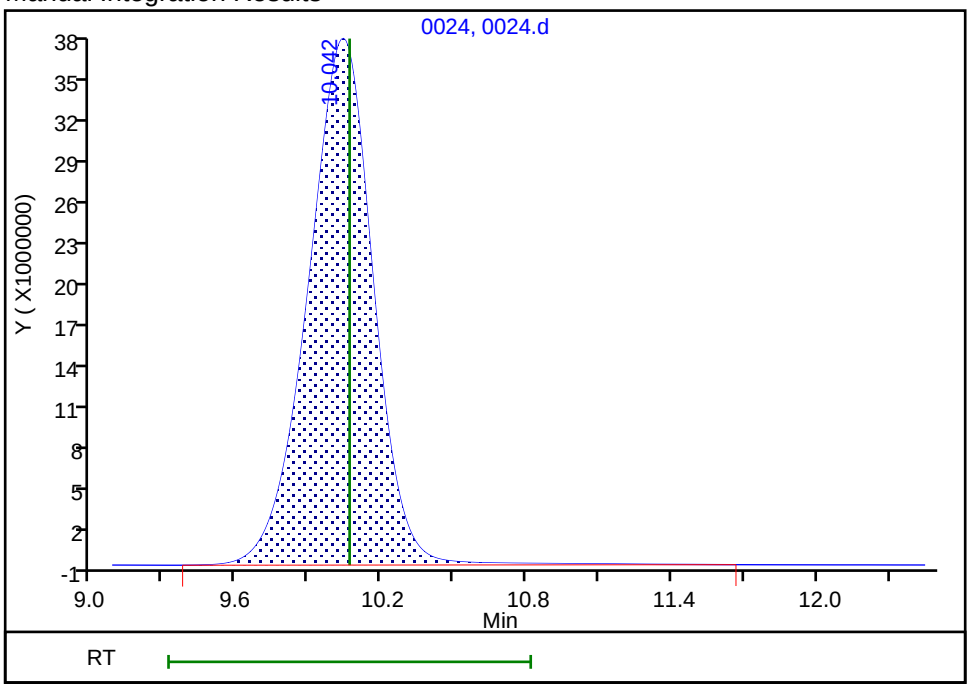
Processing Integration Results

RT: 10.04
Area: 715851433
Amount: 67.891411
Amount Units: ug/ml



Manual Integration Results

RT: 10.04
Area: 707123265
Amount: 67.070603
Amount Units: ug/ml



Reviewer: foxr, 02-Jun-2022 11:36:41
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0030.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 01-Jun-2022 18:54:00 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111492-030
Misc. Info.: 14678
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub5

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:53:08 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 02-Jun-2022 11:38:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.550	3.000	-0.450	62267796	5.00	4.77	M
2 Chloride	3.808	3.725	0.083	1637982742	100.0	100.4	
3 Nitrite as N	4.525	4.517	0.008	146987534	NC	NC	
4 Bromide	5.433	5.425	0.008	23210893	5.00	4.94	
5 Nitrate as N	6.033	6.050	-0.017	151104412	NC	NC	
7 Orthophosphate as P	8.950	8.983	-0.033	42776311	NC	NC	
6 Sulfate	10.042	10.067	-0.025	1030527825	100.0	97.5	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

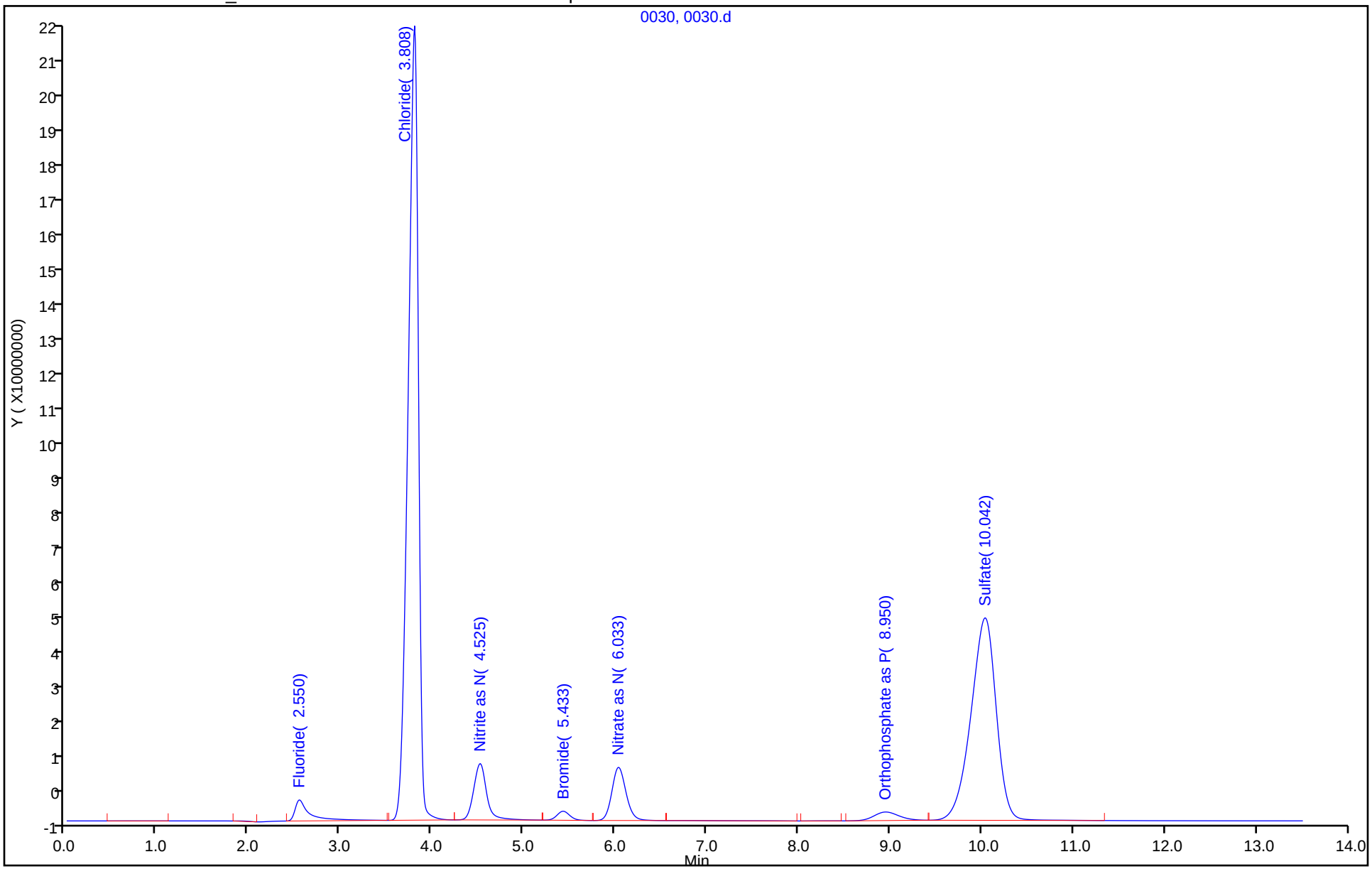
IC LCS_01879 Amount Added: 5.00 Units: mL

Report Date: 02-Jun-2022 11:53:08 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0030.d

Injection Date:	01-Jun-2022 18:54:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	30
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

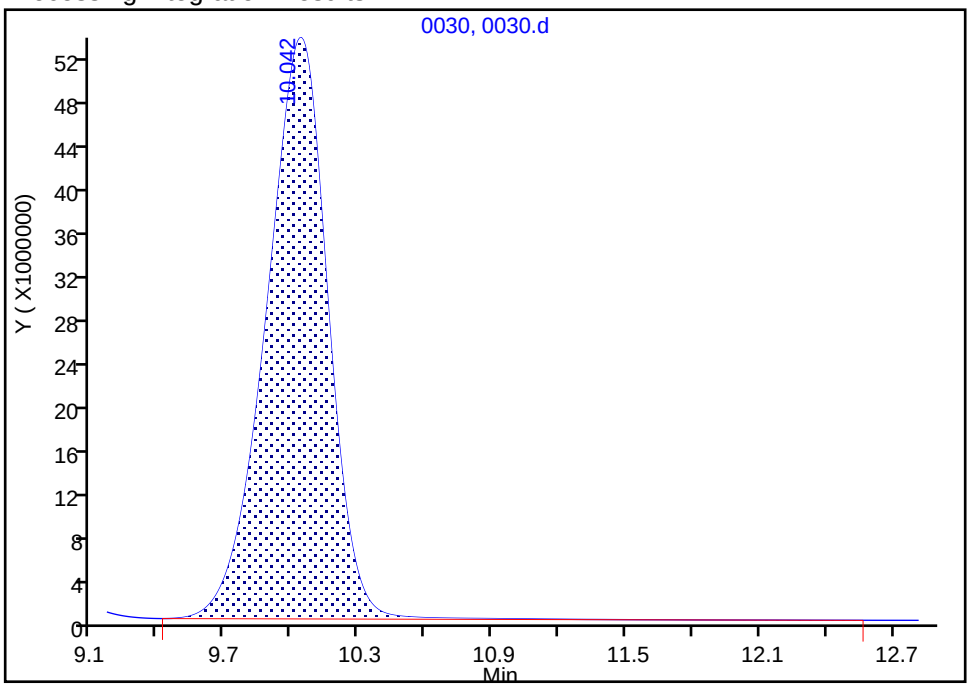
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0030.d
Injection Date: 01-Jun-2022 18:54:00 Instrument ID: WC_IonChrom11
Lims ID: ccv
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

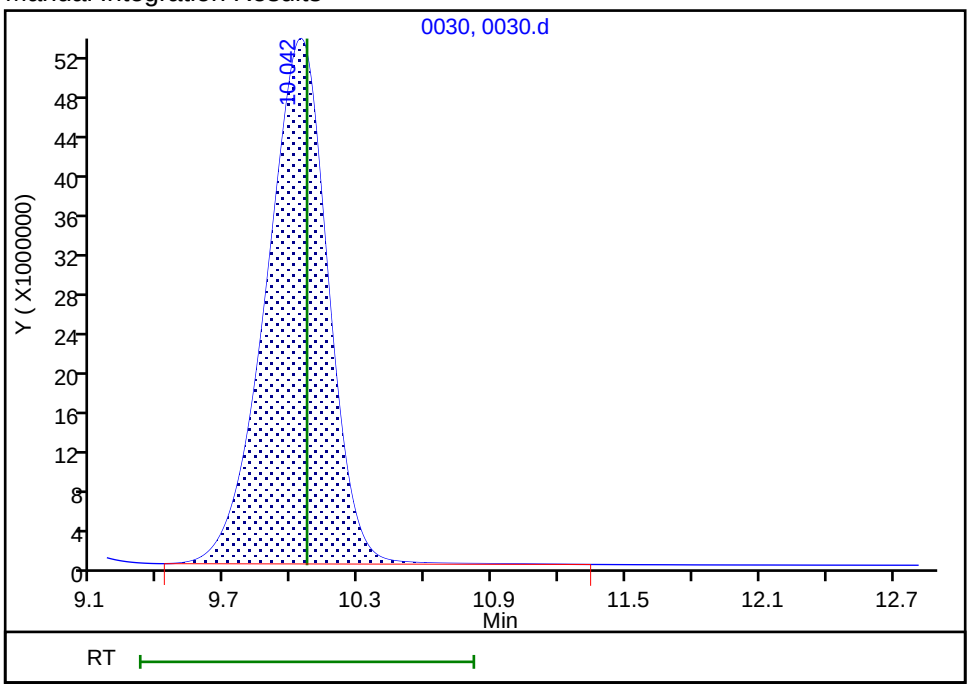
Processing Integration Results

RT: 10.04
Area: 1031934470
Amount: 97.616260
Amount Units: ug/ml



Manual Integration Results

RT: 10.04
Area: 1030527825
Amount: 97.483978
Amount Units: ug/ml



Reviewer: foxr, 02-Jun-2022 11:38:17
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0031.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 01-Jun-2022 19:10:00 ALS Bottle#: 0 Worklist Smp#: 31
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111492-031
Misc. Info.: 15989
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2022 11:53:08 Calib Date: 26-May-2022 11:57:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220526-111372.b\0008.d

Column 1 : Det: 0005
Process Host: CTX1617

First Level Reviewer: foxr Date: 02-Jun-2022 11:38:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.000				ND	U
2 Chloride		3.725				ND	U
3 Nitrite as N		4.517				ND	U
4 Bromide		5.425				ND	U
5 Nitrate as N		6.050				ND	
7 Orthophosphate as P		8.983				ND	
6 Sulfate		10.067				ND	

QC Flag Legend

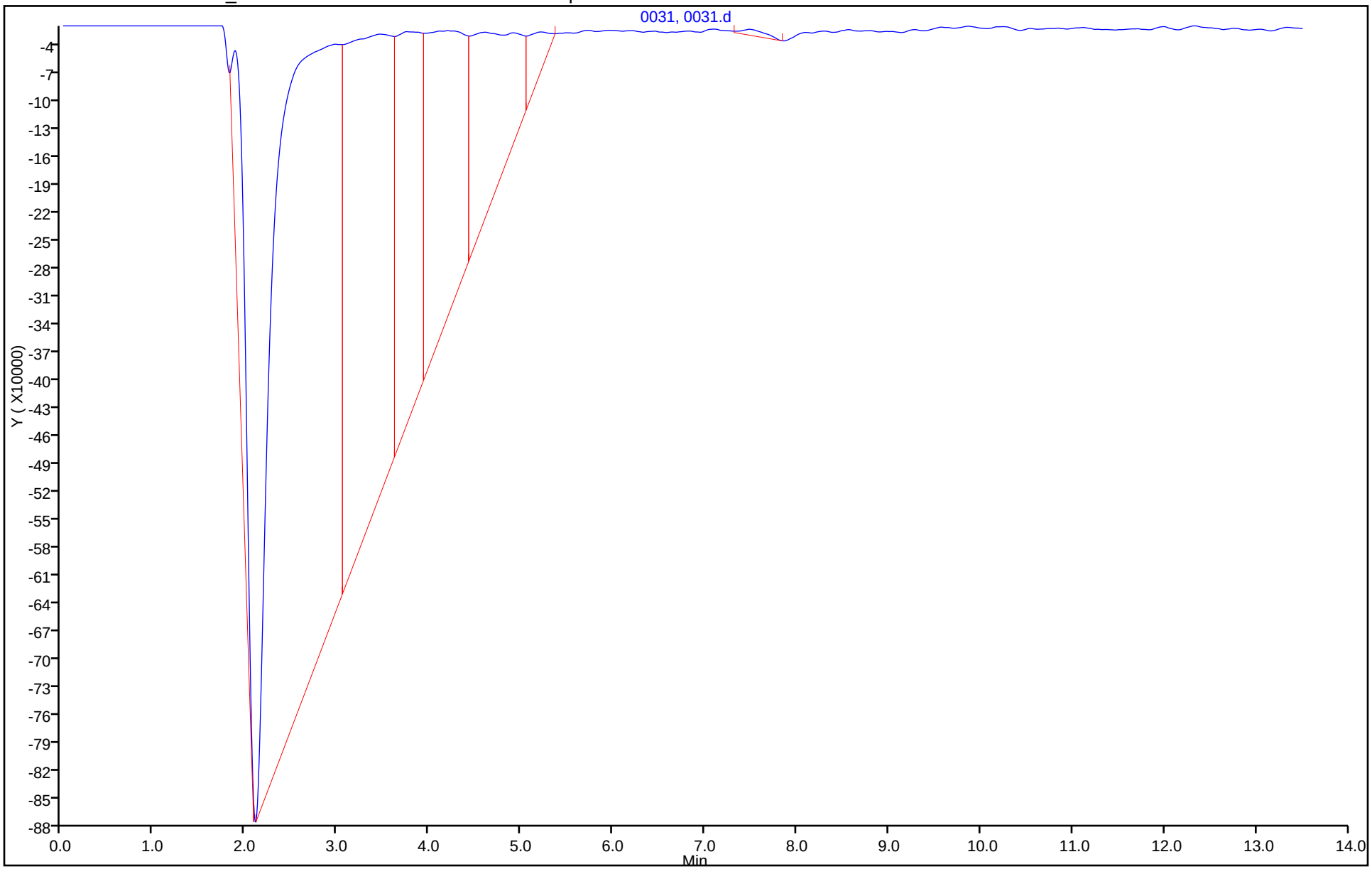
Processing Flags
Review Flags
U - Marked Undetected

Report Date: 02-Jun-2022 11:53:09 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220601-111492.b\0031.d

Injection Date:	01-Jun-2022 19:10:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	31
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-175
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-May-2022 17:34:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111056-002
Misc. Info.: 280-0111056-002
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2022 16:38:05 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1686

First Level Reviewer: jindaratc Date: 16-May-2022 18:42:07

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.388	3.388	0.000	4412713	0.2000	0.2447	M
2 Chloride	4.843	4.843	0.000	11659033	1.00	1.03	
3 Nitrite as N	5.760	5.760	0.000	5450264	NC	NC	
4 Bromide	7.353	7.353	0.000	859089	0.2000	0.2218	
5 Nitrate as N	8.440	8.440	0.000	5447078	NC	NC	
7 Orthophosphate as P	10.468	10.468	0.000	2110652	NC	NC	a
6 Sulfate	11.525	11.525	0.000	8433467	1.00	1.12	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

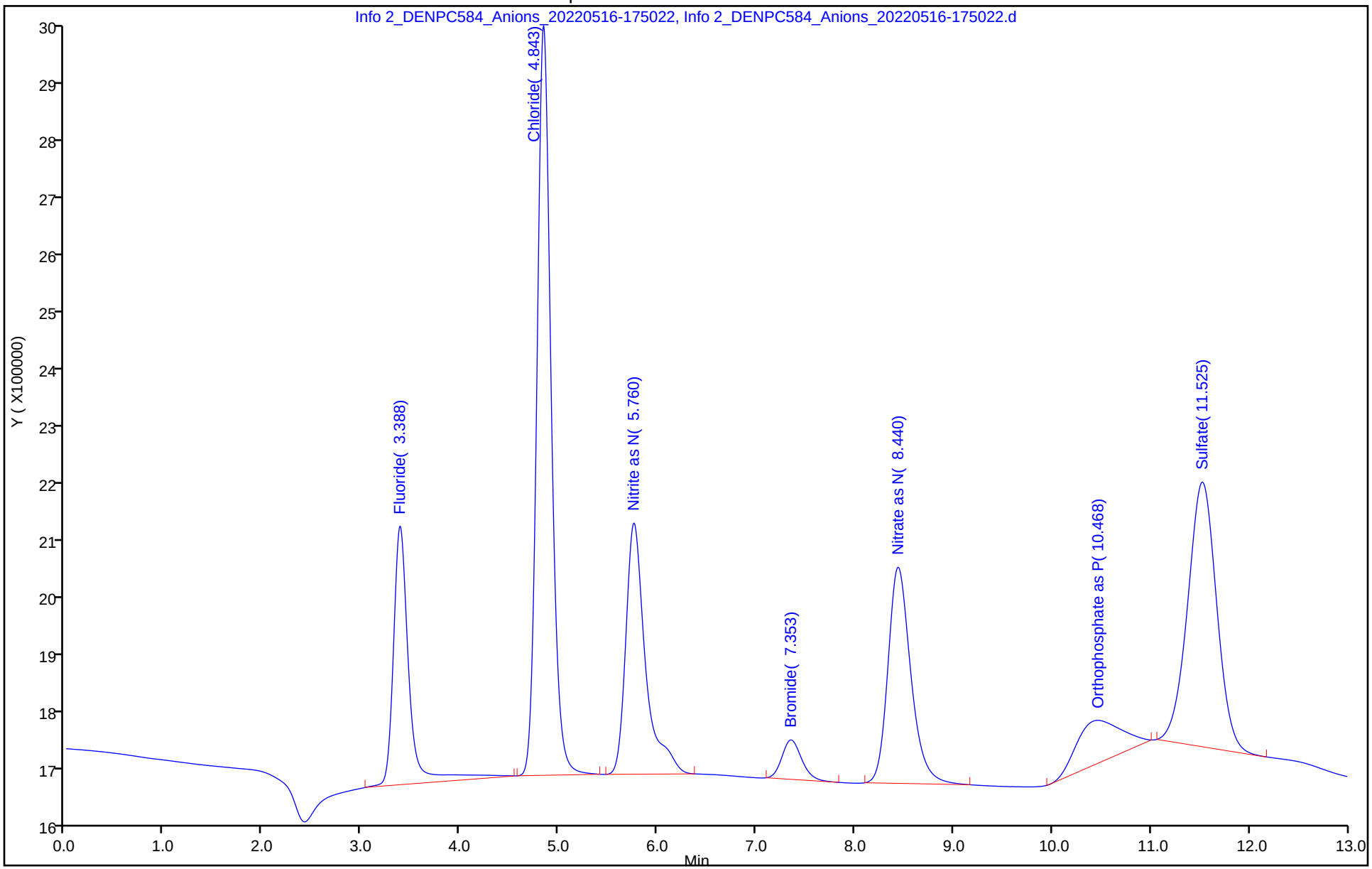
Reagents:

IC CAL cl/so4_00419 Amount Added: 0.02 Units: mL
IC Cal low_00637 Amount Added: 0.02 Units: mL

Report Date: 17-May-2022 16:38:05 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-175022.d				
Injection Date:	16-May-2022 17:34:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-175

Injection Date: 16-May-2022 17:34:00 Instrument ID: WC_IonChrom13

Lims ID: std L1

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

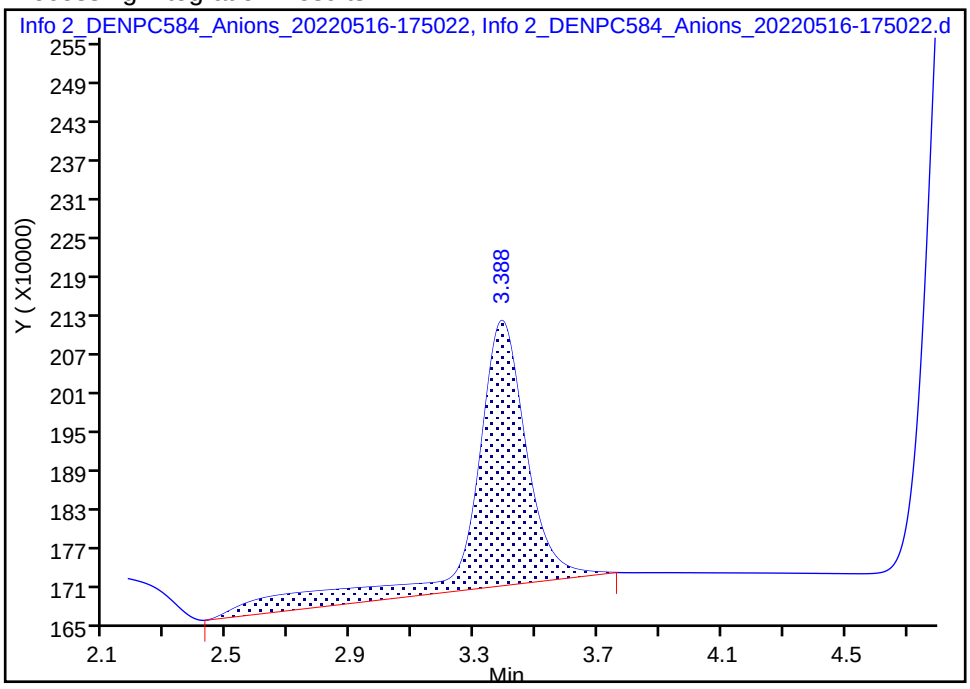
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

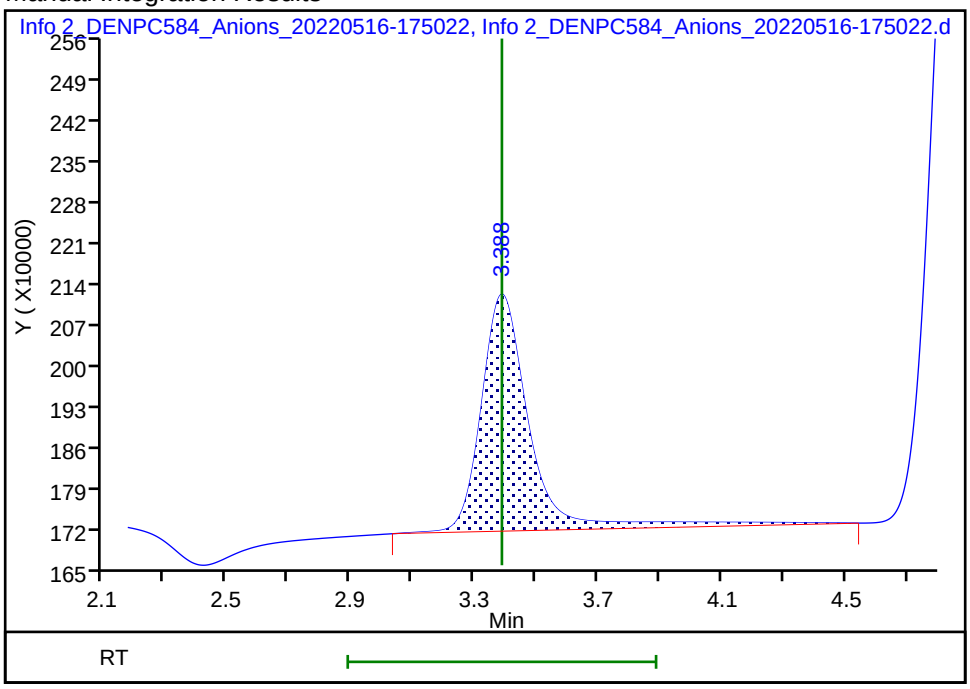
Processing Integration Results

RT: 3.39
Area: 5073159
Amount: 0.233064
Amount Units: ug/ml



Manual Integration Results

RT: 3.39
Area: 4412713
Amount: 0.244724
Amount Units: ug/ml



Reviewer: jindaratc, 16-May-2022 19:10:58

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-175

Injection Date: 16-May-2022 17:34:00 Instrument ID: WC_IonChrom13

Lims ID: std L1

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

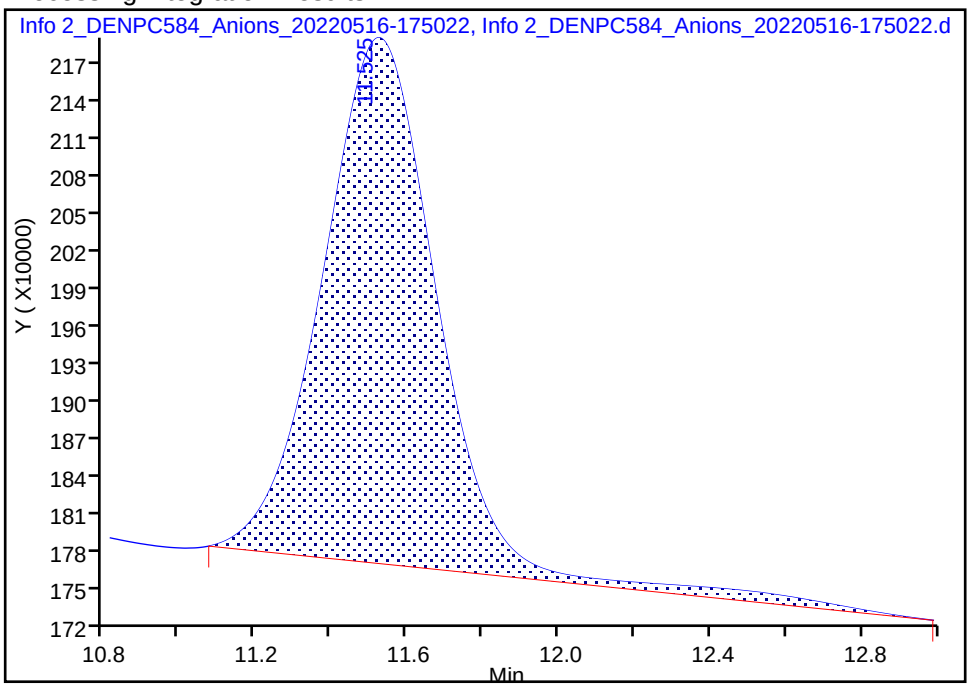
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

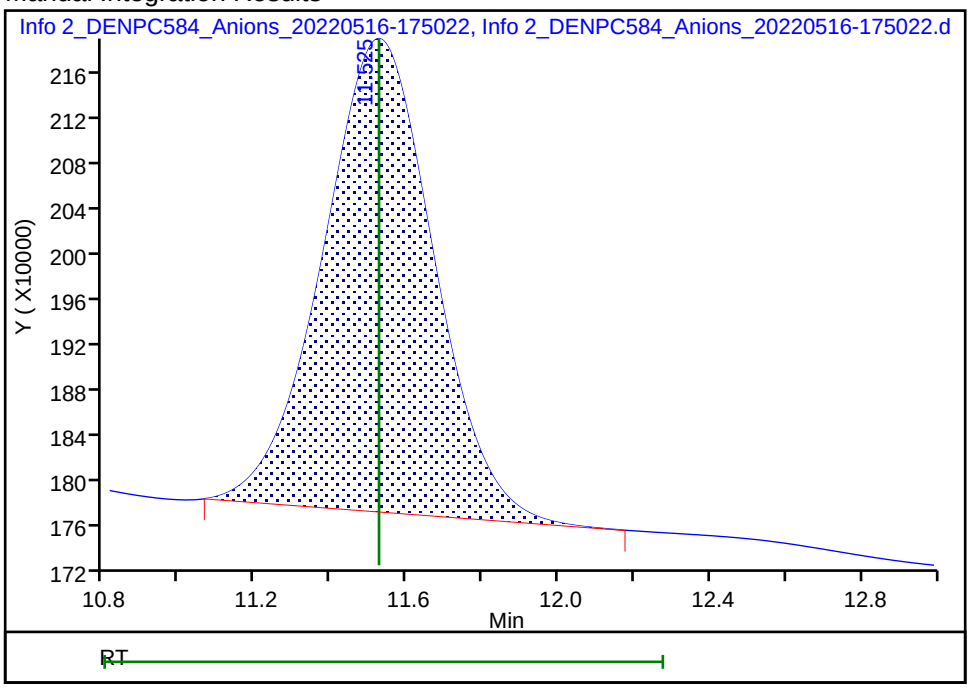
Processing Integration Results

RT: 11.53
Area: 8832678
Amount: 1.128319
Amount Units: ug/ml



Manual Integration Results

RT: 11.53
Area: 8433467
Amount: 1.122740
Amount Units: ug/ml



Reviewer: mitchellj, 17-May-2022 09:48:34

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-180
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-May-2022 17:50:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111056-003
Misc. Info.: 280-0111056-003
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2022 16:38:05 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1686

First Level Reviewer: jindaratc Date: 16-May-2022 18:42:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.395	3.395	0.000	10409686	0.5000	0.4559	M
2 Chloride	4.857	4.857	0.000	32101000	2.50	2.46	
3 Nitrite as N	5.777	5.777	0.000	14711403	NC	NC	
4 Bromide	7.377	7.377	0.000	2249159	0.5000	0.4938	
5 Nitrate as N	8.447	8.447	0.000	14500376	NC	NC	
7 Orthophosphate as P	10.430	10.430	0.000	6276830	NC	NC	a
6 Sulfate	11.587	11.587	0.000	21407179	2.50	2.39	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

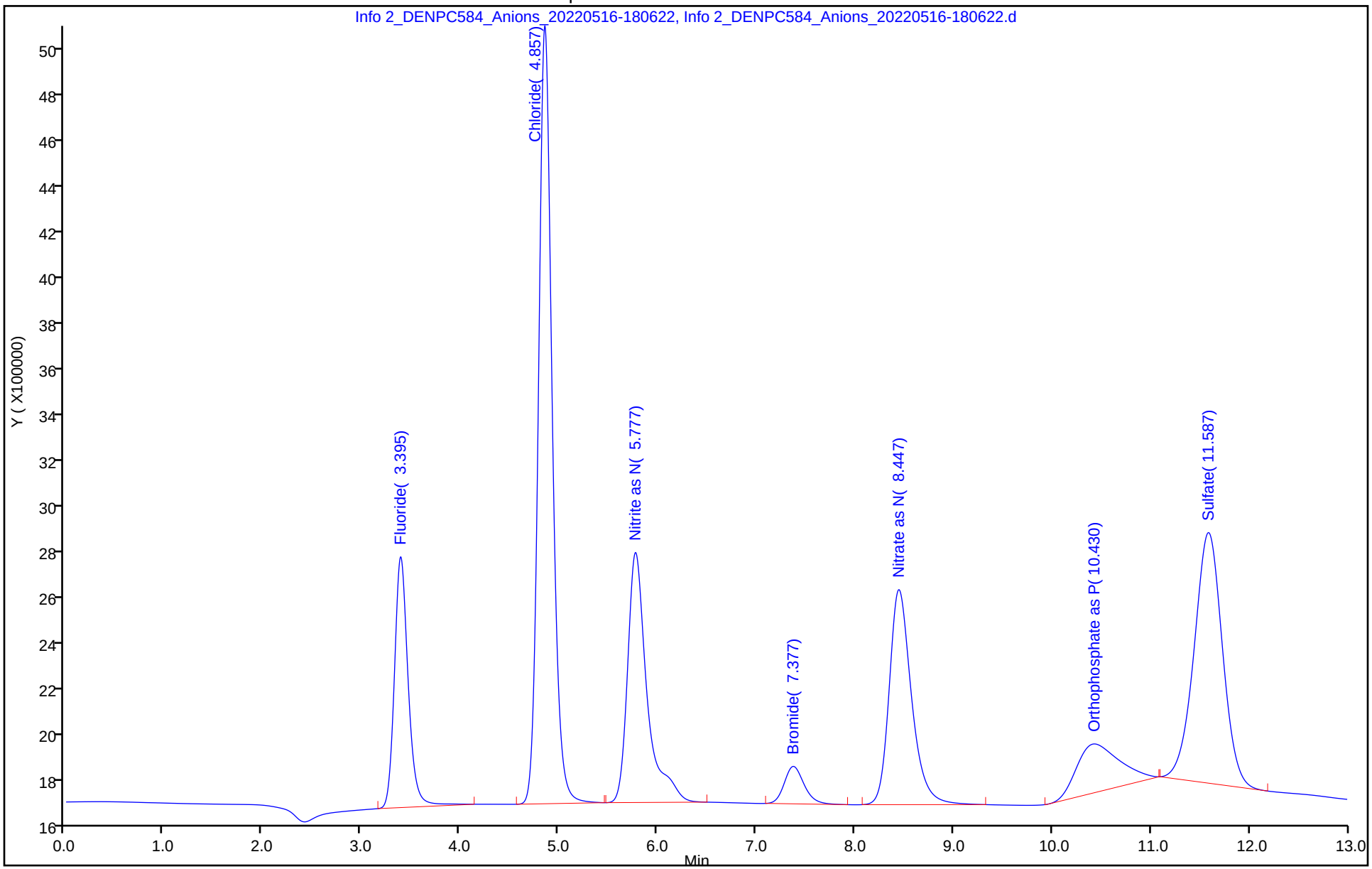
Reagents:

IC CAL cl/so4_00419 Amount Added: 0.05 Units: mL
IC Cal low_00637 Amount Added: 0.05 Units: mL

Report Date: 17-May-2022 16:38:06 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-180622.d				
Injection Date:	16-May-2022 17:50:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-180

Injection Date: 16-May-2022 17:50:00 Instrument ID: WC_IonChrom13

Lims ID: std L2

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

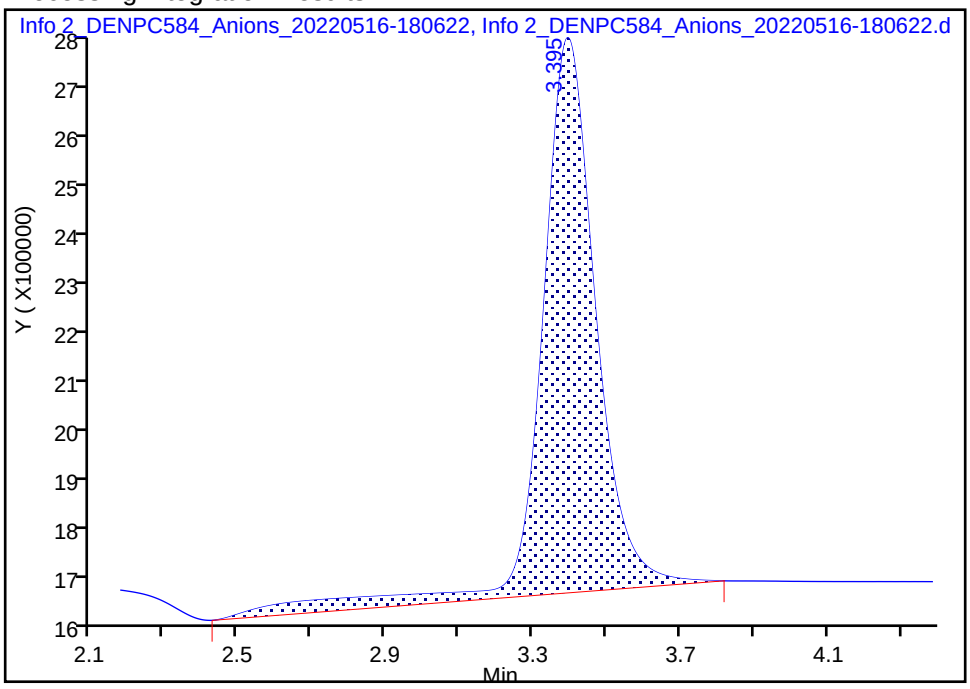
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

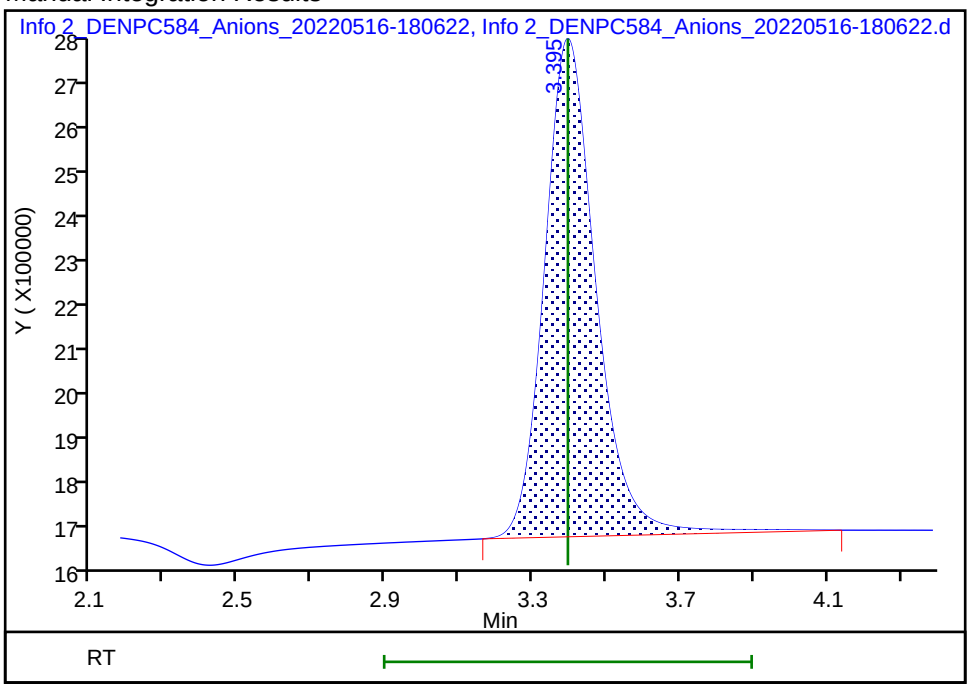
Processing Integration Results

RT: 3.40
Area: 11330273
Amount: 0.483646
Amount Units: ug/ml



Manual Integration Results

RT: 3.40
Area: 10409686
Amount: 0.455890
Amount Units: ug/ml



Reviewer: mitchellj, 17-May-2022 09:49:01

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

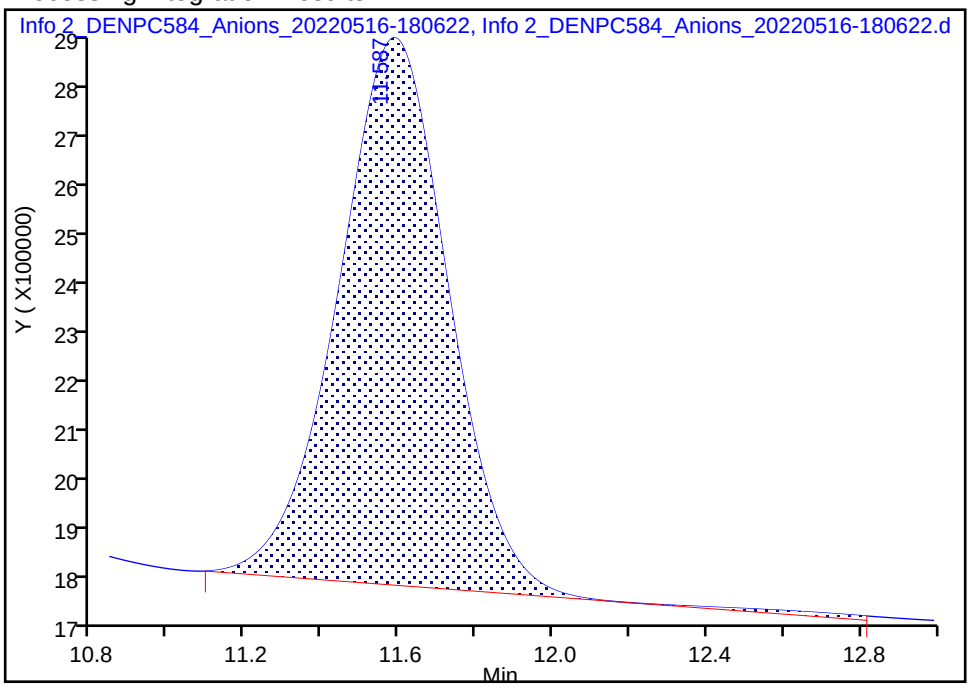
Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-180
Injection Date: 16-May-2022 17:50:00 Instrument ID: WC_IonChrom13
Lims ID: std L2
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions-IC13 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

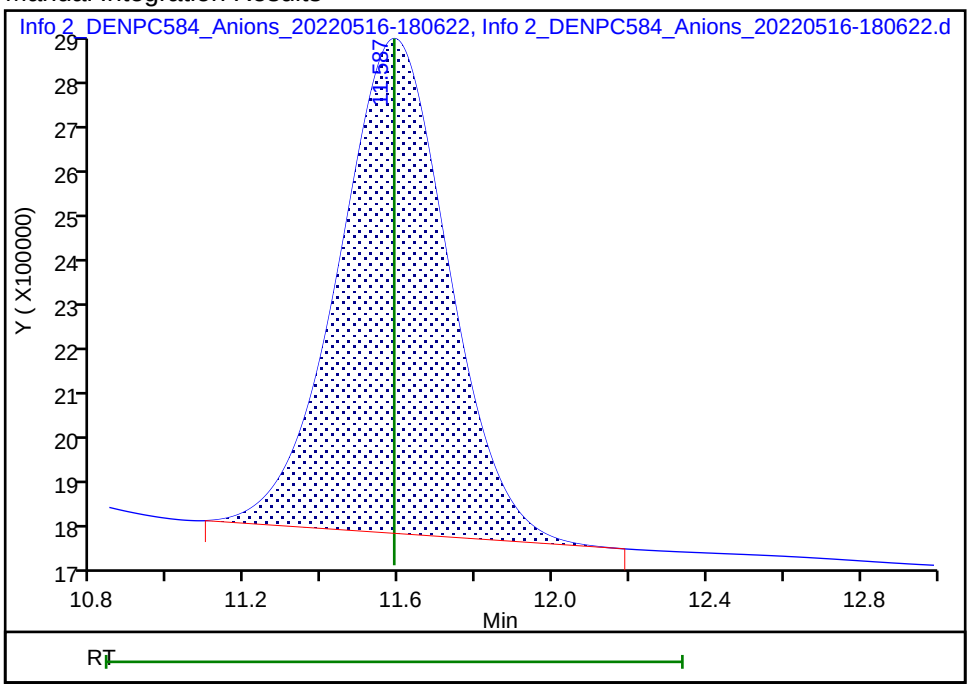
Processing Integration Results

RT: 11.59
Area: 21602155
Amount: 2.395938
Amount Units: ug/ml



Manual Integration Results

RT: 11.59
Area: 21407179
Amount: 2.388647
Amount Units: ug/ml



Reviewer: mitchellj, 17-May-2022 09:49:19
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-182
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-May-2022 18:06:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111056-004
Misc. Info.: 280-0111056-004
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2022 16:38:06 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1686

First Level Reviewer: jindaratc Date: 16-May-2022 18:42:26

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.390	3.390	0.000	22759491	1.00	0.8908	M
2 Chloride	4.842	4.842	0.000	68705864	5.00	5.02	
3 Nitrite as N	5.757	5.757	0.000	31465657	NC	NC	
4 Bromide	7.345	7.345	0.000	4610780	1.00	0.9559	
5 Nitrate as N	8.393	8.393	0.000	30914952	NC	NC	
7 Orthophosphate as P	10.317	10.317	0.000	16934127	NC	NC	a
6 Sulfate	11.525	11.525	0.000	44956370	5.00	4.69	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

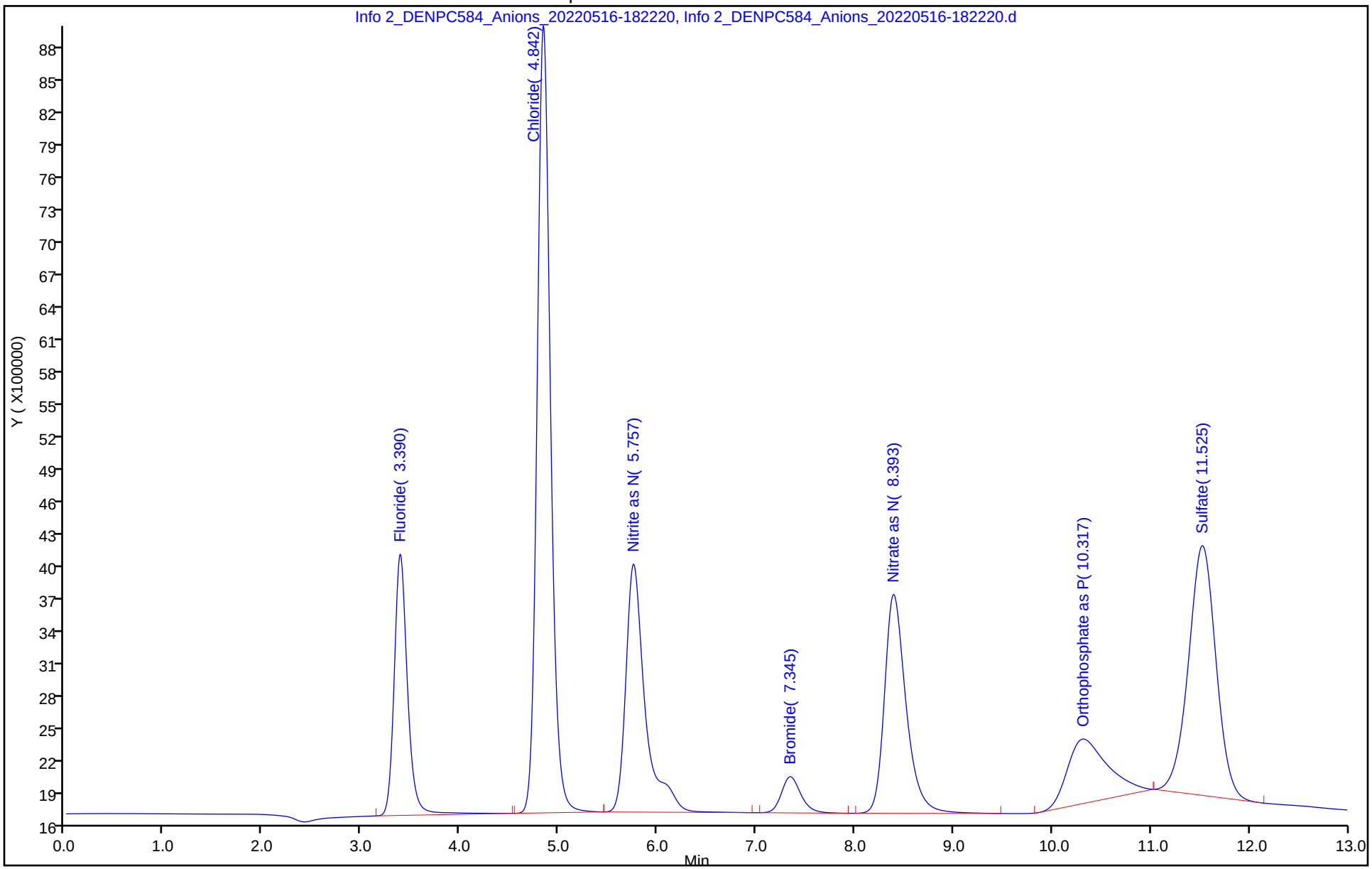
Reagents:

IC CAL cl/so4_00419 Amount Added: 0.10 Units: mL
IC Cal low_00637 Amount Added: 0.10 Units: mL

Report Date: 17-May-2022 16:38:06 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-182220.d				
Injection Date:	16-May-2022 18:06:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-182

Injection Date: 16-May-2022 18:06:00 Instrument ID: WC_IonChrom13

Lims ID: std L3

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

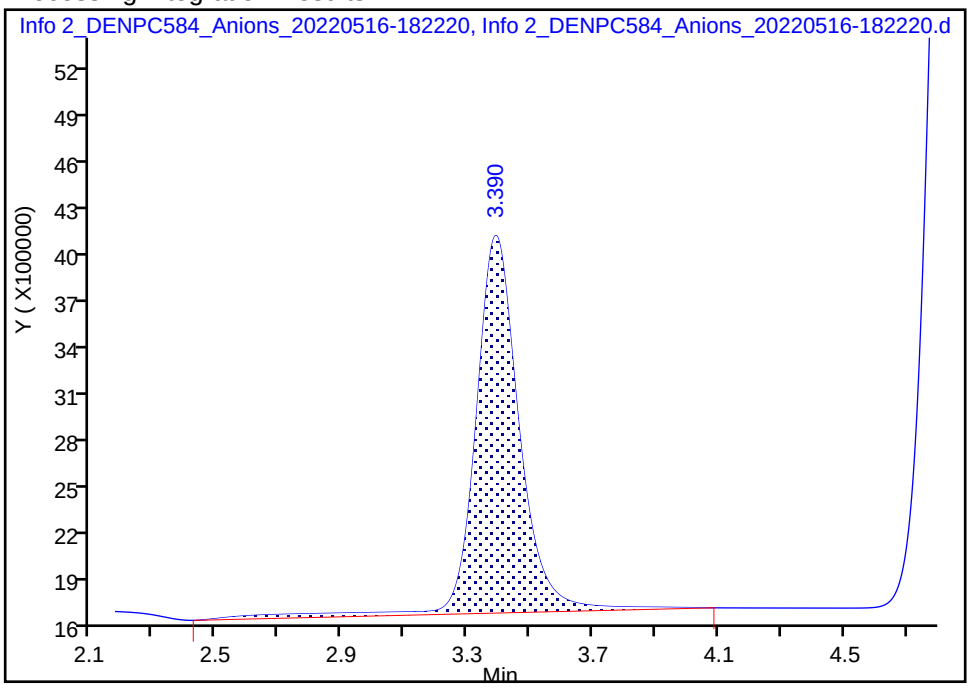
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

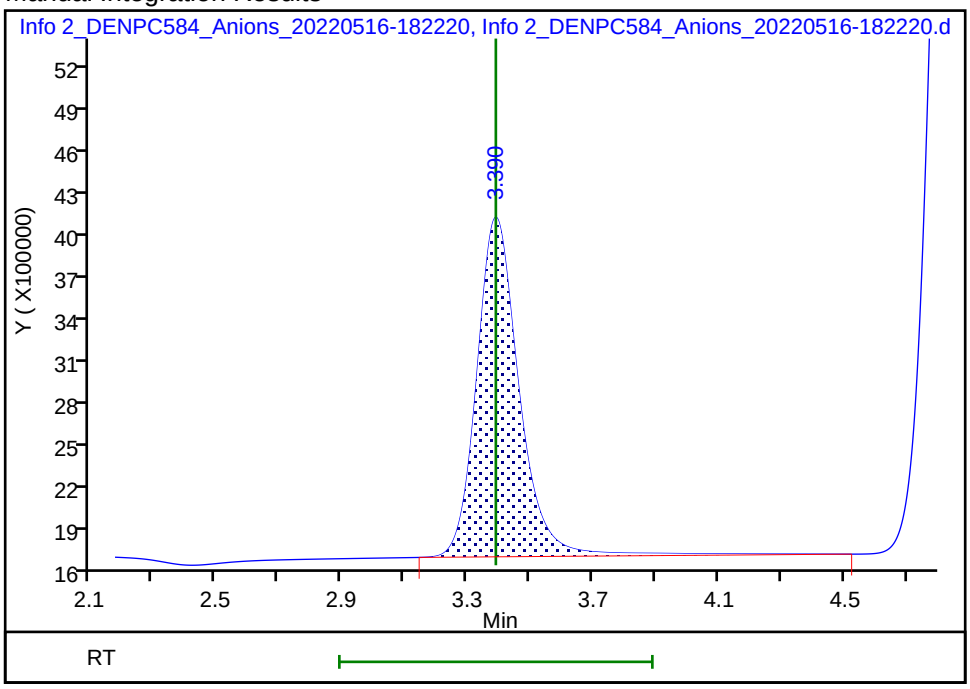
Processing Integration Results

RT: 3.39
Area: 23846856
Amount: 0.935869
Amount Units: ug/ml



Manual Integration Results

RT: 3.39
Area: 22759491
Amount: 0.890754
Amount Units: ug/ml



Reviewer: mitchellj, 17-May-2022 09:49:46

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

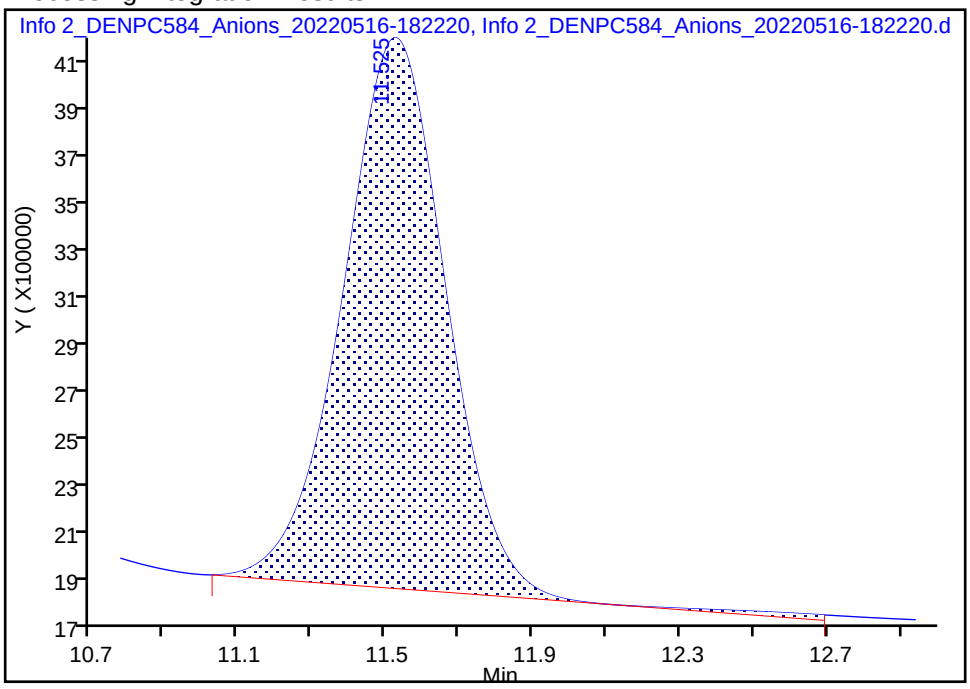
Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-182
Injection Date: 16-May-2022 18:06:00 Instrument ID: WC_IonChrom13
Lims ID: std L3
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions-IC13 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

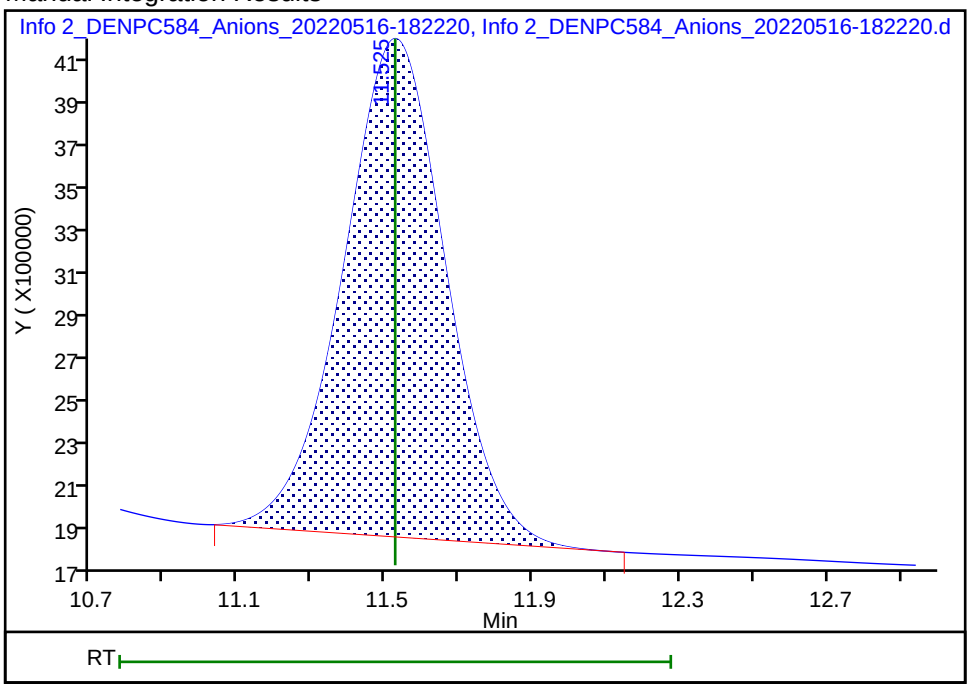
Processing Integration Results

RT: 11.53
Area: 45368182
Amount: 4.714089
Amount Units: ug/ml



Manual Integration Results

RT: 11.53
Area: 44956370
Amount: 4.686453
Amount Units: ug/ml



Reviewer: mitchellj, 17-May-2022 09:49:59
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-183
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-May-2022 18:22:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111056-005
Misc. Info.: 280-0111056-005
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2022 16:38:07 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1686

First Level Reviewer: jindaratc Date: 16-May-2022 18:43:11

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.003	3.003	0.000	104149841	4.00	3.76	M
2 Chloride	4.283	4.283	0.000	852385867	60.0	59.8	a
3 Nitrite as N	5.062	5.062	0.000	126377817	NC	NC	M
4 Bromide	6.452	6.452	0.000	18437619	4.00	3.66	a
5 Nitrate as N	7.317	7.317	0.000	129439113	NC	NC	a
7 Orthophosphate as P	9.025	9.025	0.000	101511529	NC	NC	
6 Sulfate	10.165	10.165	0.000	604480306	60.0	59.3	Ma

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

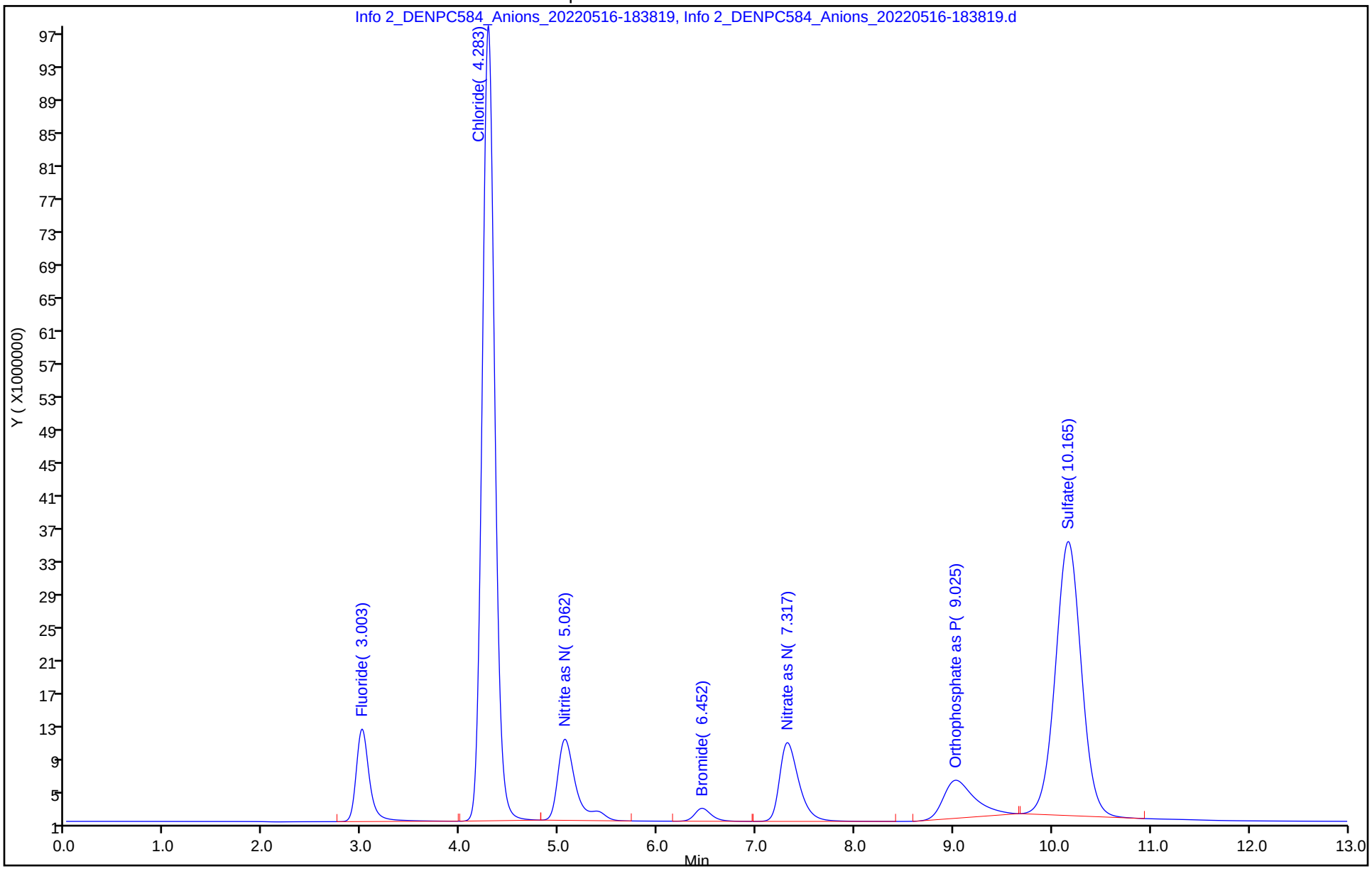
Reagents:

IC CAL cl/so4_00419 Amount Added: 1.20 Units: mL
IC Cal low_00637 Amount Added: 0.40 Units: mL

Report Date: 17-May-2022 16:38:07 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-183819.d				
Injection Date:	16-May-2022 18:22:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-183

Injection Date: 16-May-2022 18:22:00 Instrument ID: WC_IonChrom13

Lims ID: std L4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

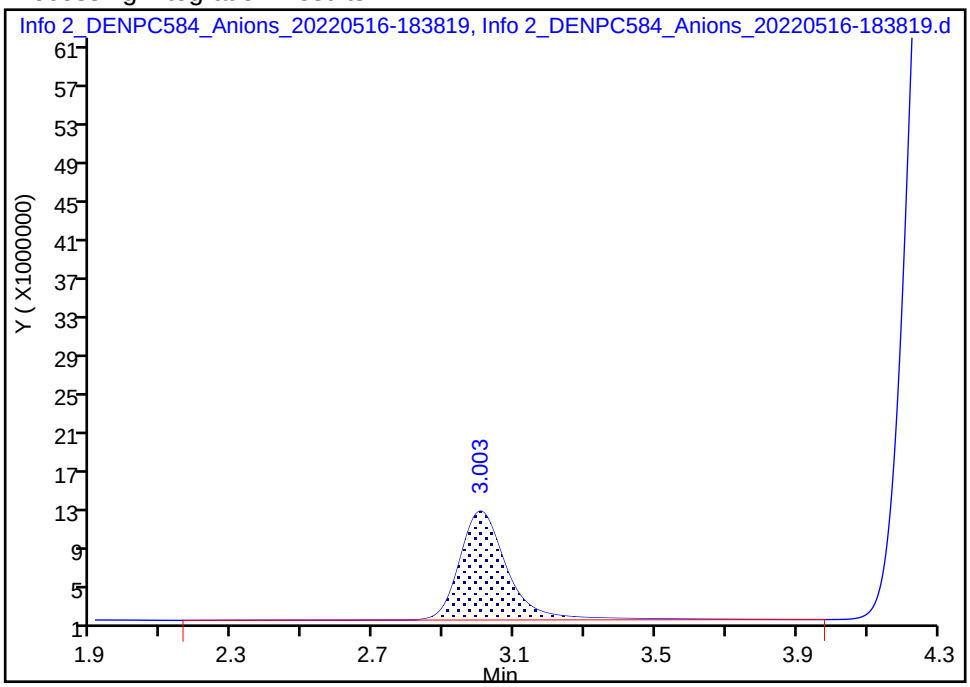
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

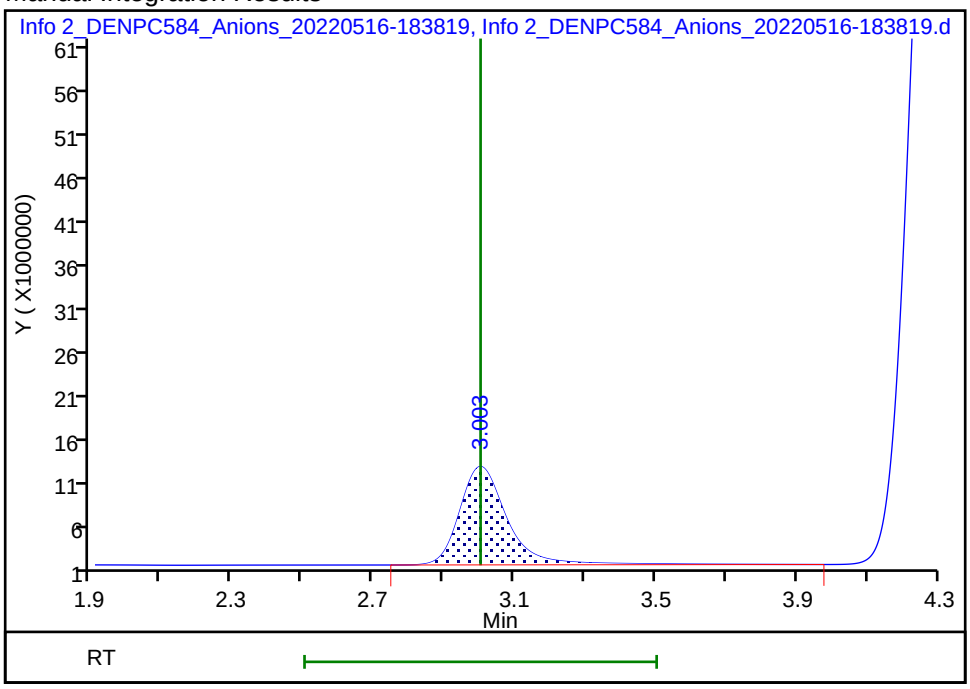
Processing Integration Results

RT: 3.00
Area: 104339066
Amount: 3.867875
Amount Units: ug/ml



Manual Integration Results

RT: 3.00
Area: 104149841
Amount: 3.756685
Amount Units: ug/ml



Reviewer: jindaratc, 16-May-2022 19:11:48

Audit Action: Manually Integrated Audit Reason: Peak Tail

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-183

Injection Date: 16-May-2022 18:22:00 Instrument ID: WC_IonChrom13

Lims ID: std L4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

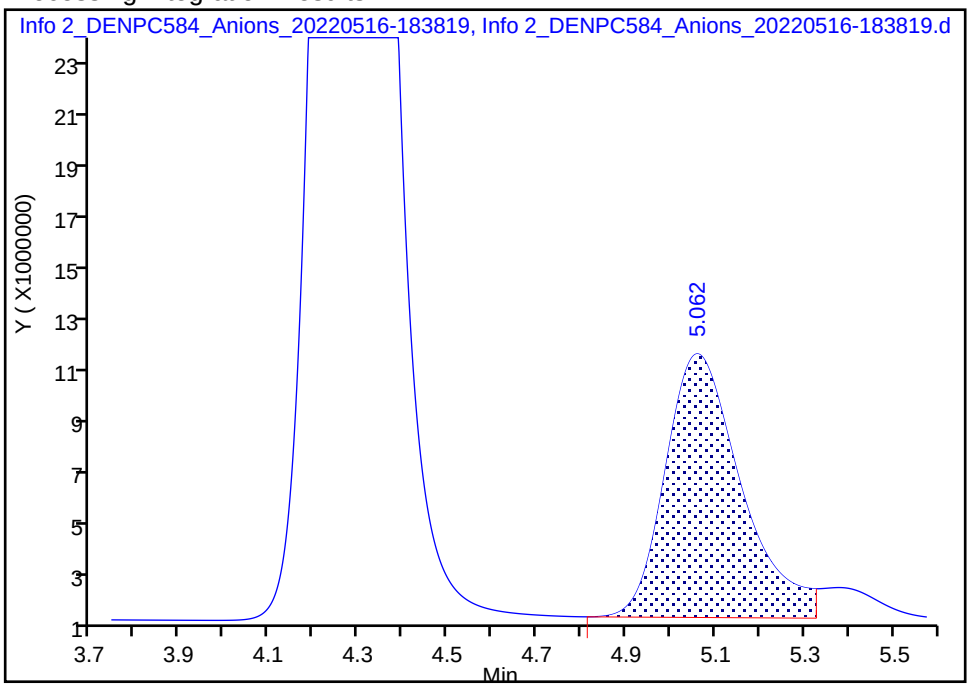
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

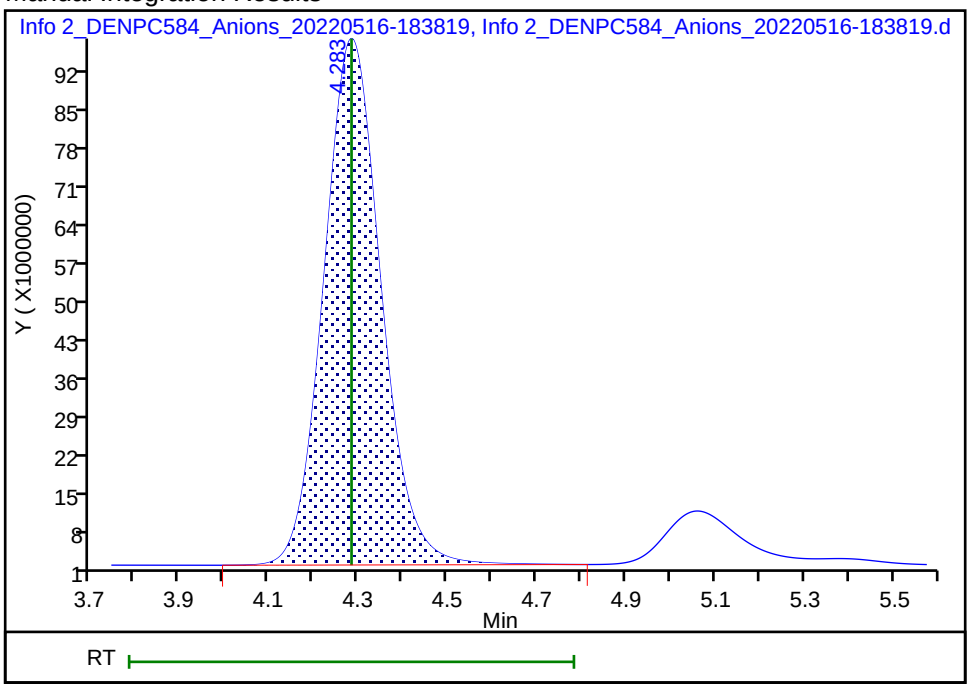
Processing Integration Results

RT: 5.06
Area: 115443110
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.28
Area: 852385867
Amount: 59.824737
Amount Units: ug/ml



Reviewer: jindaratc, 16-May-2022 18:42:42

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-183

Injection Date: 16-May-2022 18:22:00 Instrument ID: WC_IonChrom13

Lims ID: std L4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

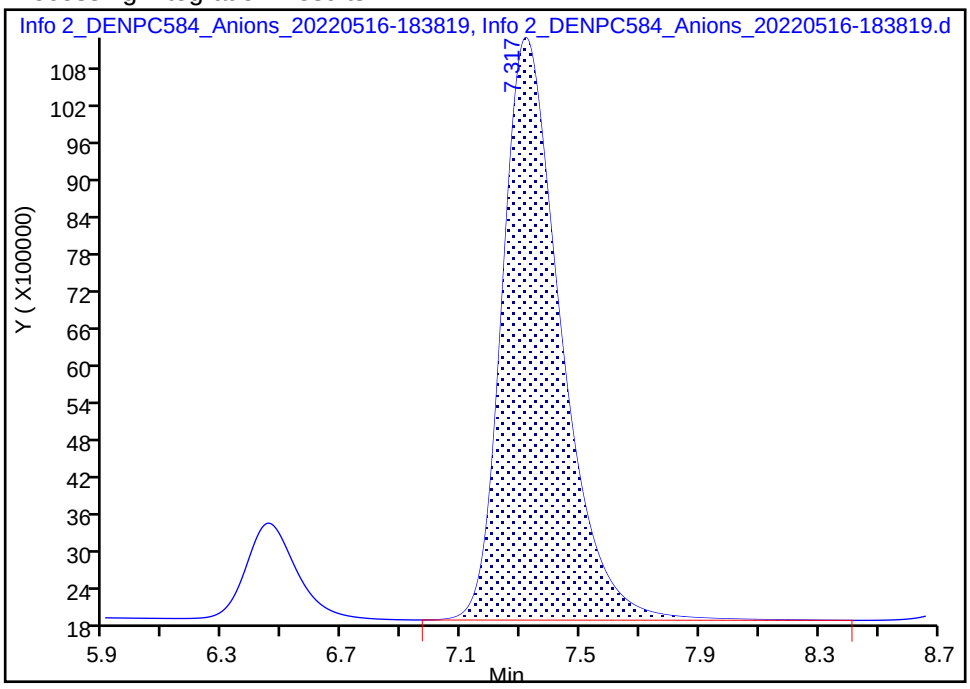
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

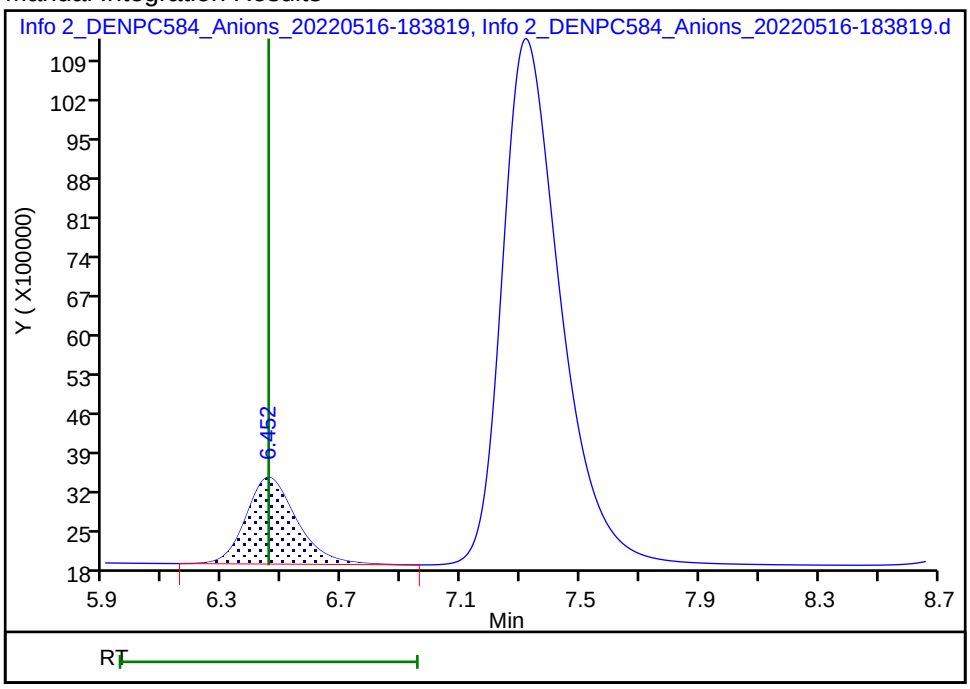
Processing Integration Results

RT: 7.32
Area: 129439113
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 6.45
Area: 18437619
Amount: 3.661238
Amount Units: ug/ml



Reviewer: jindaratc, 16-May-2022 18:42:38

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-183

Injection Date: 16-May-2022 18:22:00 Instrument ID: WC_IonChrom13

Lims ID: std L4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

Column: Detector 0005

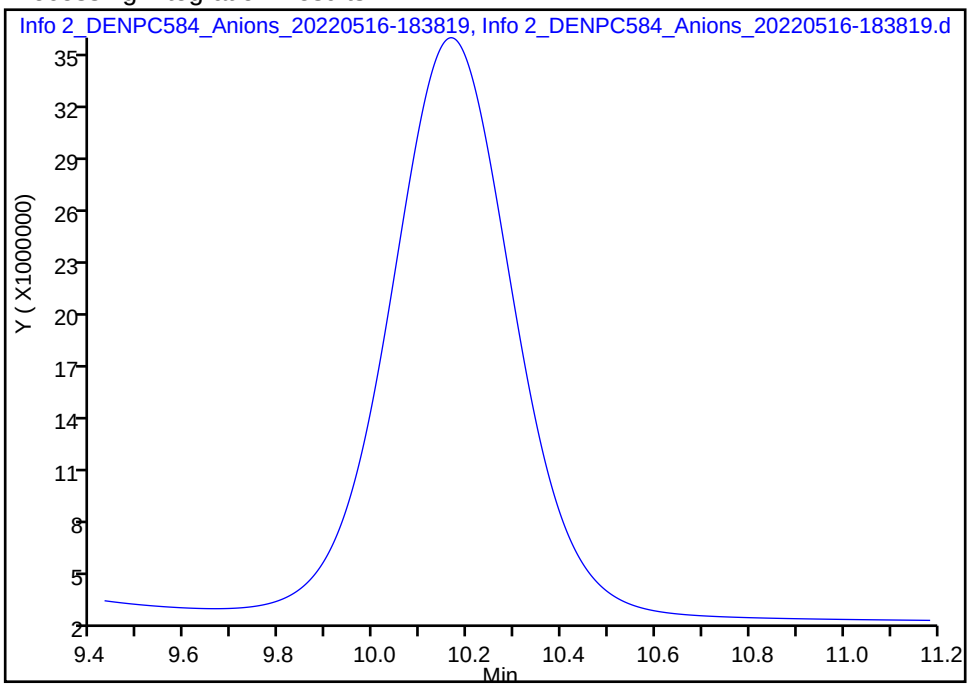
6 Sulfate, CAS: 14808-79-8

Signal: 1

Not Detected

Expected RT: 10.17

Processing Integration Results



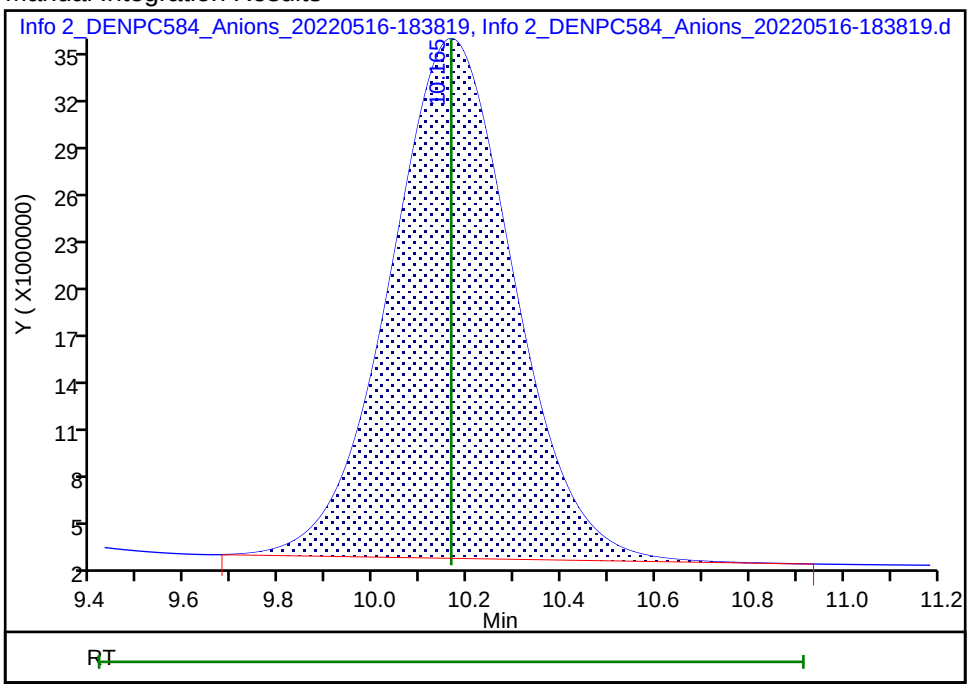
Manual Integration Results

RT: 10.17

Area: 604480306

Amount: 59.281866

Amount Units: ug/ml



Reviewer: mitchellj, 17-May-2022 09:50:36

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-185
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 16-May-2022 18:38:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111056-006
Misc. Info.: 280-0111056-006
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2022 16:38:08 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1686

First Level Reviewer: jindaratc Date: 16-May-2022 19:01:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.007	3.007	0.000	224066163	8.00	7.98	
2 Chloride	4.295	4.295	0.000	1673785026	120.0	117.3	a
3 Nitrite as N	5.035	5.035	0.000	256222089	NC	NC	Ma
4 Bromide	6.427	6.427	0.000	39667629	8.00	7.82	a
5 Nitrate as N	7.258	7.258	0.000	270760556	NC	NC	a
7 Orthophosphate as P	8.965	8.965	0.000	181549150	NC	NC	a
6 Sulfate	10.118	10.118	0.000	1200244426	120.0	117.4	Ma

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

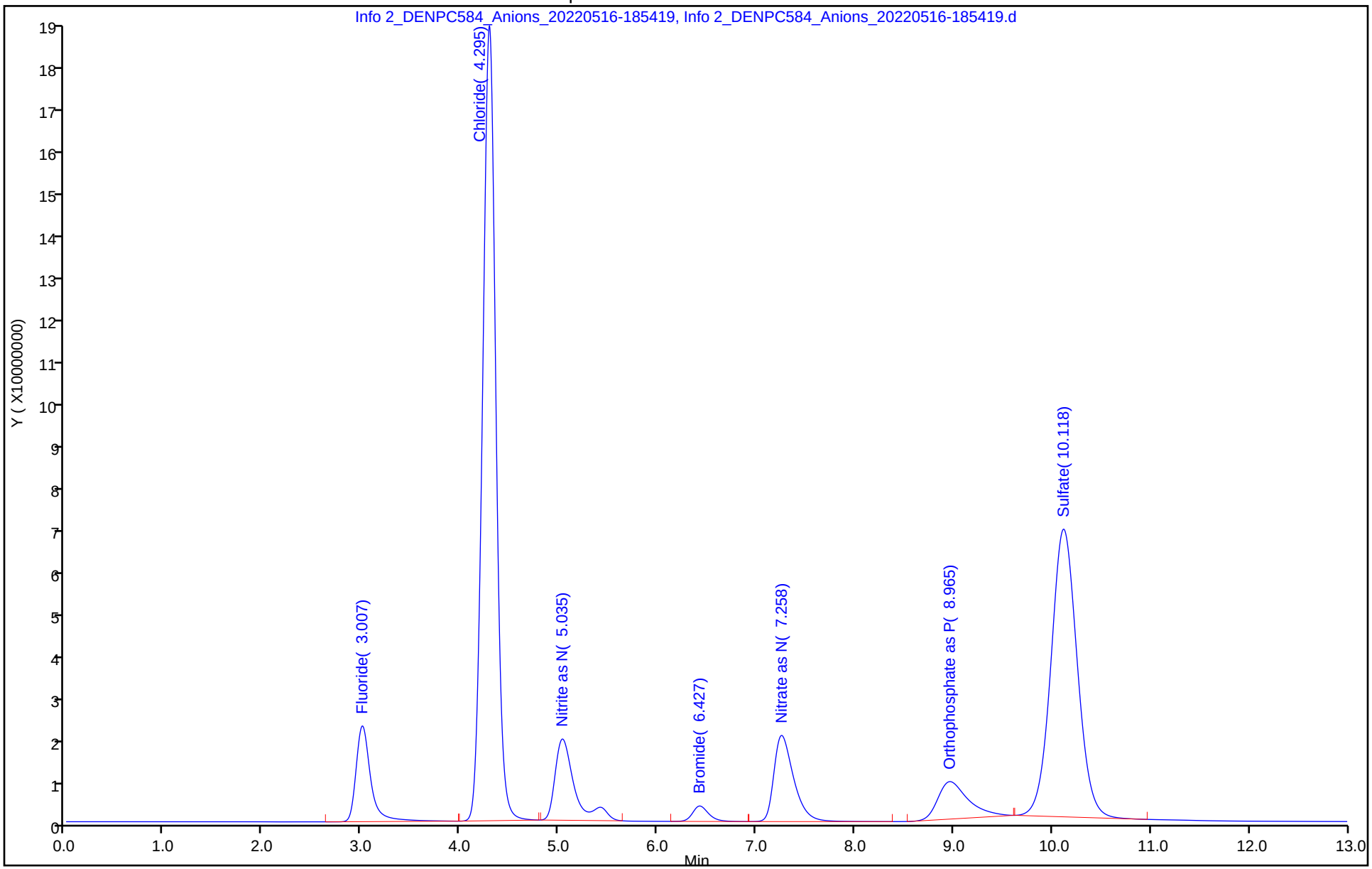
Reagents:

IC CAL cl/so4_00419 Amount Added: 2.40 Units: mL
IC Cal low_00637 Amount Added: 0.80 Units: mL

Report Date: 17-May-2022 16:38:08 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-185419.d				
Injection Date:	16-May-2022 18:38:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-185

Injection Date: 16-May-2022 18:38:00 Instrument ID: WC_IonChrom13

Lims ID: std L5

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

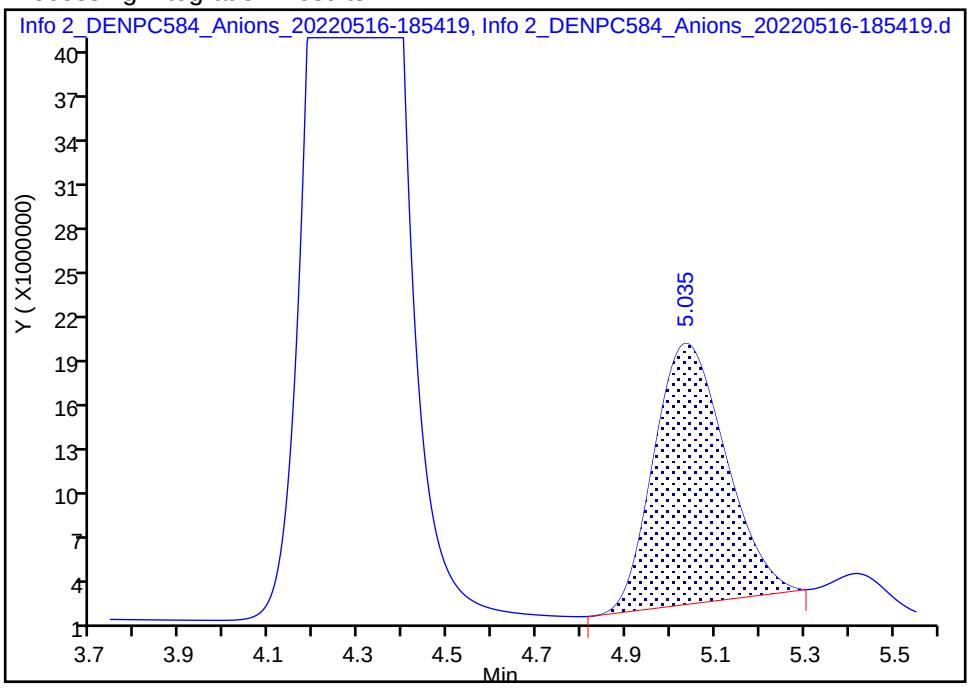
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

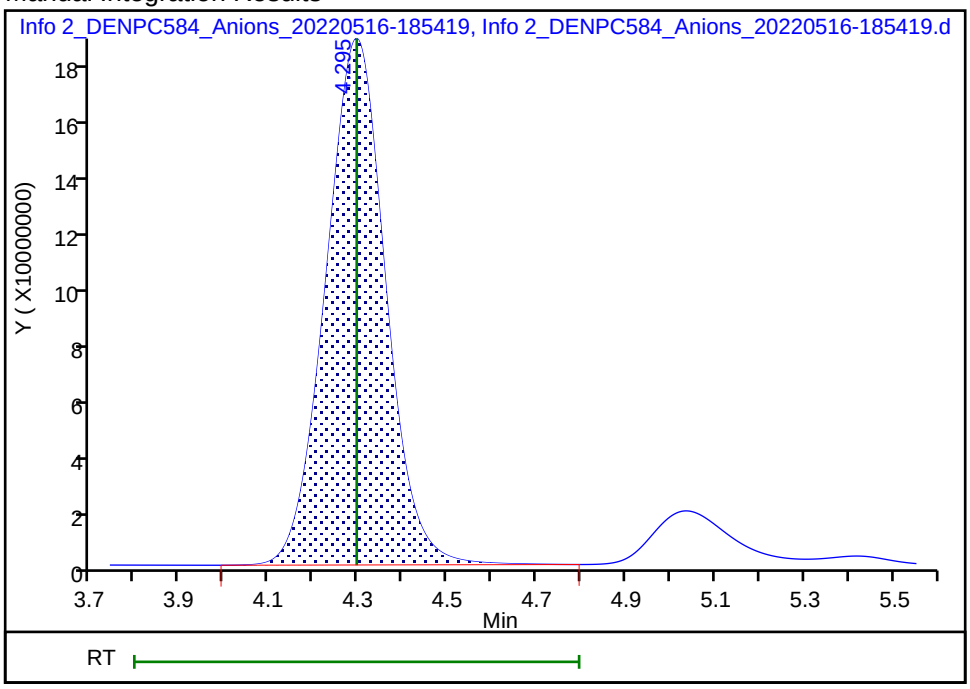
Processing Integration Results

RT: 5.04
Area: 196027803
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 4.30
Area: 1673785026
Amount: 117.2719
Amount Units: ug/ml



Reviewer: jindaratc, 16-May-2022 19:00:21

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-185

Injection Date: 16-May-2022 18:38:00 Instrument ID: WC_IonChrom13

Lims ID: std L5

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

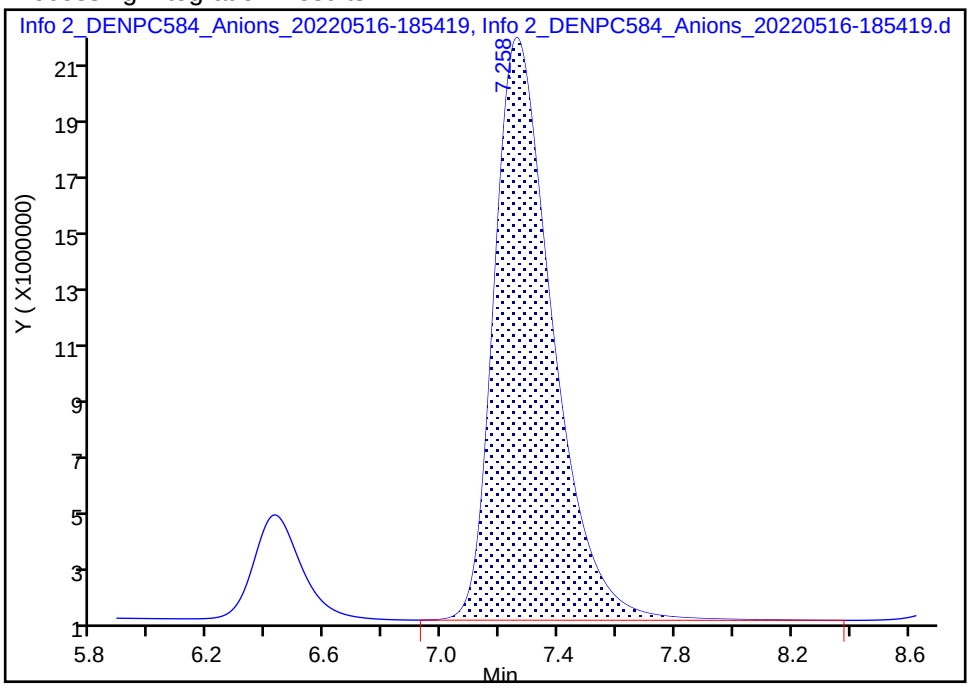
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

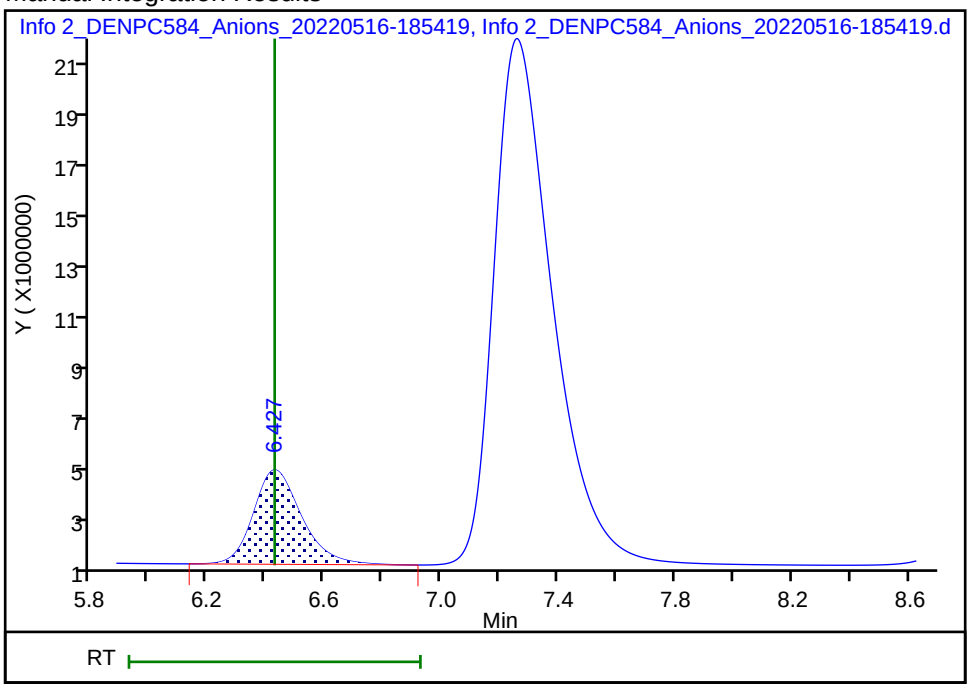
Processing Integration Results

RT: 7.26
Area: 270760556
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 6.43
Area: 39667629
Amount: 7.815104
Amount Units: ug/ml



Reviewer: jindaratc, 16-May-2022 19:00:18

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-185

Injection Date: 16-May-2022 18:38:00 Instrument ID: WC_IonChrom13

Lims ID: std L5

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

Column: Detector 0005

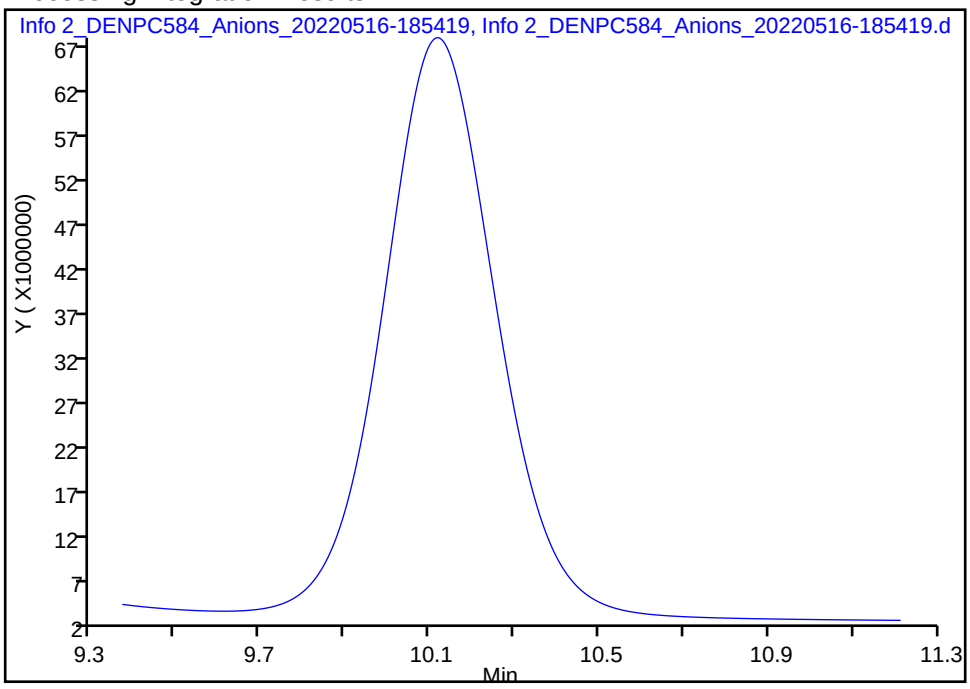
6 Sulfate, CAS: 14808-79-8

Signal: 1

Not Detected

Expected RT: 10.12

Processing Integration Results



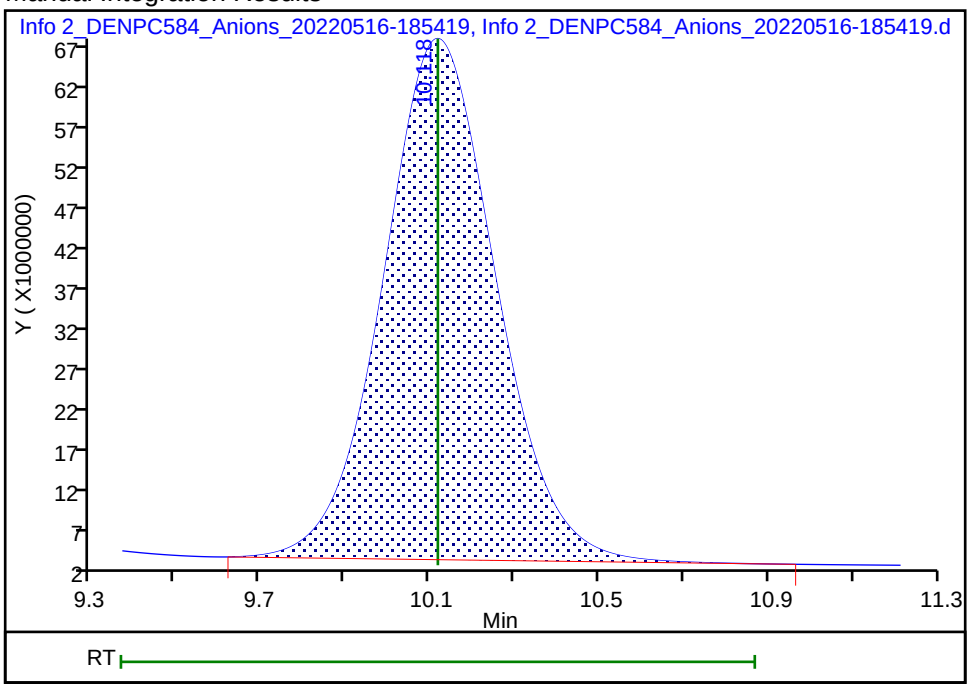
Manual Integration Results

RT: 10.12

Area: 1200244426

Amount: 117.4134

Amount Units: ug/ml



Reviewer: mitchellj, 17-May-2022 09:51:03

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-May-2022 18:54:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111056-007
Misc. Info.: 280-0111056-007
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2022 16:38:08 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1686

First Level Reviewer: jindaratc Date: 16-May-2022 19:13:17

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.008	3.008	0.000	292041123	10.0	10.4	
2 Chloride	4.325	4.325	0.000	2898216814	200.0	202.9	Ma
3 Nitrite as N	5.028	5.028	0.000	334812084	NC	NC	M
4 Bromide	6.422	6.422	0.000	53656450	10.0	10.6	a
5 Nitrate as N	7.243	7.243	0.000	356636332	NC	NC	a
7 Orthophosphate as P	8.958	8.958	0.000	220410536	NC	NC	a
6 Sulfate	10.098	10.098	0.000	2083602807	200.0	203.6	Ma

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

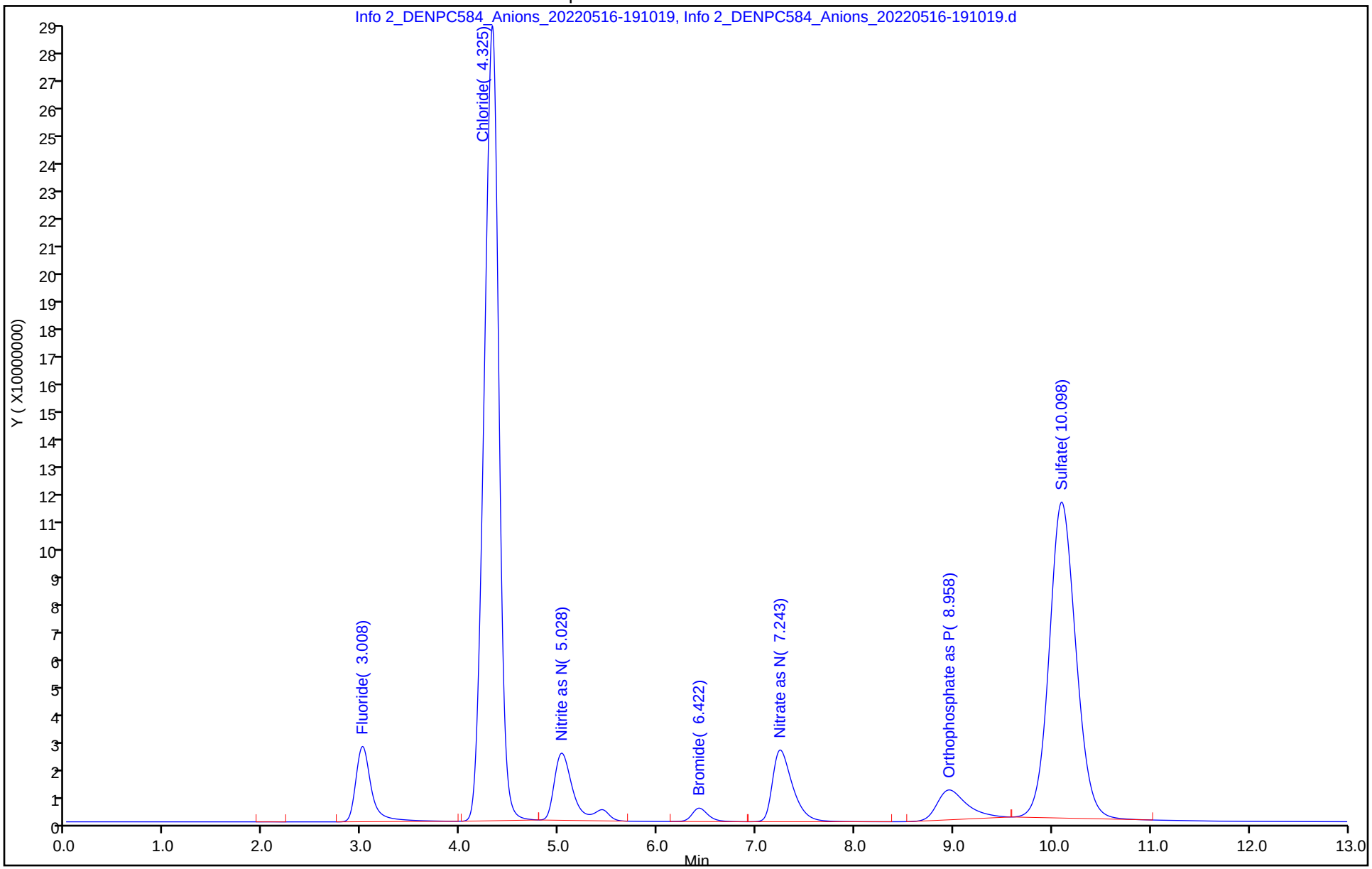
Reagents:

IC CAL cl/so4_00419 Amount Added: 4.00 Units: mL
IC Cal low_00637 Amount Added: 1.00 Units: mL

Report Date: 17-May-2022 16:38:09 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191019.d				
Injection Date:	16-May-2022 18:54:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Injection Date: 16-May-2022 18:54:00 Instrument ID: WC_IonChrom13

Lims ID: std L6

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 7

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

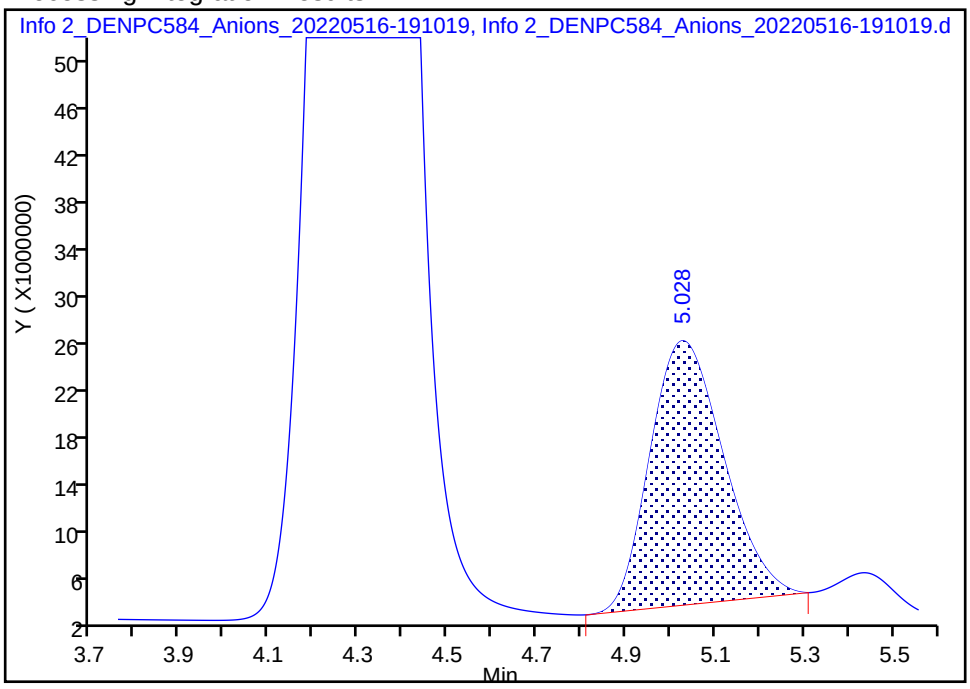
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

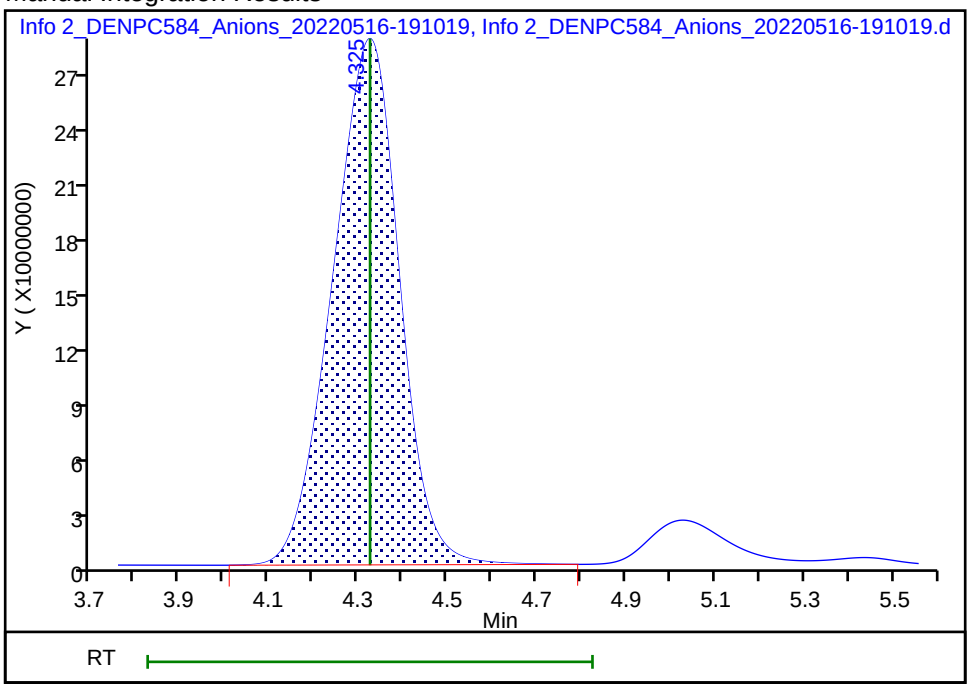
Processing Integration Results

RT: 5.03
Area: 259494000
Amount: 33.830738
Amount Units: ug/ml



Manual Integration Results

RT: 4.33
Area: 2898216814
Amount: 202.9065
Amount Units: ug/ml



Reviewer: jindaratc, 16-May-2022 19:13:11

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Injection Date: 16-May-2022 18:54:00 Instrument ID: WC_IonChrom13

Lims ID: std L6

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 7

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

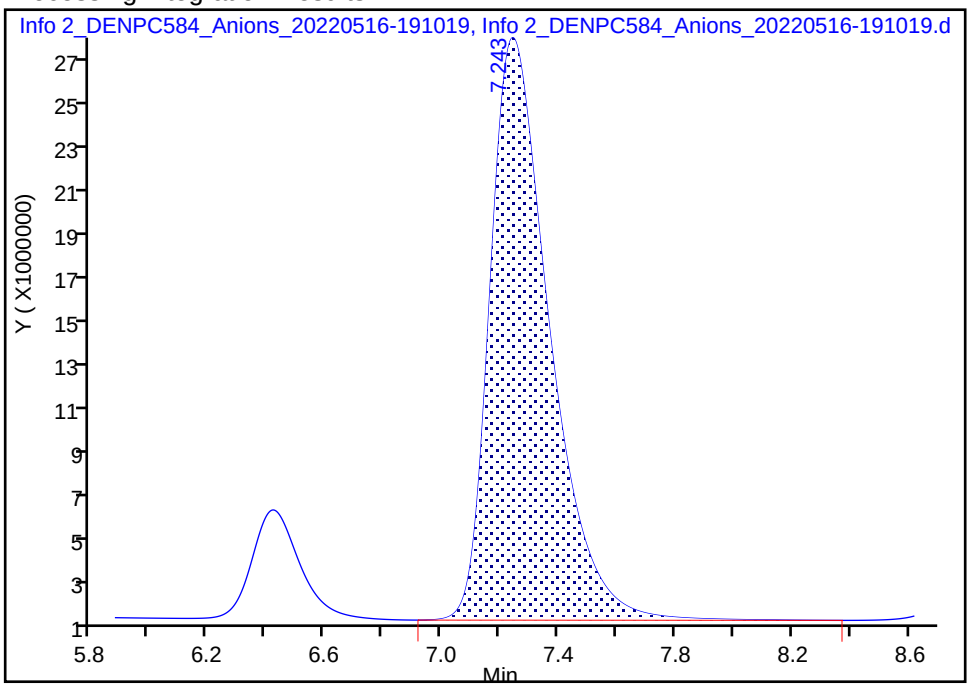
Column: Detector 0005

4 Bromide, CAS: 24959-67-9

Signal: 1

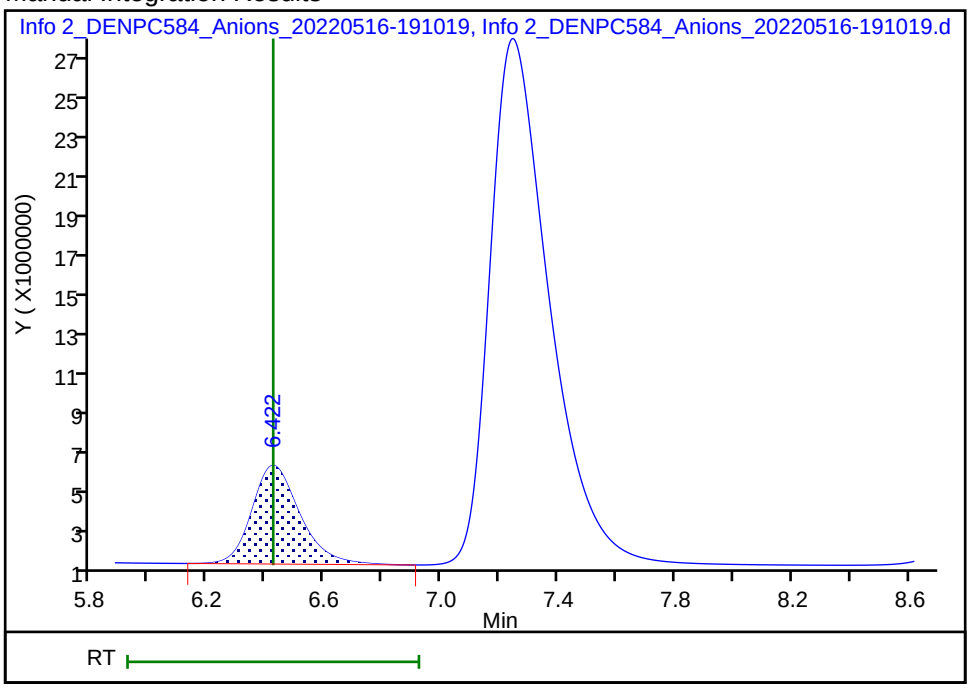
Processing Integration Results

RT: 7.24
Area: 356636332
Amount: 18.565454
Amount Units: ug/ml



Manual Integration Results

RT: 6.42
Area: 53656450
Amount: 10.552158
Amount Units: ug/ml



Reviewer: jindaratc, 16-May-2022 19:12:25

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Injection Date: 16-May-2022 18:54:00 Instrument ID: WC_IonChrom13

Lims ID: std L6

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 7

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

Column: Detector 0005

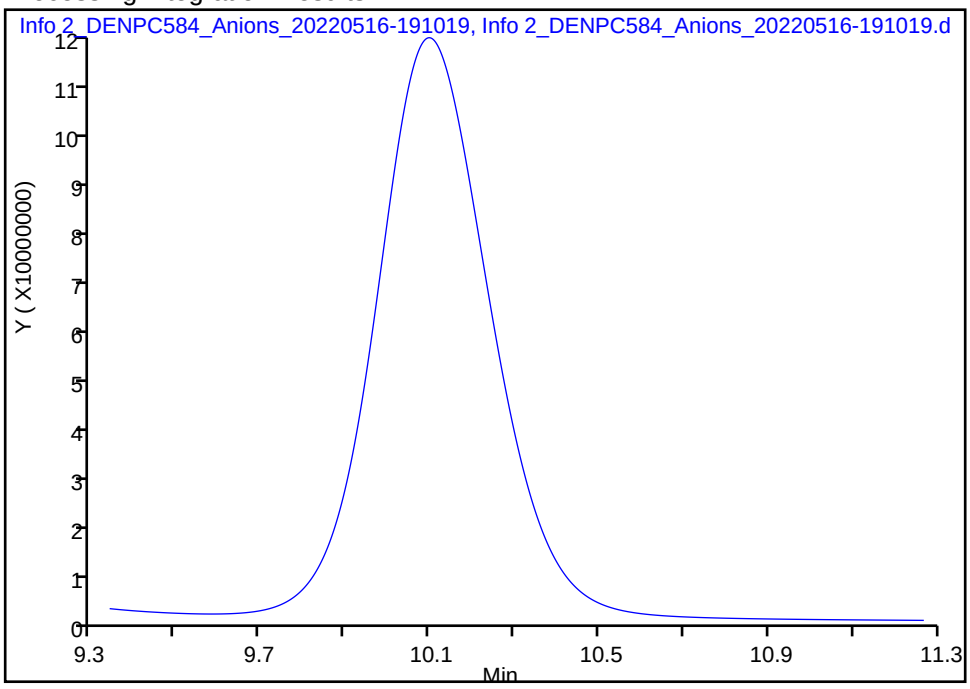
6 Sulfate, CAS: 14808-79-8

Signal: 1

Not Detected

Expected RT: 10.10

Processing Integration Results



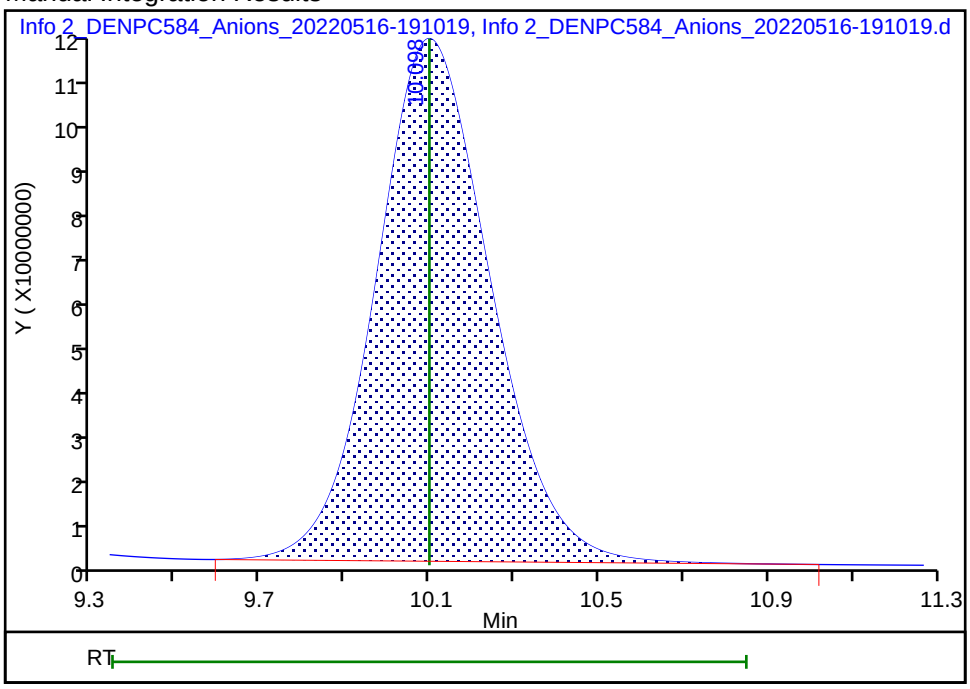
Manual Integration Results

RT: 10.10

Area: 2083602807

Amount: 203.6069

Amount Units: ug/ml



Reviewer: mitchellj, 17-May-2022 09:51:33

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

IC Instrument Information

WL: 111056 **Inst ID:** IC13 **Analysis Date:** 5/17/21 **Analyst:** SM

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	161730	2	F Cl NO2 Br (NO3) PO4 SO4	MS/D	
☐	161689	3	F Cl NO2 Br (NO3) PO4 SO4	MS/D	
☐	161851	2	(F) Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	161983	2	(F) Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	161941	3	(F) (Cl) NO2 (Br) NO3 PO4 (SO4)	MS/D	
☐	161987	6	(F) Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	162040	12	(F) (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
689	3	F Cl NO2 Br (NO3) PO4 SO4	20,50	Rerun
983	2	(F) Cl NO2 Br NO3 PO4 SO4	5,10	Rerun
941	3	(F) (Cl) NO2 (Br) NO3 PO4 (SO4)	1,10,20	Test
040	12	(F) (Cl) NO2 Br NO3 PO4 (SO4)	1,5,10,20,100,200	↓
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Eurofins Environment Testing America
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Instrument: WC_IonChrom13 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-May-2022 16:42:13
No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b
Inj Date : 16-May-2022 17:34:00, Sublist: chrom-Anions-IC13*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-253726	2839926		0.997
2 Chloride					-300840	1429833		1.000
3 Nitrite as N	-135857	3279286		0.999				
4 Bromide					-274617	5110904		0.996
5 Nitrate as N	-222268	3464280		0.998				
7 Orthophosphate as P	-340970	2317515	R1	).994*				
6 Sulfate					-307299	1024855		1.000

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Instrument: WC_IonChrom13 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-May-2022 16:42:13
No.Compounds:7
Sublist: chrom-Anions-IC13*sub1
Limit Group: Wet - Anions

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-15.917 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-17502
Inj Date: 16-May-2022 17:34:00 Worklist: 111056 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18062
Inj Date: 16-May-2022 17:50:00 Worklist: 111056 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18222
Inj Date: 16-May-2022 18:06:00 Worklist: 111056 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18381
Inj Date: 16-May-2022 18:22:00 Worklist: 111056 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18541
Inj Date: 16-May-2022 18:38:00 Worklist: 111056 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-19101
Inj Date: 16-May-2022 18:54:00 Worklist: 111056 Sample#: 7

Start Cal Date: 16-May-2022 17:19:00 End Cal Date: 16-May-2022 18:54:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
27251320	29422806	31465657	31594454	32027761	33481208	-1358579			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		32792860		
5450264	14711403	31465657	M126377817	M256222089	M334812084				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				
5 Nitrate as N				Signal: 1					
Error: CorrCoef									
27235390	29000752	30914952	32359778	33845070	35663633	-2222686			0.998
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		34642807		
5447078	14500376	30914952	M129439113	M270760556	M356636332				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				
7 Orthophosphate as P				Signal: 1				R1	
10553260	12553660	16934127	25377882	22693644	22041054	-3409708			*0.994
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		23175151		
M2110652	M6276830	M16934127	101511529	M181549150	M220410536				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Instrument: WC_IonChrom13 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-May-2022 16:42:13
No.Compounds:7
Sublist: chrom-Anions-IC13*sub1
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-15.917 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-17502
Inj Date: 16-May-2022 17:34:00 Worklist: 111056 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18062
Inj Date: 16-May-2022 17:50:00 Worklist: 111056 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18222
Inj Date: 16-May-2022 18:06:00 Worklist: 111056 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18381
Inj Date: 16-May-2022 18:22:00 Worklist: 111056 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18541
Inj Date: 16-May-2022 18:38:00 Worklist: 111056 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-19101
Inj Date: 16-May-2022 18:54:00 Worklist: 111056 Sample#: 7

Start Cal Date: 16-May-2022 17:19:00 End Cal Date: 16-May-2022 18:54:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: CorrCoef Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
1 Fluoride				Signal: 1					
Error: raw_COD									
22063565	20819372	22759491	26037460	28008270	29204112	-2537266			0.997
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		28399266		
M4412713	M10409686	M22759491	M104149841	224066163	292041123				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				
2 Chloride				Signal: 1					
11659033	12840400	13741173	14206431	13948209	14491084	-3008401			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		14298337		
11659033	32101000	68705864	M852385867	M1673785026	M2898216814				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				
4 Bromide				Signal: 1					
4295445	4498318	4610780	4609405	4958454	5365645	-274617			0.996
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		5110904		
859089	2249159	4610780	M18437619	M39667629	M53656450				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				
6 Sulfate				Signal: 1					
Error: raw_COD									
8433467	8562872	8991274	10074672	10002037	10418014	-3072992			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		10248552		
M8433467	M21407179	M44956370	M604480306	M1200244426	M2083602807				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-192
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 16-May-2022 19:10:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111056-008
Misc. Info.: 280-0111056-008
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2022 16:54:01 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1686

First Level Reviewer: foxr Date: 17-May-2022 16:54:01

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.000	3.000	0.000	103863715	4.00	3.75	M
2 Chloride	4.288	4.288	0.000	1193181581	80.0	83.7	
3 Nitrite as N	5.058	5.058	0.000	119495939	NC	NC	M
4 Bromide	6.445	6.445	0.000	19140618	4.00	3.80	
5 Nitrate as N	7.312	7.312	0.000	130351577	NC	NC	
7 Orthophosphate as P	9.002	9.002	0.000	88395481	NC	NC	
6 Sulfate	10.130	10.130	0.000	855978859	80.0	83.8	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

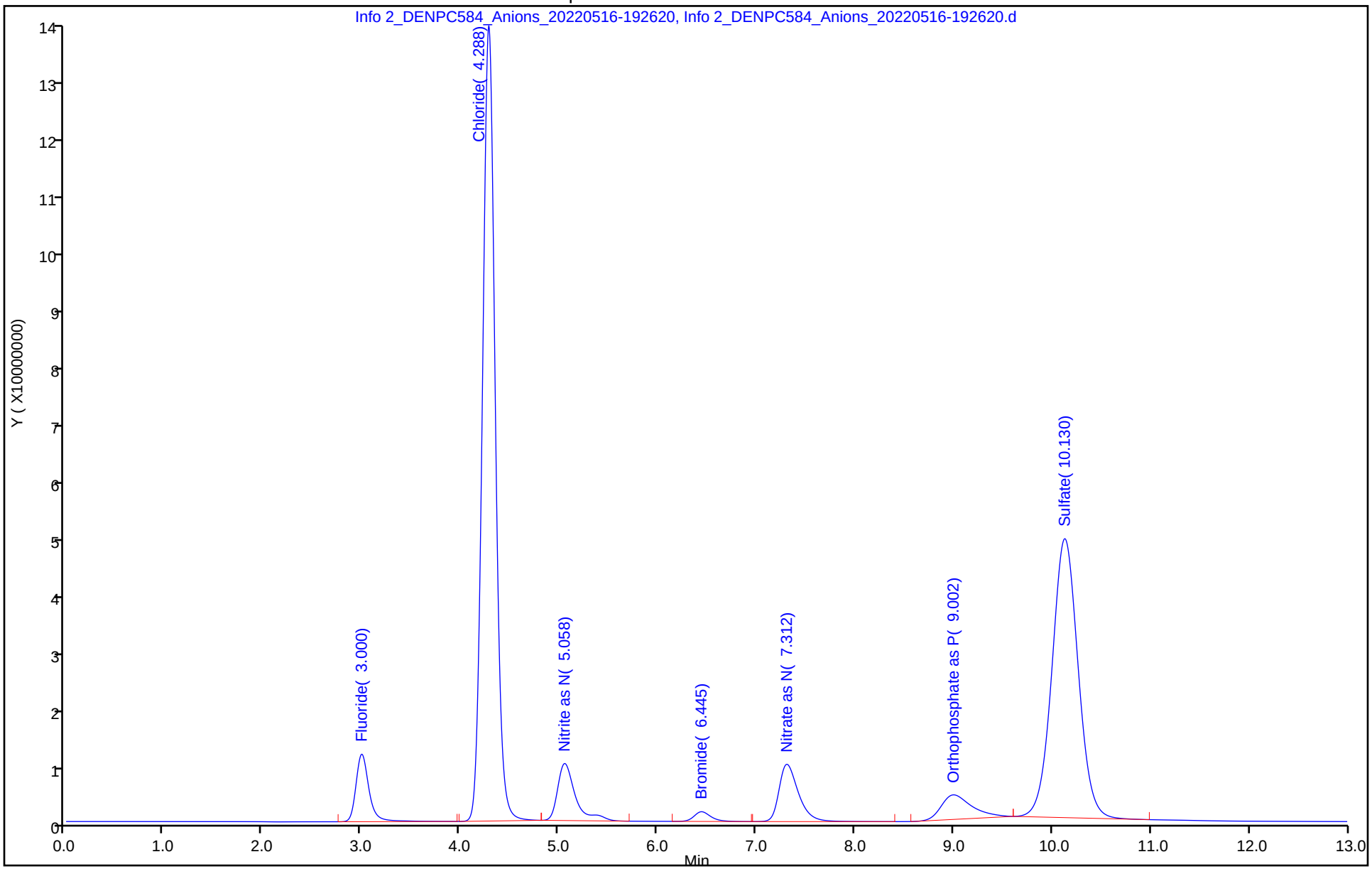
Reagents:

IC SO4 ICV_00022	Amount Added:	0.80	Units: mL
Cl ICV Std_00005	Amount Added:	0.80	Units: mL
IC ICV 5_00364	Amount Added:	0.80	Units: mL

Report Date: 17-May-2022 16:54:01 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-192620.d				
Injection Date:	16-May-2022 19:10:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-192

Injection Date: 16-May-2022 19:10:00 Instrument ID: WC_IonChrom13

Lims ID: ICV

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 8

Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

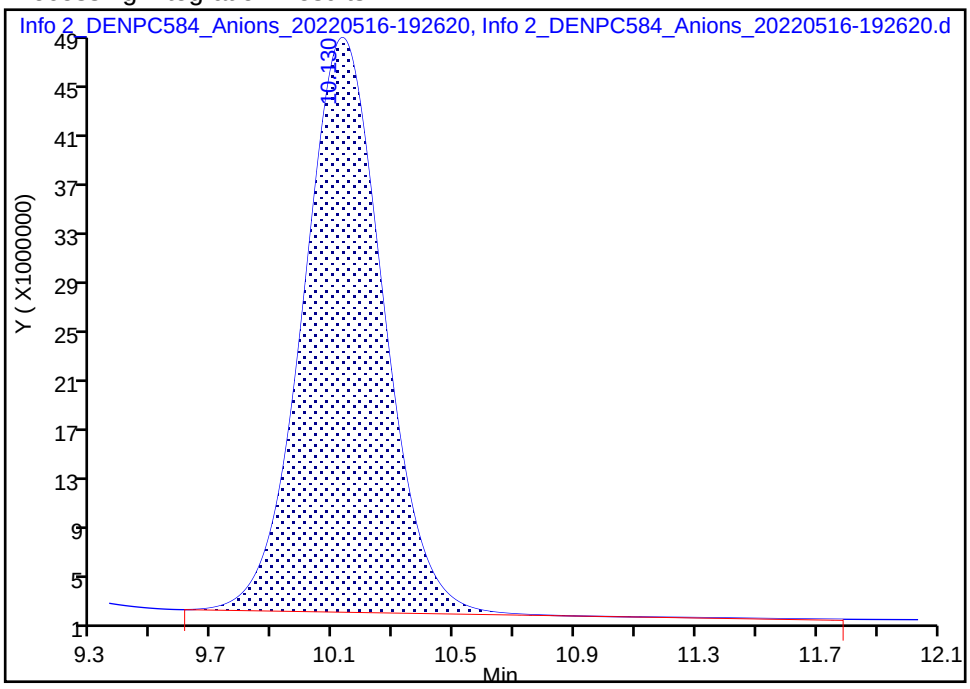
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

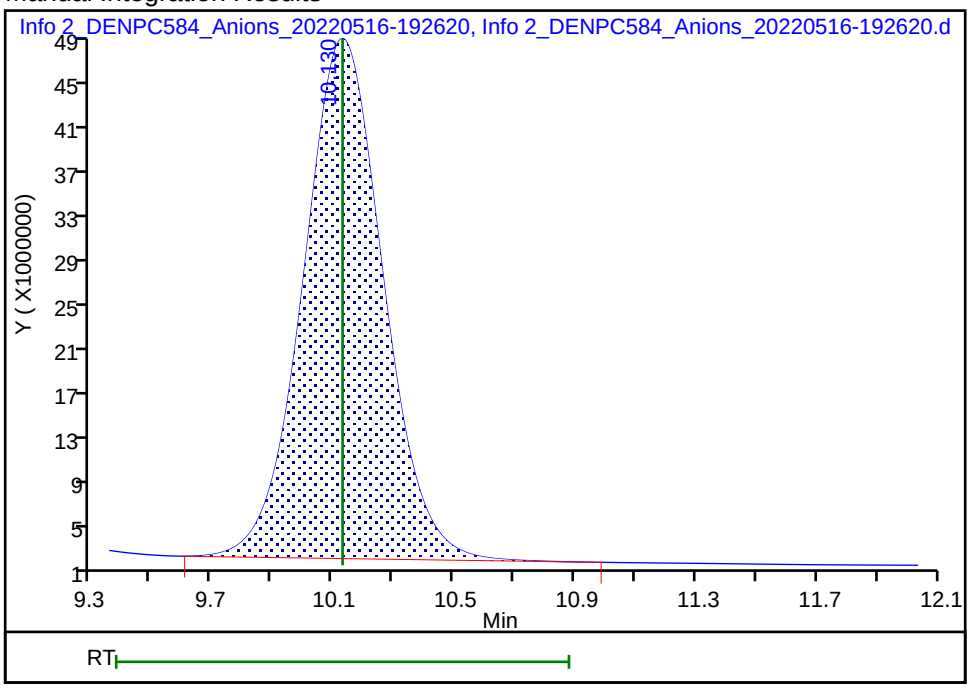
Processing Integration Results

RT: 10.13
Area: 857521281
Amount: 83.972278
Amount Units: ug/ml



Manual Integration Results

RT: 10.13
Area: 855978859
Amount: 83.821777
Amount Units: ug/ml



Reviewer: mitchellj, 17-May-2022 09:53:01

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-194
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 16-May-2022 19:26:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111056-009
Misc. Info.: 280-0111056-009
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 17-May-2022 16:43:22 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1686

First Level Reviewer: mitchellj Date: 17-May-2022 09:59:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.107	3.000	0.107	25038		0.0902	M
2 Chloride		4.288				ND	
3 Nitrite as N		5.058				ND	
4 Bromide		6.445				ND	
5 Nitrate as N		7.312				ND	
7 Orthophosphate as P	10.210	9.002	1.208	342663		NC	
6 Sulfate		10.130				ND	

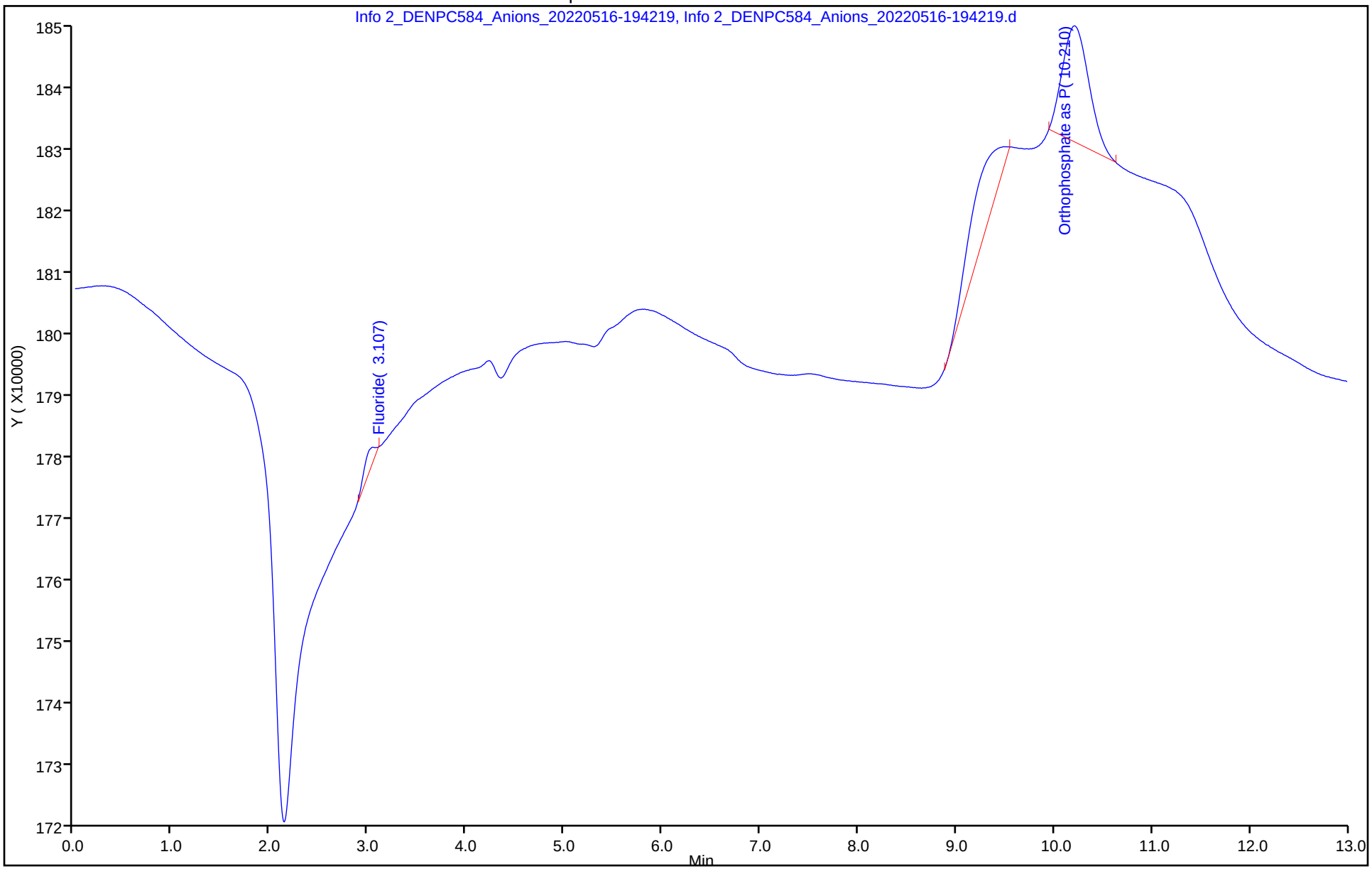
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 17-May-2022 16:43:22 Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-194219.d				
Injection Date:	16-May-2022 19:26:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



IC Instrument Information

WL: 111462 **Inst ID:** IC13 **Analysis Date:** 5-31-22 **Analyst:** RF

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	162252	1	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	
☐	162329	4	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162423	1	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	
☐	162418	1	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	
☐	162681	3	F (Cl) NO2 Br NO3 PO4 SO4	MS/D	
☐	162343	2	F (Cl) NO2 Br NO3 PO4 (SO4)	(MS/D) #2	
☐	162334	2	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162342	2	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162349	1	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162667	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162646	11	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	162386	10	F Cl NO2 Br NO3 PO4 (SO4)	(MS/D) #1	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
252	1	F (Cl) NO2 Br NO3 PO4 SO4	50X	rerun
329	4	F Cl NO2 Br NO3 PO4 (SO4)	5X 10X 20X	rerun
423	1	F (Cl) NO2 Br NO3 PO4 SO4	5X	rerun
418	1	F (Cl) NO2 Br NO3 PO4 SO4	200X	rerun
681	3	F (Cl) NO2 Br NO3 PO4 SO4	2X5X	test
343	2	F (Cl) NO2 Br NO3 PO4 (SO4)	5X 20X	test
334	1	F (Cl) NO2 Br NO3 PO4 (SO4)	5X	test
342	2	F (Cl) NO2 Br NO3 PO4 (SO4)	5X 20X	test
349	1	F (Cl) NO2 Br NO3 PO4 (SO4)	10X	test
667	1	(SO4)	5X	test
646	5	(Cl) (SO4)	5X	test
386		(SO4)	2X5X	test

Eurofins Environment Testing America
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m

Instrument:	WC_IonChrom13	Lims Location:	280
Lock State:	Initial Calib Locked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	17-May-2022 16:42:13

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b
Inj Date : 16-May-2022 17:34:00, Sublist: chrom-Anions-IC13*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-253726	2839926		0.997
2 Chloride					-30084	1429833		1.000
3 Nitrite as N	-135857	3279286		0.999				
4 Bromide					-274617	5110904		0.996
5 Nitrate as N	-222268	3464280		0.998				
7 Orthophosphate as P	-340970	2317515	R1	).994*				
6 Sulfate					-307299	1024855		1.000

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m

Instrument:	WC_IonChrom13	Lims Location:	280
Lock State:	Initial Calib Locked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	17-May-2022 16:42:13
No.Compounds:	7		
Sublist:	chrom-Anions-IC13*sub1		
Limit Group:	Wet - Anions		

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-15.917 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-17502
Inj Date: 16-May-2022 17:34:00 Worklist: 111056 Sample#: 2

Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18062
Inj Date: 16-May-2022 17:50:00 Worklist: 111056 Sample#: 3

Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18222
Inj Date: 16-May-2022 18:06:00 Worklist: 111056 Sample#: 4

Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18381
Inj Date: 16-May-2022 18:22:00 Worklist: 111056 Sample#: 5

Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18541
Inj Date: 16-May-2022 18:38:00 Worklist: 111056 Sample#: 6

Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-19101
Inj Date: 16-May-2022 18:54:00 Worklist: 111056 Sample#: 7

Start Cal Date: 16-May-2022 17:19:00 End Cal Date: 16-May-2022 18:54:00

Individual Compound Calibration Parameters

Quant Method: ESTD	RF Calibration: Replace	
Rule Name: Linear1	Curve: Linear	Weighting: Conc
Origin: None	Error: raw_COD	Error Limit: 1.00
RF %Dif: 0.0	SPCC Limit: 0.0	CCC Limit: 0.0
Dependent Variable: Resp		

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
27251320	29422806	31465657	31594454	32027761	33481208	-1358579			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		32792860		
5450264	14711403	31465657	M126377817	M256222089	M334812084				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				
5 Nitrate as N				Signal: 1					
Error: CorrCoef									
27235390	29000752	30914952	32359778	33845070	35663633	-2222686			0.998
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		34642807		
5447078	14500376	30914952	M129439113	M270760556	M356636332				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				
7 Orthophosphate as P				Signal: 1				R1	
10553260	12553660	16934127	25377882	22693644	22041054	-3409708			*0.994
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		23175151		
M2110652	M6276830	M16934127	101511529	M181549150	M220410536				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Anions-IC13.m
Instrument: WC_IonChrom13 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-May-2022 16:42:13
No.Compounds:7
Sublist: chrom-Anions-IC13*sub1
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-15.917 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-17502
Inj Date: 16-May-2022 17:34:00 Worklist: 111056 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18062
Inj Date: 16-May-2022 17:50:00 Worklist: 111056 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18222
Inj Date: 16-May-2022 18:06:00 Worklist: 111056 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18381
Inj Date: 16-May-2022 18:22:00 Worklist: 111056 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-18541
Inj Date: 16-May-2022 18:38:00 Worklist: 111056 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-19101
Inj Date: 16-May-2022 18:54:00 Worklist: 111056 Sample#: 7

Start Cal Date: 16-May-2022 17:19:00 End Cal Date: 16-May-2022 18:54:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: CorrCoef Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
1 Fluoride				Signal: 1					
Error: raw_COD									
22063565	20819372	22759491	26037460	28008270	29204112	-2537266			0.997
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		28399266		
M4412713	M10409686	M22759491	M104149841	224066163	292041123				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				
2 Chloride				Signal: 1					
11659033	12840400	13741173	14206431	13948209	14491084	-3008401			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		14298337		
11659033	32101000	68705864	M852385867	M1673785026	M2898216814				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				
4 Bromide				Signal: 1					
4295445	4498318	4610780	4609405	4958454	5365645	-274617			0.996
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		5110904		
859089	2249159	4610780	M18437619	M39667629	M53656450				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				
6 Sulfate				Signal: 1					
Error: raw_COD									
8433467	8562872	8991274	10074672	10002037	10418014	-3072992			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		10248552		
M8433467	M21407179	M44956370	M604480306	M1200244426	M2083602807				
111056(2)	111056(3)	111056(4)	111056(5)	111056(6)	111056(7)				

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220531-114
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 31-May-2022 11:29:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-003
Misc. Info.: 280-0111462-003
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 31-May-2022 16:09:15 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1655

First Level Reviewer: foxr Date: 31-May-2022 12:02:05

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.037	3.042	-0.005	9763981	0.5000	0.4332	M
2 Chloride	4.308	4.325	-0.017	62419767	5.00	4.58	
3 Nitrite as N	5.107	5.077	0.030	14334908	NC	NC	
4 Bromide	6.483	6.447	0.036	2302366	0.5000	0.5042	M
5 Nitrate as N	7.407	7.295	0.112	13598892	NC	NC	
7 Orthophosphate as P	8.978	8.857	0.121	4948868	NC	NC	
6 Sulfate	9.982	9.938	0.044	43637030	5.00	4.56	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

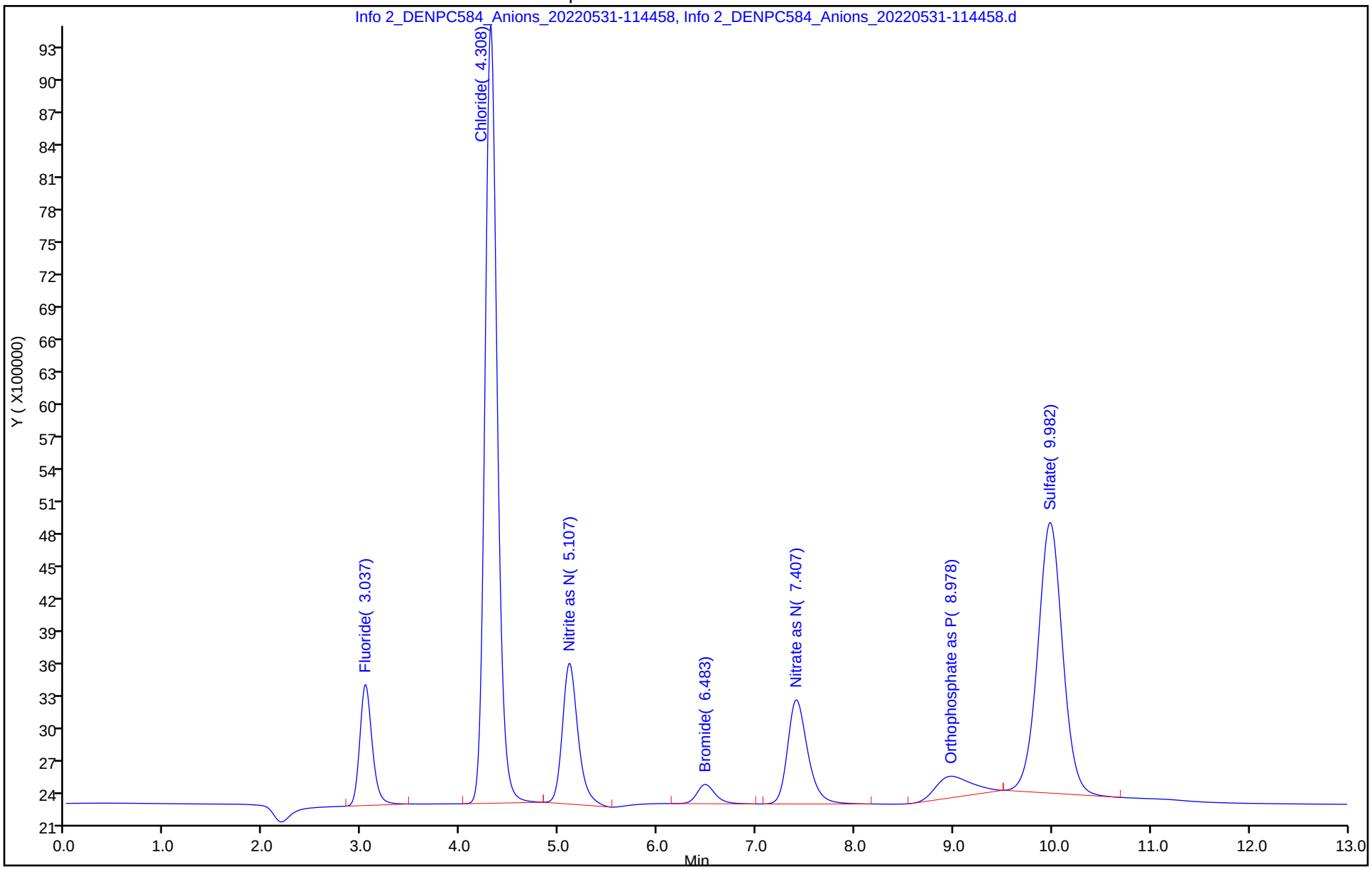
IC Cal low_00641 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00423 Amount Added: 0.20 Units: mL

Report Date: 31-May-2022 16:09:17 Chrom Revision: 2.3 18-May-2022 20:00:04

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220531-114458.d

Injection Date:	31-May-2022 11:29:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220531-114

Injection Date: 31-May-2022 11:29:00 Instrument ID: WC_IonChrom13

Lims ID: MRL

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

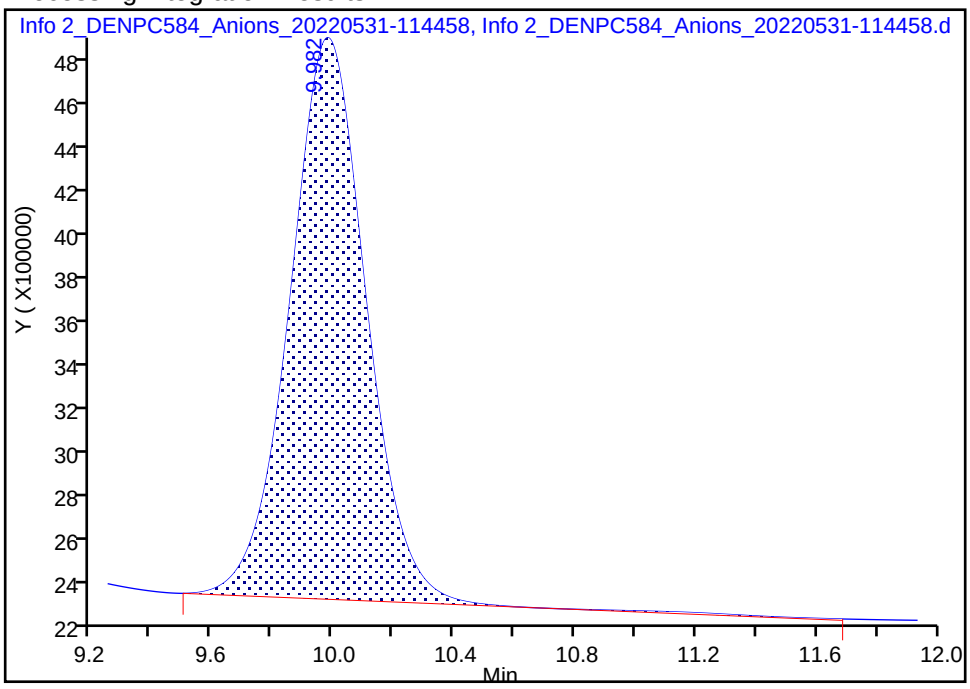
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

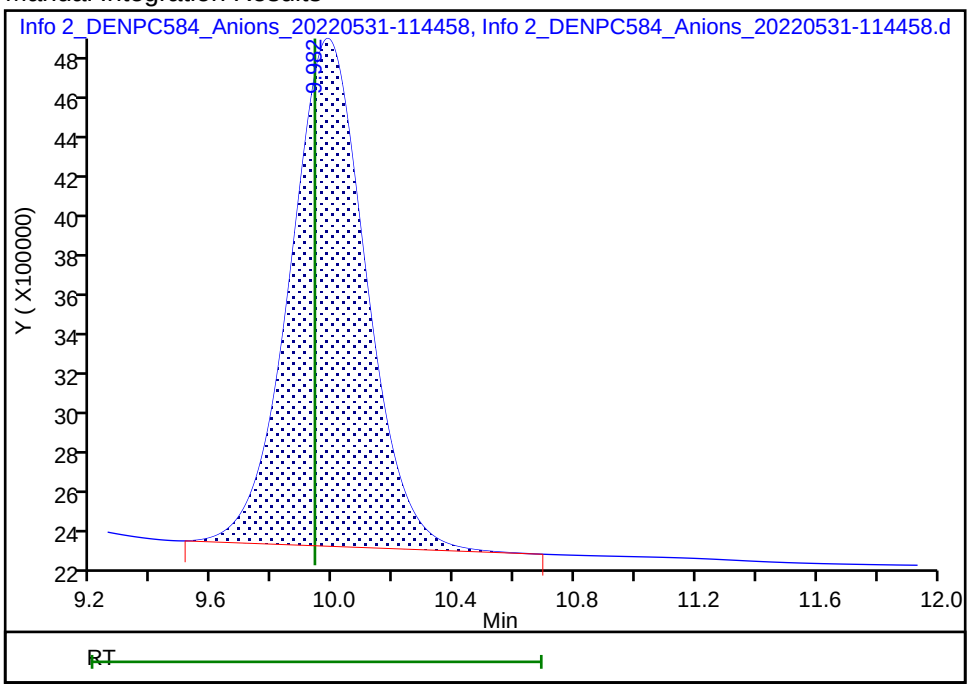
Processing Integration Results

RT: 9.98
Area: 43890104
Amount: 4.582413
Amount Units: ug/ml



Manual Integration Results

RT: 9.98
Area: 43637030
Amount: 4.557719
Amount Units: ug/ml



Reviewer: foxr, 31-May-2022 12:01:56

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220531-215
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 31-May-2022 21:37:00 ALS Bottle#: 0 Worklist Smp#: 48
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-048
Misc. Info.: 280-0111462-048
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:35 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:36:46

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.042	3.042	0.000	130048334	5.00	4.67	
2 Chloride	4.312	4.325	-0.013	1427313442	100.0	100.0	
3 Nitrite as N	5.045	5.077	-0.032	166317538	NC	NC	
4 Bromide	6.365	6.447	-0.082	26247990	5.00	5.19	
5 Nitrate as N	7.195	7.295	-0.100	172322901	NC	NC	
7 Orthophosphate as P	8.908	8.857	0.051	124486255	NC	NC	
6 Sulfate	9.977	9.938	0.039	1026160832	100.0	100.4	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

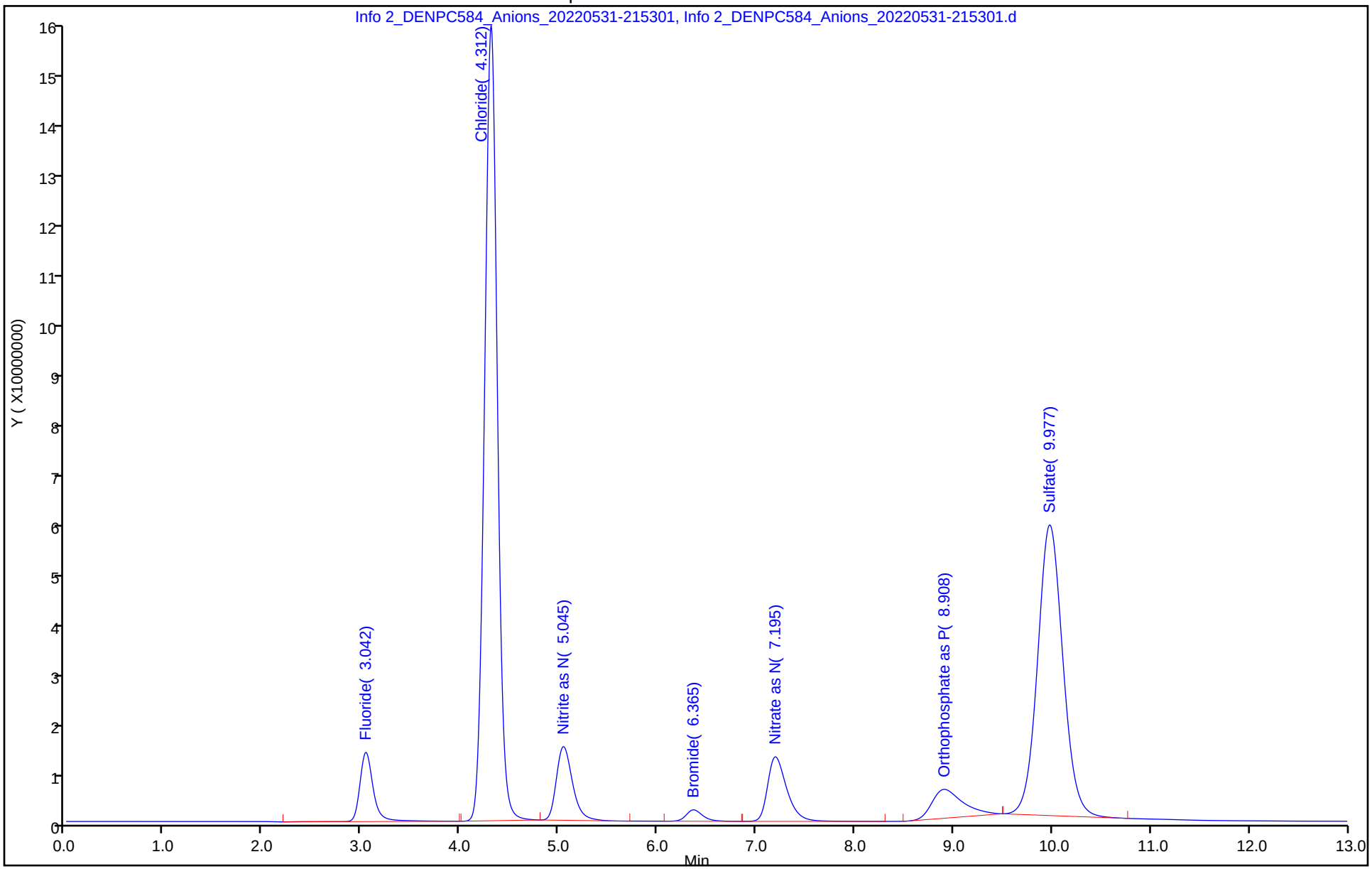
Reagents:

IC LCS_01878 Amount Added: 10.00 Units: mL

Report Date: 01-Jun-2022 13:29:36 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220531-215301.d				
Injection Date:	31-May-2022 21:37:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	48
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

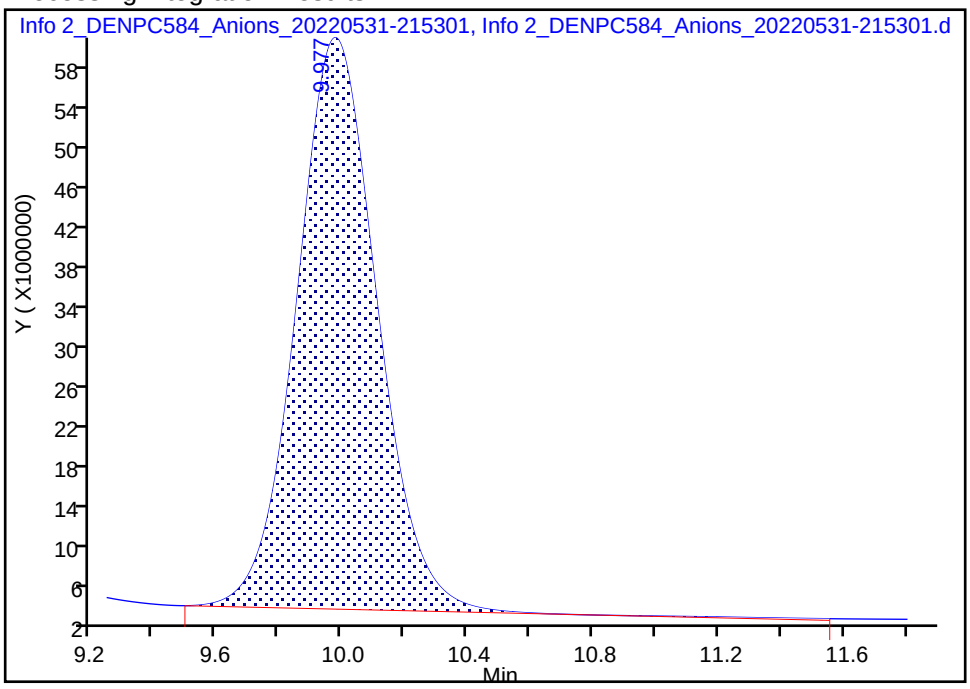
Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220531-215
Injection Date: 31-May-2022 21:37:00 Instrument ID: WC_IonChrom13
Lims ID: ccv
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 48
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions-IC13 Limit Group: Wet - Anions 28D
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

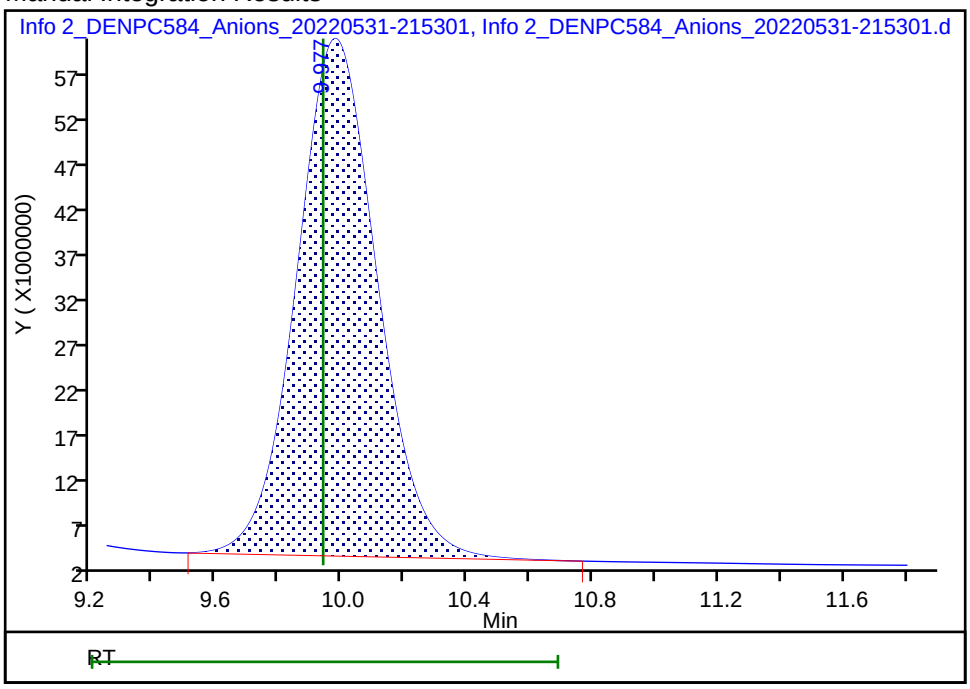
Processing Integration Results

RT: 9.98
Area: 1029149555
Amount: 100.7189
Amount Units: ug/ml



Manual Integration Results

RT: 9.98
Area: 1026160832
Amount: 100.4272
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:36:43
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220531-220
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 31-May-2022 21:53:00 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-049
Misc. Info.: 280-0111462-049
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:35 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:37:01

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.042				ND	
2 Chloride	4.307	4.325	-0.018	64064		0.2149	M
3 Nitrite as N		5.077				ND	
4 Bromide		6.447				ND	U
5 Nitrate as N		7.295				ND	
7 Orthophosphate as P		8.857				ND	
6 Sulfate	10.080	9.938	0.142	2179732		0.5125	

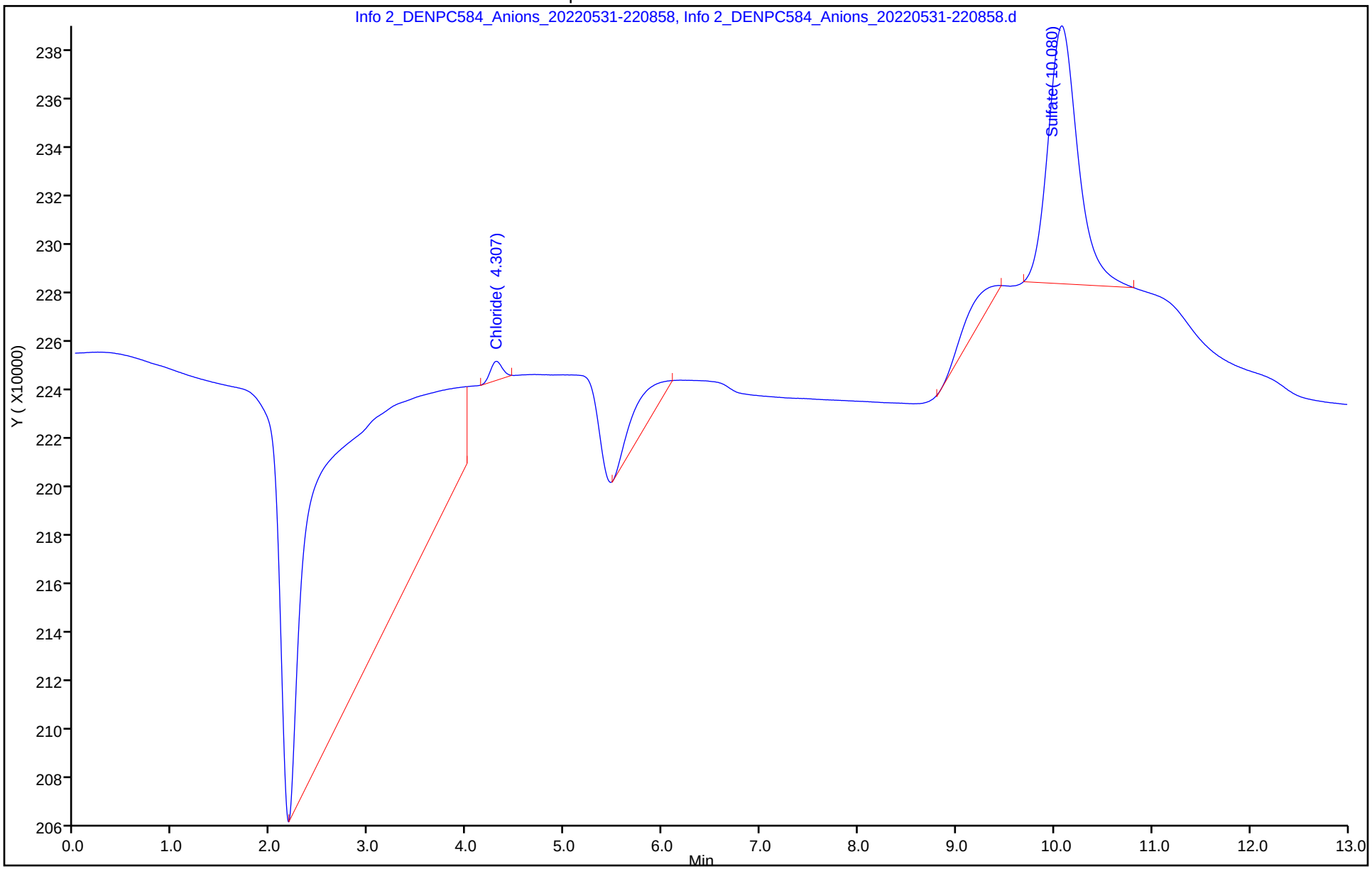
QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 01-Jun-2022 13:29:36 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220531-220858.d				
Injection Date:	31-May-2022 21:53:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	49
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220531-234
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 31-May-2022 23:28:00 ALS Bottle#: 0 Worklist Smp#: 55
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-055
Misc. Info.: 280-0111462-055
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:35 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:40:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.045	3.042	0.003	129650059	5.00	4.65	
2 Chloride	4.317	4.325	-0.008	1424084137	100.0	99.8	
3 Nitrite as N	5.053	5.077	-0.024	165599426	NC	NC	
4 Bromide	6.378	6.447	-0.069	26220785	5.00	5.18	
5 Nitrate as N	7.212	7.295	-0.083	171806870	NC	NC	
7 Orthophosphate as P	8.907	8.857	0.050	124318113	NC	NC	
6 Sulfate	9.982	9.938	0.044	1023939883	100.0	100.2	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

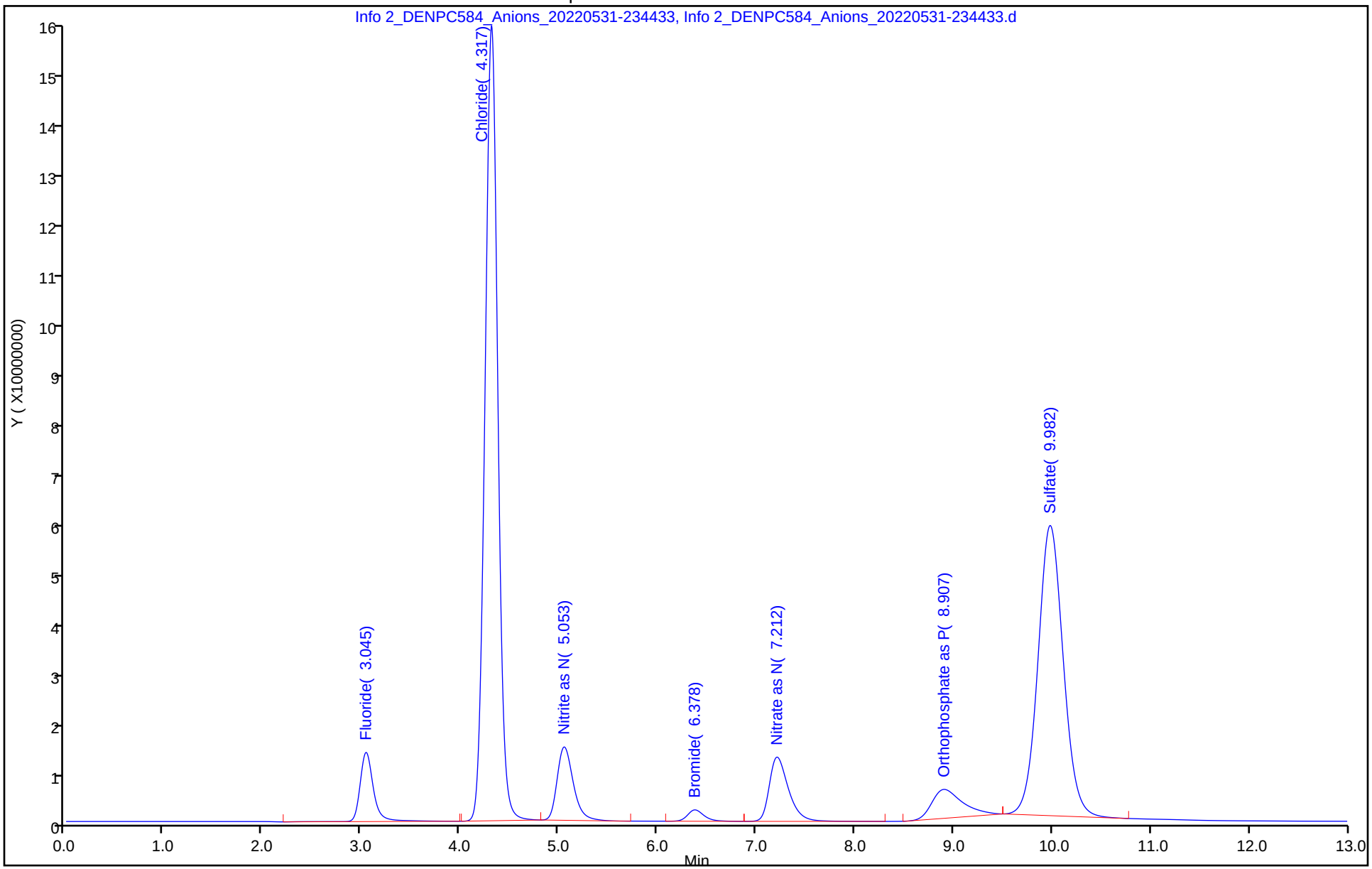
IC LCS_01878 Amount Added: 10.00 Units: mL

Report Date: 01-Jun-2022 13:29:38 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220531-234433.d

Injection Date:	31-May-2022 23:28:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	lcs			Worklist Smp#:	55
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220531-234

Injection Date: 31-May-2022 23:28:00 Instrument ID: WC_IonChrom13

Lims ID: lcs

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 55

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

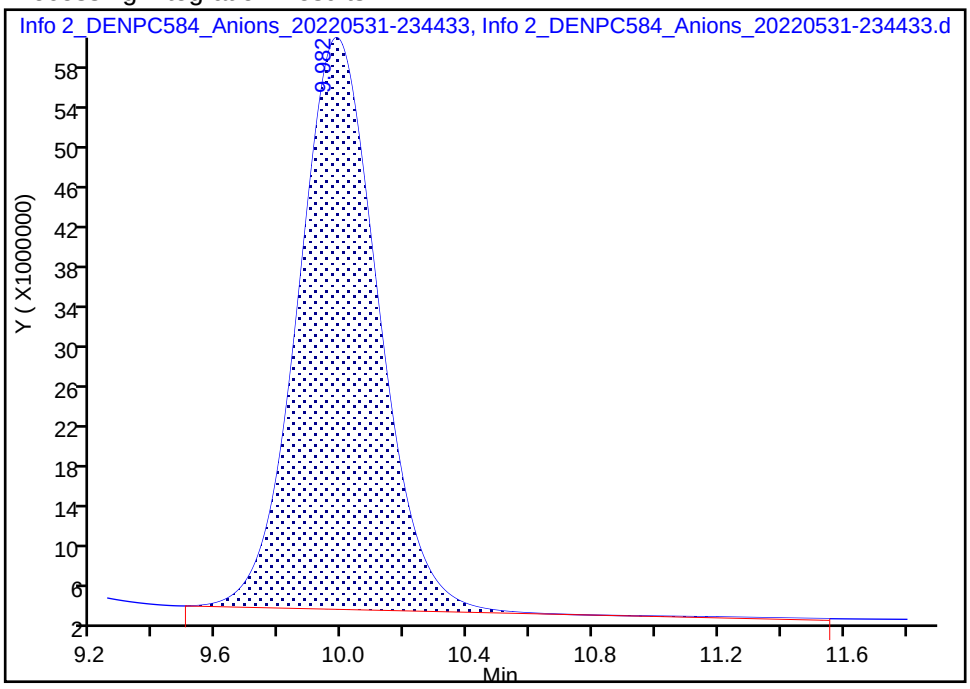
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

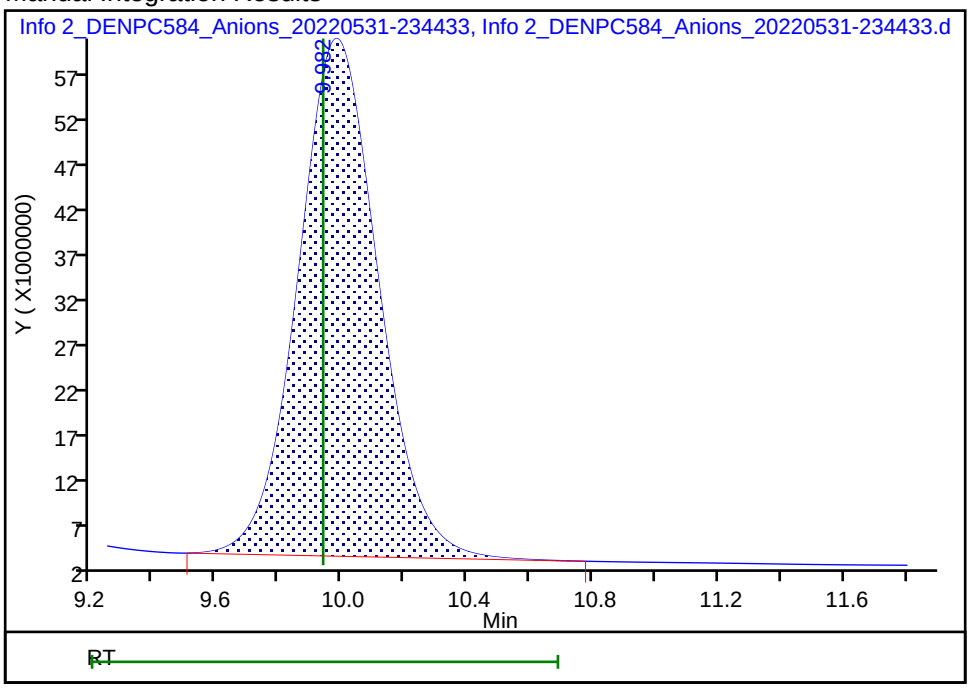
Processing Integration Results

RT: 9.98
Area: 1027399799
Amount: 100.5481
Amount Units: ug/ml



Manual Integration Results

RT: 9.98
Area: 1023939883
Amount: 100.2105
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:40:26

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-000
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 31-May-2022 23:44:00 ALS Bottle#: 0 Worklist Smp#: 56
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-056
Misc. Info.: 280-0111462-056
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:35 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:40:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.048	3.042	0.006	136580782	5.00	4.90	
2 Chloride	4.320	4.325	-0.005	1432272638	100.0	100.4	
3 Nitrite as N	5.058	5.077	-0.019	165995547	NC	NC	
4 Bromide	6.395	6.447	-0.052	26430798	5.00	5.23	
5 Nitrate as N	7.227	7.295	-0.068	172912839	NC	NC	
7 Orthophosphate as P	8.912	8.857	0.055	135759191	NC	NC	
6 Sulfate	9.998	9.938	0.060	1030668760	100.0	100.9	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

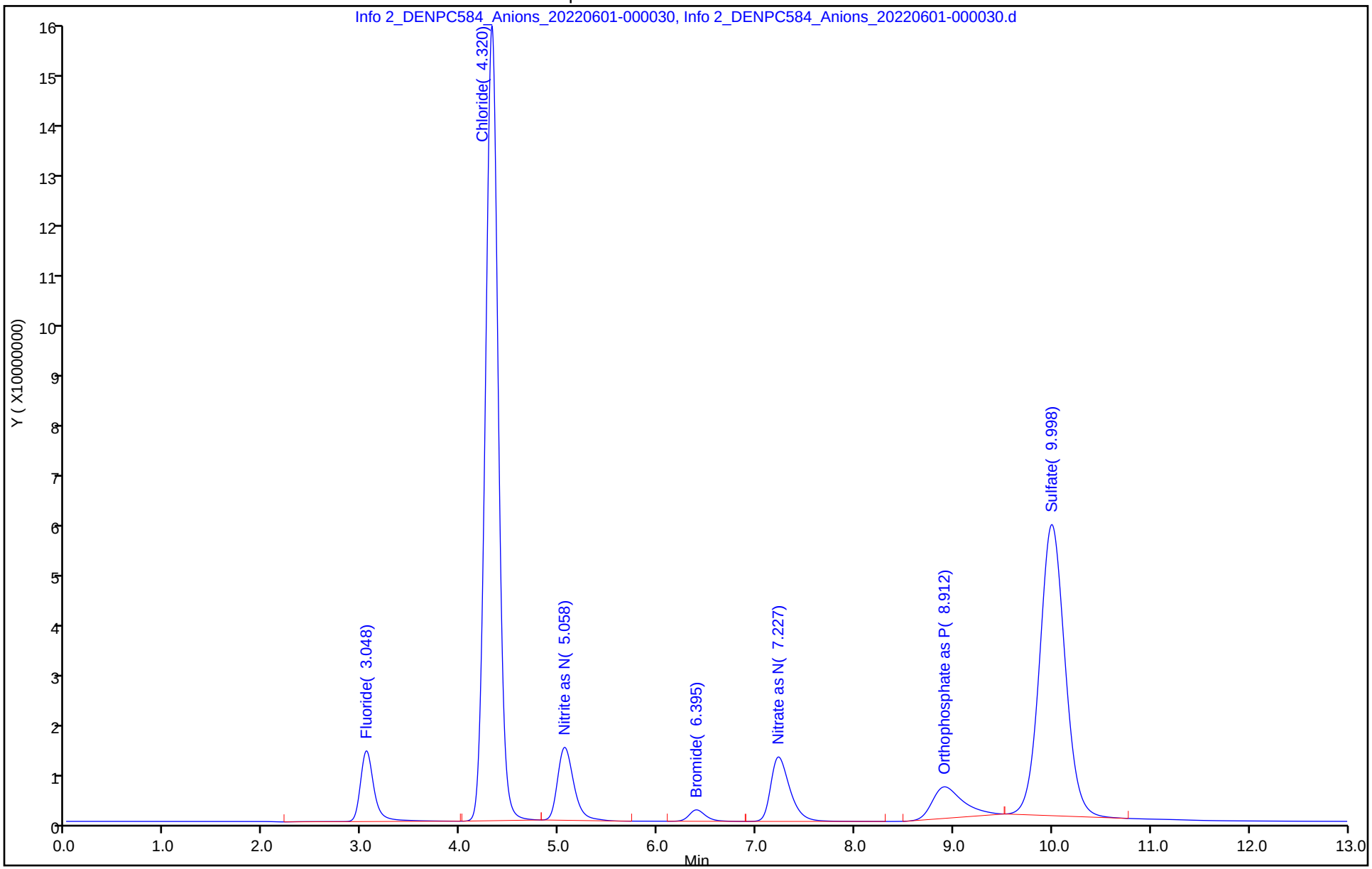
IC LCS_01878 Amount Added: 10.00 Units: mL

Report Date: 01-Jun-2022 13:29:39 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-000030.d

Injection Date:	31-May-2022 23:44:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	lcsd			Worklist Smp#:	56
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-000

Injection Date: 31-May-2022 23:44:00 Instrument ID: WC_IonChrom13

Lims ID: lcsd

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 56

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

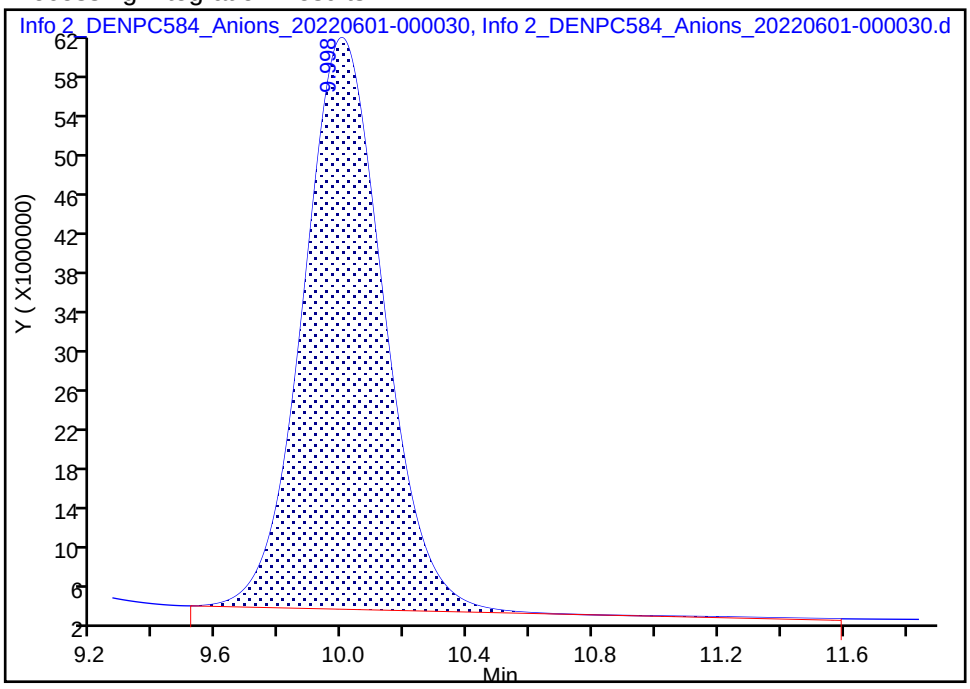
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

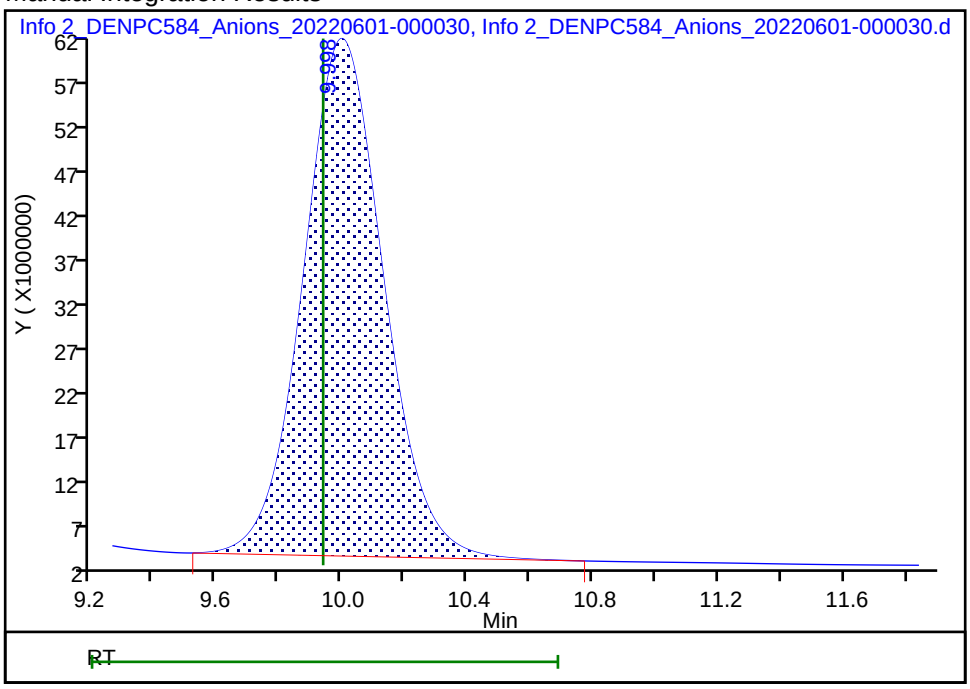
Processing Integration Results

RT: 10.00
Area: 1034221782
Amount: 101.2138
Amount Units: ug/ml



Manual Integration Results

RT: 10.00
Area: 1030668760
Amount: 100.8671
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:40:42

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-001
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 01-Jun-2022 00:00:00 ALS Bottle#: 0 Worklist Smp#: 57
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-057
Misc. Info.: 280-0111462-057
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:35 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:41:05

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.042				ND	
2 Chloride	4.305	4.325	-0.020	60176		0.2146	M
3 Nitrite as N		5.077				ND	
4 Bromide		6.447				ND	U
5 Nitrate as N		7.295				ND	
7 Orthophosphate as P		8.857				ND	
6 Sulfate	10.083	9.938	0.145	2333042		0.5275	

QC Flag Legend

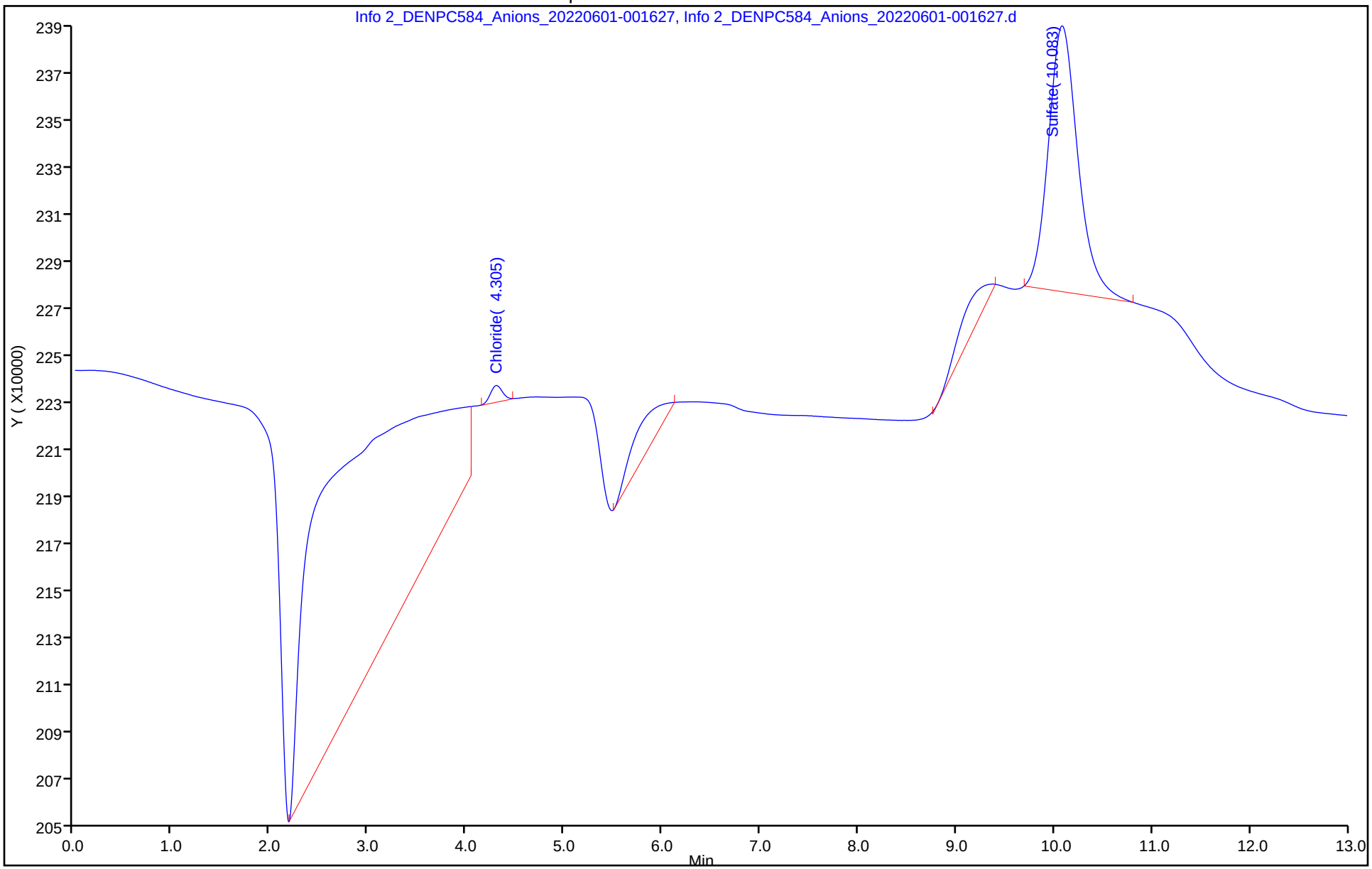
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 01-Jun-2022 13:29:40 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-001627.d

Injection Date:	01-Jun-2022 00:00:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	mb			Worklist Smp#:	57
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-003
Lims ID: 280-162386-F-1
Client ID: PZ007-22A
Sample Type: Client
Inject. Date: 01-Jun-2022 00:16:00 ALS Bottle#: 0 Worklist Smp#: 58
Injection Vol: 5.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111462-058
Misc. Info.: 280-0111462-058
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:35 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:41:32

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.040	3.042	-0.002	2788897	0.1875	
2 Chloride	4.292	4.325	-0.033	187928467	13.4	
3 Nitrite as N		5.077			ND	
4 Bromide	6.450	6.447	0.003	1210698	0.2906	
5 Nitrate as N	7.375	7.295	0.080	2441835	NC	
7 Orthophosphate as P		8.857			ND	
6 Sulfate	9.970	9.938	0.032	1741471524	170.2	M

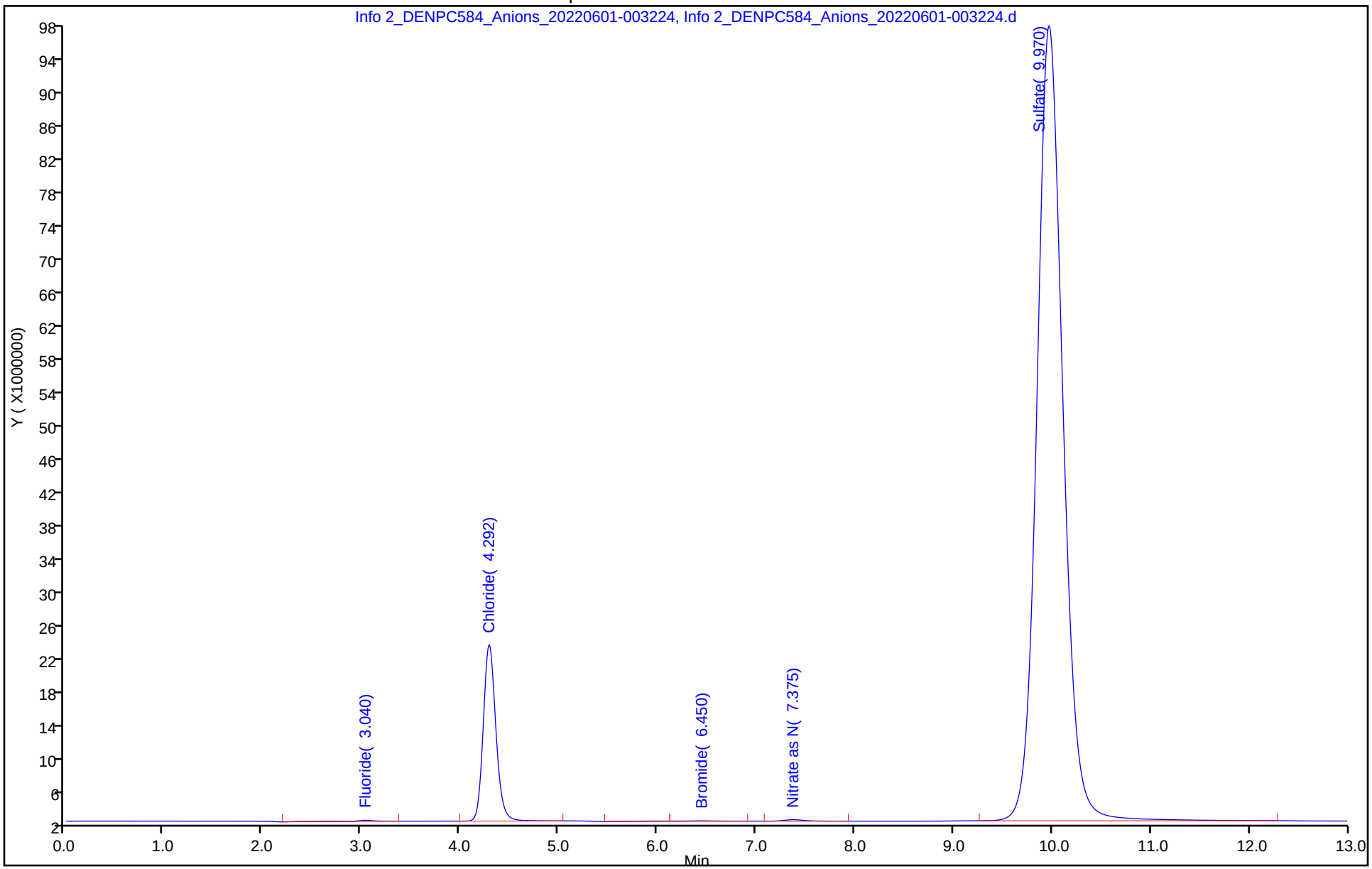
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 01-Jun-2022 13:29:40 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-003224.d				
Injection Date:	01-Jun-2022 00:16:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	280-162386-F-1	Lab Sample ID:	280-162386-1	Worklist Smp#:	58
Client ID:	PZ007-22A				
Injection Vol:	5.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

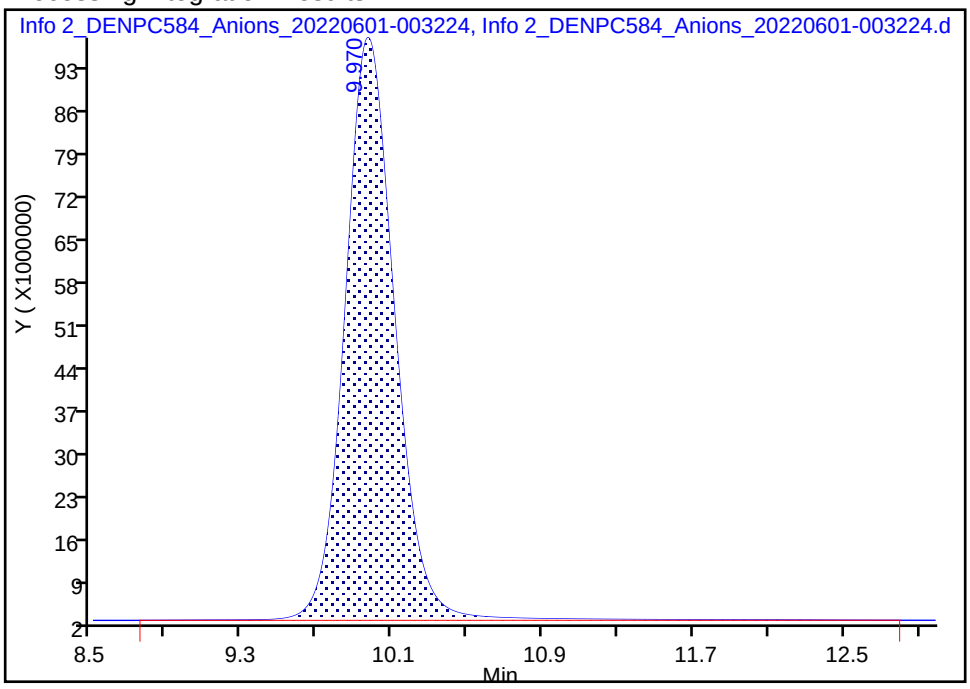
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-003				
Injection Date:	01-Jun-2022 00:16:00	Instrument ID:	WC_IonChrom13		
Lims ID:	280-162386-F-1	Lab Sample ID:	280-162386-1		
Client ID:	PZ007-22A				
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	58
Injection Vol:	5.0 ul	Dil. Factor:	5.0000		
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

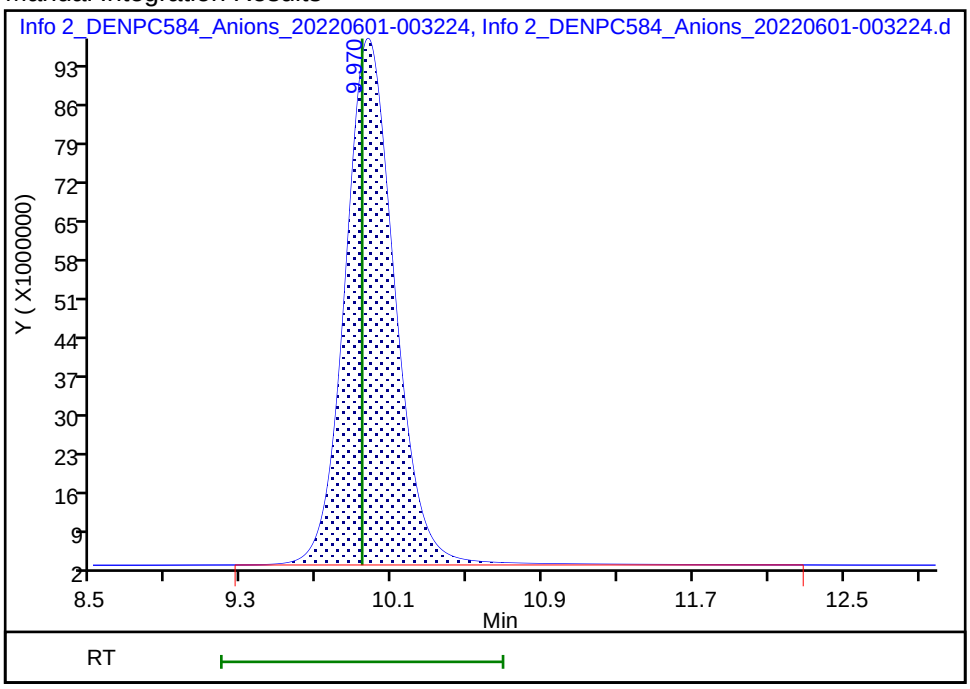
Processing Integration Results

RT: 9.97
Area: 1749765795
Amount: 171.0328
Amount Units: ug/ml



Manual Integration Results

RT: 9.97
Area: 1741471524
Amount: 170.2235
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:41:29
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-004
Lims ID: 280-162386-F-1 DU
Client ID:
Sample Type: DU
Inject. Date: 01-Jun-2022 00:32:00 ALS Bottle#: 0 Worklist Smp#: 59
Injection Vol: 5.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111462-059
Misc. Info.: 280-0111462-059
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:35 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:41:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.040	3.042	-0.002	2736914		0.1857	
2 Chloride	4.293	4.325	-0.032	184201041		13.1	M
3 Nitrite as N		5.077				ND	
4 Bromide	6.443	6.447	-0.004	351813		0.1226	
5 Nitrate as N	7.373	7.295	0.078	2228905		NC	
7 Orthophosphate as P		8.857				ND	
6 Sulfate	9.967	9.938	0.029	1706049208		166.8	M

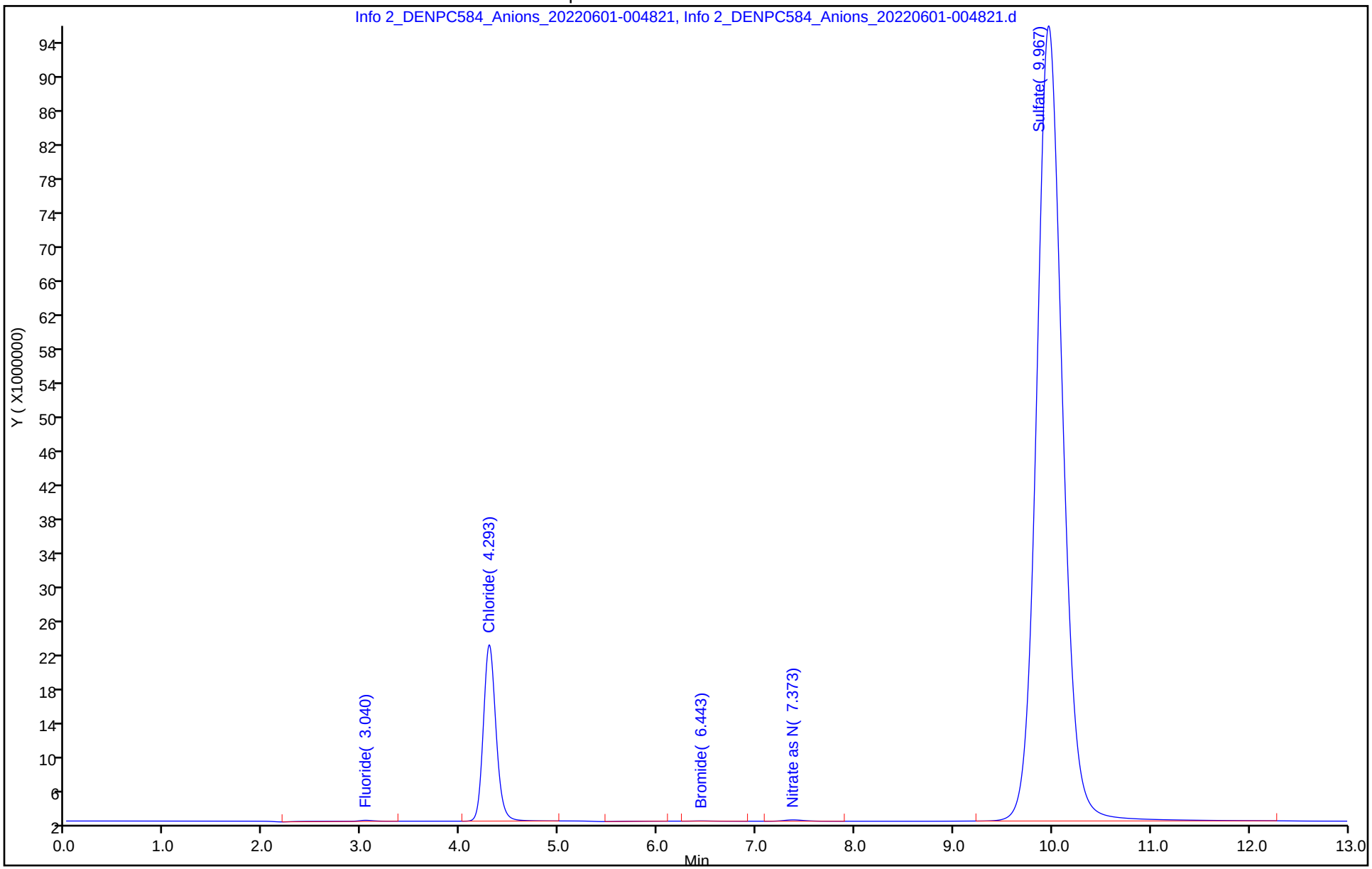
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 01-Jun-2022 13:29:41 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-004821.d				
Injection Date:	01-Jun-2022 00:32:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	280-162386-F-1 DU			Worklist Smp#:	59
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-004

Injection Date: 01-Jun-2022 00:32:00 Instrument ID: WC_IonChrom13

Lims ID: 280-162386-F-1 DU

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 59

Injection Vol: 5.0 ul Dil. Factor: 5.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

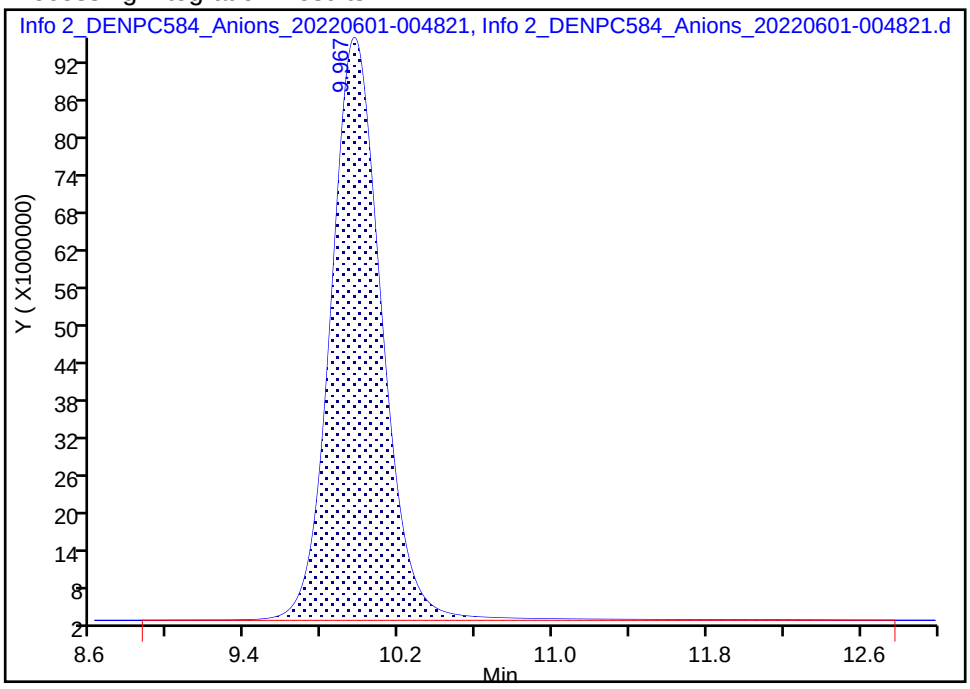
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

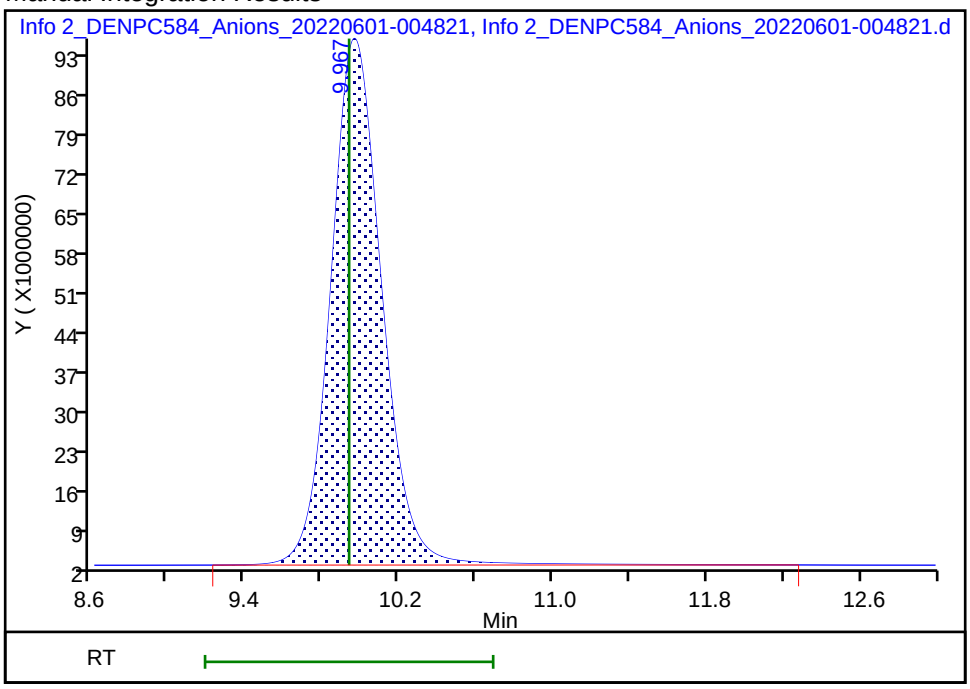
Processing Integration Results

RT: 9.97
Area: 1712063300
Amount: 167.3540
Amount Units: ug/ml



Manual Integration Results

RT: 9.97
Area: 1706049208
Amount: 166.7672
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:41:51

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-010
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 01-Jun-2022 00:48:00 ALS Bottle#: 0 Worklist Smp#: 60
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-060
Misc. Info.: 280-0111462-060
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:41 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:42:09

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.043	3.042	0.001	131290055	5.00	4.71	
2 Chloride	4.317	4.325	-0.008	1431717210	100.0	100.3	
3 Nitrite as N	5.055	5.077	-0.022	166364313	NC	NC	
4 Bromide	6.387	6.447	-0.060	26303215	5.00	5.20	
5 Nitrate as N	7.222	7.295	-0.073	172372459	NC	NC	
7 Orthophosphate as P	8.907	8.857	0.050	125113692	NC	NC	
6 Sulfate	9.977	9.938	0.039	1028943924	100.0	100.7	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

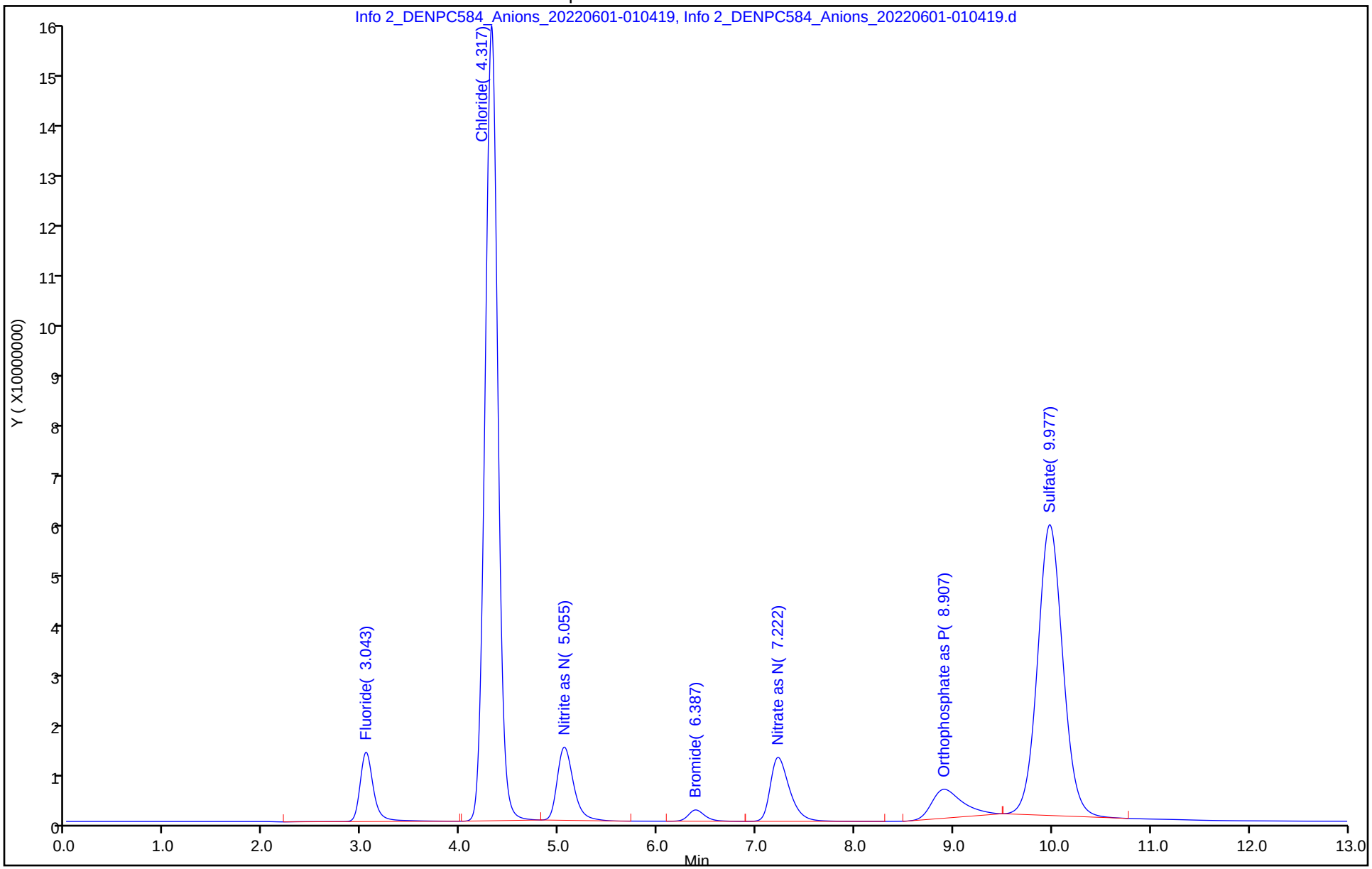
Reagents:

IC LCS_01878 Amount Added: 10.00 Units: mL

Report Date: 01-Jun-2022 13:29:41 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-010419.d				
Injection Date:	01-Jun-2022 00:48:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	60
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-010

Injection Date: 01-Jun-2022 00:48:00 Instrument ID: WC_IonChrom13

Lims ID: ccv

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 60

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

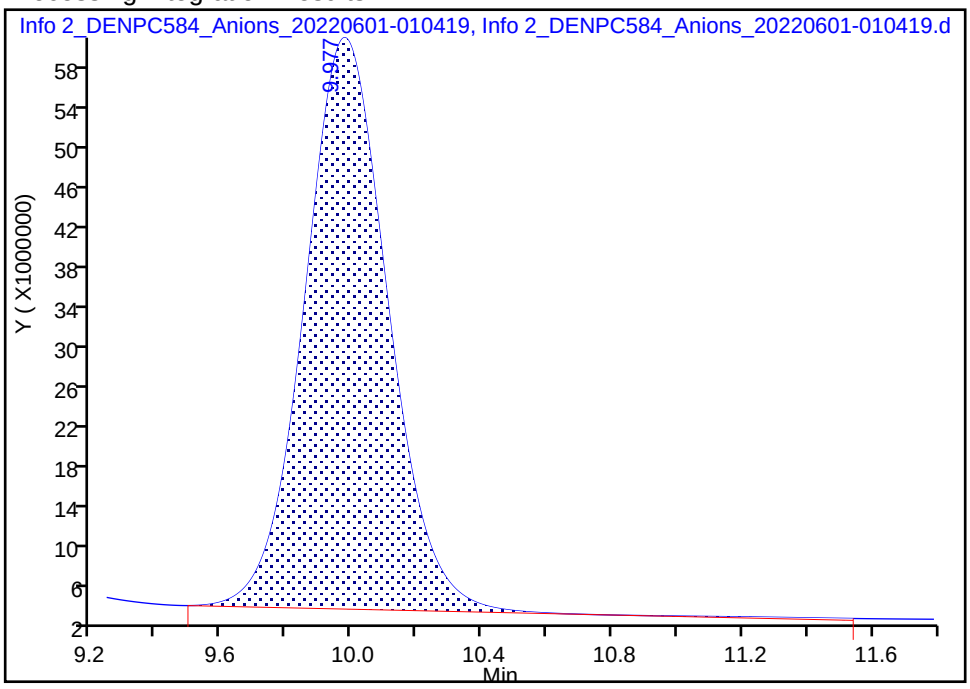
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

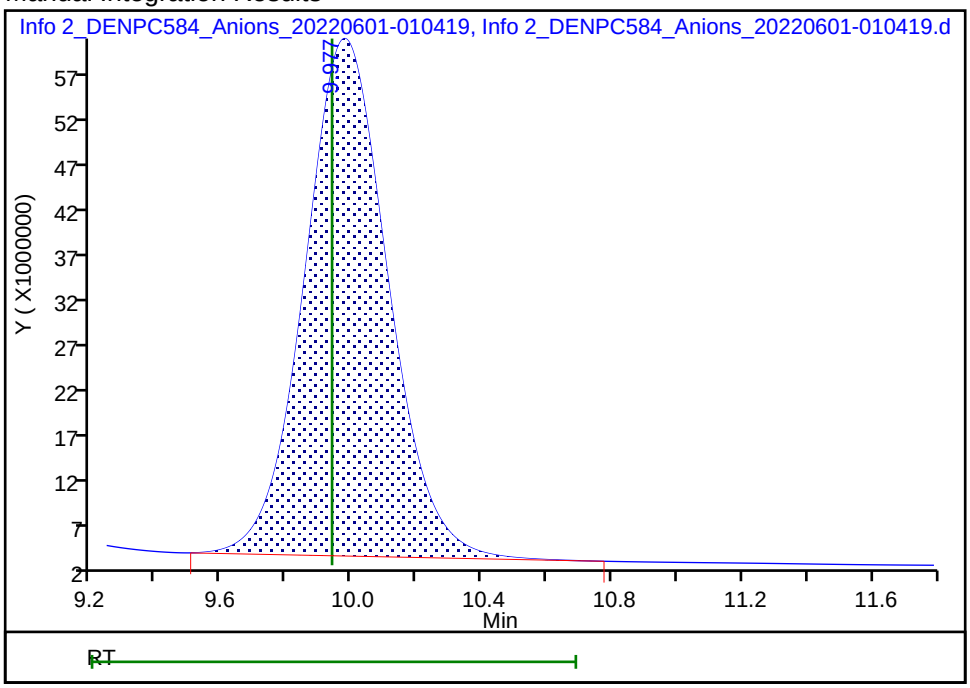
Processing Integration Results

RT: 9.98
Area: 1033205797
Amount: 101.1147
Amount Units: ug/ml



Manual Integration Results

RT: 9.98
Area: 1028943924
Amount: 100.6988
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:42:06

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-012
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 01-Jun-2022 01:04:00 ALS Bottle#: 0 Worklist Smp#: 61
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-061
Misc. Info.: 280-0111462-061
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:41 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:42:25

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.042				ND	
2 Chloride	4.303	4.325	-0.022	54601		0.2142	M
3 Nitrite as N		5.077				ND	
4 Bromide		6.447				ND	U
5 Nitrate as N		7.295				ND	
7 Orthophosphate as P		8.857				ND	
6 Sulfate	10.078	9.938	0.140	2206954		0.5152	

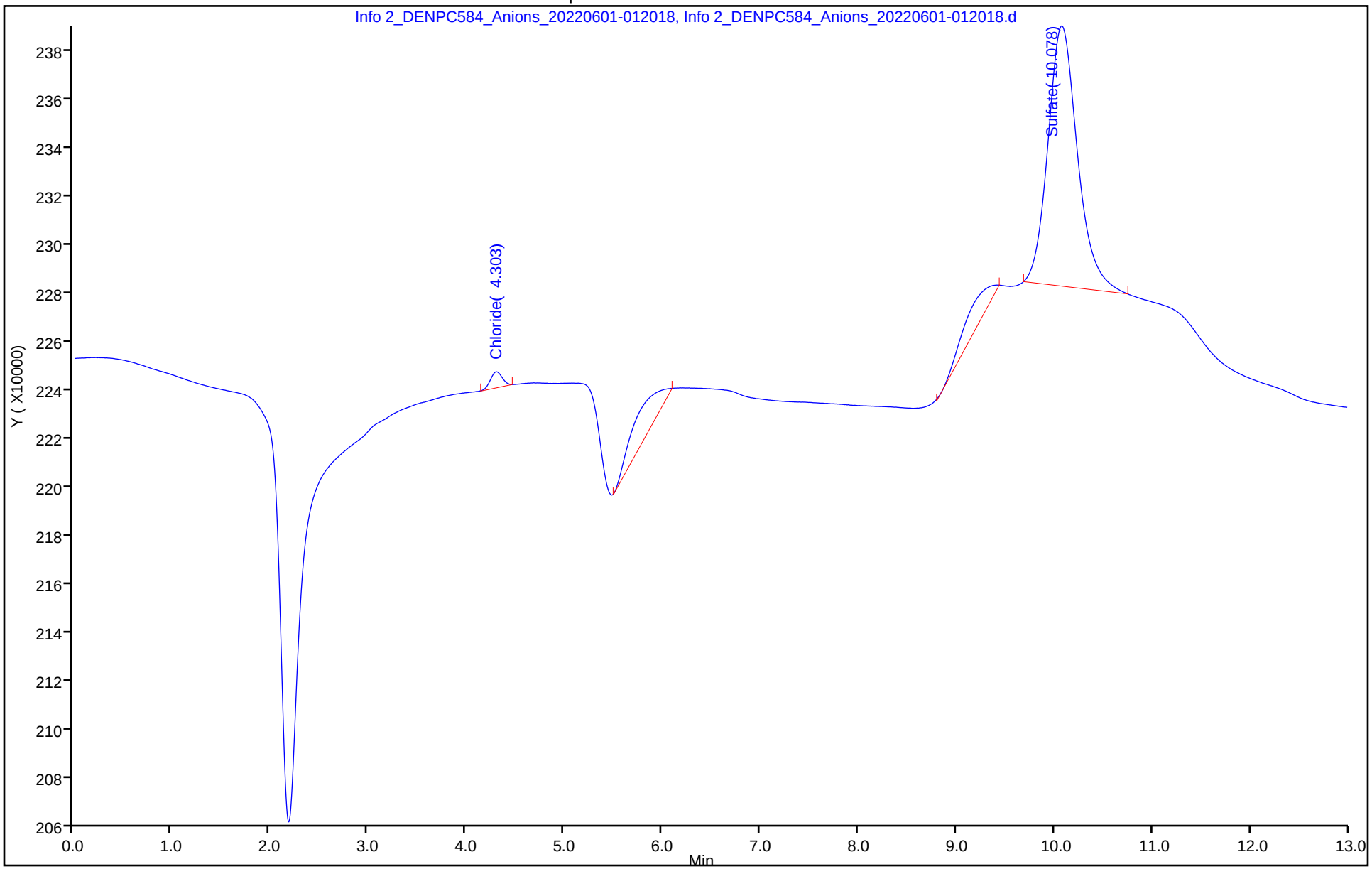
QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 01-Jun-2022 13:29:41 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-012018.d				
Injection Date:	01-Jun-2022 01:04:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	61
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-013
Lims ID: 280-162386-F-1 MS
Client ID: PZ007-22A
Sample Type: MS
Inject. Date: 01-Jun-2022 01:20:00 ALS Bottle#: 0 Worklist Smp#: 62
Injection Vol: 5.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111462-062
Misc. Info.: 280-0111462-062
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:41 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:42:42

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.043	3.042	0.001	146987106	1.00	5.27	
2 Chloride	4.300	4.325	-0.025	964654152	10.0	67.7	
3 Nitrite as N	5.055	5.077	-0.022	158477055	NC	NC	
4 Bromide	6.397	6.447	-0.050	26461280	1.00	5.23	
5 Nitrate as N	7.225	7.295	-0.070	181778974	NC	NC	
7 Orthophosphate as P	8.908	8.857	0.051	166267028	NC	NC	
6 Sulfate	9.953	9.938	0.015	2193225177	10.0	214.3	EM

QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount
Review Flags
M - Manually Integrated

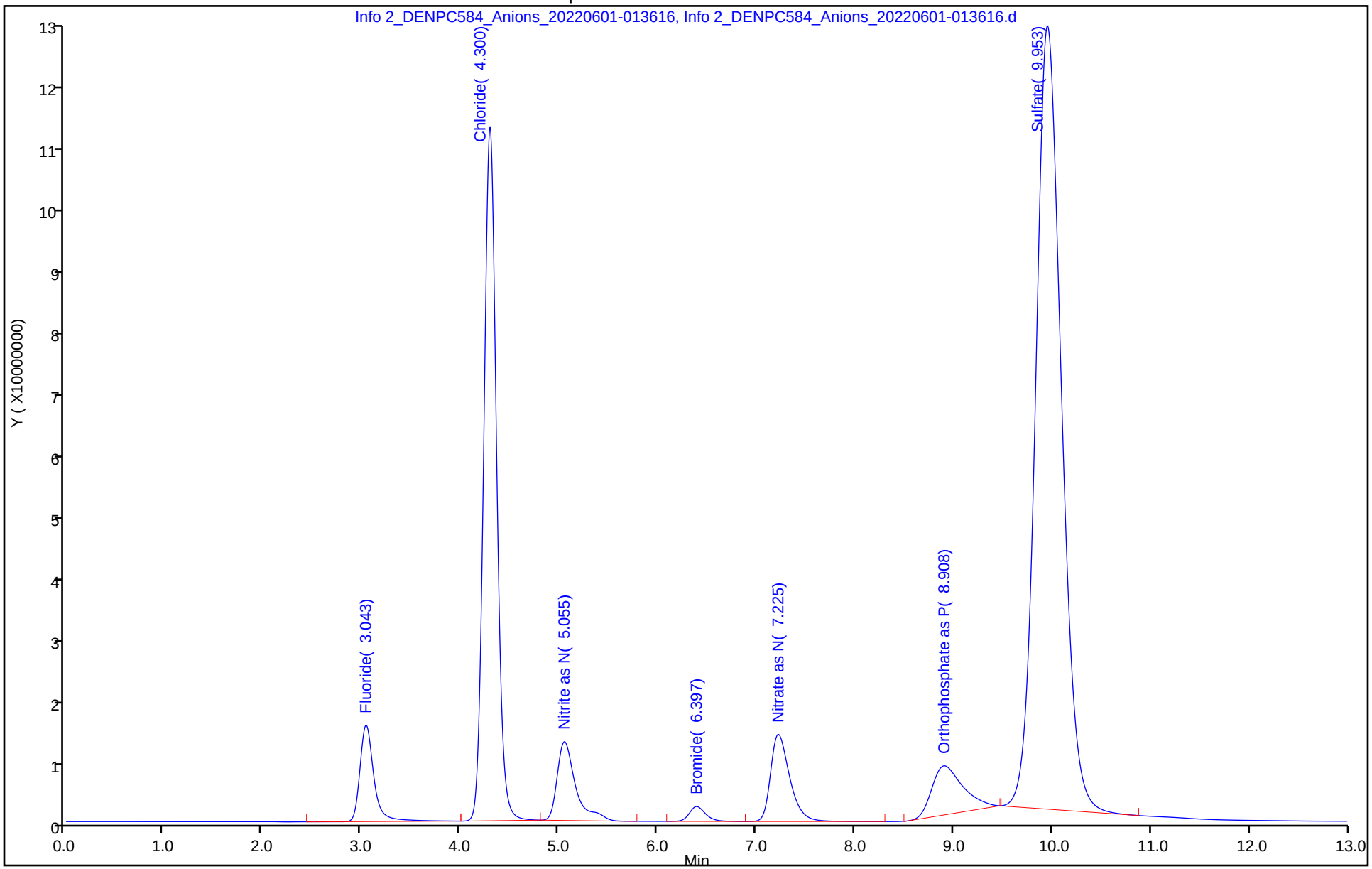
Reagents:

ICMS/MSD WEEK_00759 Amount Added: 0.10 Units: mL

Report Date: 01-Jun-2022 13:29:42 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-013616.d				
Injection Date:	01-Jun-2022 01:20:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	280-162386-F-1 MS			Worklist Smp#:	62
Client ID:	PZ007-22A				
Injection Vol:	5.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-013

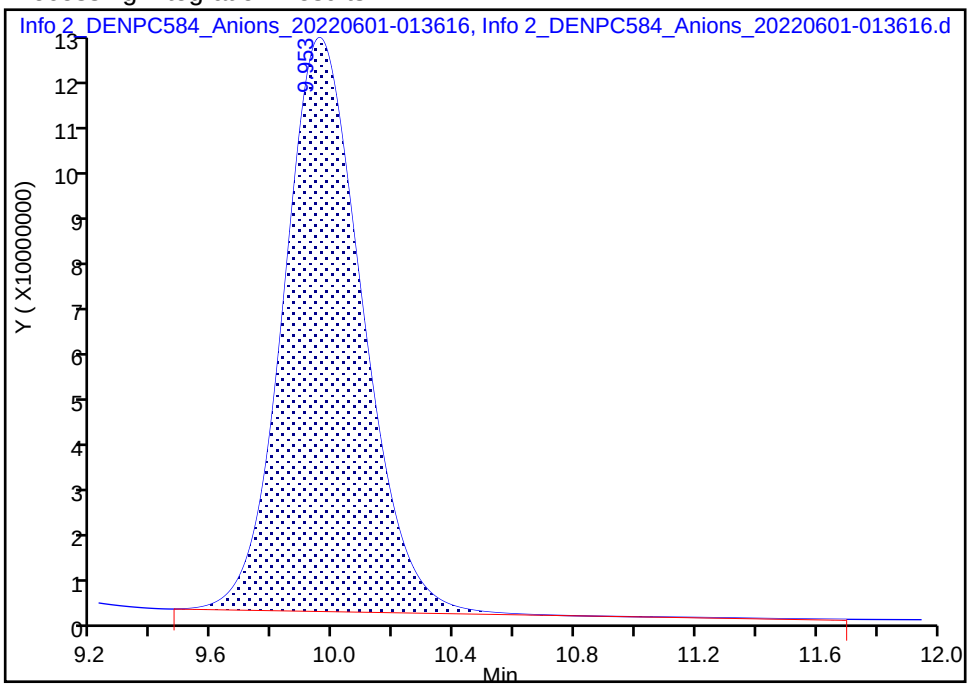
Injection Date:	01-Jun-2022 01:20:00	Instrument ID:	WC_IonChrom13
Lims ID:	280-162386-F-1 MS		
Client ID:	PZ007-22A		
Operator ID:	wetchemd	ALS Bottle#:	0 Worklist Smp#: 62
Injection Vol:	5.0 ul	Dil. Factor:	5.0000
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D
Column:		Detector	0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

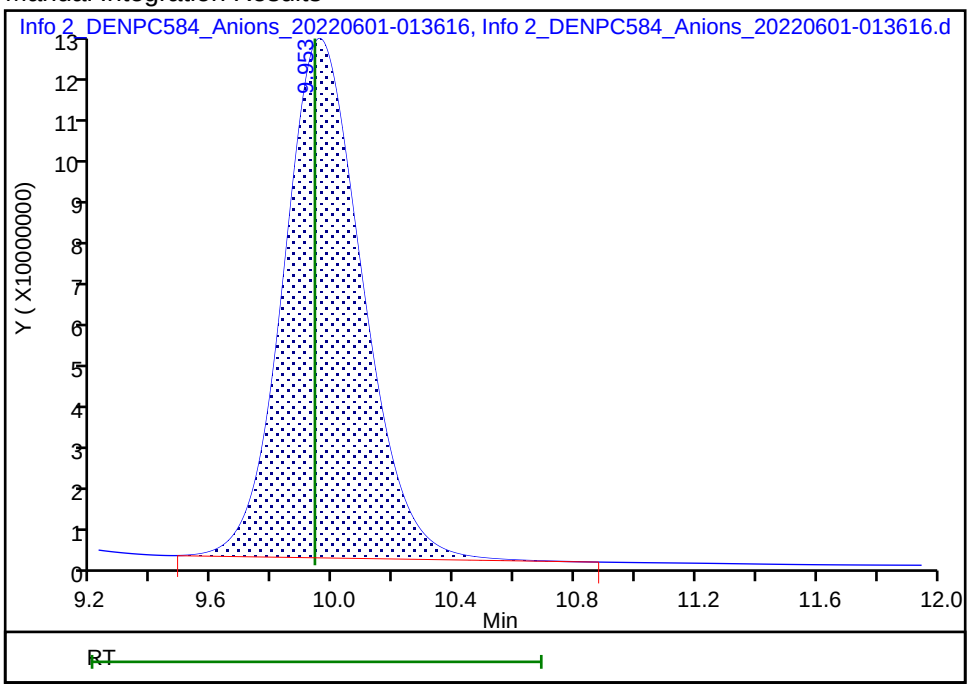
Processing Integration Results

RT: 9.95
Area: 2197344767
Amount: 214.7052
Amount Units: ug/ml



Manual Integration Results

RT: 9.95
Area: 2193225177
Amount: 214.3033
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:42:39

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-015
Lims ID: 280-162386-F-1 MSD
Client ID: PZ007-22A
Sample Type: MSD
Inject. Date: 01-Jun-2022 01:36:00 ALS Bottle#: 0 Worklist Smp#: 63
Injection Vol: 5.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111462-063
Misc. Info.: 280-0111462-063
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:41 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:42:59

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.043	3.042	0.001	143476303	1.00	5.14	
2 Chloride	4.302	4.325	-0.023	971822232	10.0	68.2	
3 Nitrite as N	5.058	5.077	-0.019	160338209	NC	NC	
4 Bromide	6.392	6.447	-0.055	26647411	1.00	5.27	
5 Nitrate as N	7.223	7.295	-0.072	182687619	NC	NC	
7 Orthophosphate as P	8.917	8.857	0.060	153379112	NC	NC	
6 Sulfate	9.950	9.938	0.012	2203065562	10.0	215.3	EM

QC Flag Legend

Processing Flags
NC - Not Calibrated
E - Exceeded Maximum Amount
Review Flags
M - Manually Integrated

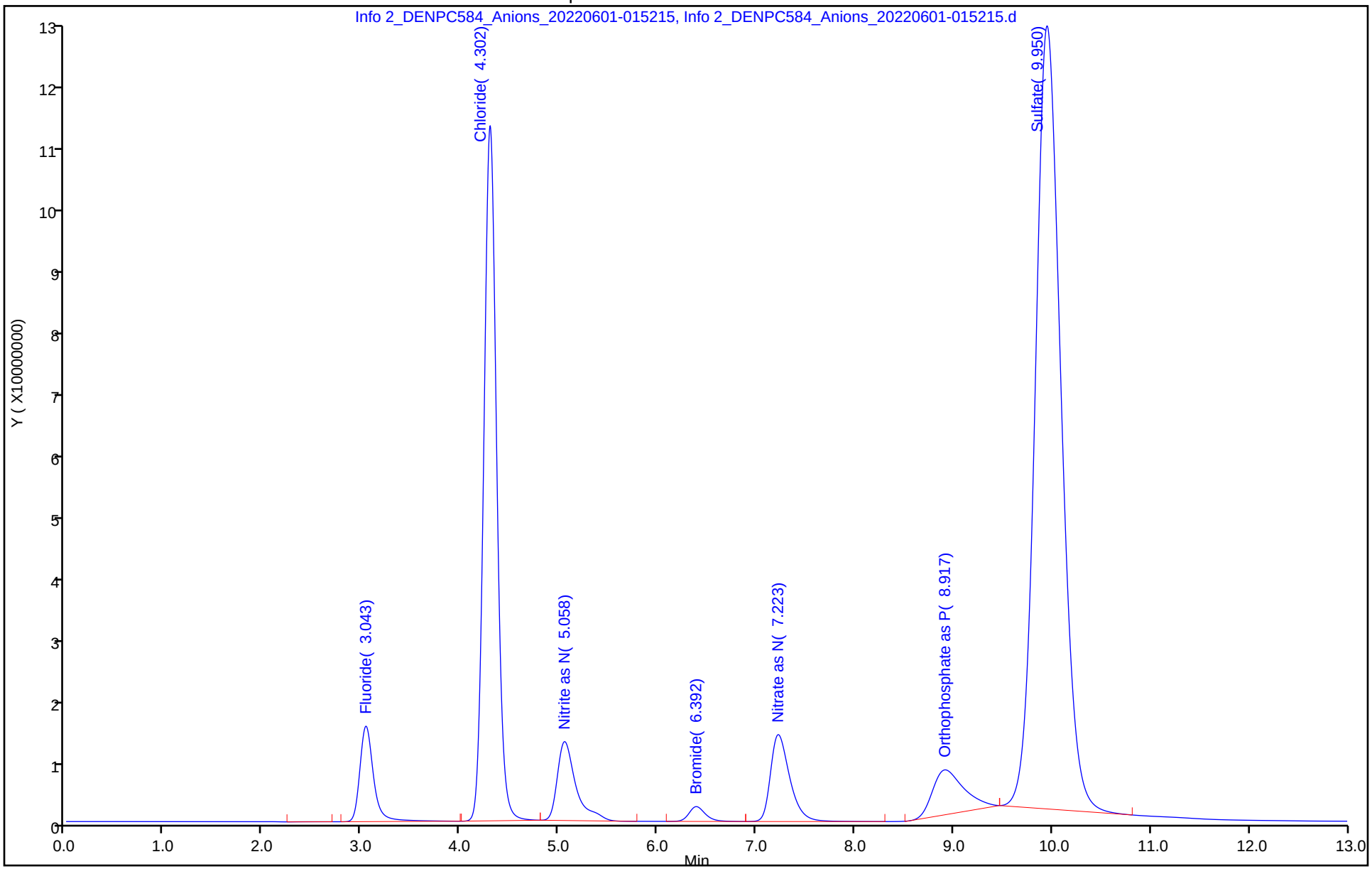
Reagents:

ICMS/MSD WEEK_00759 Amount Added: 0.10 Units: mL

Report Date: 01-Jun-2022 13:29:42 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-015215.d				
Injection Date:	01-Jun-2022 01:36:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	280-162386-F-1 MSD			Worklist Smp#:	63
Client ID:	PZ007-22A				
Injection Vol:	5.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-015

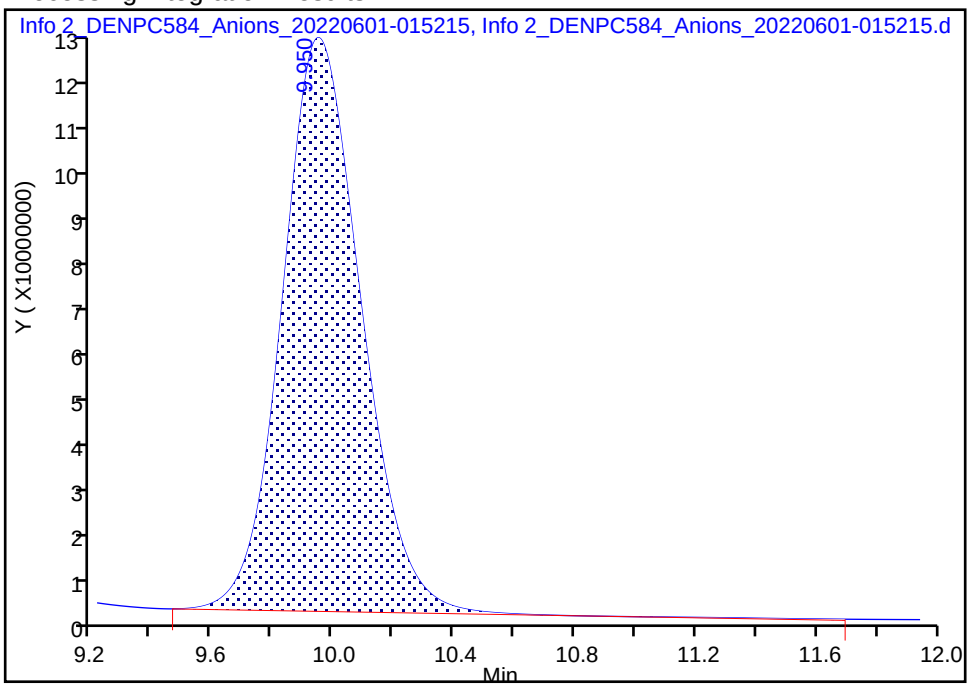
Injection Date:	01-Jun-2022 01:36:00	Instrument ID:	WC_IonChrom13		
Lims ID:	280-162386-F-1 MSD				
Client ID:	PZ007-22A				
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	63
Injection Vol:	5.0 ul	Dil. Factor:	5.0000		
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

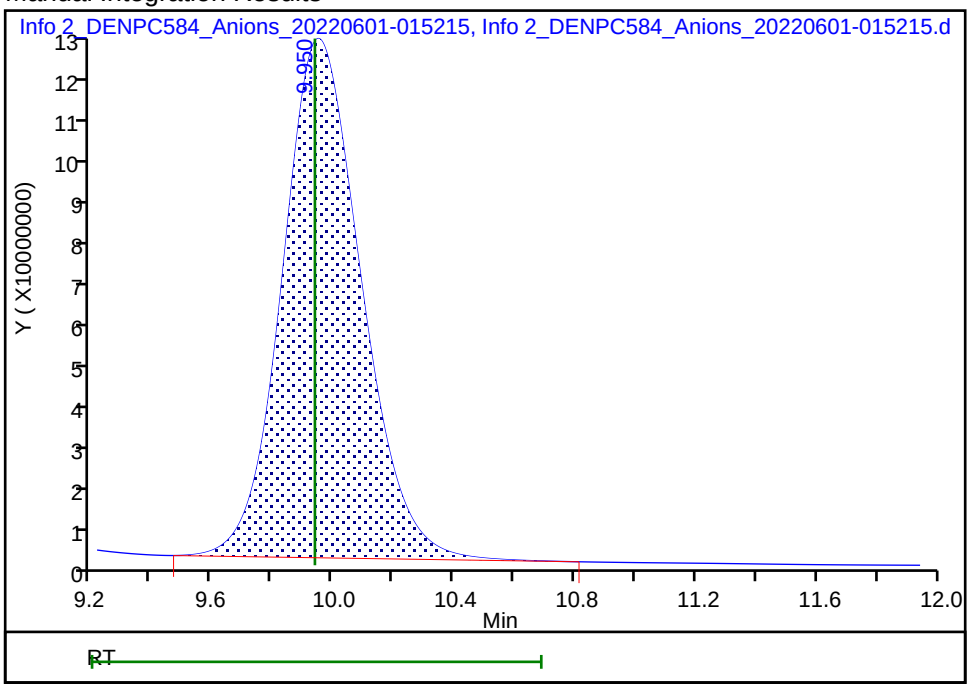
Processing Integration Results

RT: 9.95
Area: 2208605257
Amount: 215.8040
Amount Units: ug/ml



Manual Integration Results

RT: 9.95
Area: 2203065562
Amount: 215.2634
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:42:57

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-020
Lims ID: 280-162386-F-2
Client ID: G0087-22A
Sample Type: Client
Inject. Date: 01-Jun-2022 01:52:00 ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-064
Misc. Info.: 280-0111462-064
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:41 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:43:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.042	3.042	0.000	6351414	0.3130	
2 Chloride	4.322	4.325	-0.003	378663714	26.7	M
3 Nitrite as N		5.077			ND	
4 Bromide	6.465	6.447	0.018	901707	0.2302	
5 Nitrate as N	7.228	7.295	-0.067	237032260	NC	
7 Orthophosphate as P		8.857			ND	
6 Sulfate	9.993	9.938	0.055	1392207847	136.1	M

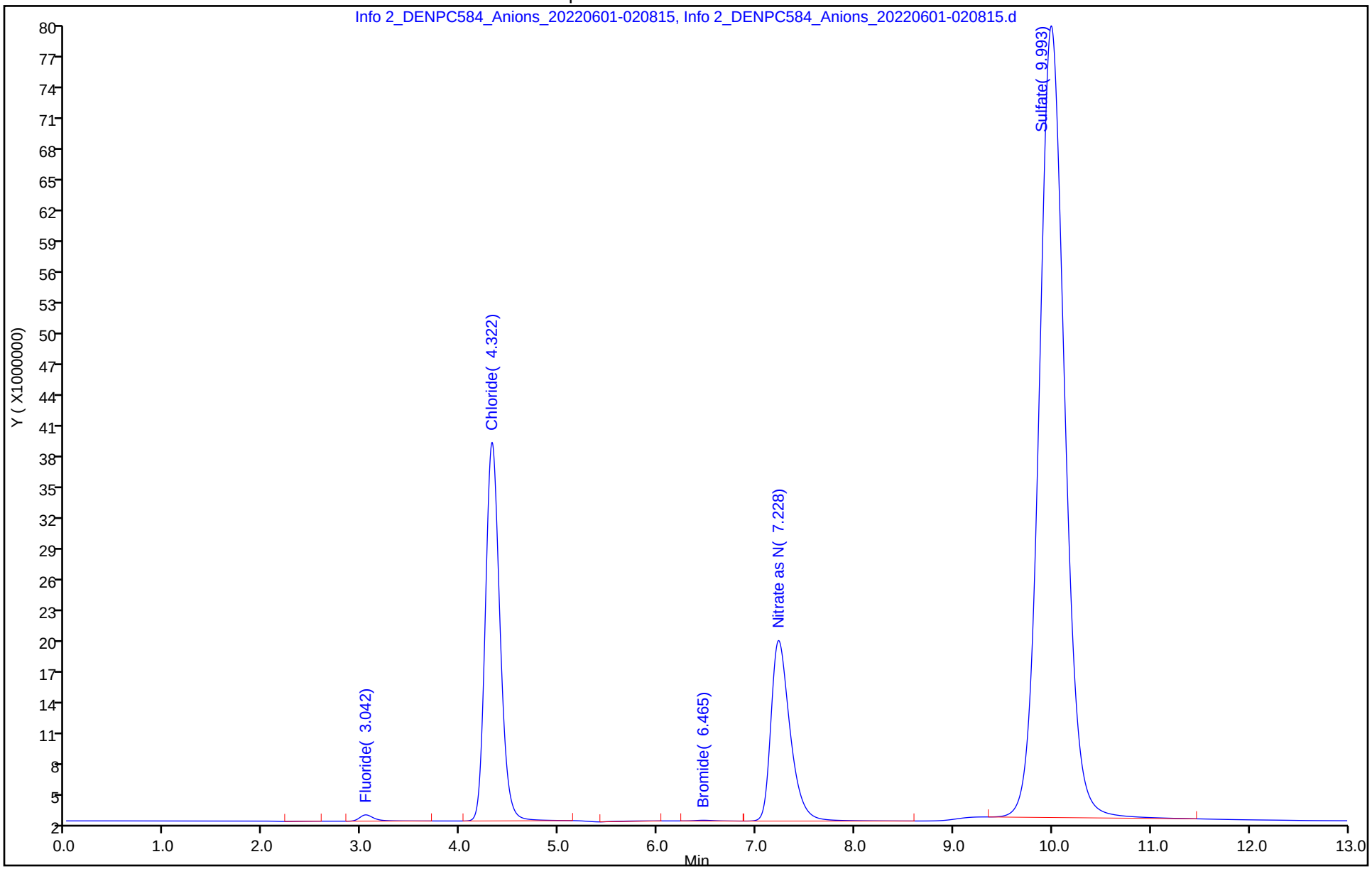
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 01-Jun-2022 13:29:43 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-020815.d				
Injection Date:	01-Jun-2022 01:52:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	280-162386-F-2	Lab Sample ID:	280-162386-2	Worklist Smp#:	64
Client ID:	G0087-22A				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

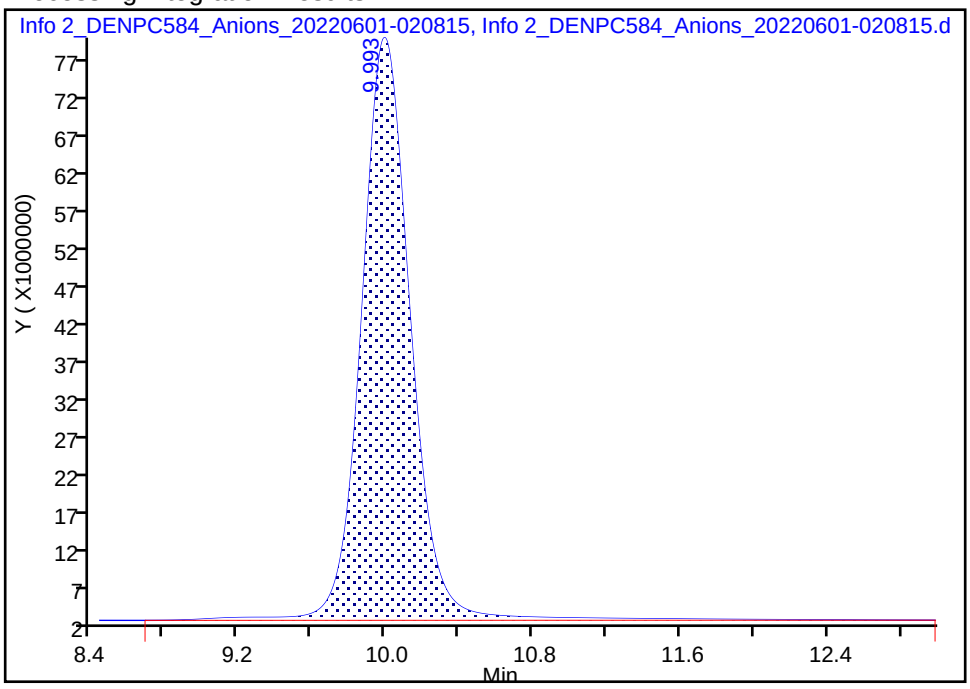
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-020				
Injection Date:	01-Jun-2022 01:52:00	Instrument ID:	WC_IonChrom13		
Lims ID:	280-162386-F-2	Lab Sample ID:	280-162386-2		
Client ID:	G0087-22A				
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	64
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

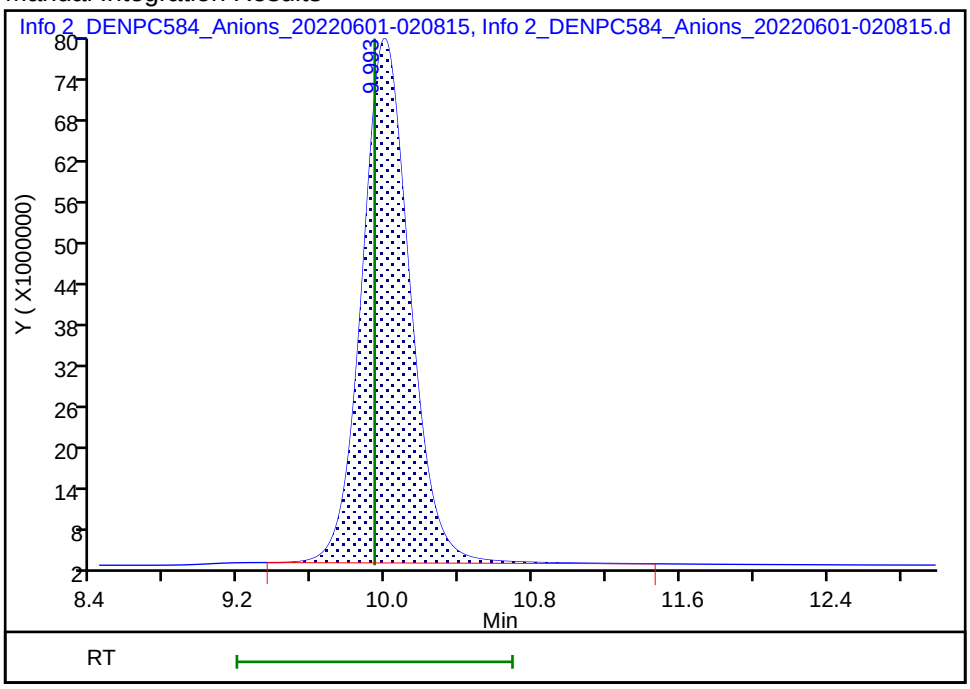
Processing Integration Results

RT: 9.99
Area: 1443801461
Amount: 141.1784
Amount Units: ug/ml



Manual Integration Results

RT: 9.99
Area: 1392207847
Amount: 136.1442
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:43:19

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-024
Lims ID: 280-162386-F-4
Client ID: G0022-22A
Sample Type: Client
Inject. Date: 01-Jun-2022 02:24:00 ALS Bottle#: 0 Worklist Smp#: 66
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-066
Misc. Info.: 280-0111462-066
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:41 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:44:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.043	3.042	0.001	12255858	0.5209	
2 Chloride	4.335	4.325	0.010	372296969	26.2	M
3 Nitrite as N		5.077			ND	
4 Bromide	6.480	6.447	0.033	596861	0.1705	
5 Nitrate as N	7.233	7.295	-0.062	261881590	NC	
7 Orthophosphate as P		8.857			ND	
6 Sulfate	9.998	9.938	0.060	1405397021	137.4	M

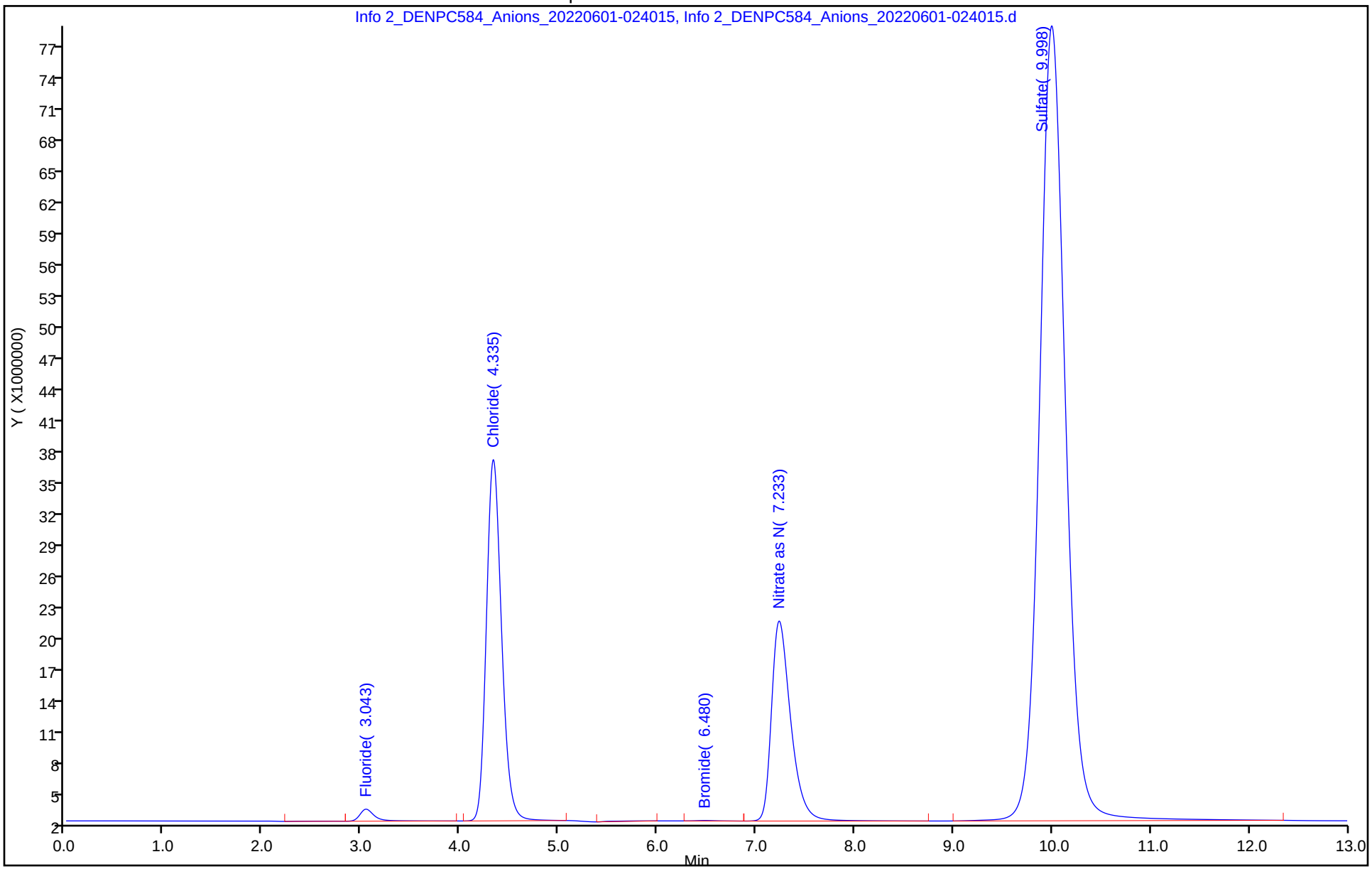
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 01-Jun-2022 13:29:44 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-024015.d				
Injection Date:	01-Jun-2022 02:24:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	280-162386-F-4	Lab Sample ID:	280-162386-4	Worklist Smp#:	66
Client ID:	G0022-22A				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

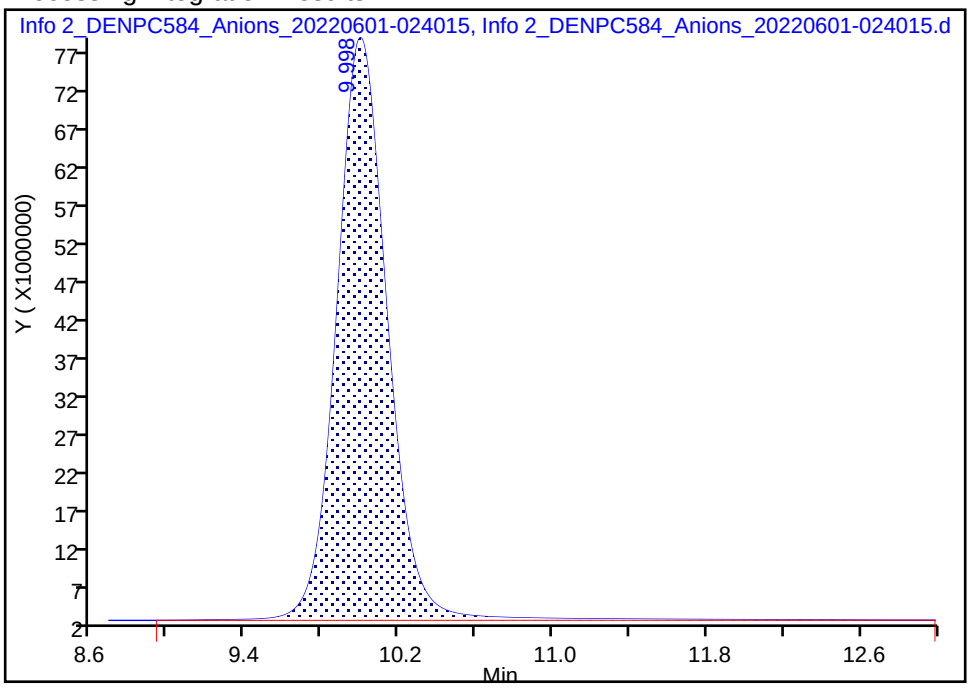
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-024				
Injection Date:	01-Jun-2022 02:24:00	Instrument ID:	WC_IonChrom13		
Lims ID:	280-162386-F-4	Lab Sample ID:	280-162386-4		
Client ID:	G0022-22A				
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	66
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

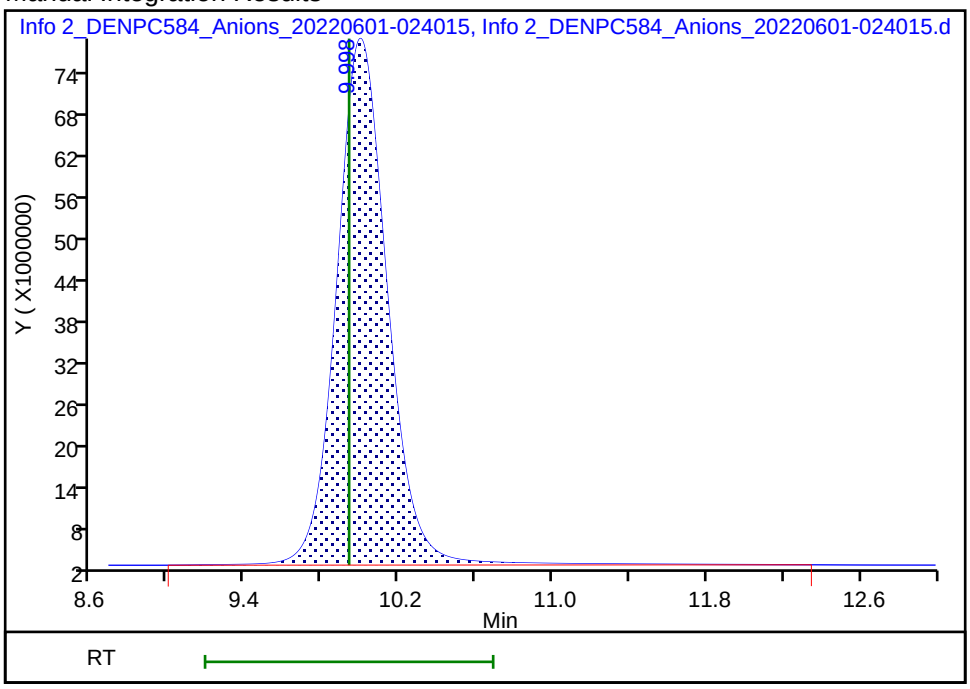
Processing Integration Results

RT: 10.00
Area: 1411174241
Amount: 137.9948
Amount Units: ug/ml



Manual Integration Results

RT: 10.00
Area: 1405397021
Amount: 137.4311
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:44:05
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-025
Lims ID: 280-162386-F-5
Client ID: G0088-22A
Sample Type: Client
Inject. Date: 01-Jun-2022 02:40:00 ALS Bottle#: 0 Worklist Smp#: 67
Injection Vol: 5.0 ul Dil. Factor: 2.0000
Sample Info: 280-0111462-067
Misc. Info.: 280-0111462-067
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:41 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:44:47

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.042	3.042	0.000	3421662	0.2098	
2 Chloride	4.307	4.325	-0.018	305916928	21.6	M
3 Nitrite as N		5.077			ND	
4 Bromide	6.467	6.447	0.020	602609	0.1716	
5 Nitrate as N	7.348	7.295	0.053	18790264	NC	
7 Orthophosphate as P		8.857			ND	
6 Sulfate	9.990	9.938	0.052	1426971356	139.5	M

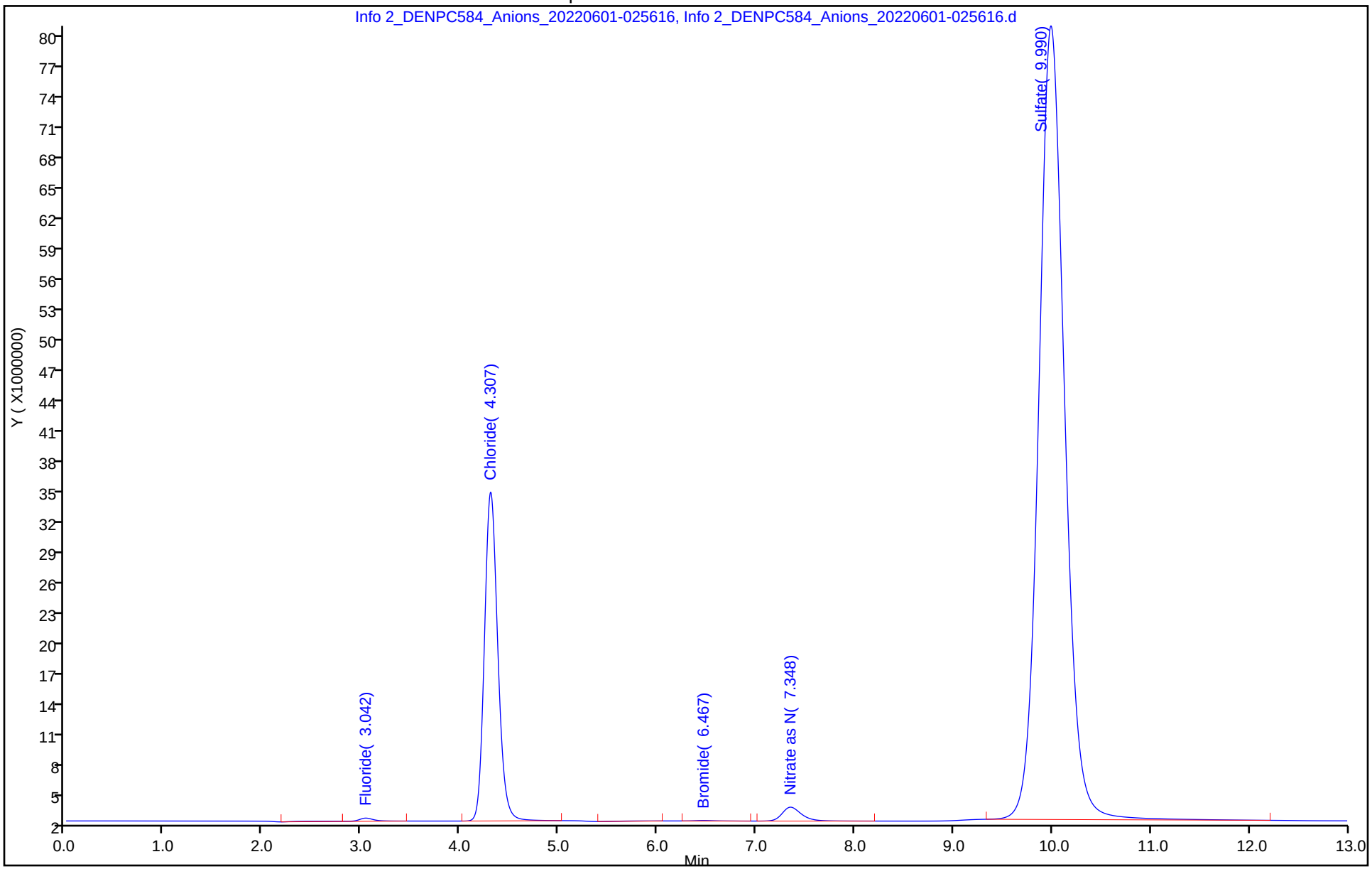
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 01-Jun-2022 13:29:44 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-025616.d				
Injection Date:	01-Jun-2022 02:40:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	280-162386-F-5	Lab Sample ID:	280-162386-5	Worklist Smp#:	67
Client ID:	G0088-22A				
Injection Vol:	5.0 ul	Dil. Factor:	2.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

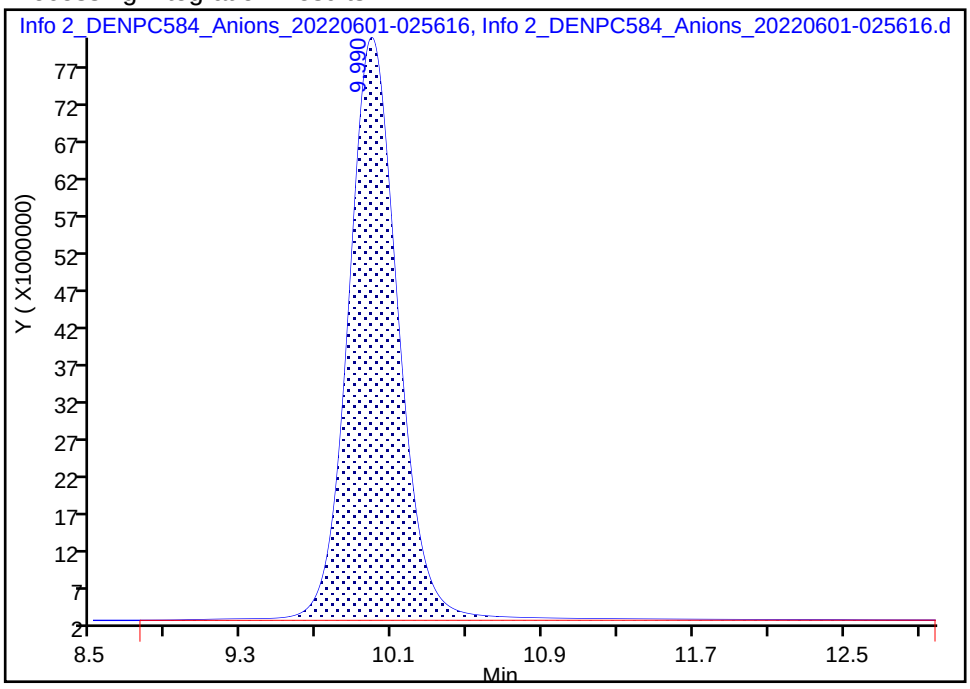
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-025				
Injection Date:	01-Jun-2022 02:40:00	Instrument ID:	WC_IonChrom13		
Lims ID:	280-162386-F-5	Lab Sample ID:	280-162386-5		
Client ID:	G0088-22A				
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	67
Injection Vol:	5.0 ul	Dil. Factor:	2.0000		
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

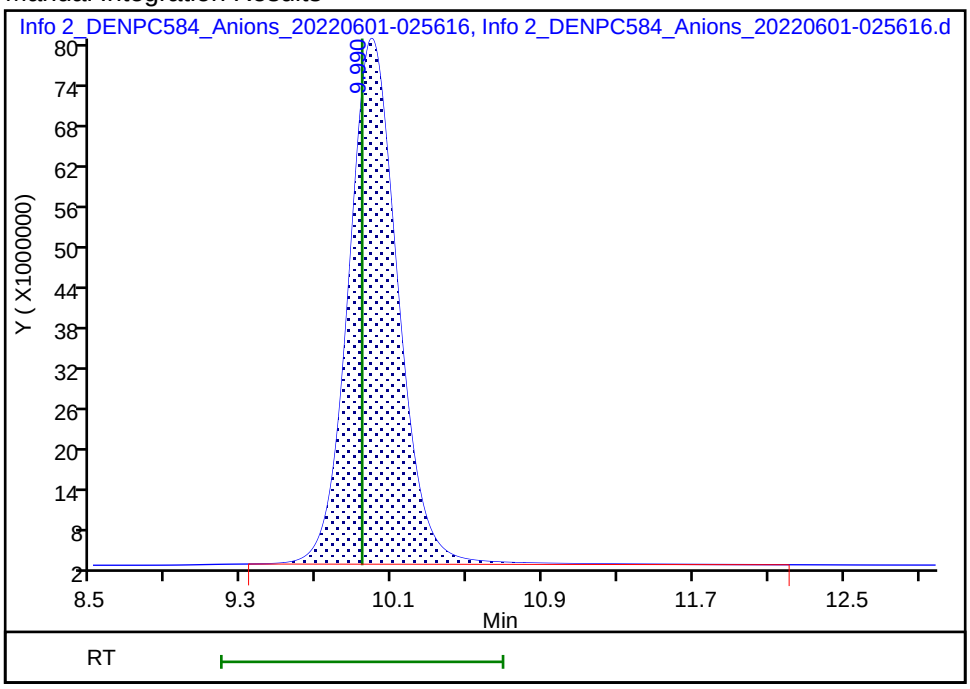
Processing Integration Results

RT: 9.99
Area: 1450600598
Amount: 141.8418
Amount Units: ug/ml



Manual Integration Results

RT: 9.99
Area: 1426971356
Amount: 139.5362
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:44:40
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-034
Lims ID: 280-162386-F-8
Client ID: G0092-22A
Sample Type: Client
Inject. Date: 01-Jun-2022 03:28:00 ALS Bottle#: 0 Worklist Smp#: 70
Injection Vol: 5.0 ul Dil. Factor: 5.0000
Sample Info: 280-0111462-070
Misc. Info.: 280-0111462-070
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:41 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:48:37

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.040	3.042	-0.002	2876217	0.1906	
2 Chloride	4.298	4.325	-0.027	144574947	10.3	M
3 Nitrite as N		5.077			ND	
4 Bromide	6.455	6.447	0.008	343207	0.1209	
5 Nitrate as N		7.295			ND	
7 Orthophosphate as P		8.857			ND	
6 Sulfate	9.992	9.938	0.054	837289727	82.0	M

QC Flag Legend

Processing Flags

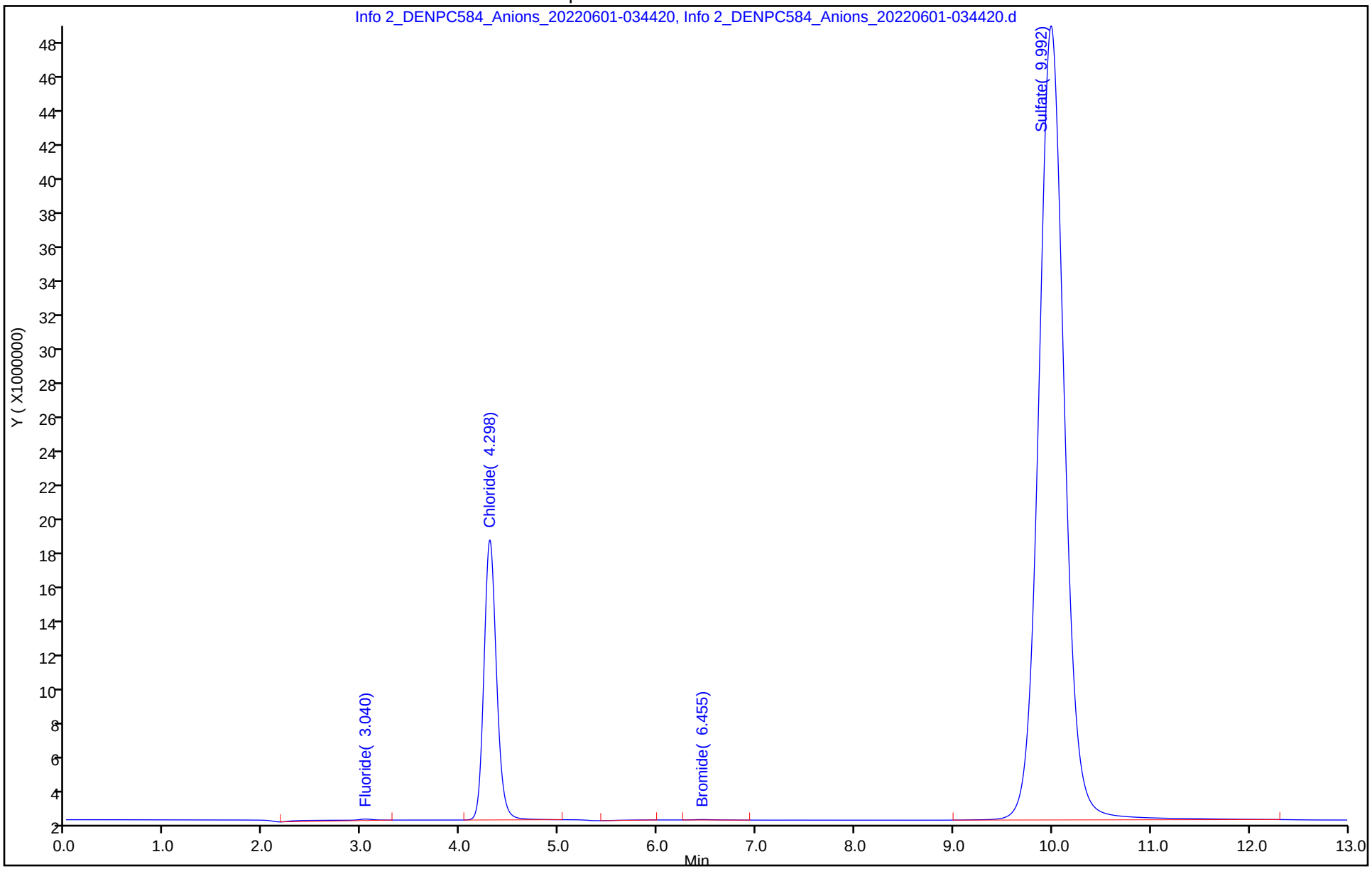
Review Flags

M - Manually Integrated

Report Date: 01-Jun-2022 13:29:45 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-034420.d				
Injection Date:	01-Jun-2022 03:28:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	280-162386-F-8	Lab Sample ID:	280-162386-8	Worklist Smp#:	70
Client ID:	G0092-22A				
Injection Vol:	5.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

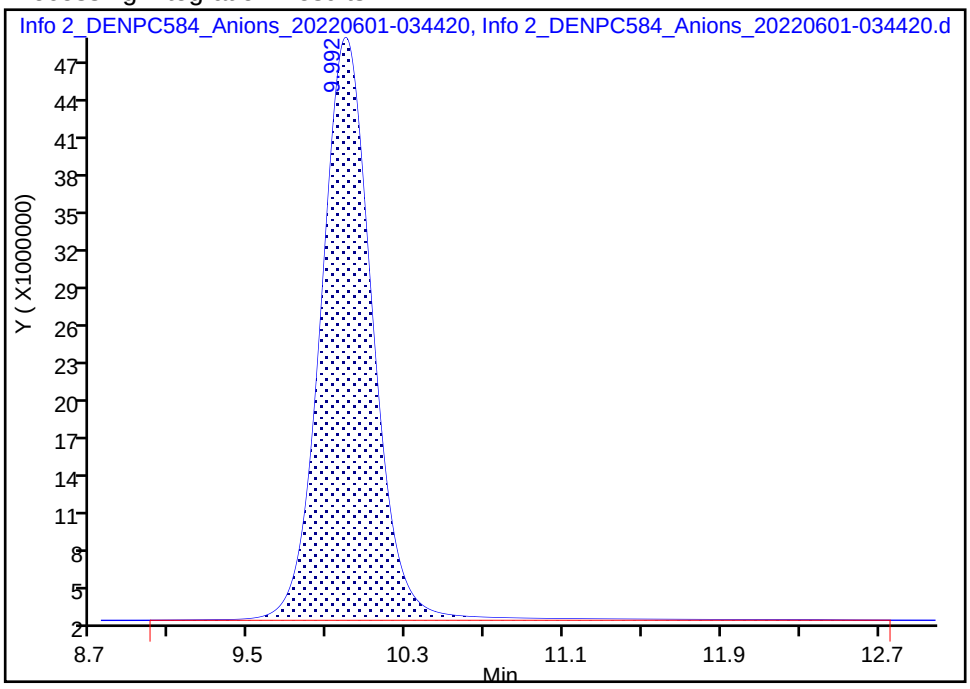
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-034				
Injection Date:	01-Jun-2022 03:28:00	Instrument ID:	WC_IonChrom13		
Lims ID:	280-162386-F-8	Lab Sample ID:	280-162386-8		
Client ID:	G0092-22A				
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	70
Injection Vol:	5.0 ul	Dil. Factor:	5.0000		
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

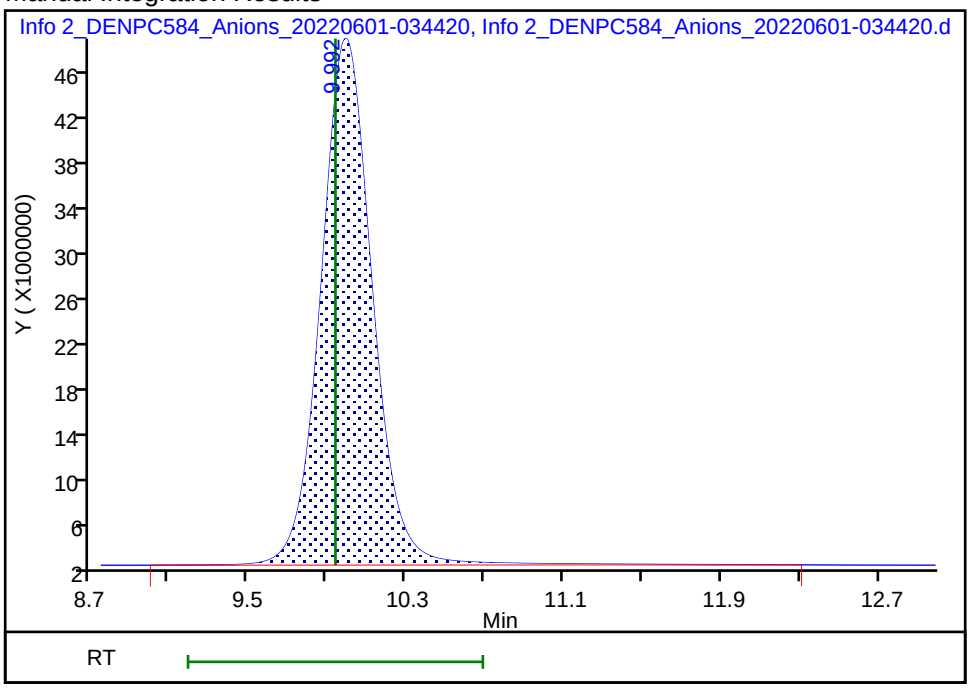
Processing Integration Results

RT: 9.99
Area: 840118224
Amount: 82.274179
Amount Units: ug/ml



Manual Integration Results

RT: 9.99
Area: 837289727
Amount: 81.998189
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:48:33
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-041
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 01-Jun-2022 04:00:00 ALS Bottle#: 0 Worklist Smp#: 72
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-072
Misc. Info.: 280-0111462-072
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:46 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:49:30

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.045	3.042	0.003	130705746	5.00	4.69	
2 Chloride	4.320	4.325	-0.005	1437941840	100.0	100.8	
3 Nitrite as N	5.058	5.077	-0.019	166945414	NC	NC	
4 Bromide	6.392	6.447	-0.055	26473813	5.00	5.23	
5 Nitrate as N	7.230	7.295	-0.065	173546328	NC	NC	
7 Orthophosphate as P	8.938	8.857	0.081	112503705	NC	NC	
6 Sulfate	9.982	9.938	0.044	1034023774	100.0	101.2	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

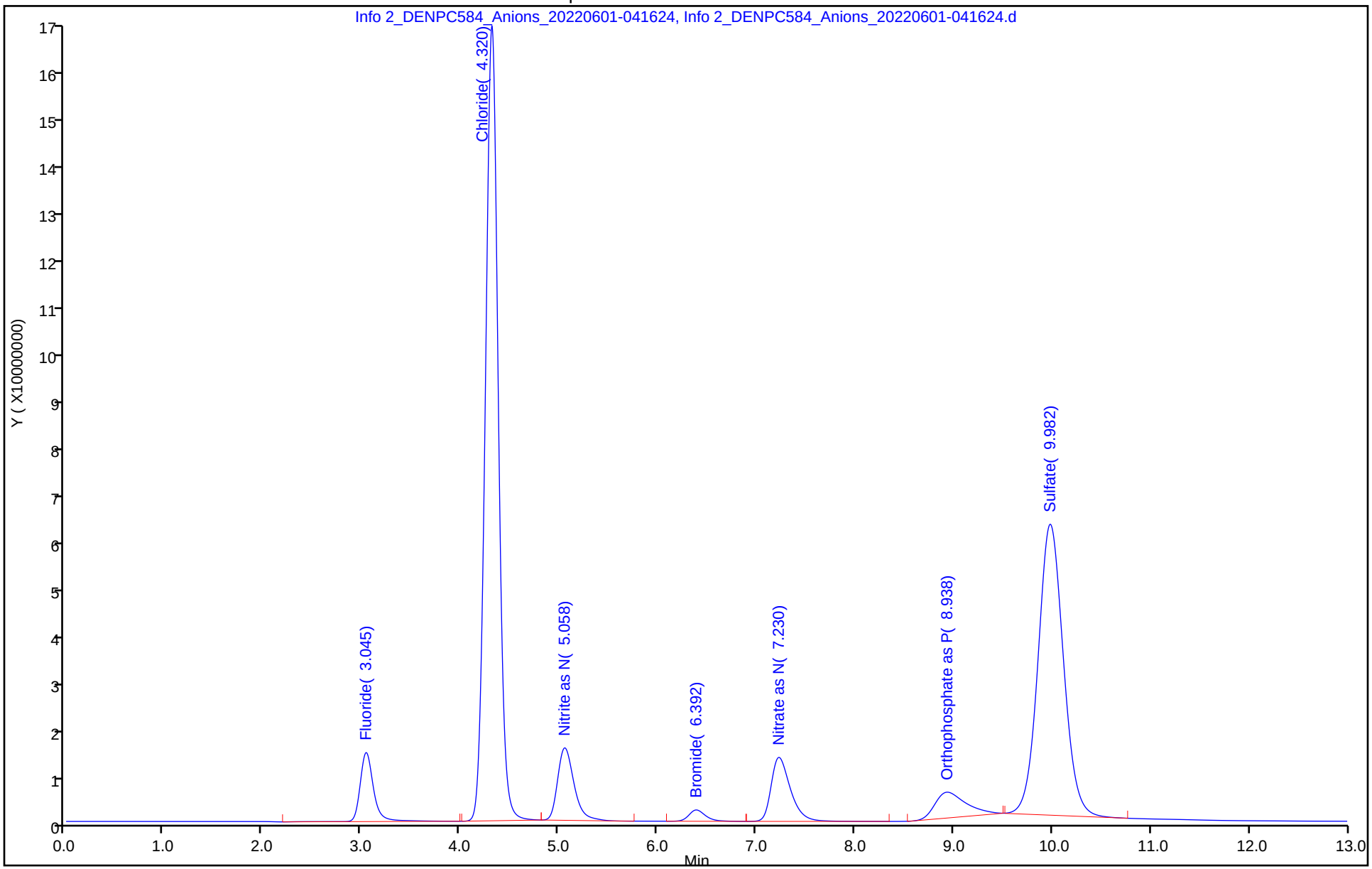
IC LCS_01878 Amount Added: 10.00 Units: mL

Report Date: 01-Jun-2022 13:29:46 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-041624.d

Injection Date:	01-Jun-2022 04:00:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	72
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-041

Injection Date: 01-Jun-2022 04:00:00 Instrument ID: WC_IonChrom13

Lims ID: ccv

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 72

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

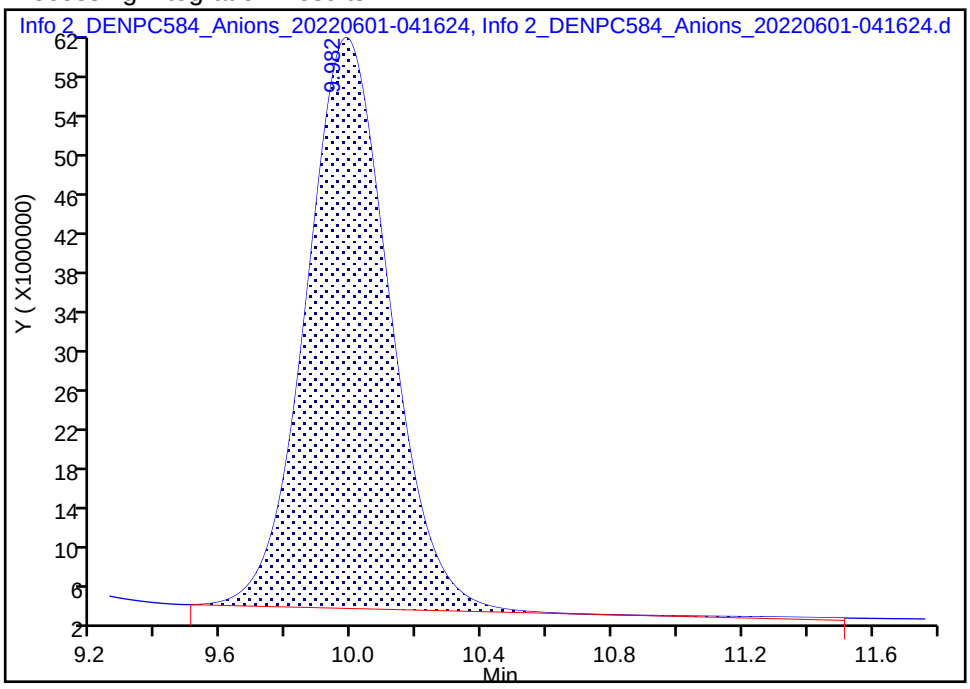
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

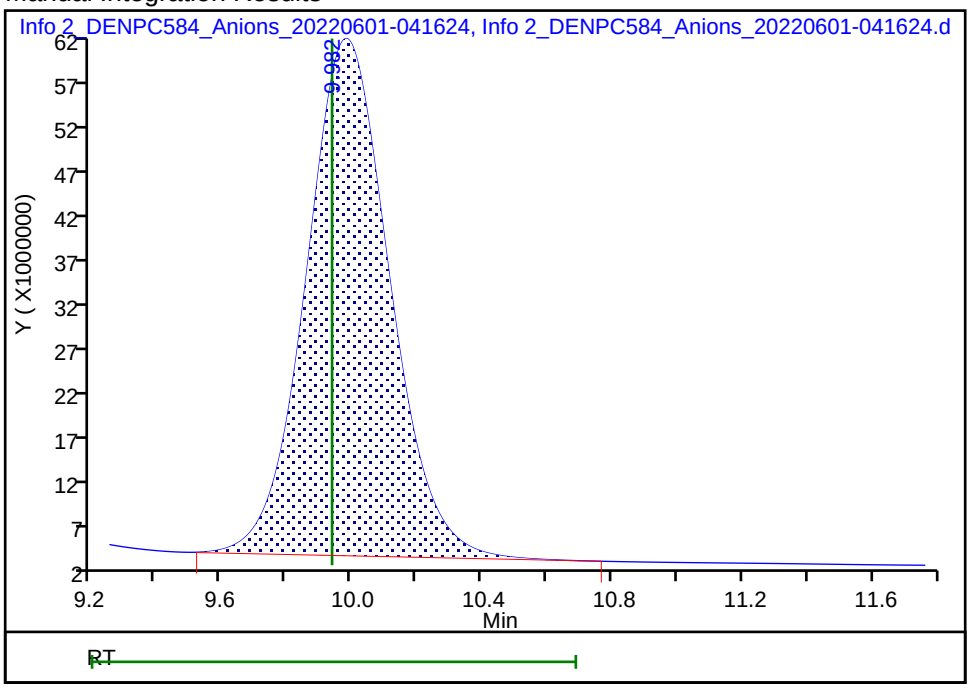
Processing Integration Results

RT: 9.98
Area: 1038396477
Amount: 101.6211
Amount Units: ug/ml



Manual Integration Results

RT: 9.98
Area: 1034023774
Amount: 101.1945
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:49:27

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-043
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 01-Jun-2022 04:16:00 ALS Bottle#: 0 Worklist Smp#: 73
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-073
Misc. Info.: 280-0111462-073
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:46 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:49:57

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.042				ND	
2 Chloride	4.303	4.325	-0.022	54962		0.2142	M
3 Nitrite as N		5.077				ND	
4 Bromide		6.447				ND	U
5 Nitrate as N		7.295				ND	
7 Orthophosphate as P		8.857				ND	
6 Sulfate	10.072	9.938	0.134	2250013		0.5194	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

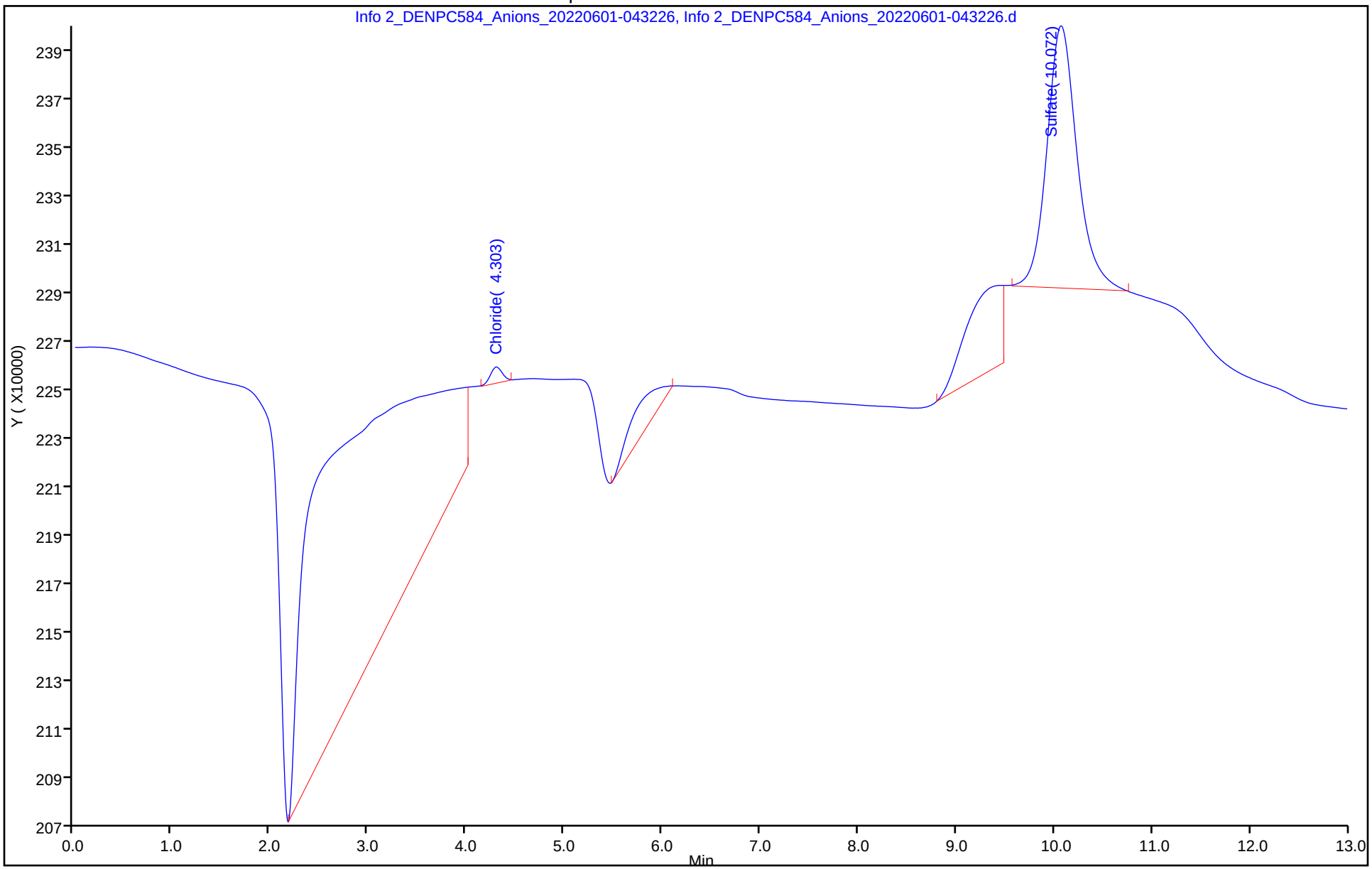
U - Marked Undetected

Report Date: 01-Jun-2022 13:29:47 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-043226.d

Injection Date:	01-Jun-2022 04:16:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	73
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-043

Injection Date: 01-Jun-2022 04:16:00 Instrument ID: WC_IonChrom13

Lims ID: ccb

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 73

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

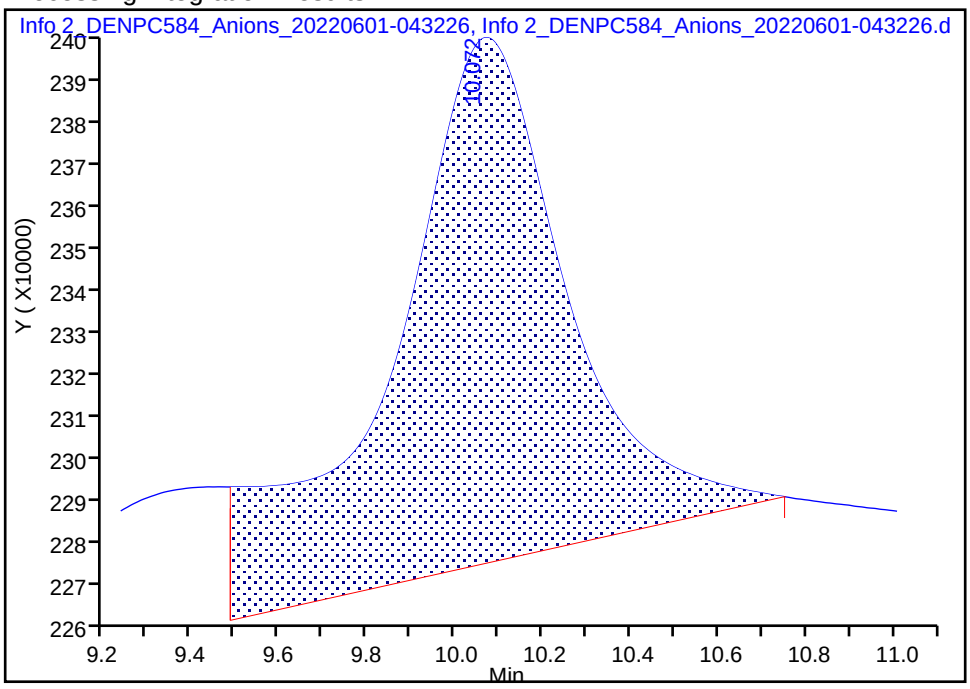
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

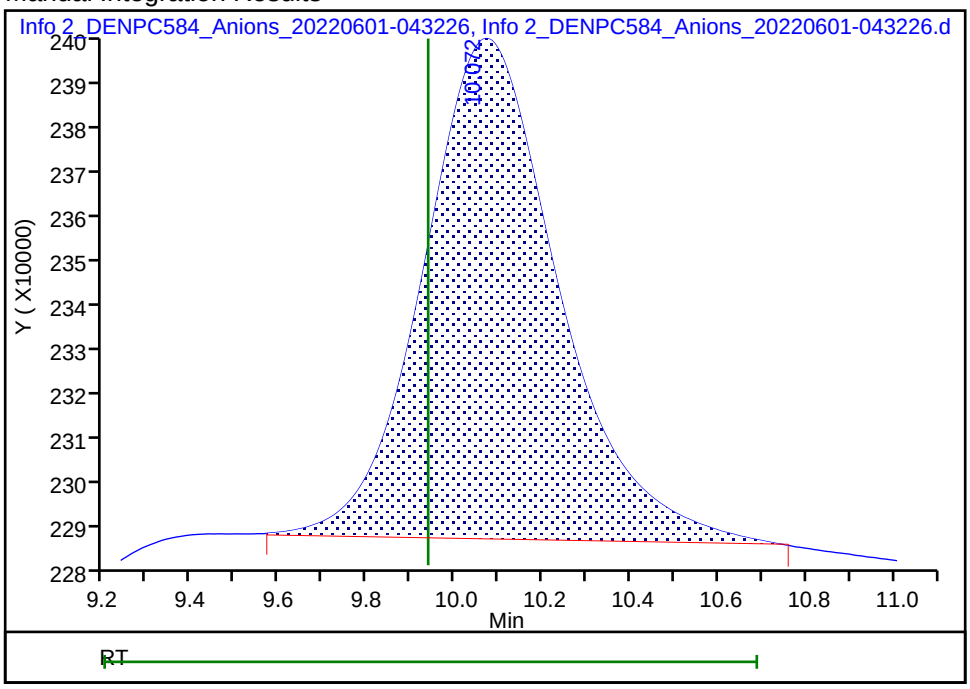
Processing Integration Results

RT: 10.07
Area: 3418710
Amount: 0.633426
Amount Units: ug/ml



Manual Integration Results

RT: 10.07
Area: 2250013
Amount: 0.519391
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:49:54

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-044
Lims ID: 280-162386-F-10
Client ID: G0081-22A
Sample Type: Client
Inject. Date: 01-Jun-2022 04:32:00 ALS Bottle#: 0 Worklist Smp#: 74
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-074
Misc. Info.: 280-0111462-074
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:46 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:50:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.045	3.042	0.003	7631440	0.3581	
2 Chloride	4.335	4.325	0.010	616514918	43.3	M
3 Nitrite as N		5.077			ND	
4 Bromide	6.483	6.447	0.036	1159837	0.2807	
5 Nitrate as N	7.407	7.295	0.112	3923659	NC	
7 Orthophosphate as P	9.097	8.857	0.240	23891805	NC	
6 Sulfate	9.990	9.938	0.052	1711180764	167.3	M

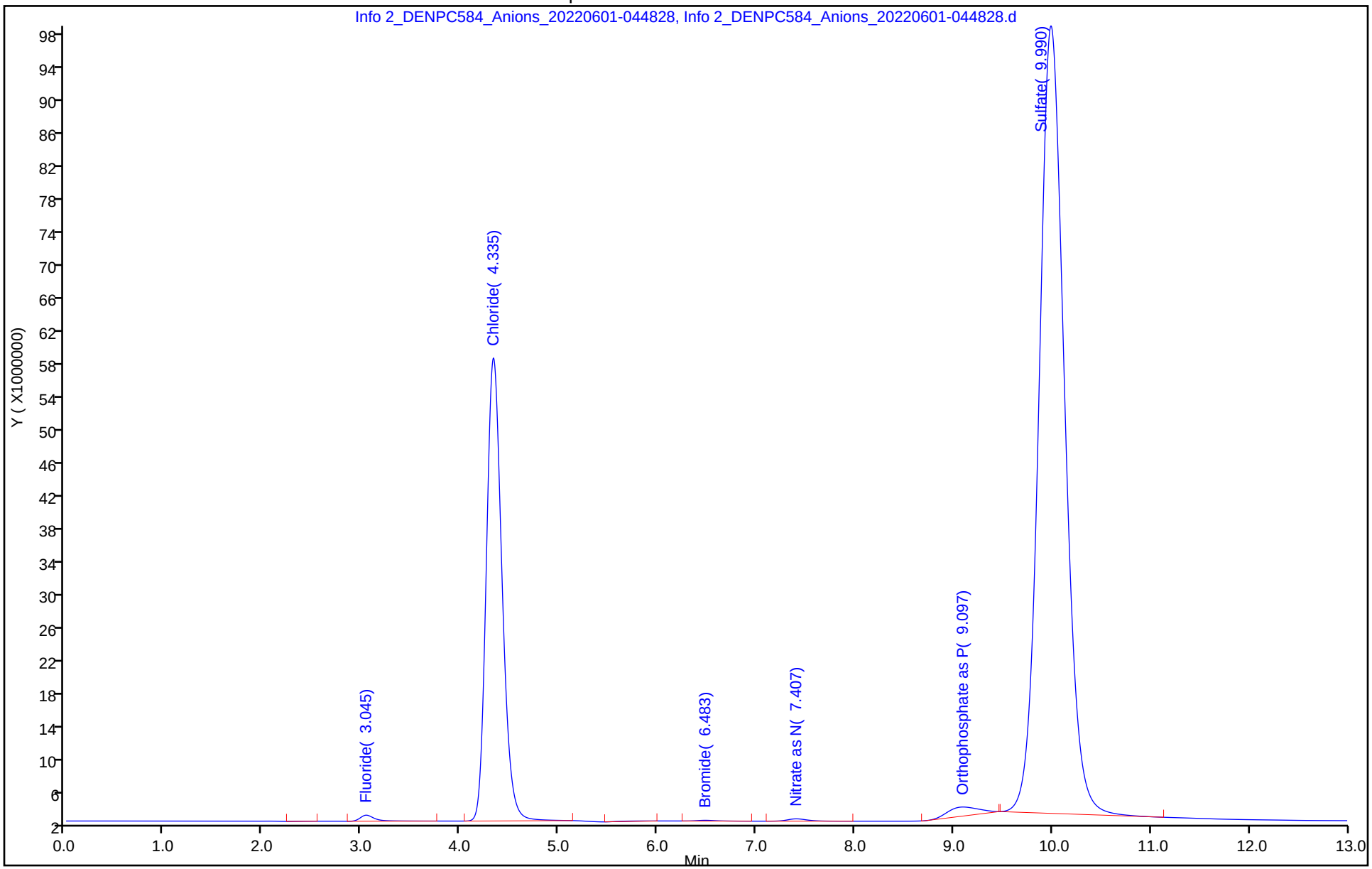
QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Report Date: 01-Jun-2022 13:29:47 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-044828.d				
Injection Date:	01-Jun-2022 04:32:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	280-162386-F-10	Lab Sample ID:	280-162386-10	Worklist Smp#:	74
Client ID:	G0081-22A				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

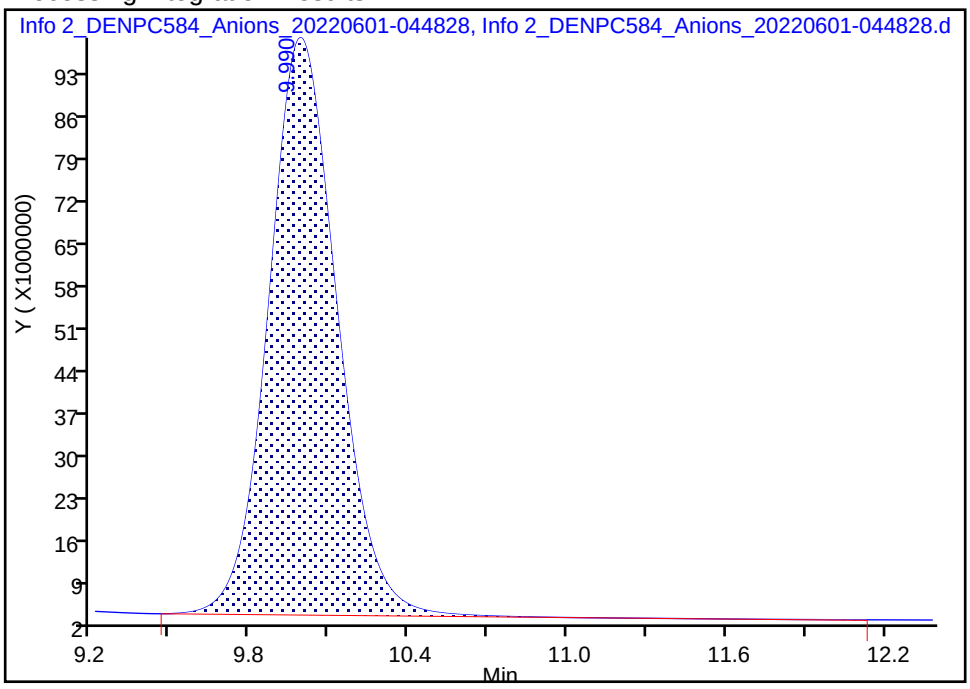
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-044				
Injection Date:	01-Jun-2022 04:32:00	Instrument ID:	WC_IonChrom13		
Lims ID:	280-162386-F-10	Lab Sample ID:	280-162386-10		
Client ID:	G0081-22A				
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	74
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

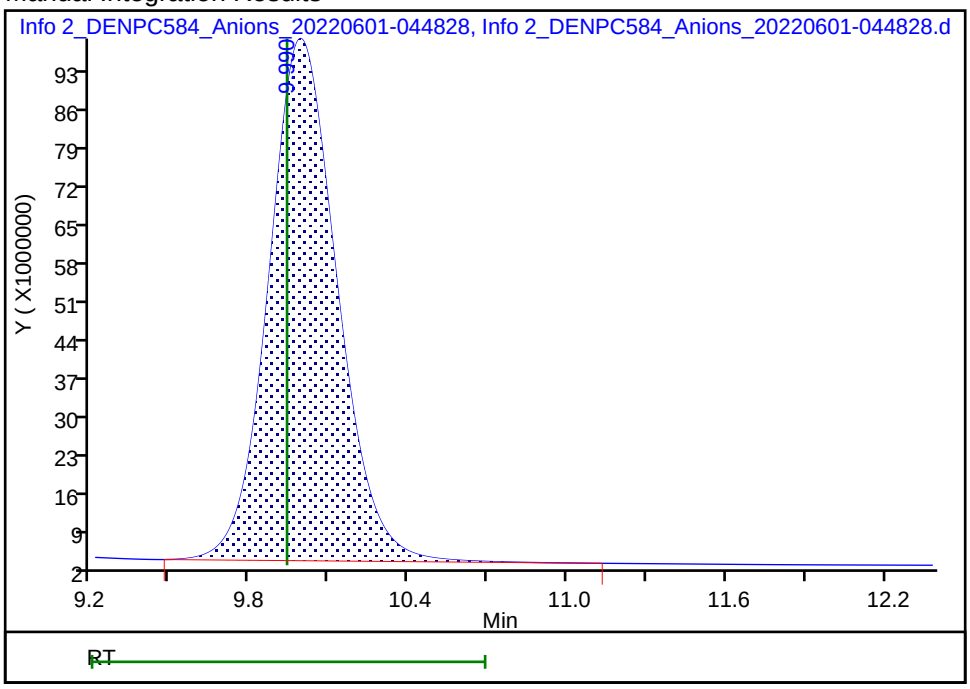
Processing Integration Results

RT: 9.99
Area: 1713052802
Amount: 167.4506
Amount Units: ug/ml



Manual Integration Results

RT: 9.99
Area: 1711180764
Amount: 167.2679
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:50:19

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-104
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 01-Jun-2022 10:24:00 ALS Bottle#: 0 Worklist Smp#: 87
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-087
Misc. Info.: 280-0111462-087
Operator ID: wetchemd Instrument ID: WC_IonChrom13
Sublist: chrom-Anions-IC13*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:52 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:54:43

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.038	3.042	-0.004	131114514	5.00	4.71	
2 Chloride	4.313	4.325	-0.012	1451281498	100.0	101.7	
3 Nitrite as N	5.053	5.077	-0.024	167920168	NC	NC	
4 Bromide	6.387	6.447	-0.060	26593472	5.00	5.26	
5 Nitrate as N	7.227	7.295	-0.068	175185853	NC	NC	
7 Orthophosphate as P	8.902	8.857	0.045	113043965	NC	NC	
6 Sulfate	9.963	9.938	0.025	1044579548	100.0	102.2	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

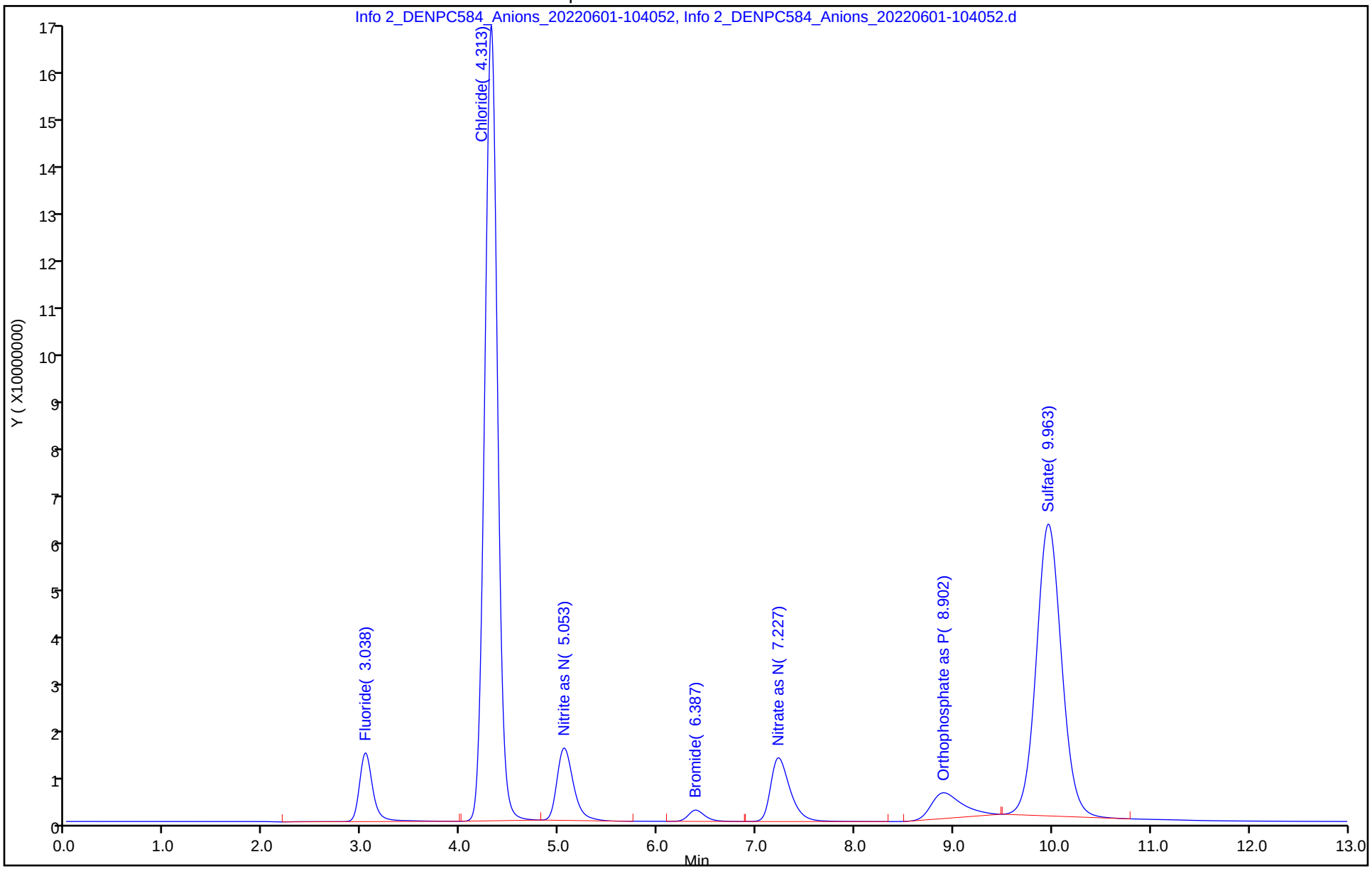
IC LCS_01878 Amount Added: 10.00 Units: mL

Report Date: 01-Jun-2022 13:29:52 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-104052.d

Injection Date:	01-Jun-2022 10:24:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	87
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-104

Injection Date: 01-Jun-2022 10:24:00 Instrument ID: WC_IonChrom13

Lims ID: ccv

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 87

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

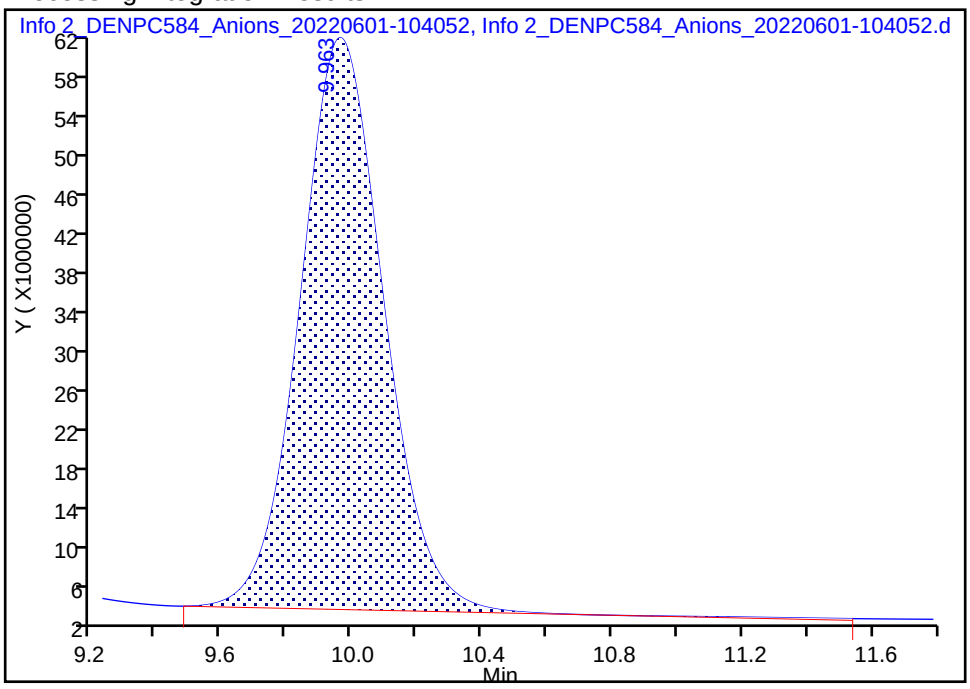
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

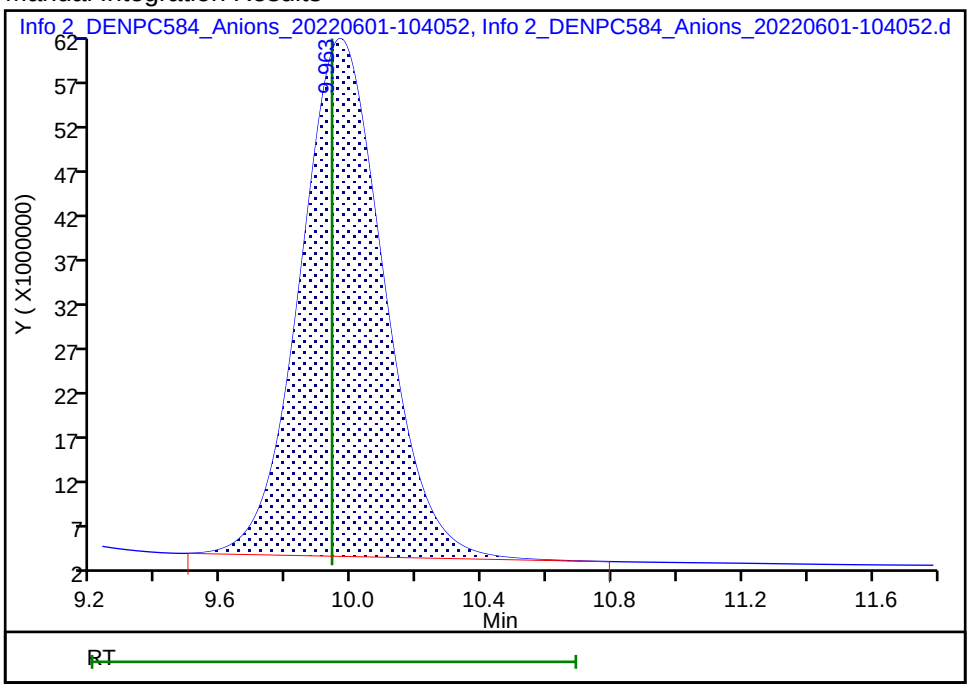
Processing Integration Results

RT: 9.96
Area: 1048207051
Amount: 102.5784
Amount Units: ug/ml



Manual Integration Results

RT: 9.96
Area: 1044579548
Amount: 102.2244
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:54:40

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-105
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 01-Jun-2022 10:40:00 ALS Bottle#: 0 Worklist Smp#: 88
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0111462-088
Misc. Info.: 280-0111462-088
Operator ID: wetchemd Instrument ID: WC_IonChrom13

Method: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Anions-IC13.m
Limit Group: Wet - Anions 28D
Last Update: 01-Jun-2022 13:29:52 Calib Date: 16-May-2022 18:54:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220516-111056.b\Info 2_DENPC584_Anions_20220516-191

Column 1 : Det: 0005
Process Host: CTX1653

First Level Reviewer: foxr Date: 01-Jun-2022 11:55:03

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.042				ND	
2 Chloride	4.305	4.325	-0.020	50346		0.2139	M
3 Nitrite as N		5.077				ND	
4 Bromide		6.447				ND	U
5 Nitrate as N		7.295				ND	
7 Orthophosphate as P		8.857				ND	
6 Sulfate	10.060	9.938	0.122	2317731		0.5260	M

QC Flag Legend

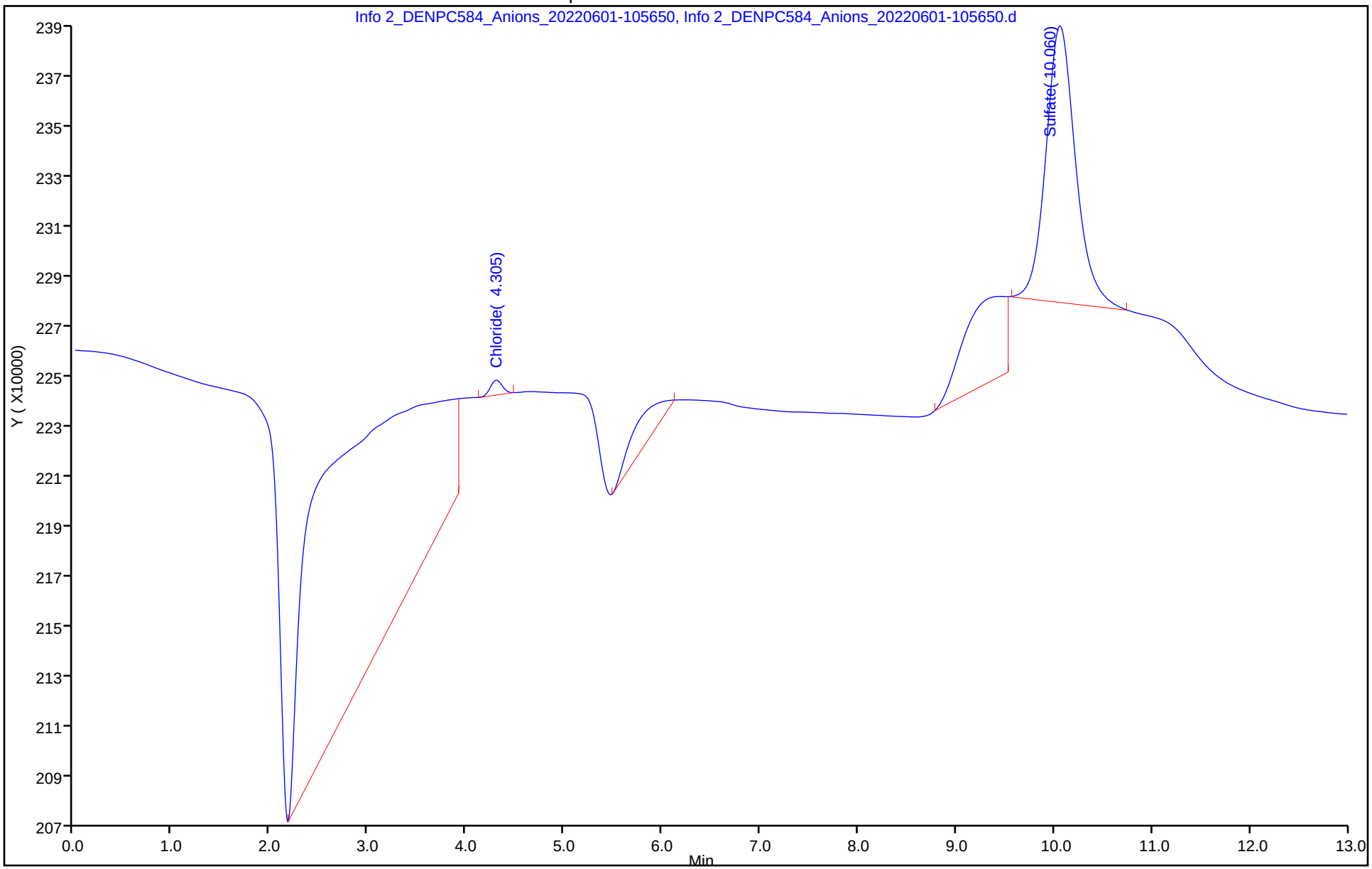
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 01-Jun-2022 13:29:52 Chrom Revision: 2.3 26-May-2022 13:30:40

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-105650.d

Injection Date:	01-Jun-2022 10:40:00	Instrument ID:	WC_IonChrom13	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	88
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions-IC13	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom13\20220531-111462.b\Info 2_DENPC584_Anions_20220601-105

Injection Date: 01-Jun-2022 10:40:00 Instrument ID: WC_IonChrom13

Lims ID: ccb

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 88

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions-IC13 Limit Group: Wet - Anions 28D

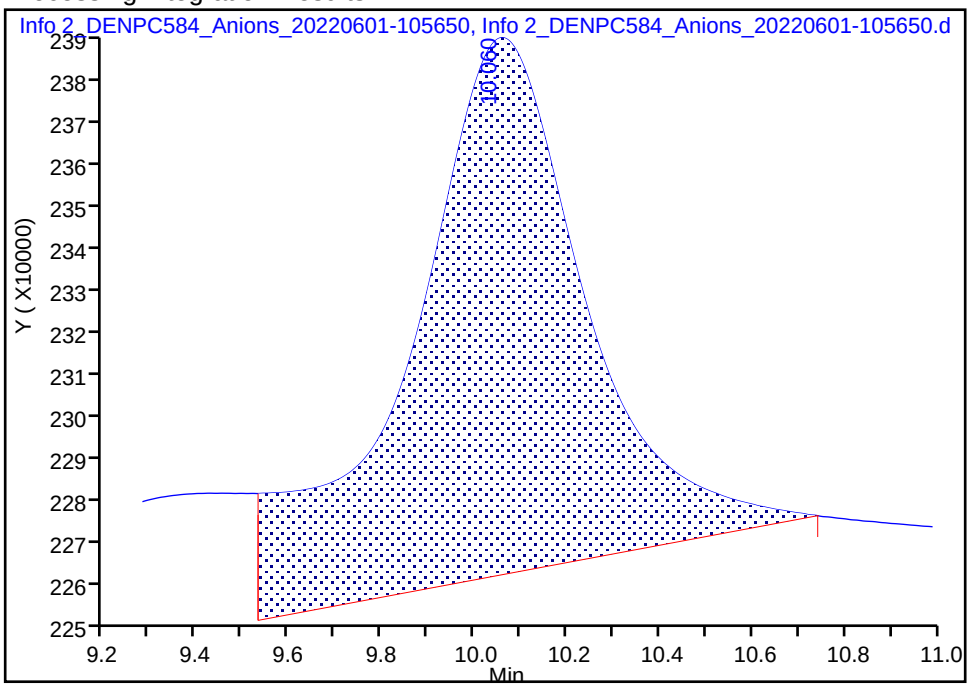
Column: Detector 0005

6 Sulfate, CAS: 14808-79-8

Signal: 1

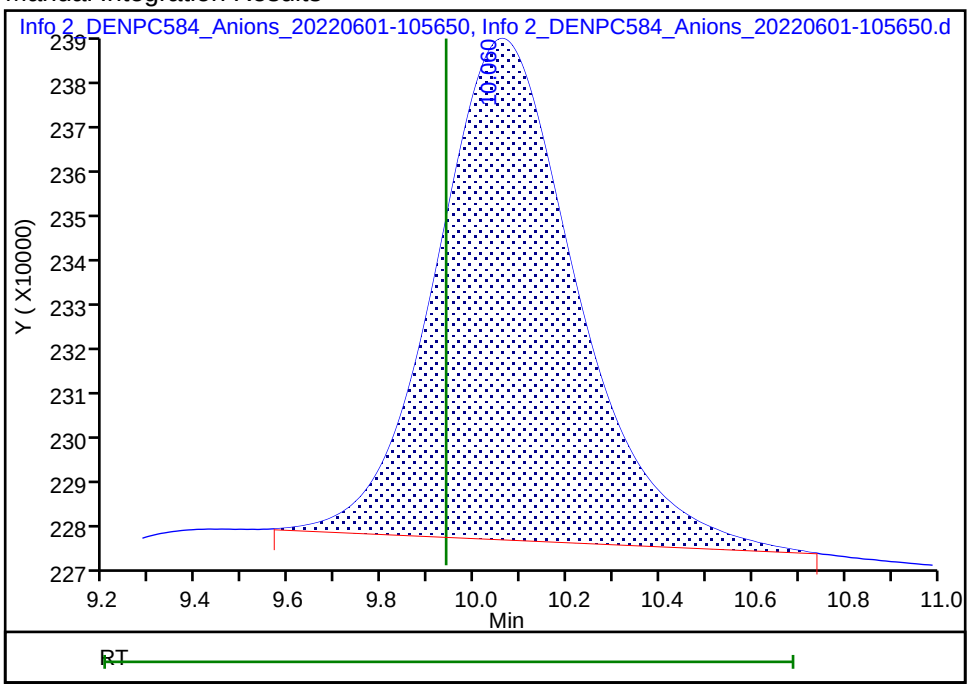
Processing Integration Results

RT: 10.06
Area: 3397975
Amount: 0.631403
Amount Units: ug/ml



Manual Integration Results

RT: 10.06
Area: 2317731
Amount: 0.525999
Amount Units: ug/ml



Reviewer: foxr, 01-Jun-2022 11:54:53

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-576248

Analyst: Wondimu, Akewak B

Batch Open: 5/26/2022 8:41:00AM

Batch End:

06/06/2022

Sample Filtration

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	LCS~280-576248/1 N/A	N/A				N/A	N/A	N/A		LCS 280-576248/1-A
2	MB~280-576248/2 N/A	N/A				N/A	N/A	N/A		MB 280-576248/2-A
3	280-162386-D-1 (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-1-A
4	280-162386-D-1~MS (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-1-B MS
5	280-162386-D-1~MSD (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-1-C MSD
6	280-162386-D-2 (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-2-A
7	280-162386-D-3 (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-3-A
8	280-162386-D-4 (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-4-A
9	280-162386-D-5 (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-5-A
10	280-162386-D-6 (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-6-A
11	280-162386-D-7 (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-7-A
12	280-162386-D-8 (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-8-A
13	280-162386-D-9 (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-9-A
14	280-162386-D-10 (9060A_Diss)	N/A (280-162386-1)	Water			6/3/22	18_Days	4		280-162386-D-10-A

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-576248

Analyst: Wondimu, Akewak B

Batch Open: 5/26/2022 8:41:00AM

Batch End:

Batch Notes

Pipette/Syringe/Dispenser ID	1272995
Filter ID	R1MB55774-2036-DS
Nitric Acid ID	N/A
Batch Comment	DOC Filtration

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

06/06/2022

Batch Number: 280-576248

Analyst: Wondimu, Akewak B

Batch Open: 5/26/2022 8:41:00AM

Batch End:

Comments

280-162386-D-1	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-162386-D-1~MS	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-162386-D-1~MS	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-162386-D-2	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-162386-D-3	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-162386-D-4	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-162386-D-5	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-162386-D-6	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-162386-D-7	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-162386-D-8	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-162386-D-9	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-162386-D-10	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

06/06/2022

Batch Number: 280-576248

Analyst: Wondimu, Akewak B

Batch Open: 5/26/2022 8:41:00AM

Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness

Other Reagents:

Reagent	Amount/Units	Lot#:

	Type	Analysis	Sample Name	Sample ID	ObjectID	Origin
1	Unknown	NPOC	ICV		0L-10900100866-10	NPOC 2022.met
2	Unknown	NPOC	ICB		0L-10900100866-10	NPOC 2022.met
3	Unknown	NPOC	LCS		0L-10900100866-10	NPOC 2022.met
4	Unknown	NPOC	MB		0L-10900100866-10	NPOC 2022.met
5	Unknown	NPOC	TIC		0L-10900100866-10	NPOC 2022.met
6	Unknown	NPOC	240-166903-s-1		0L-10900100866-10	NPOC 2022.met
7	Unknown	NPOC	MS 240-166903-s-1		0L-10900100866-10	NPOC 2022.met
8	Unknown	NPOC	MSD 240-166903-s-1		0L-10900100866-10	NPOC 2022.met
9	Unknown	NPOC	240-166903-d-7		0L-10900100866-10	NPOC 2022.met
10	Unknown	NPOC	240-166903-d-8		0L-10900100866-10	NPOC 2022.met
11	Unknown	NPOC	240-166903-d-9		0L-10900100866-10	NPOC 2022.met
12	Unknown	NPOC	240-166903-d-10		0L-10900100866-10	NPOC 2022.met
13	Unknown	NPOC	280-162395-d-2		0L-10900100866-10	NPOC 2022.met
14	Unknown	NPOC	280-162395-d-3		0L-10900100866-10	NPOC 2022.met
15	Unknown	NPOC	CCV		0L-10900100866-10	NPOC 2022.met
16	Unknown	NPOC	CCB		0L-10900100866-10	NPOC 2022.met
17	Unknown	NPOC	280-162395-d-4		0L-10900100866-10	NPOC 2022.met
18	Unknown	NPOC	280-162395-d-5		0L-10900100866-10	NPOC 2022.met
19	Unknown	NPOC	280-162395-d-6		0L-10900100866-10	NPOC 2022.met
20	Unknown	NPOC	lcs 280-576248/1-a		0L-10900100866-10	NPOC 2022.met
21	Unknown	NPOC	mb 280-576248/2-a		0L-10900100866-10	NPOC 2022.met
22	Unknown	NPOC	280-162386-d-1-a		0L-10900100866-10	NPOC 2022.met
23	Unknown	NPOC	280-162386-d-1-b ms		0L-10900100866-10	NPOC 2022.met
24	Unknown	NPOC	280-162386-d-1-c ms		0L-10900100866-10	NPOC 2022.met
25	Unknown	NPOC	280-162386-d-2-a		0L-10900100866-10	NPOC 2022.met
26	Unknown	NPOC	280-162386-d-3-a		0L-10900100866-10	NPOC 2022.met
27	Unknown	NPOC	CCV		0L-10900100866-10	NPOC 2022.met
28	Unknown	NPOC	CCB		0L-10900100866-10	NPOC 2022.met
29	Unknown	NPOC	280-162386-d-4-a		0L-10900100866-10	NPOC 2022.met
30	Unknown	NPOC	280-162386-d-5-a		0L-10900100866-10	NPOC 2022.met
31	Unknown	NPOC	280-162386-d-6-a		0L-10900100866-10	NPOC 2022.met
32	Unknown	NPOC	280-162386-d-7-a		0L-10900100866-10	NPOC 2022.met
33	Unknown	NPOC	280-162386-d-8-a		0L-10900100866-10	NPOC 2022.met
34	Unknown	NPOC	280-162386-d-9-a		0L-10900100866-10	NPOC 2022.met
35	Unknown	NPOC	280-162386-d-10-a		0L-10900100866-10	NPOC 2022.met
36	Unknown	NPOC	280-161875-B-3		0L-10900100866-10	NPOC 2022.met
37	Unknown	NPOC	MS 280-161875-B-3		0L-10900100866-10	NPOC 2022.met
38	Unknown	NPOC	MSD 280-161875-b-3		0L-10900100866-10	NPOC 2022.met
39	Unknown	NPOC	CCV		0L-10900100866-10	NPOC 2022.met
40	Unknown	NPOC	CCB		0L-10900100866-10	NPOC 2022.met
41	Unknown	NPOC	280-161875-a-4		0L-10900100866-10	NPOC 2022.met
42	Unknown	NPOC	LCS		0L-10900100866-10	NPOC 2022.met
43	Unknown	NPOC	LCSD		0L-10900100866-10	NPOC 2022.met
44	Unknown	NPOC	MB		0L-10900100866-10	NPOC 2022.met
45	Unknown	NPOC	TIC		0L-10900100866-10	NPOC 2022.met
46	Unknown	NPOC	280-162257-b-3		0L-10900100866-10	NPOC 2022.met
47	Unknown	NPOC	MS 280-162257-b-3		0L-10900100866-10	NPOC 2022.met
48	Unknown	NPOC	MSD 280-162257-b-3		0L-10900100866-10	NPOC 2022.met
49	Unknown	NPOC	280-162257-b-4		0L-10900100866-10	NPOC 2022.met
50	Unknown	NPOC	280-162257-b-8		0L-10900100866-10	NPOC 2022.met
51	Unknown	NPOC	CCV		0L-10900100866-10	NPOC 2022.met
52	Unknown	NPOC	CCB		0L-10900100866-10	NPOC 2022.met
53	Unknown	NPOC	280-162257-b-5		0L-10900100866-10	NPOC 2022.met

	Manual Diluti	Result	Notes	Comment	Status	Action	Date / Time	Vial
1	1.000	NPOC:19.61mg/L			Completed		5/26/2022 4:50:23 P	1
2	1.000	NPOC:-0.03476mg/L			Completed		5/26/2022 5:06:42 P	2
3	1.000	NPOC:24.27mg/L			Completed		5/26/2022 5:21:12 P	3
4	1.000	NPOC:0.01308mg/L			Completed		5/26/2022 5:37:30 P	4
5	1.000	NPOC:0.06160mg/L			Completed		5/26/2022 5:51:47 P	5
6	1.000	NPOC:1.351mg/L			Completed		5/26/2022 6:10:10 P	6
7	1.000	NPOC:25.97mg/L			Completed		5/26/2022 6:26:31 P	7
8	1.000	NPOC:25.81mg/L			Completed		5/26/2022 6:40:56 P	8
9	1.000	NPOC:0.8126mg/L			Completed		5/26/2022 6:59:16 P	9
10	1.000	NPOC:0.6279mg/L			Completed		5/26/2022 7:15:27 P	10
11	1.000	NPOC:0.8769mg/L			Completed		5/26/2022 7:33:49 P	11
12	1.000	NPOC:0.8830mg/L			Completed		5/26/2022 7:50:17 P	12
13	10.00	NPOC:172.3mg/L			Completed		5/26/2022 8:04:25 P	13
14	2.000	NPOC:60.22mg/L			Completed		5/26/2022 8:18:46 P	14
15	1.000	NPOC:24.80mg/L			Completed		5/26/2022 8:37:24 P	15
16	1.000	NPOC:0.04310mg/L			Completed		5/26/2022 8:53:32 P	16
17	5.000	NPOC:127.7mg/L			Completed		5/26/2022 9:07:49 P	17
18	2.000	NPOC:46.02mg/L			Completed		5/26/2022 9:22:13 P	18
19	5.000	NPOC:161.2mg/L			Completed		5/26/2022 9:38:52 P	19
20	1.000	NPOC:25.08mg/L			Completed		5/26/2022 9:53:28 P	20
21	1.000	NPOC:0.1399mg/L			Completed		5/26/2022 10:07:42 P	21
22	1.000	NPOC:4.221mg/L			Completed		5/26/2022 10:21:55 P	22
23	1.000	NPOC:28.39mg/L			Completed		5/26/2022 10:40:43 P	23
24	1.000	NPOC:28.72mg/L			Completed		5/26/2022 10:54:54 P	24
25	1.000	NPOC:3.114mg/L			Completed		5/26/2022 11:11:09 P	25
26	1.000	NPOC:10.40mg/L			Completed		5/26/2022 11:27:30 P	26
27	1.000	NPOC:24.30mg/L			Completed		5/26/2022 11:46:13 P	27
28	1.000	NPOC:0.1118mg/L			Completed		5/27/2022 12:02:22 A	28
29	1.000	NPOC:3.861mg/L			Completed		5/27/2022 12:16:34 A	29
30	1.000	NPOC:2.905mg/L			Completed		5/27/2022 12:34:57 A	30
31	1.000	NPOC:16.94mg/L			Completed		5/27/2022 12:51:19 A	31
32	1.000	NPOC:7.759mg/L			Completed		5/27/2022 1:09:38 A	32
33	1.000	NPOC:3.380mg/L			Completed		5/27/2022 1:27:51 A	33
34	1.000	NPOC:8.580mg/L			Completed		5/27/2022 1:43:59 A	34
35	1.000	NPOC:5.987mg/L			Completed		5/27/2022 2:02:21 A	35
36	10.00	NPOC:251.2mg/L			Completed		5/27/2022 2:20:41 A	36
37	10.00	NPOC:495.2mg/L			Completed		5/27/2022 2:35:31 A	37
38	10.00	NPOC:492.9mg/L			Completed		5/27/2022 2:50:13 A	38
39	1.000	NPOC:24.48mg/L			Completed		5/27/2022 3:04:46 A	39
40	1.000	NPOC:0.01650mg/L			Completed		5/27/2022 3:21:14 A	40
41	5.000	NPOC:138.0mg/L			Completed		5/27/2022 3:35:41 A	41
42	1.000	NPOC:24.08mg/L			Completed		5/27/2022 3:50:01 A	42
43	1.000	NPOC:24.04mg/L			Completed		5/27/2022 4:04:17 A	43
44	1.000	NPOC:0.06617mg/L			Completed		5/27/2022 4:18:31 A	44
45	1.000	NPOC:0.07639mg/L			Completed		5/27/2022 4:32:51 A	45
46	1.000	NPOC:2.166mg/L			Completed		5/27/2022 4:49:12 A	46
47	1.000	NPOC:26.66mg/L			Completed		5/27/2022 5:03:42 A	47
48	1.000	NPOC:26.32mg/L			Completed		5/27/2022 5:18:04 A	48
49	1.000	NPOC:1.162mg/L			Completed		5/27/2022 5:32:18 A	49
50	1.000	NPOC:2.186mg/L			Completed		5/27/2022 5:48:34 A	50
51	1.000	NPOC:24.34mg/L			Completed		5/27/2022 6:02:58 A	51
52	1.000	NPOC:0.03330mg/L			Completed		5/27/2022 6:17:12 A	52
53	1.000	NPOC:0.6438mg/L			Completed		5/27/2022 6:33:27 A	53

	Type	Analysis	Sample Name	Sample ID	ObjectID	Origin
54	Unknown	NPOC	280-162213-f-1		0L-10900100866-10	NPOC 2022.met
55	Unknown	NPOC	280-162213-f-2		0L-10900100866-10	NPOC 2022.met
56	Unknown	NPOC	280-162252-l-4		0L-10900100866-10	NPOC 2022.met
57	Unknown	NPOC	280-162252-l-5		0L-10900100866-10	NPOC 2022.met
58	Unknown	NPOC	280-162463-b-6		0L-10900100866-10	NPOC 2022.met
59	Unknown	NPOC	280-162463-b-7		0L-10900100866-10	NPOC 2022.met
60	Unknown	NPOC	280-162463-b-8		0L-10900100866-10	NPOC 2022.met
61	Unknown	NPOC	MS 280-162463-b-8		0L-10900100866-10	NPOC 2022.met
62	Unknown	NPOC	MSD 280-162463-b-8		0L-10900100866-10	NPOC 2022.met
63	Unknown	NPOC	CCV		0L-10900100866-10	NPOC 2022.met
64	Unknown	NPOC	CCB		0L-10900100866-10	NPOC 2022.met
65	Unknown	NPOC	280-162463-b-9		0L-10900100866-10	NPOC 2022.met
66	Unknown	NPOC	280-162463-b-10		0L-10900100866-10	NPOC 2022.met
67	Unknown	NPOC	280-162318-b-3		0L-10900100866-10	NPOC 2022.met
68	Unknown	NPOC	280-162478-a-1		0L-10900100866-10	NPOC 2022.met
69	Unknown	NPOC	280-162478-a-2		0L-10900100866-10	NPOC 2022.met
70	Unknown	NPOC	280-162478-a-3		0L-10900100866-10	NPOC 2022.met
71	Unknown	NPOC	280-162377-b-2		0L-10900100866-10	NPOC 2022.met
72	Unknown	NPOC	280-162377-b-3		0L-10900100866-10	NPOC 2022.met
73	Unknown	NPOC	280-162377-b-4		0L-10900100866-10	NPOC 2022.met
74	Unknown	NPOC	CCV		0L-10900100866-10	NPOC 2022.met
75	Unknown	NPOC	CCB		0L-10900100866-10	NPOC 2022.met

	Manual Diluti	Result	Notes	Comment	Status	Action	Date / Time	Vial
54	10.00	NPOC:164.3mg/L			Completed		5/27/2022 6:47:54 A	54
55	10.00	NPOC:264.5mg/L			Completed		5/27/2022 7:02:07 A	55
56	1.000	NPOC:2.196mg/L			Completed		5/27/2022 7:20:31 A	56
57	1.000	NPOC:3.813mg/L			Completed		5/27/2022 7:36:40 A	57
58	1.000	NPOC:2.171mg/L			Completed		5/27/2022 7:54:59 A	58
59	1.000	NPOC:4.440mg/L			Completed		5/27/2022 8:09:07 A	59
60	1.000	NPOC:15.29mg/L			Completed		5/27/2022 8:23:43 A	60
61	1.000	NPOC:39.51mg/L			Completed		5/27/2022 8:38:08 A	61
62	1.000	NPOC:39.54mg/L			Completed		5/27/2022 8:52:39 A	62
63	1.000	NPOC:24.63mg/L			Completed		5/27/2022 9:07:16 A	63
64	1.000	NPOC:0.06764mg/L			Completed		5/27/2022 9:21:32 A	64
65	1.000	NPOC:1.010mg/L			Completed		5/27/2022 9:40:00 A	65
66	1.000	NPOC:0.9912mg/L			Completed		5/27/2022 9:54:08 A	66
67	1.000	NPOC:3.153mg/L			Completed		5/27/2022 10:12:28 A	67
68	1.000	NPOC:4.678mg/L			Completed		5/27/2022 10:26:33 A	68
69	1.000	NPOC:3.725mg/L			Completed		5/27/2022 10:40:43 A	69
70	1.000	NPOC:4.730mg/L			Completed		5/27/2022 10:54:57 A	70
71	1.000	NPOC:0.5027mg/L			Completed		5/27/2022 11:11:39 A	71
72	1.000	NPOC:2.978mg/L			Completed		5/27/2022 11:30:02 A	72
73	1.000	NPOC:2.793mg/L			Completed		5/27/2022 11:44:50 A	73
74	1.000	NPOC:24.62mg/L			Completed		5/27/2022 11:59:10 A	74
75	1.000	NPOC:0.05785mg/L			Completed		5/27/2022 12:15:29 P	75

TOC-L Cal Curve Information
C:\TOC-L\CalCurves\NPOC11.2021 12 10 10 59 55.cal

Date of Creation 12/10/2021 12:12:13 PM
User
System TOC-LCSN

Cal. Curve

Sample Name:
Sample ID:
Object ID 0L-10900100866-10101000-134660A19CE8-0000
Cal. Curve: NPOC11.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.124	50uL	1.000	*******	E	12/10/2021 11:07:14 AM
2	0.07080	50uL	1.000	*******		12/10/2021 11:09:24 AM
3	0.4293	50uL	1.000	*******		12/10/2021 11:11:29 AM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 0.2500
SD Area 0.2535
CV Area 101.38%
Vial 0
No Washes 2

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.772	50uL	50.00	*******	E	12/10/2021 11:18:47 AM
2	1.476	50uL	50.00	*******		12/10/2021 11:21:04 AM
3	1.561	50uL	50.00	*******		12/10/2021 11:23:09 AM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 1.519
SD Area 0.06010
CV Area 3.96%
Vial 0
No Washes 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	11.35	50uL	10.00	*******	E	12/10/2021 11:31:48 AM
2	10.56	50uL	10.00	*******		12/10/2021 11:33:58 AM
3	10.74	50uL	10.00	*******		12/10/2021 11:36:03 AM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 10.65
SD Area 0.1273
CV Area 1.20%
Vial 0
No Washes 2

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	22.70	50uL	5.000	T******	E	12/10/2021 11:46:23 AM
2	21.02	50uL	5.000	*******		12/10/2021 11:48:35 AM
3	20.72	50uL	5.000	*******		12/10/2021 11:50:40 AM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	20.87
SD Area	0.2121
CV Area	1.02%
Vial	0
No Washes	2

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	54.14	50uL	2.000	*******	E	12/10/2021 11:58:45 AM
2	51.98	50uL	2.000	*******		12/10/2021 12:00:55 PM
3	51.22	50uL	2.000	*******		12/10/2021 12:03:00 PM

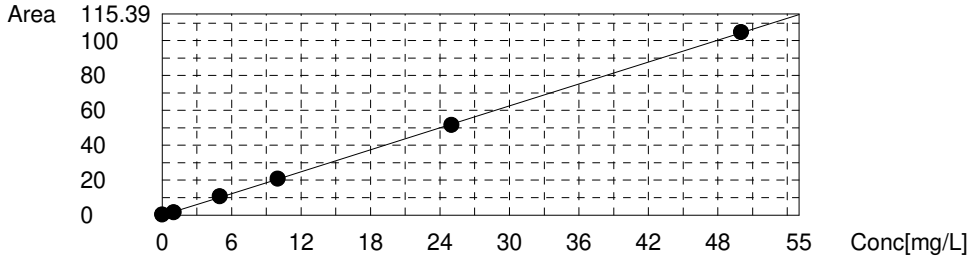
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	51.60
SD Area	0.5374
CV Area	1.04%
Vial	0
No Washes	2

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	105.5	50uL	1.000	*******		12/10/2021 12:10:02 PM
2	104.3	50uL	1.000	*******		12/10/2021 12:12:13 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	104.9
SD Area	0.8485
CV Area	0.81%
Vial	0
No Washes	2

Slope:	2.095
Intercept	-0.1477
r^2	0.9999
r	0.9999
RSE(%)	N/A
Zero Shift	No



TOC-Control L Report

kjgk
2022_05_26_001.tlx

Instr.Information

Instrument Options TOC/ASI/
Catalyst Regular Sensitivity

Sample

Sample Name: ICV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

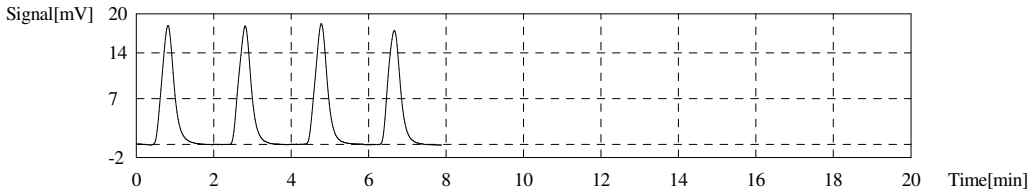
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.61mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	41.11	19.86mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 4:43:56 PM
2	40.91	19.76mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 4:46:04 PM
3	40.88	19.75mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 4:48:10 PM
4	39.54	19.10mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 4:50:23 PM

Mean Area 40.61
Mean Conc. 19.61mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

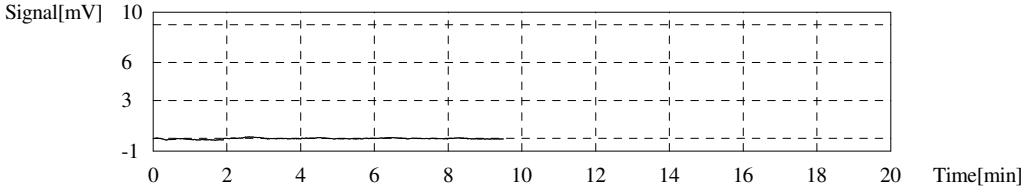
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.03476mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.09360	-0.00077mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 4:58:17 PM
2	0.2559	0.07780mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:00:27 PM
3	0.000	-0.04609mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:02:32 PM
4	0.000	-0.04609mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:04:37 PM
5	0.000	-0.04609mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:06:42 PM

Mean Area 0.02340
Mean Conc. -0.03476mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

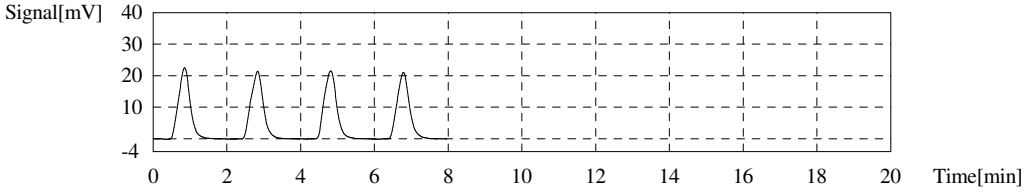
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.27mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.41	24.36mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:14:39 PM
2	50.48	24.39mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:16:50 PM
3	50.75	24.52mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:18:59 PM
4	49.23	23.79mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:21:12 PM

Mean Area 50.22
Mean Conc. 24.27mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

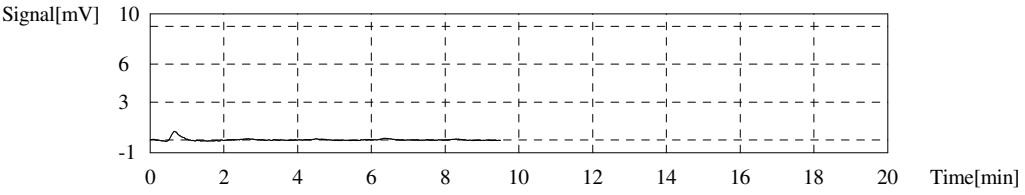
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01308mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.308	0.5872mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:29:06 PM
2	0.1096	0.00698mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:31:15 PM
3	0.1541	0.02852mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:33:20 PM
4	0.2251	0.06289mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:35:25 PM
5	0.000	-0.04609mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:37:30 PM

Mean Area 0.1222
Mean Conc. 0.01308mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

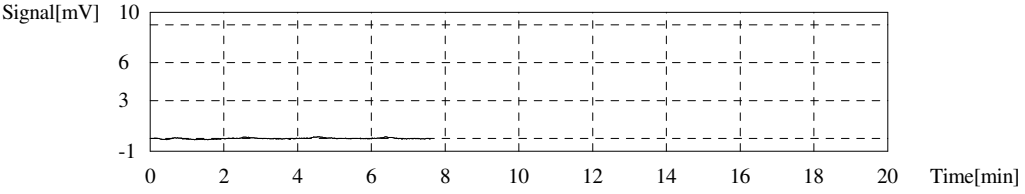
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06160mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2491	0.07451mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:45:23 PM
2	0.1766	0.03941mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:47:33 PM
3	0.2330	0.06672mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:49:42 PM
4	0.2310	0.06575mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:51:47 PM

Mean Area 0.2224
Mean Conc. 0.06160mg/L



Sample

Sample Name: 240-166903-s-1
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

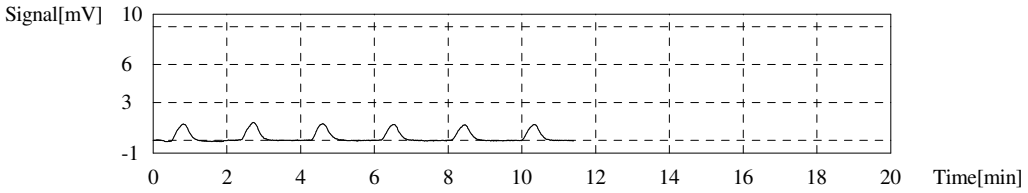
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.351mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.277	1.540mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 5:59:41 PM
2	3.110	1.460mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:01:50 PM
3	2.967	1.390mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:03:55 PM
4	2.864	1.340mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:06:00 PM
5	2.829	1.324mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:08:05 PM
6	2.886	1.351mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:10:10 PM

Mean Area 2.886
Mean Conc. 1.351mg/L



Sample

Sample Name: MS 240-166903-s-1
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

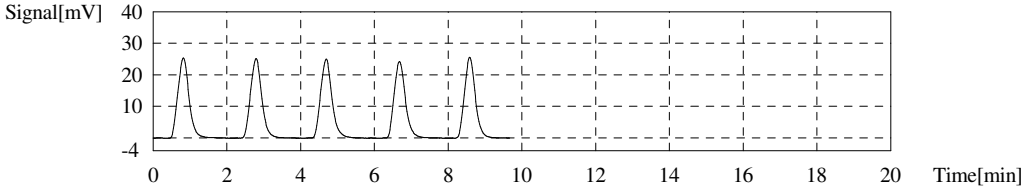
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.97mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.27	26.23mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:18:01 PM
2	53.79	26.00mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:20:10 PM
3	54.29	26.24mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:22:21 PM
4	51.98	25.12mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:24:26 PM
5	52.56	25.40mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:26:31 PM

Mean Area 53.73
Mean Conc. 25.97mg/L



Sample

Sample Name: MSD 240-166903-s-1
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

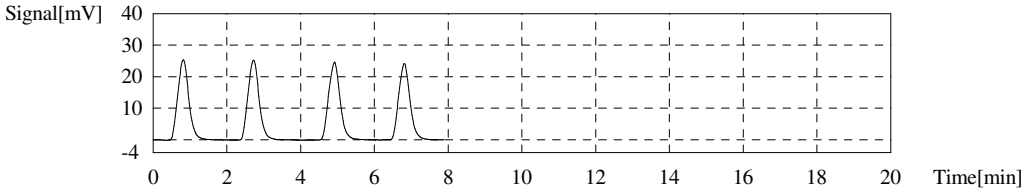
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.81mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.82	26.01mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:34:24 PM
2	53.83	26.01mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:36:46 PM
3	53.94	26.07mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:38:51 PM
4	52.04	25.15mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:40:56 PM

Mean Area 53.41
Mean Conc. 25.81mg/L



Sample

Sample Name: 240-166903-d-7
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

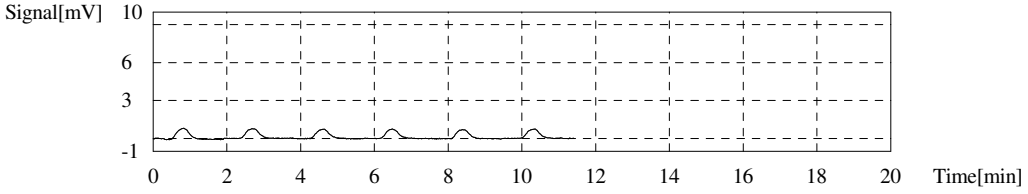
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8126mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.090	0.9658mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:48:50 PM
2	1.888	0.8680mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:50:55 PM
3	1.764	0.8079mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:53:01 PM
4	1.696	0.7750mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:55:06 PM
5	1.513	0.6864mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:57:11 PM
6	1.747	0.7997mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 6:59:16 PM

Mean Area 1.774
Mean Conc. 0.8126mg/L



Sample

Sample Name: 240-166903-d-8
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

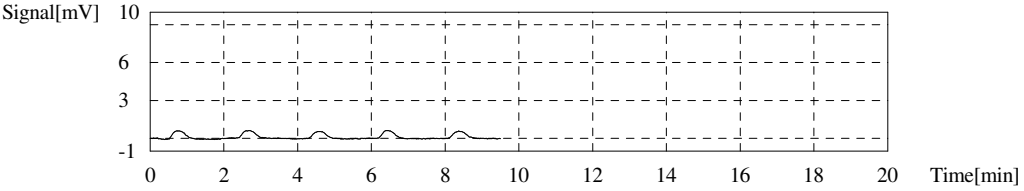
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6279mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.636	0.7460mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:07:03 PM
2	1.522	0.6908mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:09:12 PM
3	1.339	0.6022mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:11:17 PM
4	1.337	0.6012mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:13:22 PM
5	1.371	0.6177mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:15:27 PM

Mean Area 1.392
Mean Conc. 0.6279mg/L



Sample

Sample Name: 240-166903-d-9
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

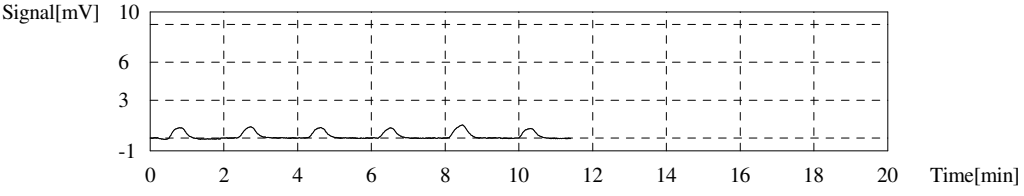
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8769mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.348	1.091mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:23:20 PM
2	2.021	0.9323mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:25:29 PM
3	1.913	0.8801mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:27:34 PM
4	1.819	0.8346mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:29:39 PM
5	2.526	1.177mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:31:44 PM
6	1.873	0.8607mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:33:49 PM

Mean Area 1.907
Mean Conc. 0.8769mg/L



Sample

Sample Name: 240-166903-d-10
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

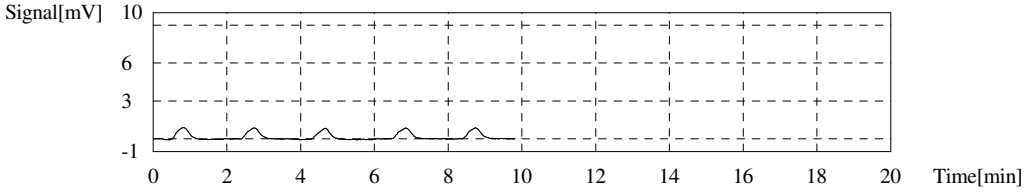
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8830mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.174	1.006mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:41:37 PM
2	1.899	0.8733mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:43:42 PM
3	1.858	0.8534mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:46:06 PM
4	1.963	0.9043mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:48:12 PM
5	1.956	0.9009mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:50:17 PM

Mean Area 1.919
Mean Conc. 0.8830mg/L



Sample

Sample Name: 280-162395-d-2
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

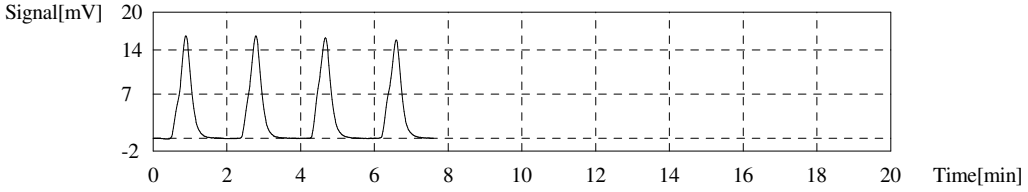
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:172.3mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.89	173.3mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 7:58:10 PM
2	35.81	172.9mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:00:15 PM
3	36.02	173.9mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:02:20 PM
4	35.05	169.2mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:04:25 PM

Mean Area 35.69
Mean Conc. 172.3mg/L



Sample

Sample Name: 280-162395-d-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

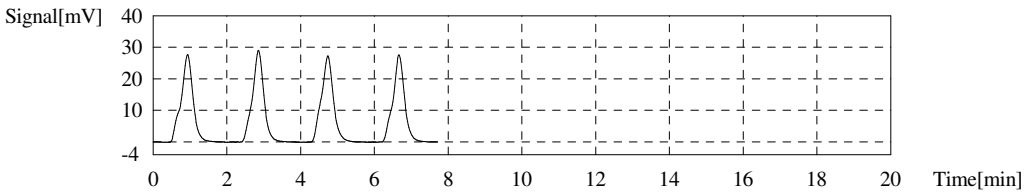
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:60.22mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.88	60.79mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:12:21 PM
2	63.02	60.93mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:14:32 PM
3	62.44	60.37mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:16:37 PM
4	60.82	58.80mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:18:46 PM

Mean Area 62.29
Mean Conc. 60.22mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

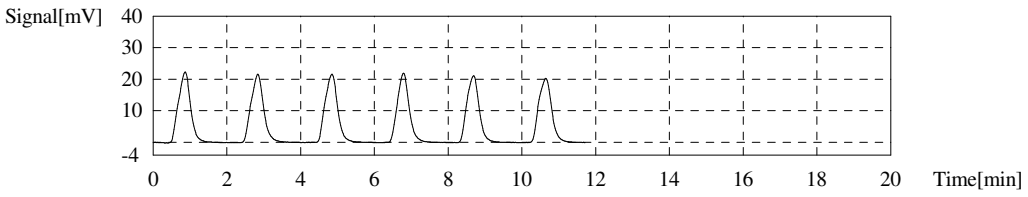
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.80mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.02	25.14mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:26:44 PM
2	51.79	25.03mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:28:56 PM
3	51.37	24.82mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:31:04 PM
4	49.46	23.90mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:33:09 PM
5	49.41	23.87mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:35:17 PM
6	50.07	24.19mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:37:24 PM

Mean Area 51.31
Mean Conc. 24.80mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

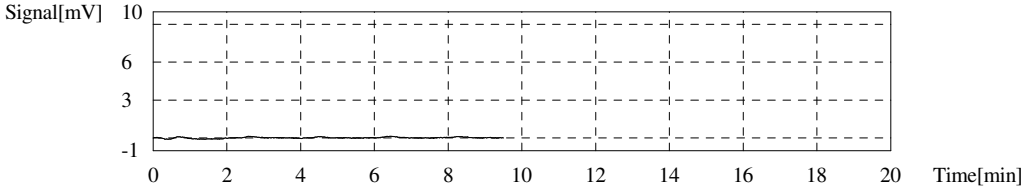
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04310mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3993	0.1472mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:45:12 PM
2	0.1983	0.04992mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:47:17 PM
3	0.1739	0.03811mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:49:22 PM
4	0.2239	0.06231mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:51:27 PM
5	0.1408	0.02208mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 8:53:32 PM

Mean Area 0.1842
Mean Conc. 0.04310mg/L



Sample

Sample Name: 280-162395-d-4
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

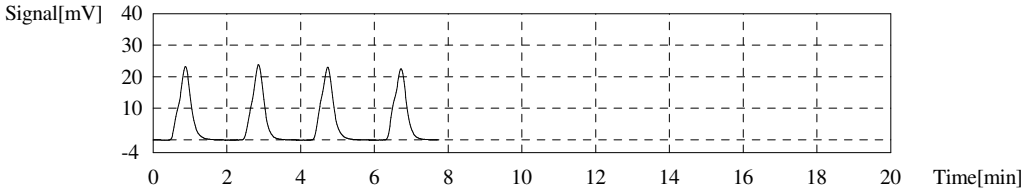
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:127.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.82	127.6mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:01:29 PM
2	53.32	128.8mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:03:34 PM
3	53.38	129.0mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:05:44 PM
4	51.94	125.5mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:07:49 PM

Mean Area 52.87
Mean Conc. 127.7mg/L



Sample

Sample Name: 280-162395-d-5
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

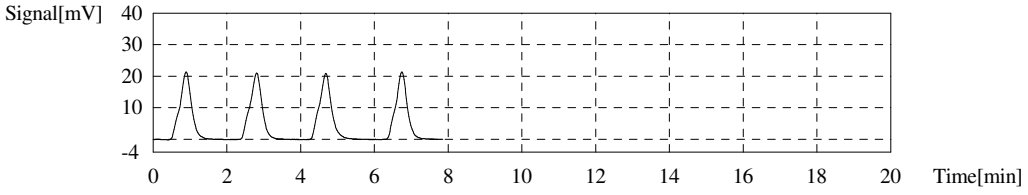
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:46.02mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	47.62	46.02mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:15:43 PM
2	48.08	46.46mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:17:48 PM
3	48.20	46.58mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:20:02 PM
4	46.60	45.03mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:22:13 PM

Mean Area 47.63
Mean Conc. 46.02mg/L



Sample

Sample Name: 280-162395-d-6
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

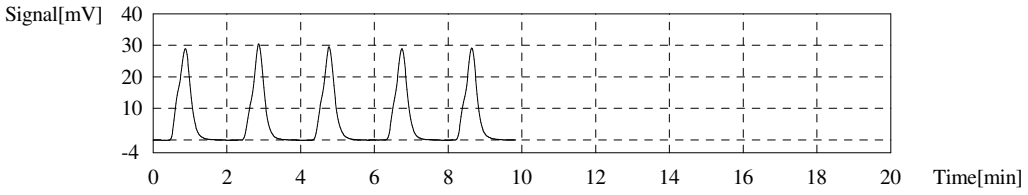
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:161.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	67.98	164.3mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:30:11 PM
2	67.04	162.1mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:32:21 PM
3	66.77	161.4mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:34:30 PM
4	64.43	155.7mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:36:35 PM
5	64.92	156.9mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:38:52 PM

Mean Area 66.68
Mean Conc. 161.2mg/L



Sample

Sample Name: lcs 280-576248/1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

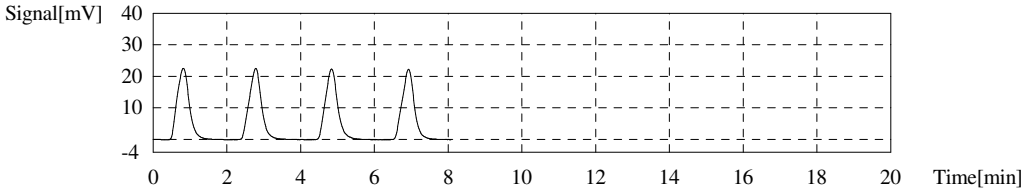
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.08mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.15	25.20mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:46:45 PM
2	52.63	25.43mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:49:00 PM
3	52.00	25.13mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:51:15 PM
4	50.79	24.54mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 9:53:28 PM

Mean Area 51.89
Mean Conc. 25.08mg/L



Sample

Sample Name: mb 280-576248/2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

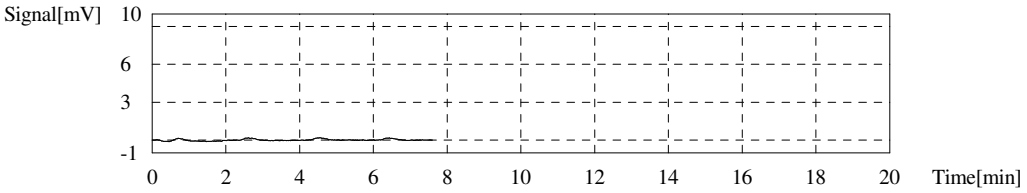
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1399mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4536	0.1735mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:01:22 PM
2	0.3730	0.1345mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:03:31 PM
3	0.3265	0.1120mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:05:37 PM
4	0.3835	0.1396mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:07:42 PM

Mean Area 0.3841
Mean Conc. 0.1399mg/L



Sample

Sample Name: 280-162386-d-1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

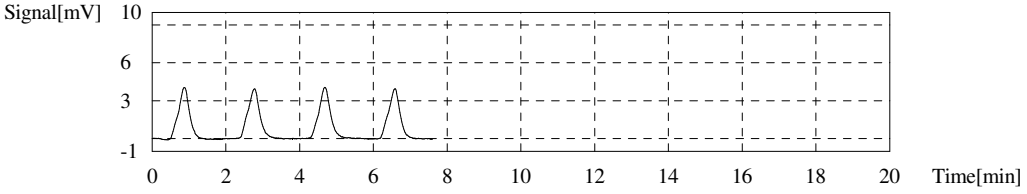
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.221mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.901	4.263mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:15:36 PM
2	8.793	4.211mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:17:45 PM
3	8.917	4.271mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:19:49 PM
4	8.643	4.138mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:21:55 PM

Mean Area 8.814
Mean Conc. 4.221mg/L



Sample

Sample Name: 280-162386-d-1-b ms
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

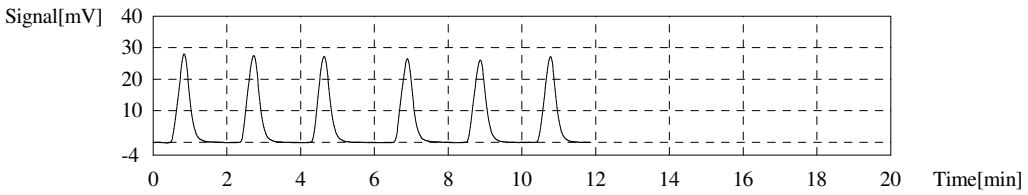
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	60.39	29.19mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:29:48 PM
2	61.50	29.73mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:31:54 PM
3	59.90	28.95mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:34:20 PM
4	57.89	27.98mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:36:29 PM
5	58.37	28.21mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:38:38 PM
6	58.81	28.43mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:40:43 PM

Mean Area 58.74
Mean Conc. 28.39mg/L



Sample

Sample Name: 280-162386-d-1-c msd
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

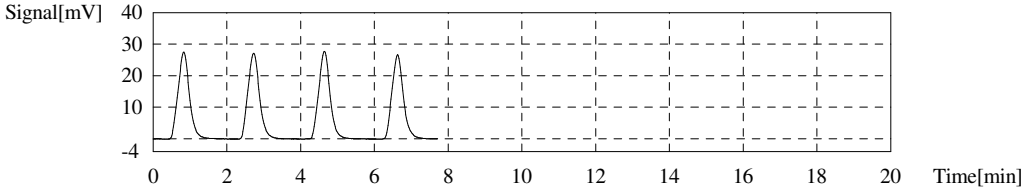
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.72mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.98	28.99mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:48:32 PM
2	59.84	28.92mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:50:36 PM
3	59.82	28.91mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:52:48 PM
4	58.04	28.05mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 10:54:54 PM

Mean Area 59.42
Mean Conc. 28.72mg/L



Sample

Sample Name: 280-162386-d-2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

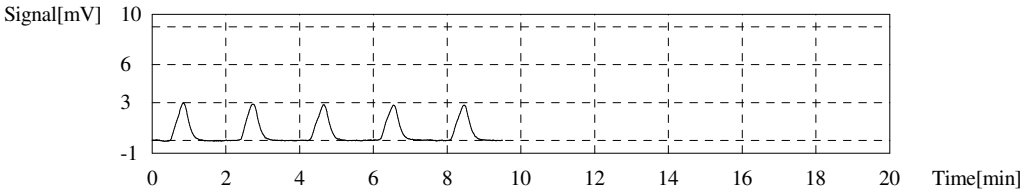
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.114mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.642	3.170mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:02:48 PM
2	6.613	3.155mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:04:53 PM
3	6.442	3.073mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:06:58 PM
4	6.207	2.959mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:09:04 PM
5	6.409	3.057mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:11:09 PM

Mean Area 6.527
Mean Conc. 3.114mg/L



Sample

Sample Name: 280-162386-d-3-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

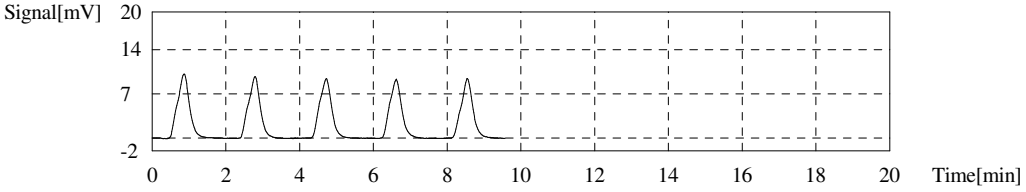
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.46	11.31mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:19:03 PM
2	22.12	10.66mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:21:11 PM
3	21.58	10.40mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:23:19 PM
4	21.34	10.29mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:25:25 PM
5	21.23	10.23mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:27:30 PM

Mean Area 21.57
Mean Conc. 10.40mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

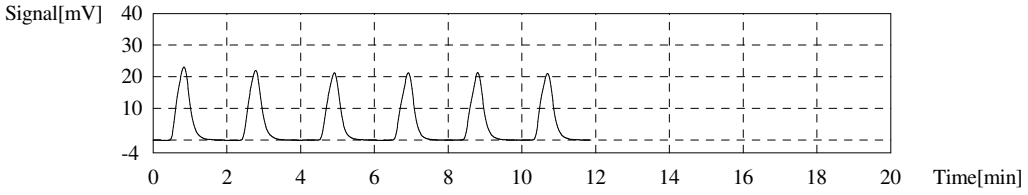
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.30mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	55.43	26.79mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:35:25 PM
2	52.84	25.54mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:37:42 PM
3	51.05	24.67mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:39:54 PM
4	50.13	24.22mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:41:59 PM
5	49.79	24.06mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:44:04 PM
6	50.18	24.25mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:46:13 PM

Mean Area 50.29
Mean Conc. 24.30mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

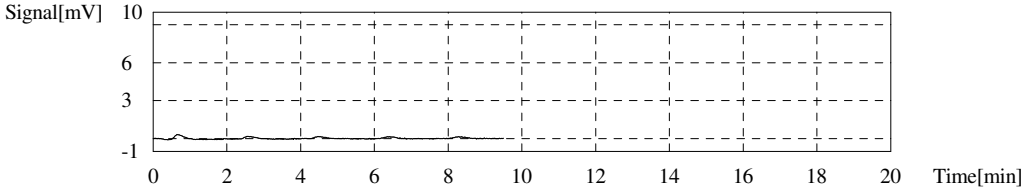
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1118mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7179	0.3015mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:54:02 PM
2	0.3742	0.1351mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:56:07 PM
3	0.2894	0.09402mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/26/2022 11:58:12 PM
4	0.3535	0.1251mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:00:17 AM
5	0.2877	0.09320mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:02:22 AM

Mean Area 0.3262
Mean Conc. 0.1118mg/L



Sample

Sample Name: 280-162386-d-4-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

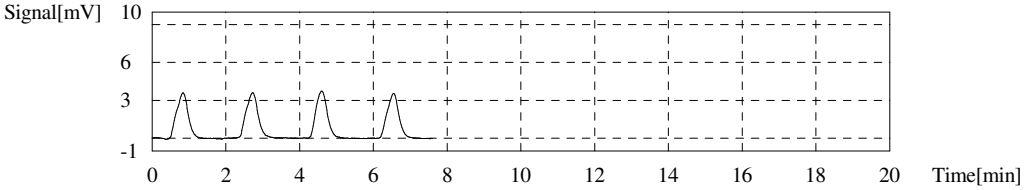
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.861mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.138	3.894mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:10:15 AM
2	8.050	3.851mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:12:24 AM
3	8.164	3.906mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:14:29 AM
4	7.929	3.793mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:16:34 AM

Mean Area 8.070
Mean Conc. 3.861mg/L



Sample

Sample Name: 280-162386-d-5-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

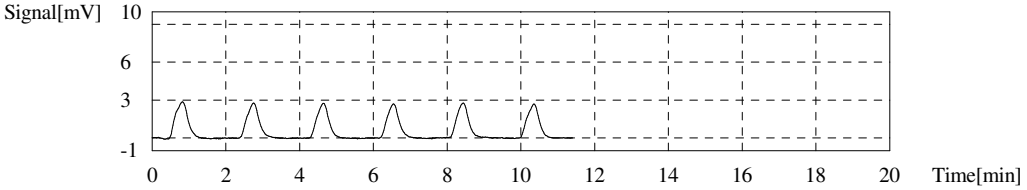
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.905mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.125	3.403mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:24:28 AM
2	6.519	3.110mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:26:33 AM
3	6.243	2.976mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:28:38 AM
4	6.117	2.915mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:30:43 AM
5	5.892	2.806mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:32:52 AM
6	6.131	2.922mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:34:57 AM

Mean Area 6.096
Mean Conc. 2.905mg/L



Sample

Sample Name: 280-162386-d-6-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

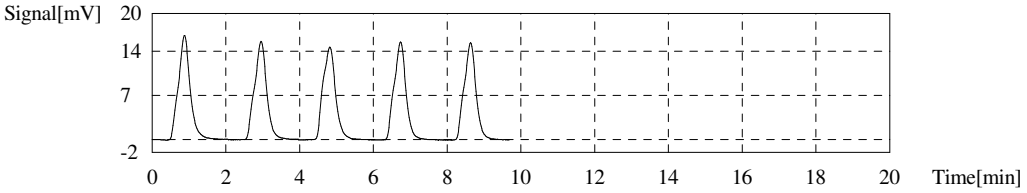
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.94mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.40	18.06mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:42:55 AM
2	35.79	17.28mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:45:03 AM
3	34.97	16.88mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:47:08 AM
4	34.86	16.83mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:49:13 AM
5	34.69	16.75mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:51:19 AM

Mean Area 35.08
Mean Conc. 16.94mg/L



Sample

Sample Name: 280-162386-d-7-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

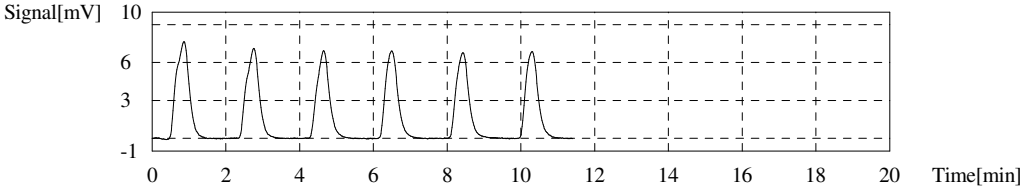
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.759mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.20	9.249mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:59:12 AM
2	17.15	8.257mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:01:18 AM
3	16.34	7.865mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:03:23 AM
4	16.24	7.816mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:05:28 AM
5	15.87	7.637mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:07:33 AM
6	16.04	7.719mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:09:38 AM

Mean Area 16.12
Mean Conc. 7.759mg/L



Sample

Sample Name: 280-162386-d-8-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

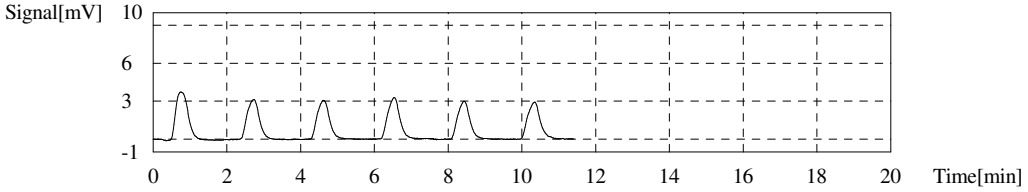
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.380mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.990	4.306mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:17:26 AM
2	7.353	3.514mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:19:31 AM
3	7.049	3.367mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:21:36 AM
4	7.330	3.503mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:23:41 AM
5	6.914	3.301mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:25:46 AM
6	7.017	3.351mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:27:51 AM

Mean Area 7.078
Mean Conc. 3.380mg/L



Sample

Sample Name: 280-162386-d-9-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

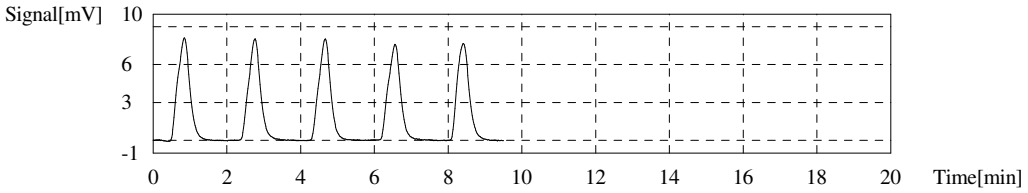
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:8.580mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.06	9.181mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:35:39 AM
2	18.17	8.751mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:37:44 AM
3	17.95	8.644mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:39:49 AM
4	17.53	8.441mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:41:54 AM
5	17.62	8.484mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:43:59 AM

Mean Area 17.82
Mean Conc. 8.580mg/L



Sample

Sample Name: 280-162386-d-10-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

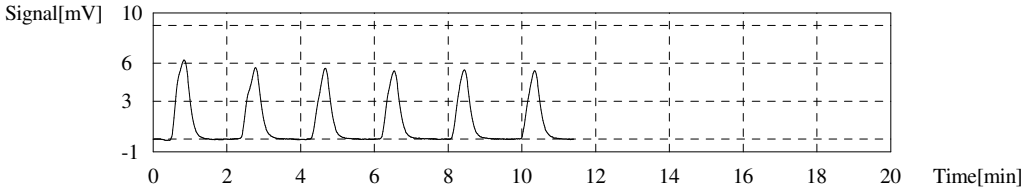
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.987mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.65	7.531mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:51:52 AM
2	13.68	6.577mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:54:01 AM
3	12.74	6.122mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:56:06 AM
4	12.23	5.875mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 1:58:11 AM
5	12.42	5.967mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:00:16 AM
6	12.46	5.986mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:02:21 AM

Mean Area 12.46
Mean Conc. 5.987mg/L



Sample

Sample Name: 280-161875-B-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

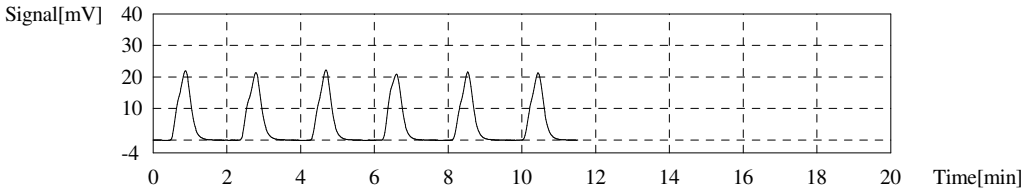
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:251.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.74	254.9mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:10:09 AM
2	52.33	252.9mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:12:14 AM
3	51.99	251.2mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:14:22 AM
4	50.13	242.2mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:16:27 AM
5	50.29	243.0mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:18:32 AM
6	50.89	245.9mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:20:41 AM

Mean Area 51.99
Mean Conc. 251.2mg/L



Sample

Sample Name: MS 280-161875-B-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

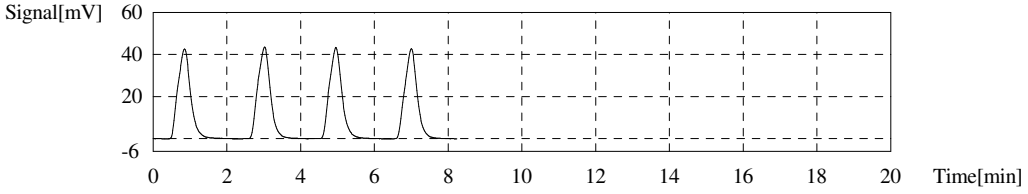
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:495.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	102.6	496.3mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:28:44 AM
2	103.9	502.6mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:30:57 AM
3	102.8	497.2mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:33:14 AM
4	100.2	484.6mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:35:31 AM

Mean Area 102.4
Mean Conc. 495.2mg/L



Sample

Sample Name: MSD 280-161875-b-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

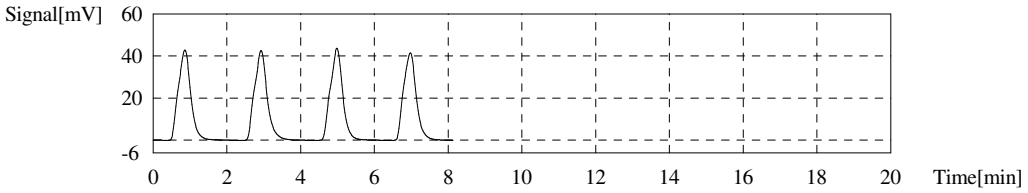
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:492.9mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	101.8	492.4mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:43:36 AM
2	103.0	498.2mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:45:50 AM
3	102.5	495.8mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:48:01 AM
4	100.3	485.1mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:50:13 AM

Mean Area 101.9
Mean Conc. 492.9mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

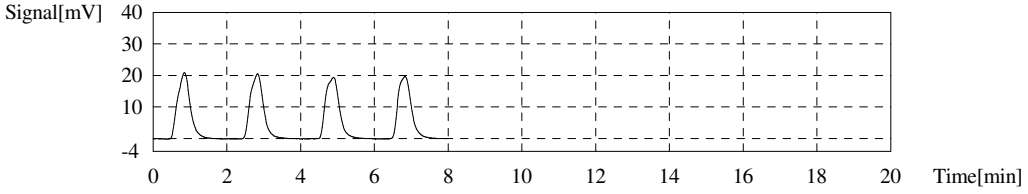
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.48mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.71	24.50mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 2:58:13 AM
2	51.37	24.82mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:00:28 AM
3	50.69	24.49mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:02:37 AM
4	49.89	24.11mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:04:46 AM

Mean Area 50.67
Mean Conc. 24.48mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

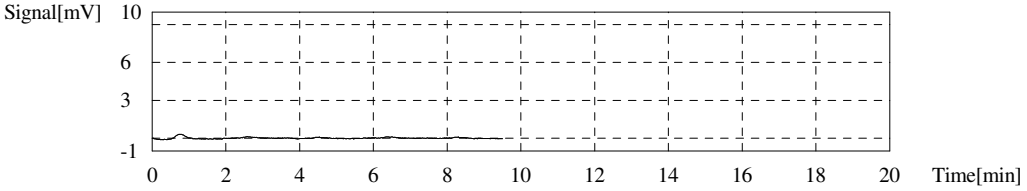
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01650mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7905	0.3366mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:12:49 AM
2	0.1506	0.02683mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:14:58 AM
3	0.1689	0.03568mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:17:03 AM
4	0.1976	0.04958mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:19:09 AM
5	0.000	-0.04609mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:21:14 AM

Mean Area 0.1293
Mean Conc. 0.01650mg/L



Sample

Sample Name: 280-161875-a-4
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

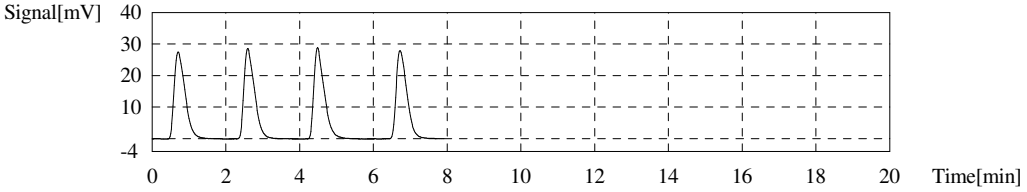
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:138.0mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.98	137.7mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:29:07 AM
2	57.36	138.6mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:31:12 AM
3	57.52	139.0mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:33:36 AM
4	56.53	136.6mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:35:41 AM

Mean Area 57.10
Mean Conc. 138.0mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

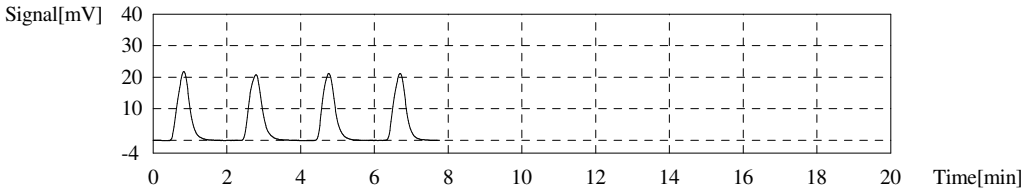
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.08mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.22	24.27mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:43:40 AM
2	50.57	24.44mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:45:50 AM
3	49.74	24.03mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:47:56 AM
4	48.82	23.59mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:50:01 AM

Mean Area 49.84
Mean Conc. 24.08mg/L



Sample

Sample Name: LCSD
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

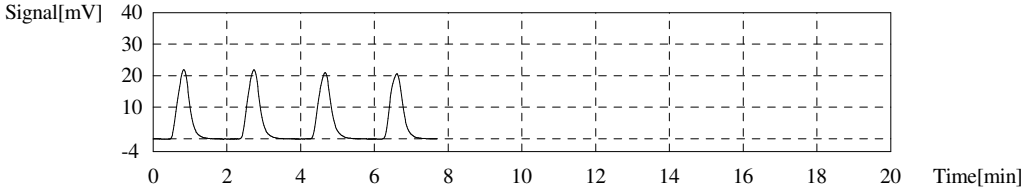
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.04mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.85	24.09mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 3:57:56 AM
2	50.37	24.34mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:00:03 AM
3	49.83	24.08mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:02:11 AM
4	48.99	23.67mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:04:17 AM

Mean Area 49.76
Mean Conc. 24.04mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

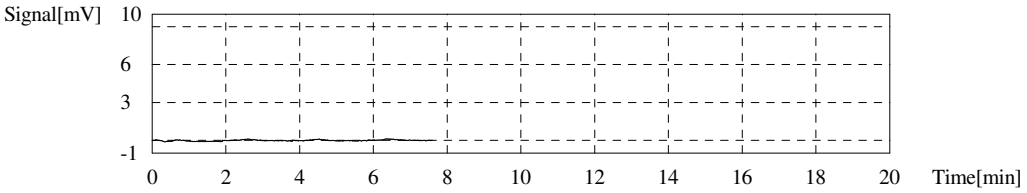
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06617mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2151	0.05805mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:12:12 AM
2	0.2952	0.09683mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:14:21 AM
3	0.2627	0.08110mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:16:26 AM
4	0.1545	0.02871mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:18:31 AM

Mean Area 0.2319
Mean Conc. 0.06617mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

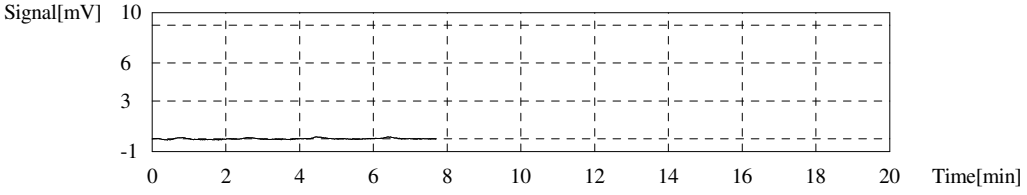
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07639mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3157	0.1068mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:26:26 AM
2	0.2444	0.07224mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:28:31 AM
3	0.2798	0.08937mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:30:40 AM
4	0.1720	0.03719mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:32:51 AM

Mean Area 0.2530
Mean Conc. 0.07639mg/L



Sample

Sample Name: 280-162257-b-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

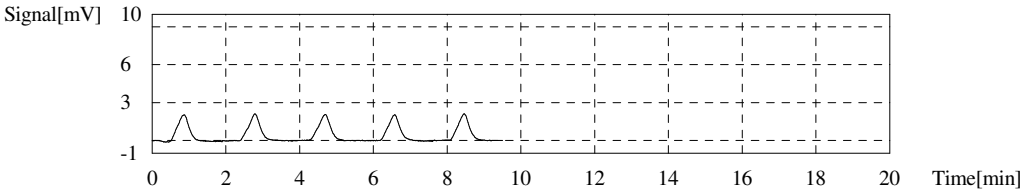
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.166mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.849	2.301mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:40:46 AM
2	4.616	2.189mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:42:51 AM
3	4.589	2.176mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:44:59 AM
4	4.559	2.161mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:47:04 AM
5	4.516	2.140mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:49:12 AM

Mean Area 4.570
Mean Conc. 2.166mg/L



Sample

Sample Name: MS 280-162257-b-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

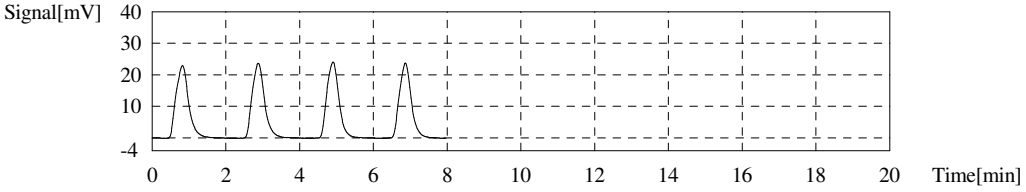
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	55.45	26.80mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:57:14 AM
2	55.85	26.99mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 4:59:27 AM
3	55.56	26.85mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:01:35 AM
4	53.83	26.01mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:03:42 AM

Mean Area 55.17
Mean Conc. 26.66mg/L



Sample

Sample Name: MSD 280-162257-b-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

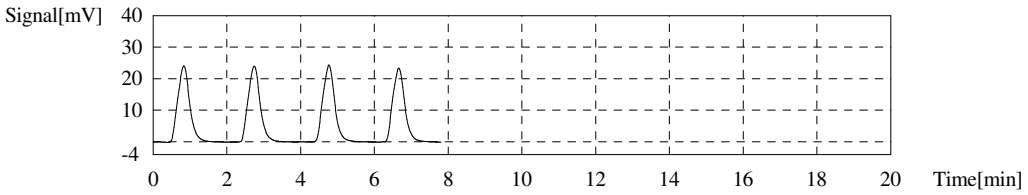
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.32mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.92	26.54mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:11:37 AM
2	55.06	26.61mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:13:50 AM
3	54.64	26.41mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:15:55 AM
4	53.20	25.71mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:18:04 AM

Mean Area 54.45
Mean Conc. 26.32mg/L



Sample

Sample Name: 280-162257-b-4
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

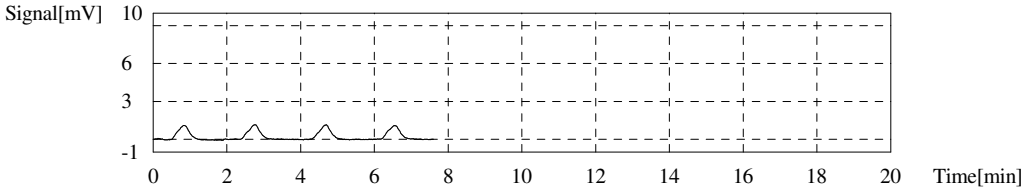
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.162mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.520	1.174mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:25:59 AM
2	2.485	1.157mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:28:09 AM
3	2.558	1.192mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:30:14 AM
4	2.419	1.125mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:32:18 AM

Mean Area 2.496
Mean Conc. 1.162mg/L



Sample

Sample Name: 280-162257-b-8
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

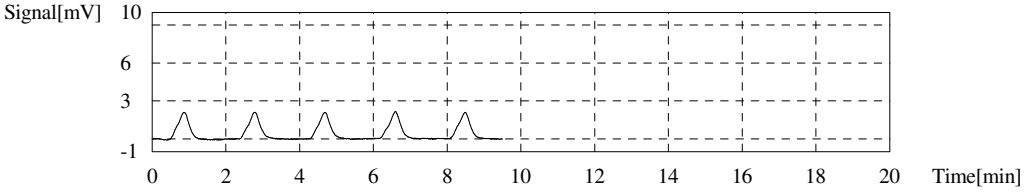
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.186mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.825	2.290mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:40:13 AM
2	4.585	2.174mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:42:18 AM
3	4.708	2.233mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:44:23 AM
4	4.638	2.199mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:46:29 AM
5	4.510	2.137mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:48:34 AM

Mean Area 4.610
Mean Conc. 2.186mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

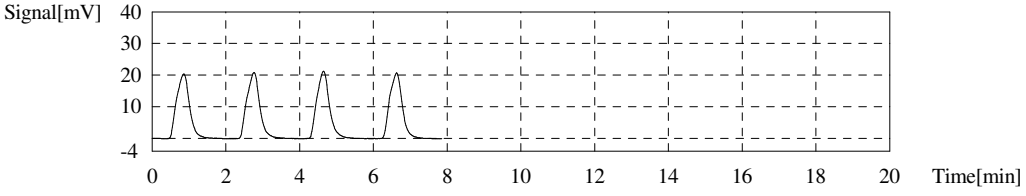
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.34mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.11	24.21mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:56:28 AM
2	50.86	24.58mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 5:58:33 AM
3	50.95	24.62mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:00:43 AM
4	49.59	23.96mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:02:58 AM

Mean Area 50.38
Mean Conc. 24.34mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

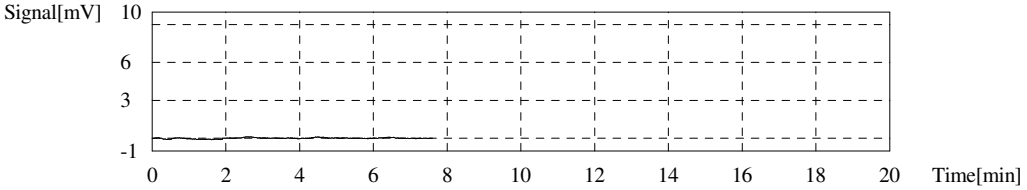
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03330mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1894	0.04561mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:10:53 AM
2	0.1718	0.03709mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:13:02 AM
3	0.1979	0.04972mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:15:07 AM
4	0.09680	0.00078mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:17:12 AM

Mean Area 0.1640
Mean Conc. 0.03330mg/L



Sample

Sample Name: 280-162257-b-5
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

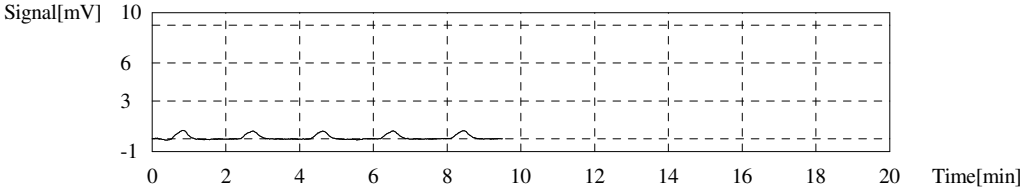
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6438mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.696	0.7750mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:25:07 AM
2	1.438	0.6501mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:27:12 AM
3	1.418	0.6404mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:29:17 AM
4	1.457	0.6593mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:31:22 AM
5	1.387	0.6254mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:33:27 AM

Mean Area 1.425
Mean Conc. 0.6438mg/L



Sample

Sample Name: 280-162213-f-1
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

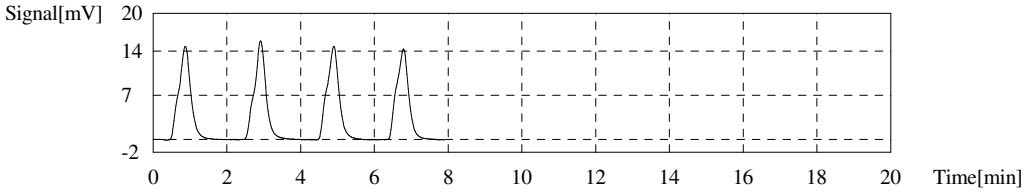
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:164.3mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.09	164.6mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:41:28 AM
2	34.47	166.4mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:43:39 AM
3	34.32	165.7mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:45:44 AM
4	33.26	160.6mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:47:54 AM

Mean Area 34.03
Mean Conc. 164.3mg/L



Sample

Sample Name: 280-162213-f-2
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

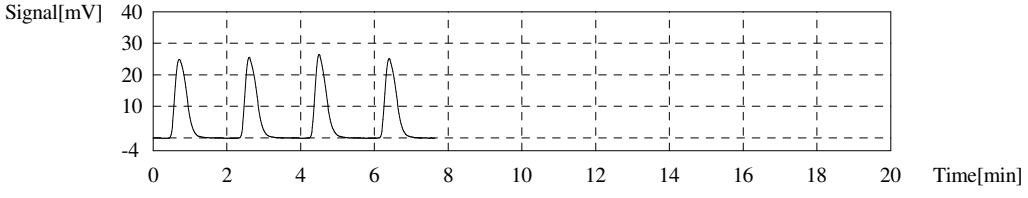
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:264.5mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	55.20	266.8mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:55:49 AM
2	55.23	266.9mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:57:54 AM
3	55.00	265.8mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 6:59:59 AM
4	53.52	258.6mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:02:07 AM

Mean Area 54.74
Mean Conc. 264.5mg/L



Sample

Sample Name: 280-162252-I-4
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

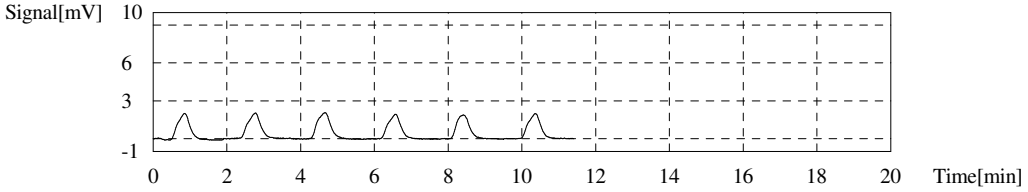
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.196mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.894	2.323mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:10:02 AM
2	4.802	2.279mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:12:11 AM
3	5.284	2.512mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:14:16 AM
4	4.600	2.181mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:16:21 AM
5	4.513	2.139mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:18:26 AM
6	4.613	2.187mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:20:31 AM

Mean Area 4.632
Mean Conc. 2.196mg/L



Sample

Sample Name: 280-162252-I-5
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

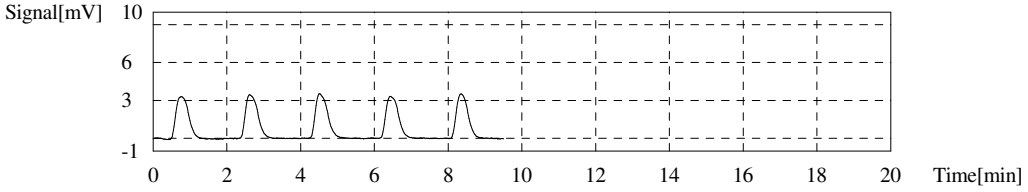
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.813mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.244	3.945mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:28:20 AM
2	8.086	3.869mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:30:25 AM
3	8.114	3.882mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:32:30 AM
4	7.847	3.753mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:34:35 AM
5	7.838	3.749mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:36:40 AM

Mean Area 7.971
Mean Conc. 3.813mg/L



Sample

Sample Name: 280-162463-b-6
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

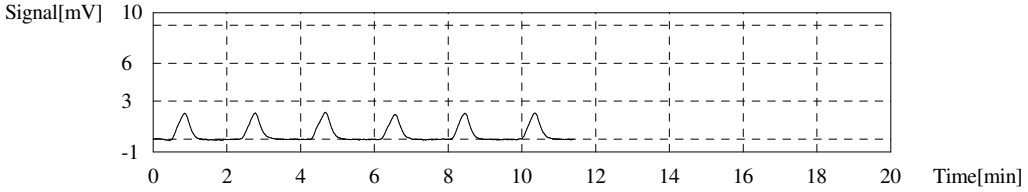
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.171mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.614	2.188mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:44:34 AM
2	4.616	2.189mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:46:39 AM
3	4.871	2.312mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:48:44 AM
4	4.445	2.106mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:50:49 AM
5	4.402	2.085mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:52:54 AM
6	4.639	2.200mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 7:54:59 AM

Mean Area 4.579
Mean Conc. 2.171mg/L



Sample

Sample Name: 280-162463-b-7
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

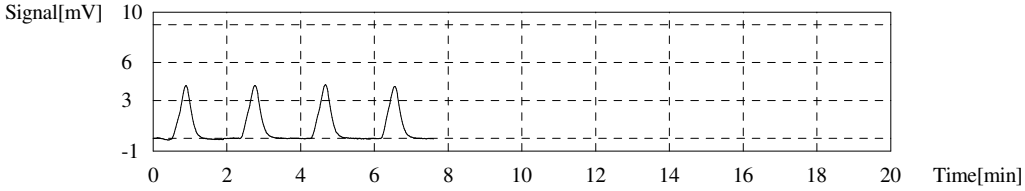
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.440mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.315	4.464mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:02:48 AM
2	9.344	4.478mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:04:57 AM
3	9.344	4.478mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:07:02 AM
4	9.063	4.342mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:09:07 AM

Mean Area 9.267
Mean Conc. 4.440mg/L



Sample

Sample Name: 280-162463-b-8
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

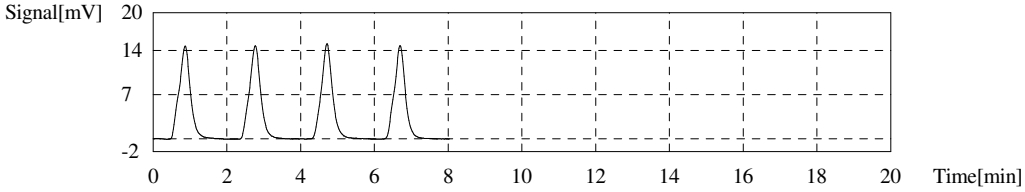
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.29mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.09	15.49mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:17:02 AM
2	31.73	15.32mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:19:10 AM
3	31.91	15.40mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:21:20 AM
4	30.98	14.95mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:23:43 AM

Mean Area 31.68
Mean Conc. 15.29mg/L



Sample

Sample Name: MS 280-162463-b-8
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

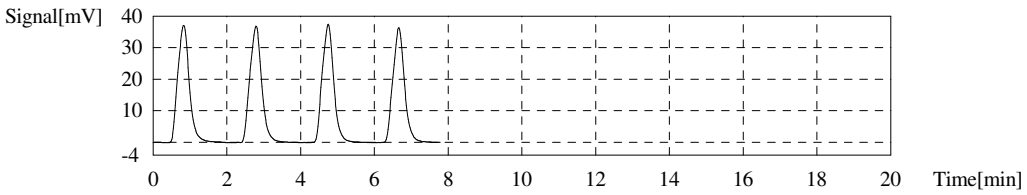
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:39.51mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.83	39.57mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:31:42 AM
2	83.15	40.21mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:33:54 AM
3	81.88	39.59mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:35:59 AM
4	79.99	38.68mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:38:08 AM

Mean Area 81.71
Mean Conc. 39.51mg/L



Sample

Sample Name: MSD 280-162463-b-8
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

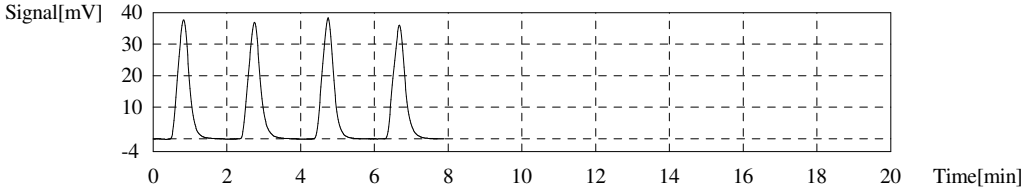
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:39.54mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.28	39.30mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:46:04 AM
2	82.91	40.09mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:48:18 AM
3	82.48	39.89mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:50:26 AM
4	80.40	38.88mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 8:52:39 AM

Mean Area 81.77
Mean Conc. 39.54mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

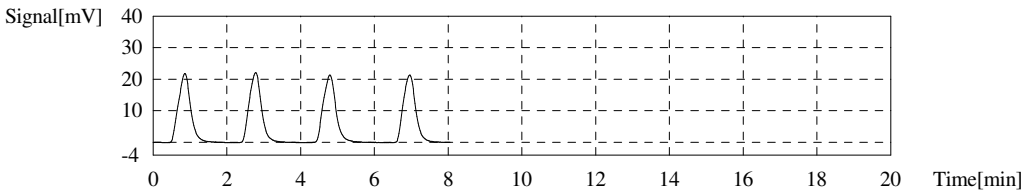
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.11	24.70mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:00:36 AM
2	51.47	24.87mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:02:48 AM
3	51.26	24.77mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:05:09 AM
4	50.00	24.16mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:07:16 AM

Mean Area 50.96
Mean Conc. 24.63mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

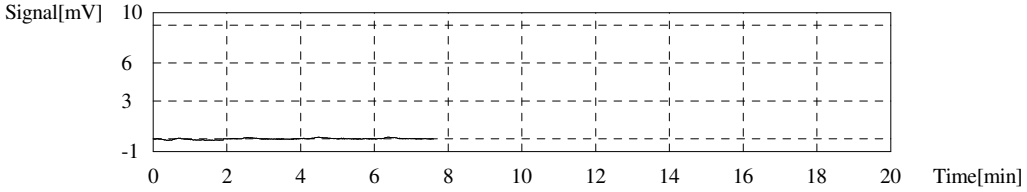
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06764mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3090	0.1035mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:15:12 AM
2	0.2123	0.05670mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:17:21 AM
3	0.2206	0.06071mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:19:26 AM
4	0.1977	0.04963mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:21:32 AM

Mean Area 0.2349
Mean Conc. 0.06764mg/L



Sample

Sample Name: 280-162463-b-9
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

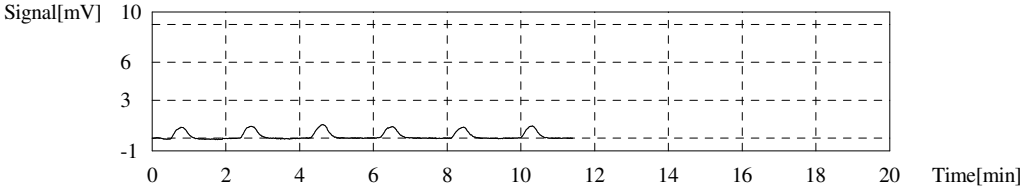
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.010mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.177	1.008mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:29:27 AM
2	2.240	1.038mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:31:35 AM
3	2.388	1.110mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:33:44 AM
4	2.160	0.9996mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:35:49 AM
5	1.983	0.9139mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:37:55 AM
6	2.149	0.9943mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:40:00 AM

Mean Area 2.181
Mean Conc. 1.010mg/L



Sample

Sample Name: 280-162463-b-10
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

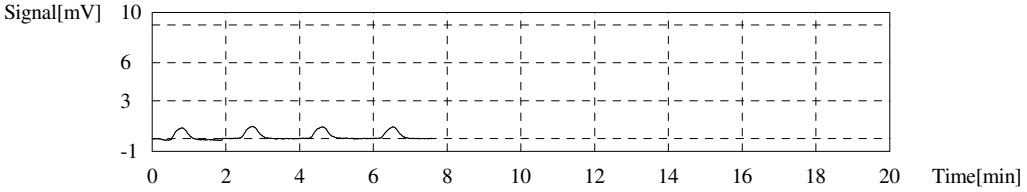
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9912mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.224	1.031mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:47:49 AM
2	2.174	1.006mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:49:57 AM
3	2.097	0.9691mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:52:03 AM
4	2.075	0.9585mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 9:54:08 AM

Mean Area 2.143
Mean Conc. 0.9912mg/L



Sample

Sample Name: 280-162318-b-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

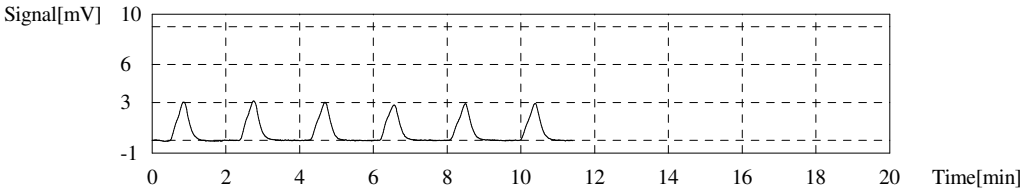
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.153mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.984	3.335mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:02:03 AM
2	7.047	3.366mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:04:08 AM
3	6.873	3.281mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:06:13 AM
4	6.521	3.111mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:08:18 AM
5	6.516	3.109mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:10:23 AM
6	6.520	3.110mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:12:28 AM

Mean Area 6.607
Mean Conc. 3.153mg/L



Sample

Sample Name: 280-162478-a-1
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

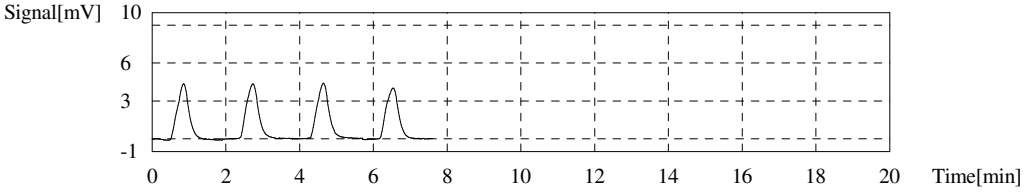
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.678mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.845	4.720mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:20:17 AM
2	9.820	4.708mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:22:21 AM
3	9.885	4.740mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:24:27 AM
4	9.485	4.546mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:26:33 AM

Mean Area 9.759
Mean Conc. 4.678mg/L



Sample

Sample Name: 280-162478-a-2
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

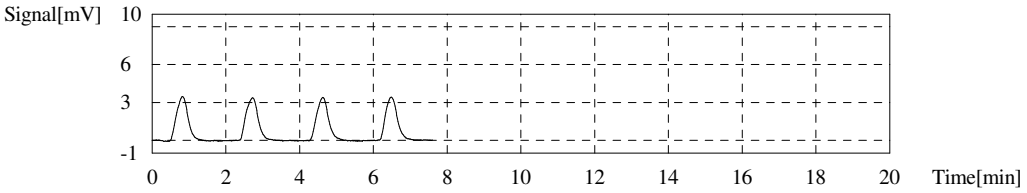
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.725mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.889	3.773mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:34:28 AM
2	7.880	3.769mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:36:33 AM
3	7.771	3.716mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:38:38 AM
4	7.615	3.641mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:40:43 AM

Mean Area 7.789
Mean Conc. 3.725mg/L



Sample

Sample Name: 280-162478-a-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

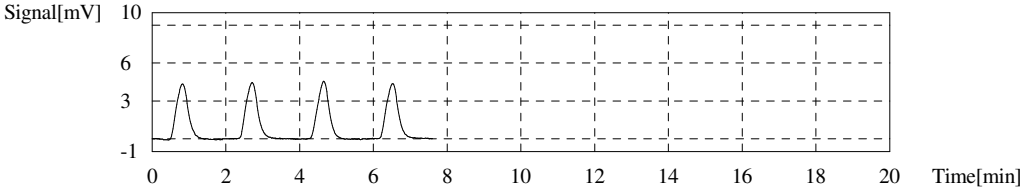
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.730mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.948	4.770mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:48:38 AM
2	9.910	4.752mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:50:47 AM
3	9.940	4.766mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:52:52 AM
4	9.661	4.631mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 10:54:57 AM

Mean Area 9.865
Mean Conc. 4.730mg/L



Sample

Sample Name: 280-162377-b-2
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

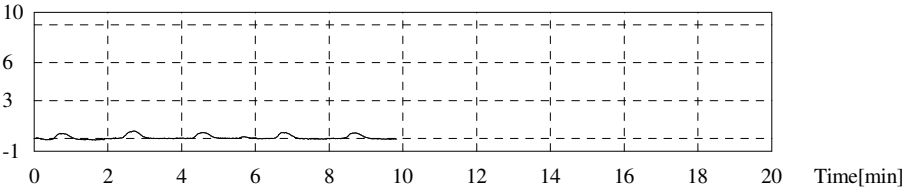
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5027mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.261	0.5644mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:02:55 AM
2	1.405	0.6341mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:05:04 AM
3	1.108	0.4903mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:07:29 AM
4	1.095	0.4840mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:09:34 AM
5	1.070	0.4719mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:11:39 AM

Mean Area 1.134
Mean Conc. 0.5027mg/L



Sample

Sample Name: 280-162377-b-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

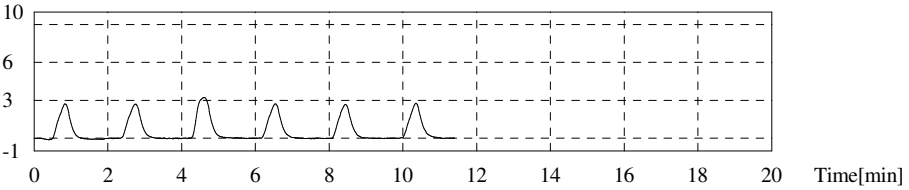
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.978mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.261	2.985mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:19:33 AM
2	6.342	3.024mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:21:42 AM
3	8.008	3.831mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:23:46 AM
4	6.169	2.941mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:25:52 AM
5	6.009	2.863mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:27:57 AM
6	6.217	2.964mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:30:02 AM

Mean Area 6.247
Mean Conc. 2.978mg/L



Sample

Sample Name: 280-162377-b-4
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

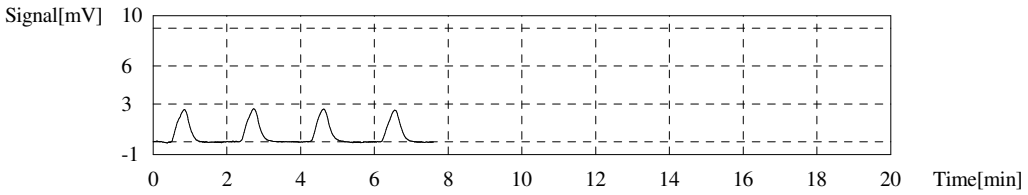
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.793mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.982	2.850mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:38:28 AM
2	5.816	2.770mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:40:37 AM
3	5.858	2.790mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:42:42 AM
4	5.802	2.763mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:44:50 AM

Mean Area 5.864
Mean Conc. 2.793mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

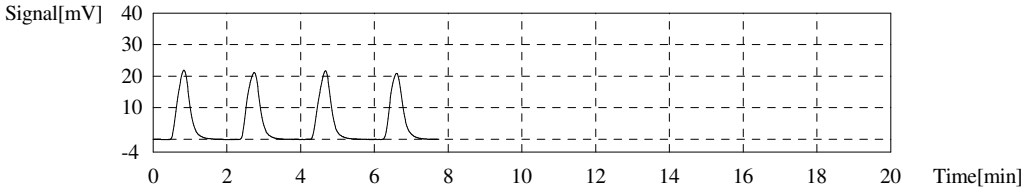
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.62mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.02	24.65mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:52:46 AM
2	51.20	24.74mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:54:52 AM
3	51.61	24.94mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:57:01 AM
4	49.93	24.13mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 11:59:10 AM

Mean Area 50.94
Mean Conc. 24.62mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

TOC-Control L Report

kjgk
2022_05_26_001.tlx

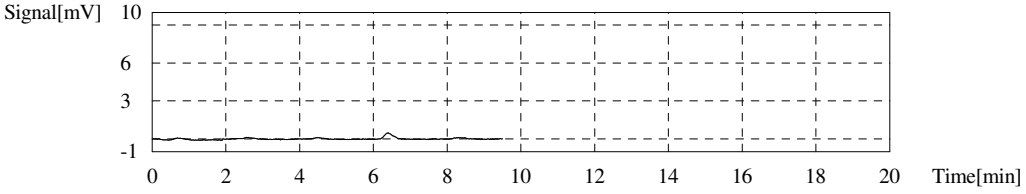
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05785mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3007	0.09949mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:07:06 PM
2	0.1519	0.02745mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:09:14 PM
3	0.2005	0.05098mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:11:20 PM
4	0.8693	0.3748mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:13:24 PM
5	0.2056	0.05345mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	5/27/2022 12:15:29 PM

Mean Area 0.2147
Mean Conc. 0.05785mg/L



Shi 5

9060

	T	Analysis	Sample Name	SO	OM	Result	Notes	C	SAD	Vial
1*	U	NPOC	ICV		0 N 1	✓			D	1
2*	U	NPOC	ICB		0 N 1	✓			D	2
3*	U	NPOC	LCS		0 N 1	✓			D	3
4*	U	NPOC	MB		0 N 1	✓			D	4
5*	U	NPOC	TIC		0 N 1	✓			D	5
6*	U	NPOC	240-166903-s-1		0 N 1	✓			D	6
7*	U	NPOC	MS 240-166903-s-1		0 N 1	✓			D	7
8*	U	NPOC	MSD 240-166903-s-1		0 N 1	✓			D	8
9*	U	NPOC	240-166903-d-7		0 N 1	✓			D	9
10*	U	NPOC	240-166903-d-8		0 N 1	✓			D	10
11*	U	NPOC	240-166903-d-9		0 N 1	✓			D	11
12*	U	NPOC	240-166903-d-10		0 N 1	✓			D	12
13*	U	NPOC	280-162395-d-2		0 N 1	✓	10x Dil RR		D	13
14*	U	NPOC	280-162395-d-3		0 N 1	✓	2x Dil RR		D	14
15*	U	NPOC	CCV		0 N 1	✓			D	15
16*	U	NPOC	CCB		0 N 1	✓			D	16
17*	U	NPOC	280-162395-d-4		0 N 1	✓	5x Dil RR		D	17
18*	U	NPOC	280-162395-d-5		0 N 1	✓	2x Dil RR		D	18
19*	U	NPOC	280-162395-d-6		0 N 1	✓	5x Dil RR		D	19
20*	U	NPOC	lcs 280-576248/1-a		0 N 1	✓			D	20
21*	U	NPOC	mb 280-576248/2-a		0 N 1	✓			D	21
22*	U	NPOC	280-162386-d-1-a		0 N 1	>2			D	22
23*	U	NPOC	280-162386-d-1-b ms		0 N 1	>2	Filtration DOC		D	23
24*	U	NPOC	280-162386-d-1-c ms		0 N 1	>2			D	24
25*	U	NPOC	280-162386-d-2-a		0 N 1	>2			D	25
26*	U	NPOC	280-162386-d-3-a		0 N 1	✓			D	26
27*	U	NPOC	CCV		0 N 1	✓			D	27
28*	U	NPOC	CCB		0 N 1	✓			D	28
29*	U	NPOC	280-162386-d-4-a		0 N 1	>2			D	29
30*	U	NPOC	280-162386-d-5-a		0 N 1	>2			D	30
31*	U	NPOC	280-162386-d-6-a		0 N 1	>2	Filtration DOC		D	31
32*	U	NPOC	280-162386-d-7-a		0 N 1	>2			D	32
33*	U	NPOC	280-162386-d-8-a		0 N 1	>2			D	33
34*	U	NPOC	280-162386-d-9-a		0 N 1	>2			D	34
35*	U	NPOC	280-162386-d-10-a		0 N 1	>2			D	35
36*	U	NPOC	280-161875-B-3		0 N 1	✓	10x Dil RR		D	36
37*	U	NPOC	MS 280-161875-B-3		0 N 1	✓	10x Dil RR		D	37
38*	U	NPOC	MSD 280-161875-b-3		0 N 1	✓	10x Dil RR		D	38
39*	U	NPOC	CCV		0 N 1	✓	DOC		D	39
40*	U	NPOC	CCB		0 N 1	✓			D	40
41*	U	NPOC	280-161875-a-4		0 N 1	✓	5x Dil RR		D	41
5310 42*	U	NPOC	LCS		0 N 1	✓			D	42
43*	U	NPOC	LCSD		0 N 1	✓			D	43
44*	U	NPOC	MB		0 N 1	✓			D	44
45*	U	NPOC	TIC		0 N 1	✓			D	45
46*	U	NPOC	280-162257-b-3		0 N 1	✓			D	46
47*	U	NPOC	MS 280-162257-b-3		0 N 1	✓			D	47
48*	U	NPOC	MSD 280-162257-b-3		0 N 1	✓			D	48
49*	U	NPOC	280-162257-b-4		0 N 1	✓			D	49
50*	U	NPOC	280-162257-b-8		0 N 1	✓			D	50
51*	U	NPOC	CCV		0 N 1	✓			D	51

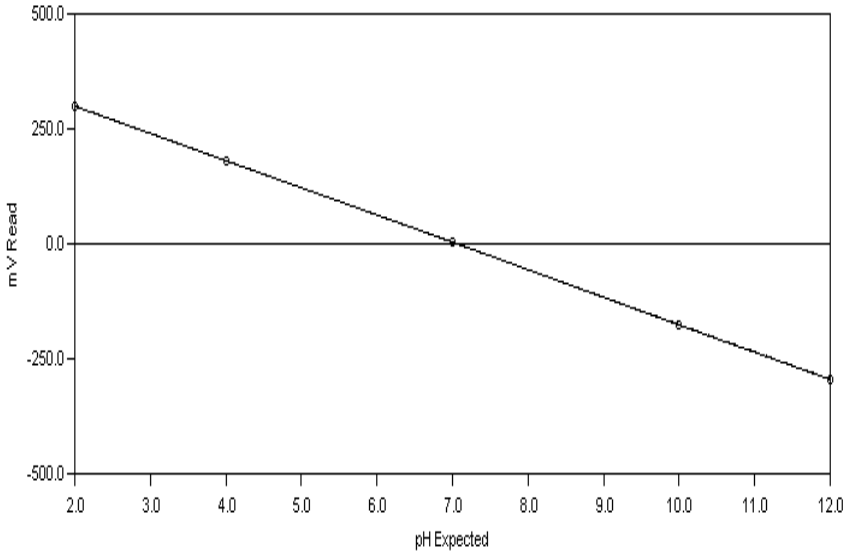
5310

	T	Analysis	Sample Name	S	O	M	Result pH	Notes	C	S	A	D	Vial
52*	U	NPOC	CCB		0	N 1	✓			D			52
53*	U	NPOC	280-162257-b-5		0	N 1	✓			D			53
54*	U	NPOC	280-162213-f-1		0	N 1	✓	10x DIL RR		D			54
55*	U	NPOC	280-162213-f-2		0	N 1	✓	10x DIL RR		D			55
56*	U	NPOC	280-162252-l-4		0	N 1	✓			D			56
57*	U	NPOC	280-162252-l-5		0	N 1	✓			D			57
58*	U	NPOC	280-162463-b-6		0	N 1	✓			D			58
59*	U	NPOC	280-162463-b-7		0	N 1	✓			D			59
60*	U	NPOC	280-162463-b-8		0	N 1	✓			D			60
61*	U	NPOC	MS 280-162463-b-8		0	N 1	✓			D			61
62*	U	NPOC	MSD 280-162463-b-8		0	N 1	✓			D			62
63*	U	NPOC	CCV		0	N 1	✓			D			63
64*	U	NPOC	CCB		0	N 1	✓			D			64
65*	U	NPOC	280-162463-b-9		0	N 1	✓			D			65
66*	U	NPOC	280-162463-b-10		0	N 1	✓			D			66
67*	U	NPOC	280-162318-b-3		0	N 1	✓			D			67
68*	U	NPOC	280-162478-a-1		0	N 1	✓			D			68
69*	U	NPOC	280-162478-a-2		0	N 1	✓			D			69
70*	U	NPOC	280-162478-a-3		0	N 1	✓			D			70
71*	U	NPOC	280-162377-b-2		0	N 1	✓			D			71
72*	U	NPOC	280-162377-b-3		0	N 1	✓			D			72
73*	U	NPOC	280-162377-b-4		0	N 1	✓			D			73
74*	U	NPOC	CCV		0	N 1	✓			D			74
75*	U	NPOC	CCB		0	N 1	✓			D			75

BWH 5000, 1000 MS

MANTECH INC.
Calibration Report

Calibration Record # 1133



Calibration Settings

Calibration ID	PH	Date	05/24/2022
Channel	1	Time	10:29 AM
Probe Type	pH	Temperature	295.05 K 21.90 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.573	CorrCoeff	1.0000
Intercept	2.464	Equation:	Y = (-59.573) X + (2.464)

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.573	-65.00	-54.00
Intercept	2.464	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	300.53
	4.00	181.64
	7.00	2.07
	10.00	-178.10
	12.00	-293.82

Test America

Water Analysis Report

Analyst:_____

Run Number 4114 **Order Number** 20220524-5

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
RINSE	5/24/2022	10:56 AM	21.77	-1.00	5.37	-1.00	-1.00	-1.00	.00	137.82	137.82	.00	.00	.00	1.38	-1.00	.02
INITIAL CHECK	5/24/2022	11:02 AM	21.71	-1.00	10.58	-1.00	-1.00	-1.00	115.63	197.54	.00	163.82	33.73	1.16	1.98	-1.00	.02
BUFFER 7	5/24/2022	11:15 AM	21.64	-1.00	7.02	-1.00	-1.00	-1.00	.00	1,455.04	1,455.04	.00	.00	.00	14.55	-1.00	.02
LCS	5/24/2022	11:22 AM	21.56	-1.00	10.61	-1.00	-1.00	-1.00	108.23	189.33	.00	162.20	27.14	1.08	1.89	-1.00	.02
LCSD	5/24/2022	11:28 AM	21.47	-1.00	10.60	-1.00	-1.00	-1.00	108.82	186.22	.00	154.81	31.41	1.09	1.86	-1.00	.02
MB	5/24/2022	11:33 AM	21.34	-1.00	7.59	-1.00	-1.00	-1.00	.00	2.31	2.31	.00	.00	.00	.05	.07	.02
280-162550-a-2	5/24/2022	11:43 AM	21.08	-1.00	7.43	-1.00	-1.00	-1.00	.00	795.65	795.65	.00	.00	.00	7.96	-1.00	.02
DU 280-162550-a-2	5/24/2022	11:52 AM	21.25	-1.00	7.49	-1.00	-1.00	-1.00	.00	808.56	808.56	.00	.00	.00	8.09	-1.00	.02
280-162550-a-10	5/24/2022	12:00 PM	21.24	-1.00	8.18	-1.00	-1.00	-1.00	.00	642.60	642.60	.00	.00	.00	6.43	-1.00	.02
280-162379-a-3	5/24/2022	12:05 PM	21.31	-1.00	7.97	-1.00	-1.00	-1.00	.00	113.80	113.80	.00	.00	.00	1.14	-1.00	.02
280-162452-a-2	5/24/2022	12:13 PM	21.28	-1.00	8.66	-1.00	-1.00	-1.00	35.37	410.87	340.13	70.74	.00	.35	4.11	-1.00	.02
280-162452-a-10	5/24/2022	12:21 PM	21.19	-1.00	8.25	-1.00	-1.00	-1.00	.00	719.78	719.78	.00	.00	.00	7.20	-1.00	.02
280-162454-a-2	5/24/2022	12:27 PM	21.18	-1.00	8.64	-1.00	-1.00	-1.00	34.25	386.61	318.12	68.49	.00	.34	3.87	-1.00	.02
280-162454-a-9	5/24/2022	12:35 PM	21.15	-1.00	8.35	-1.00	-1.00	-1.00	12.66	556.09	530.78	25.31	.00	.13	5.56	-1.00	.02
280-162540-a-2	5/24/2022	12:40 PM	21.24	-1.00	10.01	-1.00	-1.00	-1.00	123.84	278.65	30.97	247.68	.00	1.24	2.79	-1.00	.02
280-162540-a-9	5/24/2022	12:50 PM	21.24	-1.00	8.20	-1.00	-1.00	-1.00	.00	657.66	657.66	.00	.00	.00	6.58	-1.00	.02
CCV	5/24/2022	12:55 PM	20.95	-1.00	10.54	-1.00	-1.00	-1.00	111.44	196.02	.00	169.16	26.86	1.11	1.96	-1.00	.02
CCB	5/24/2022	1:00 PM	21.05	-1.00	7.78	-1.00	-1.00	-1.00	.00	4.53	4.53	.00	.00	.00	.06	.08	.02
280-162548-a-2	5/24/2022	1:07 PM	20.94	-1.00	8.68	-1.00	-1.00	-1.00	40.46	451.23	370.32	80.91	.00	.40	4.51	-1.00	.02
280-162548-a-9	5/24/2022	1:15 PM	20.94	-1.00	8.27	-1.00	-1.00	-1.00	.00	633.23	633.23	.00	.00	.00	6.33	-1.00	.02
280-162571-e-1	5/24/2022	1:20 PM	20.87	-1.00	7.98	-1.00	-1.00	-1.00	.00	96.84	96.84	.00	.00	.00	.97	-1.00	.02
280-162571-e-2	5/24/2022	1:25 PM	20.89	-1.00	8.17	-1.00	-1.00	-1.00	.00	147.99	147.99	.00	.00	.00	1.48	-1.00	.02
280-162571-e-3	5/24/2022	1:31 PM	20.83	-1.00	8.32	-1.00	-1.00	-1.00	8.13	257.97	241.70	16.27	.00	.08	2.58	-1.00	.02
280-162571-e-4	5/24/2022	1:37 PM	20.96	-1.00	8.27	-1.00	-1.00	-1.00	.00	166.58	166.58	.00	.00	.00	1.67	-1.00	.02
280-162321-c-3	5/24/2022	1:44 PM	20.95	-1.00	8.33	-1.00	-1.00	-1.00	9.42	336.72	317.87	18.84	.00	.09	3.37	-1.00	.02
280-162321-c-7	5/24/2022	1:50 PM	20.94	-1.00	8.52	-1.00	-1.00	-1.00	22.21	234.24	189.82	44.42	.00	.22	2.34	-1.00	.02
280-162369-a-2	5/24/2022	2:00 PM	20.83	-1.00	8.77	-1.00	-1.00	-1.00	74.58	1,094.52	945.36	149.16	.00	.75	10.95	-1.00	.02

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Run Number 4114 **Order Number** 20220524-5

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-162369-a-3	5/24/2022	2:12 PM	20.78	-1.00	8.73	-1.00	-1.00	-1.00	69.28	1,093.74	955.18	138.56	.00	.69	10.94	-1.00	.02
CCV	5/24/2022	2:17 PM	20.80	-1.00	10.44	-1.00	-1.00	-1.00	110.80	200.72	.00	179.84	20.88	1.11	2.01	-1.00	.02
CCB	5/24/2022	2:22 PM	20.76	-1.00	7.79	-1.00	-1.00	-1.00	.00	5.10	5.10	.00	.00	.00	.06	.08	.02
LCS	5/24/2022	2:28 PM	20.67	-1.00	10.41	-1.00	-1.00	-1.00	107.05	201.46	.00	188.82	12.64	1.07	2.01	-1.00	.02
MB	5/24/2022	2:33 PM	20.65	-1.00	7.67	-1.00	-1.00	-1.00	.00	5.40	5.40	.00	.00	.00	.06	.06	.02
280-162369-a-4	5/24/2022	2:43 PM	20.69	-1.00	8.80	-1.00	-1.00	-1.00	81.35	1,073.62	910.92	162.70	.00	.81	10.74	-1.00	.02
DU 280-162369-a-4	5/24/2022	2:54 PM	20.63	-1.00	8.78	-1.00	-1.00	-1.00	77.49	1,053.74	898.75	154.98	.00	.77	10.54	-1.00	.02
280-162386-f-1	5/24/2022	3:01 PM	20.76	-1.00	8.30	-1.00	-1.00	-1.00	6.04	378.70	366.63	12.07	.00	.06	3.79	-1.00	.02
280-162386-f-2	5/24/2022	3:07 PM	20.74	-1.00	8.40	-1.00	-1.00	-1.00	13.99	292.31	264.33	27.97	.00	.14	2.92	-1.00	.02
280-162386-f-3	5/24/2022	3:17 PM	20.69	-1.00	8.06	-1.00	-1.00	-1.00	.00	893.37	893.37	.00	.00	.00	8.93	-1.00	.02
280-162386-f-4	5/24/2022	3:23 PM	20.67	-1.00	8.39	-1.00	-1.00	-1.00	14.18	345.31	316.95	28.36	.00	.14	3.45	-1.00	.02
280-162386-f-5	5/24/2022	3:30 PM	20.73	-1.00	8.32	-1.00	-1.00	-1.00	7.50	298.41	283.41	15.00	.00	.08	2.98	-1.00	.02
280-162386-f-6	5/24/2022	3:42 PM	20.72	-1.00	8.24	-1.00	-1.00	-1.00	.00	1,040.20	1,040.20	.00	.00	.00	10.40	-1.00	.02
280-162386-f-7	5/24/2022	3:50 PM	20.73	-1.00	8.25	-1.00	-1.00	-1.00	.00	594.13	594.13	.00	.00	.00	5.94	-1.00	.02
280-162386-f-8	5/24/2022	3:56 PM	20.83	-1.00	8.25	-1.00	-1.00	-1.00	.00	331.01	331.01	.00	.00	.00	3.31	-1.00	.02
CCV	5/24/2022	4:01 PM	20.72	-1.00	10.37	-1.00	-1.00	-1.00	105.38	199.30	.00	187.84	11.46	1.05	1.99	-1.00	.02
CCB	5/24/2022	4:06 PM	20.67	-1.00	7.85	-1.00	-1.00	-1.00	.00	5.52	5.52	.00	.00	.00	.06	.06	.02
280-162386-f-9	5/24/2022	4:16 PM	20.66	-1.00	8.29	-1.00	-1.00	-1.00	.00	814.59	814.59	.00	.00	.00	8.15	-1.00	.02
280-162386-f-10	5/24/2022	4:23 PM	20.70	-1.00	8.21	-1.00	-1.00	-1.00	.00	317.85	317.85	.00	.00	.00	3.18	-1.00	.02
280-162442-f-1	5/24/2022	4:29 PM	20.58	-1.00	8.34	-1.00	-1.00	-1.00	6.40	330.90	318.10	12.81	.00	.06	3.31	-1.00	.02
280-162442-f-2	5/24/2022	4:36 PM	20.58	-1.00	8.23	-1.00	-1.00	-1.00	.00	425.25	425.25	.00	.00	.00	4.25	-1.00	.02
280-162442-f-3	5/24/2022	4:42 PM	20.58	-1.00	8.36	-1.00	-1.00	-1.00	7.95	255.69	239.79	15.90	.00	.08	2.56	-1.00	.02
280-162442-f-4	5/24/2022	4:48 PM	20.69	-1.00	8.39	-1.00	-1.00	-1.00	9.75	319.58	300.07	19.51	.00	.10	3.20	-1.00	.02
280-162442-f-5	5/24/2022	4:55 PM	20.80	-1.00	8.26	-1.00	-1.00	-1.00	.00	208.61	208.61	.00	.00	.00	2.09	-1.00	.02
280-162442-f-6	5/24/2022	5:01 PM	20.80	-1.00	8.43	-1.00	-1.00	-1.00	13.19	322.88	296.49	26.39	.00	.13	3.23	-1.00	.02
280-162442-f-7	5/24/2022	5:09 PM	20.80	-1.00	8.18	-1.00	-1.00	-1.00	.00	551.71	551.71	.00	.00	.00	5.52	-1.00	.02
280-162442-f-8	5/24/2022	5:16 PM	20.81	-1.00	7.81	-1.00	-1.00	-1.00	.00	387.87	387.87	.00	.00	.00	3.88	-1.00	.02
CCV	5/24/2022	5:22 PM	20.76	-1.00	10.29	-1.00	-1.00	-1.00	88.43	189.29	12.43	176.86	.00	.88	1.89	-1.00	.02
CCB	5/24/2022	5:27 PM	20.77	-1.00	7.63	-1.00	-1.00	-1.00	.00	2.48	2.48	.00	.00	.00	.04	.05	.02
LCS	5/24/2022	5:33 PM	20.67	-1.00	10.28	-1.00	-1.00	-1.00	89.79	189.96	10.38	179.59	.00	.90	1.90	-1.00	.02

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Run Number 4114 **Order Number** 20220524-5

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
MB	5/24/2022	5:38 PM	20.76	-1.00	7.65	-1.00	-1.00	-1.00	.00	2.45	2.45	.00	.00	.00	.04	.05	.02
280-162442-f-9	5/24/2022	5:44 PM	20.77	-1.00	8.40	-1.00	-1.00	-1.00	12.20	344.06	319.66	24.39	.00	.12	3.44	-1.00	.02
DU 280-162442-f-9	5/24/2022	5:50 PM	20.89	-1.00	8.49	-1.00	-1.00	-1.00	17.82	331.78	296.14	35.64	.00	.18	3.32	-1.00	.02
280-162442-f-10	5/24/2022	5:56 PM	20.80	-1.00	8.47	-1.00	-1.00	-1.00	15.83	293.42	261.76	31.67	.00	.16	2.93	-1.00	.02
280-162442-f-11	5/24/2022	6:03 PM	20.77	-1.00	8.41	-1.00	-1.00	-1.00	11.00	303.44	281.45	21.99	.00	.11	3.03	-1.00	.02
280-162442-f-12	5/24/2022	6:09 PM	20.76	-1.00	8.44	-1.00	-1.00	-1.00	13.77	325.81	298.26	27.55	.00	.14	3.26	-1.00	.02
280-162442-f-13	5/24/2022	6:15 PM	20.74	-1.00	8.43	-1.00	-1.00	-1.00	11.97	272.65	248.72	23.93	.00	.12	2.73	-1.00	.02
280-162442-f-14	5/24/2022	6:23 PM	20.76	-1.00	8.18	-1.00	-1.00	-1.00	.00	609.08	609.08	.00	.00	.00	6.09	-1.00	.02
280-162442-f-15	5/24/2022	6:31 PM	20.74	-1.00	8.28	-1.00	-1.00	-1.00	.00	491.25	491.25	.00	.00	.00	4.91	-1.00	.02
280-162442-f-16	5/24/2022	6:37 PM	20.74	-1.00	8.42	-1.00	-1.00	-1.00	11.20	237.30	214.91	22.39	.00	.11	2.37	-1.00	.02
280-162442-f-17	5/24/2022	6:44 PM	20.73	-1.00	8.43	-1.00	-1.00	-1.00	11.43	267.04	244.18	22.86	.00	.11	2.67	-1.00	.02
CCV	5/24/2022	6:49 PM	20.80	-1.00	10.23	-1.00	-1.00	-1.00	86.39	193.50	20.72	172.78	.00	.86	1.93	-1.00	.02
CCB	5/24/2022	6:54 PM	20.74	-1.00	7.64	-1.00	-1.00	-1.00	.00	3.77	3.77	.00	.00	.00	.04	.05	.02
280-162442-f-18	5/24/2022	7:02 PM	20.70	-1.00	8.14	-1.00	-1.00	-1.00	.00	695.14	695.14	.00	.00	.00	6.95	-1.00	.02
280-162442-f-19	5/24/2022	7:09 PM	20.74	-1.00	8.44	-1.00	-1.00	-1.00	14.93	351.76	321.91	29.85	.00	.15	3.52	-1.00	.02
280-162442-f-20	5/24/2022	7:15 PM	20.70	-1.00	8.47	-1.00	-1.00	-1.00	15.45	325.68	294.78	30.90	.00	.15	3.26	-1.00	.02
280-162442-f-21	5/24/2022	7:21 PM	20.67	-1.00	8.38	-1.00	-1.00	-1.00	8.98	235.04	217.08	17.95	.00	.09	2.35	-1.00	.02
280-162479-g-1	5/24/2022	7:28 PM	20.62	-1.00	8.29	-1.00	-1.00	-1.00	.00	511.04	511.04	.00	.00	.00	5.11	-1.00	.02
280-162479-g-2	5/24/2022	7:36 PM	20.69	-1.00	8.35	-1.00	-1.00	-1.00	7.66	469.84	454.53	15.32	.00	.08	4.70	-1.00	.02
280-162479-g-3	5/24/2022	7:43 PM	20.67	-1.00	8.65	-1.00	-1.00	-1.00	32.69	551.69	486.31	65.38	.00	.33	5.52	-1.00	.02
280-162479-g-4	5/24/2022	7:50 PM	20.78	-1.00	8.70	-1.00	-1.00	-1.00	34.37	526.33	457.60	68.73	.00	.34	5.26	-1.00	.02
280-162479-g-5	5/24/2022	7:58 PM	20.77	-1.00	8.31	-1.00	-1.00	-1.00	3.76	575.77	568.26	7.51	.00	.04	5.76	-1.00	.02
280-162479-g-6	5/24/2022	8:06 PM	20.69	-1.00	8.95	-1.00	-1.00	-1.00	58.35	643.35	526.64	116.70	.00	.58	6.43	-1.00	.02
CCV	5/24/2022	8:12 PM	20.72	-1.00	10.18	-1.00	-1.00	-1.00	85.04	192.42	22.34	170.08	.00	.85	1.92	-1.00	.02
CCB	5/24/2022	8:16 PM	20.69	-1.00	7.57	-1.00	-1.00	-1.00	.00	4.99	4.99	.00	.00	.00	.05	.05	.02
LCS	5/24/2022	8:22 PM	20.69	-1.00	10.16	-1.00	-1.00	-1.00	80.26	184.15	23.63	160.52	.00	.80	1.84	-1.00	.02
MB	5/24/2022	8:26 PM	20.80	-1.00	7.58	-1.00	-1.00	-1.00	.00	5.33	5.33	.00	.00	.00	.06	.06	.02
280-162479-g-7	5/24/2022	8:31 PM	20.81	-1.00	5.64	-1.00	-1.00	-1.00	.00	3.77	3.77	.00	.00	.00	.05	.06	.02
DU 280-162479-g-7	5/24/2022	8:35 PM	20.85	-1.00	5.62	-1.00	-1.00	-1.00	.00	.71	.71	.00	.00	.00	.02	.04	.02
280-162479-g-8	5/24/2022	8:41 PM	21.05	-1.00	8.43	-1.00	-1.00	-1.00	11.83	211.18	187.53	23.66	.00	.12	2.11	-1.00	.02

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Run Number 4114 **Order Number** 20220524-5

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-162479-g-9	5/24/2022	8:48 PM	21.09	-1.00	8.20	-1.00	-1.00	-1.00	.00	389.88	389.88	.00	.00	.00	3.90	-1.00	.02
280-162348-a-2	5/24/2022	8:54 PM	21.15	-1.00	8.08	-1.00	-1.00	-1.00	.00	93.46	93.46	.00	.00	.00	.93	-1.00	.02
280-162348-a-3	5/24/2022	8:59 PM	21.16	-1.00	7.87	-1.00	-1.00	-1.00	.00	61.74	61.74	.00	.00	.00	.62	-1.00	.02
280-162315-a-1	5/24/2022	9:07 PM	21.15	-1.00	8.62	-1.00	-1.00	-1.00	38.11	625.83	549.61	76.21	.00	.38	6.26	-1.00	.02
280-162315-a-7	5/24/2022	9:13 PM	21.25	-1.00	9.07	-1.00	-1.00	-1.00	38.27	185.57	109.03	76.54	.00	.38	1.86	-1.00	.02
280-162315-a-2	5/24/2022	9:19 PM	21.27	-1.00	8.70	-1.00	-1.00	-1.00	19.77	200.55	161.02	39.54	.00	.20	2.01	-1.00	.02
280-162315-a-3	5/24/2022	9:25 PM	21.35	-1.00	8.77	-1.00	-1.00	-1.00	31.39	281.72	218.94	62.77	.00	.31	2.82	-1.00	.02
CCV	5/24/2022	9:31 PM	21.45	-1.00	10.14	-1.00	-1.00	-1.00	77.91	185.87	30.05	155.82	.00	.78	1.86	-1.00	.02
CCB	5/24/2022	9:36 PM	21.77	-1.00	7.40	-1.00	-1.00	-1.00	.00	4.72	4.72	.00	.00	.00	.05	.06	.02
280-162317-g-1	5/24/2022	9:44 PM	21.67	-1.00	8.02	-1.00	-1.00	-1.00	.00	629.26	629.26	.00	.00	.00	6.29	-1.00	.02
280-162317-g-2	5/24/2022	9:53 PM	21.76	-1.00	8.00	-1.00	-1.00	-1.00	.00	623.40	623.40	.00	.00	.00	6.23	-1.00	.02
280-162318-a-1	5/24/2022	9:58 PM	21.73	-1.00	8.28	-1.00	-1.00	-1.00	.00	221.28	221.28	.00	.00	.00	2.21	-1.00	.02
280-162318-a-2	5/24/2022	10:04 PM	21.67	-1.00	8.39	-1.00	-1.00	-1.00	10.81	276.24	254.62	21.63	.00	.11	2.76	-1.00	.02
280-162318-a-3	5/24/2022	10:10 PM	21.70	-1.00	8.04	-1.00	-1.00	-1.00	.00	100.49	100.49	.00	.00	.00	1.00	-1.00	.02
280-162377-a-2	5/24/2022	10:16 PM	21.70	-1.00	8.33	-1.00	-1.00	-1.00	5.70	186.21	174.80	11.41	.00	.06	1.86	-1.00	.02
280-162377-a-3	5/24/2022	10:22 PM	21.74	-1.00	8.30	-1.00	-1.00	-1.00	1.45	206.37	203.47	2.90	.00	.01	2.06	-1.00	.02
280-162377-a-4	5/24/2022	10:28 PM	21.82	-1.00	8.23	-1.00	-1.00	-1.00	.00	229.72	229.72	.00	.00	.00	2.30	-1.00	.02
280-162383-a-1	5/24/2022	10:39 PM	22.13	-1.00	8.69	-1.00	-1.00	-1.00	56.87	1,205.02	1,091.28	113.75	.00	.57	12.05	-1.00	.02
280-162383-c-2	5/24/2022	10:46 PM	22.22	-1.00	8.20	-1.00	-1.00	-1.00	.00	303.88	303.88	.00	.00	.00	3.04	-1.00	.02
CCV	5/24/2022	10:52 PM	22.07	-1.00	10.04	-1.00	-1.00	-1.00	76.03	192.59	40.53	152.06	.00	.76	1.93	-1.00	.02
CCB	5/24/2022	10:57 PM	22.07	-1.00	6.85	-1.00	-1.00	-1.00	.00	1.70	1.70	.00	.00	.00	.03	.05	.02
LCS	5/24/2022	11:03 PM	21.95	-1.00	10.06	-1.00	-1.00	-1.00	76.41	199.11	46.29	152.81	.00	.76	1.99	-1.00	.02
MB	5/24/2022	11:09 PM	21.96	-1.00	9.53	-1.00	-1.00	-1.00	43.22	186.06	99.62	86.44	.00	.43	1.86	-1.00	.02
280-162383-a-3	5/24/2022	11:20 PM	21.99	-1.00	8.39	-1.00	-1.00	-1.00	14.73	1,018.48	989.02	29.46	.00	.15	10.18	-1.00	.02
DU 280-162383-a-3	5/24/2022	11:31 PM	22.13	-1.00	8.36	-1.00	-1.00	-1.00	10.45	1,035.53	1,014.62	20.91	.00	.10	10.36	-1.00	.02
280-162383-c-4	5/24/2022	11:39 PM	22.19	-1.00	8.13	-1.00	-1.00	-1.00	.00	484.15	484.15	.00	.00	.00	4.84	-1.00	.02
280-162387-a-2	5/24/2022	11:46 PM	22.52	-1.00	8.19	-1.00	-1.00	-1.00	.00	278.66	278.66	.00	.00	.00	2.79	-1.00	.02
280-162254-c-1	5/24/2022	11:52 PM	22.48	-1.00	8.47	-1.00	-1.00	-1.00	10.65	133.72	112.43	21.29	.00	.11	1.34	-1.00	.02
280-162395-a-11	5/25/2022	12:02 AM	22.43	-1.00	8.35	-1.00	-1.00	-1.00	10.19	856.24	835.87	20.37	.00	.10	8.56	-1.00	.02
280-162395-b-17	5/25/2022	12:12 AM	22.48	-1.00	8.24	-1.00	-1.00	-1.00	.00	786.22	786.22	.00	.00	.00	7.86	-1.00	.02

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Run Number 4114 **Order Number** 20220524-5

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-162395-b-18	5/25/2022	12:33 AM	22.43	-1.00	8.47	-1.00	-1.00	-1.00	72.99	2,434.76	2,288.78	145.98	.00	.73	24.35	-1.00	.02
280-162395-b-19	5/25/2022	12:37 AM	22.51	-1.00	7.94	-1.00	-1.00	-1.00	.00	6.09	6.09	.00	.00	.00	.07	.07	.02
CCV	5/25/2022	12:43 AM	22.31	-1.00	10.05	-1.00	-1.00	-1.00	75.77	185.66	34.12	151.53	.00	.76	1.86	-1.00	.02
CCB	5/25/2022	12:48 AM	22.29	-1.00	7.57	-1.00	-1.00	-1.00	.00	2.29	2.29	.00	.00	.00	.03	.05	.02

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Shipping and Receiving Documents

AECOM

12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

Project Name: CHAAP 2019	AECOM Project Number: 60565355
Project Location: Grand Island, Nebraska	AECOM Project Manager: Dean Converse
Sampler(s): BE GC	

Bill to: Brice Engineering

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Explosives+MNX (8330A)	TKN (351.2), NH_3 (350.1), NO_2/NO_3 (353.2)	SO_4 (9056A), Alkalinity (2320B)	Sulfide (9034)	DOC (9060A)*	Methane (RSK 175)		Remarks standard TAT
5-13-22	0915		X	PZ007-22A	AQ	9	ABCDEF	X	X	X	X	X	X		6°C
5-13-22	0915		X	PZ007-22A MS/MSD	AQ	18	ABCDEF	X	X	X	X	X	X		6°C

280-162386 Chain of Custody

Signatures	Date	Time
Relinquished by:	5-13-22	1600
Received by:	5/14/22	9:15
Relinquished by:		
Received for Laboratory by:		

Shipping Details

Method of Shipment: Federal Express

Airbill Number: 923524188692

Lab Address:
TestAmerica Lab, Inc.
Attn: Patrick McEntee
4955 Yarrow St.
Arvada, CO 80002
(303) 736-0107

Special Instructions

* Filter groundwater sample before analyzing for DOC

(A) (2) 500mL Ambers (Explosives)
(B) (1) 500mL HDPE w/ H_2SO_4 (TKN, NH_3, NO_2/NO_3)
(C) (1) 250mL HDPE (SO_4, Alkalinity)
(D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide)
(E) (1) 250mL Amber (DOC)*
(F) (3) 40 mL VOA w/ HCl (Methane)

TAL/Brice Project #: 28017805

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

2020638

AECOM
12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

Project Name: CHAAP 2019	AECOM Project Number: 60565355
Project Location: Grand Island, Nebraska	AECOM Project Manager: Dean Converse
Sampler(s): BE GC JO AG	

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Explosives+MNX (8330A)	TKN (351.2), NH_3 (350.1), NO_2, NO_3 (353.2)	SO_4 (9056A), Alkalinity (2320B)	Sulfide (9034)	DOC (9060A)*	Methane (RSK 175)		Remarks (standard TAT)
5-13-22	1315		X	G0087-22A	AQ	9	ABCDEF	X	X	X	X	X	X		6°C
5-13-22	1255		X	G0117-22A	AQ	9	ABCDEF	X	X	X	X	X	X		6°C
5-13-22	1425		X	G0022-22A	AQ	9	ABCDEF	X	X	X	X	X	X		6°C

Bill to: Brice Engineering

Signatures	Date	Time
Relinquished by:	5-13-22	1600
Received by:	5/14/22	0745
Relinquished by:		
Received for Laboratory by:		

Shipping Details

Method of Shipment: Federal Express

Airbill Number: 923524188556

Lab Address:
TestAmerica Lab, Inc.
Attn: Patrick McEntee
4955 Yarrow St.
Arvada, CO 80002
(303) 736-0107

Special Instructions

* Filter groundwater sample before analyzing for DOC

(A) (2) 500mL Ambers (Explosives)
(B) (1) 500mL HDPE w/ H_2SO_4 (TKN, NH_3, NO_2/NO_3)
(C) (1) 250mL HDPE (SO_4, Alkalinity)
(D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide)
(E) (1) 250mL Amber (DOC)*
(F) (3) 40 mL VOA w/ HCl (Methane)

TAL/Brice Project #: 28017805

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

06/06/2022

2020640

AECOM
12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

Project Name: CHAAP 2019

AECOM Project Number: 60565355

Project Location: Grand Island, Nebraska

AECOM Project Manager: Dean Converse

Sampler(s): BE GC JO AG

Bill to: Brice Engineering

Remarks: standard TAT

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Explosives+MNX (8330A)	TKN (351.2), NH_3 (350.1), NO_2/NO_3 (353.2)	SO_4 (9056A), Alkalinity (2320B)	Sulfide (9034)	DOC (9060A)*	Methane (RSK 175)		Remarks
5-13-22	1535		X	GO088-22A	AQ	9	ABCDEF	X	X	X	X	X	X		6°C
5-13-22	1440		X	GO116-22A	AQ	9	ABCDEF	X	X	X	X	X	X		6°C
5-13-22	1550		X	PZ014-22A	AQ	9	ABCDEF	X	X	X	X	X	X		6°C

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	5-13-22	1600	Method of Shipment: Federal Express	* Filter groundwater sample before analyzing for DOC
Received by:	5/13/22	925	Airbill Number: 923524188545	(A) (2) 500mL Ambers (Explosives) (B) (1) 500mL HDPE w/ H_2SO_4 (TKN, NH_3, NO_2/NO_3) (C) (1) 250mL HDPE (SO_4, Alkalinity) (D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide) (E) (1) 250mL Amber (DOC)* (F) (3) 40 mL VOA w/ HCl (Methane)
Relinquished by:			**Lab Address:** TestAmerica Lab, Inc. Attn: Patrick McEntee 4955 Yarrow St. Arvada, CO 80002 (303) 736-0107	
Received for Laboratory by:				TAL/Brice Project #: 28017805

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

06/06/2022

2020643

AECOM
12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

Page 1 of 1

Project Name: CHAAP 2019	AECOM Project Number: 60565355
Project Location: Grand Island, Nebraska	AECOM Project Manager: Dean Converse
Sampler(s): BE GC JO AG	

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Explosives+MNX (8330A)	TKN (351.2), NH_3 (350.1), NO_2, NO_3 (353.2)	SO_4 (9056A), Alkalinity (2320B)	Sulfide (9034)	DOC (9060A)*	Methane (RSK 175)		Bill to: Brice Engineering Remarks standard TAT
5-12-22	1420		X	GO092-22A	AQ	9	ABCDEF	X	X	X	X	X	X		6°C
5-13-22	1140		X	PZ013-22A	AQ	9	ABCDEF	X	X	X	X	X	X		
5-13-22	1205		X	GO081-22A	AQ	9	ABCDEF	X	X	X	X	X	X		

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	5-13-22	1600	Method of Shipment: Federal Express	* Filter groundwater sample before analyzing for DOC
Received by:	5/14/22	925	Airbill Number: 923524188420	(A) (2) 500mL Ambers (Explosives) (B) (1) 500mL HDPE w/ H_2SO_4 (TKN, NH_3, NO_2/NO_3) (C) (1) 250mL HDPE (SO_4, Alkalinity) (D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide) (E) (1) 250mL Amber (DOC)* (F) (3) 40 mL VOA w/ HCl (Methane)
Relinquished by:			**Lab Address:** TestAmerica Lab, Inc. Attn: Patrick McEntee 4955 Yarrow St. Arvada, CO 80002 (303) 736-0107	
Received for Laboratory by:				TAL/Brice Project #: 28017805

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

2020639



280-162386 Waybill

Svce: PRIORITY OVERNIGHT Master 9235 2418 8383
TRCK: 9235 2418 8692

Part # 159469-434 RIT2 EXP 02/21

6 A
12:00 8692
05.14

RT 938
ST 23

ORIGIN ID:PHDA (308) 379-7542
GARY CARSON
BRICE ENGINEERING (WATER TREATMEN
7502 WEST 13TH STREET

UNITED STATES US

23SEP20
10.00 LB MAN
562065/CAFE3406

TO

EUROFINS TESTAMERICA DENVER
4955 YARROW STREET

ARVADA CO 800024517

0.5

(303) 736-0100
REF: S280-102230

RMA:

FedEx Express

FedEx
TRK# 0221 9235 2418 8692

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO LAAA

80002
CO-US DEN

#3676756 05/13 577J5/1BD6/FE4A

Svce: PRIORITY OVERNIGHT Master 9235 2418 8383
TRCK: 9235 2418 8556

Part # 159470-434 RIT2 EXP 06/21

eurofins | Environ... Test...

6 A
12:00 8556
05.14

RT 938
ST 23

2.1

ORIGIN ID:PHDA (308) 379-7542
GARY CARSON
BRICE ENGINEERING (WATER TREATMENT
7502 WEST 13TH STREET

GRAND ISLAND, NE 68803
UNITED STATES US

SHIP DATE: 23SEP20
ACTWGT: 10.00 LB MAN
CAD: 0562065/CAFE3406

TO

EUROFINS TESTAMERICA DENVER
4955 YARROW STREET

ARVADA CO 800024517

(303) 736-0100
REF: S280-102230

RMA:

FedEx Express

FedEx
TRK# 0221 9235 2418 8556

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO LAAA

80002
CO-US DEN

#3676756 05/13 577J5/1BD6/FE4A

Login Sample Receipt Checklist

Client: Brice Environmental Services, Corp

Job Number: 280-162386-1

Login Number: 162386
List Number: 1
Creator: Roehsner, Karen P

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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").	False	Narrative to indicate if headspace container used for analysis.
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	