

DATA PACKAGE

SUB - DATA

PROJECT NAME : CTO WE13

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : P4551

ATTENTION : Ernie Wu



Cover Page

Order ID : P4551

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

P4551-01

Client Sample Number

VPB190-HYD-20241023

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 11/5/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



ANALYTICAL REPORT

PREPARED FOR

Attn: Yazmeen Gomez
Chemtech Consulting Group Inc.
284 Sheffield Street
Mountainside NJ 07092

Generated 11/1/2024 8:01 AM

JOB DESCRIPTION

1,4 Dioxane

JOB NUMBER

810-126005-1

Eurofins Eaton Analytical South Bend

Job Notes

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

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

Authorization



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Authorized for release by
Nathan Trowbridge, Manager of Project Management
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Definitions/Glossary

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

Glossary

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

Job Narrative
810-126005-1

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

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

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 10/29/2024 9:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6°C.

GC/MS Semi VOA

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

Detection Summary

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

Client Sample ID: VPB190-HYD-20241023

Lab Sample ID: 810-126005-1

 No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

Client Sample ID: VPB190-HYD-20241023
Date Collected: 10/23/24 09:05
Date Received: 10/29/24 09:00

Lab Sample ID: 810-126005-1
Matrix: Drinking Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<0.070		0.070	ug/L		10/30/24 07:11	10/31/24 13:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	79		70 - 130			10/30/24 07:11	10/31/24 13:54	1

Default Detection Limits

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Prep: 522

Analyte	RL		Units
1,4-Dioxane	0.070	0.062	ug/L

Surrogate Summary

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (70-130)							
810-126005-1	VPB190-HYD-20241023	79							
LLCS 810-120690/2-A	Lab Control Sample	92							
MBL 810-120690/1-A	Method Blank	96							

Surrogate Legend

DXE = 1,4-Dioxane-d8 (Surr)

QC Sample Results

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Lab Sample ID: MBL 810-120690/1-A
Matrix: Drinking Water
Analysis Batch: 120756

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120690

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<0.062		0.070	ug/L		10/30/24 07:11	10/31/24 10:14	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	96		70 - 130			10/30/24 07:11	10/31/24 10:14	1

Lab Sample ID: LLCS 810-120690/2-A
Matrix: Drinking Water
Analysis Batch: 120756

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120690

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	0.0700	0.0740		ug/L		106	50 - 150
Surrogate	LLCS %Recovery	LLCS Qualifier	Limits				
1,4-Dioxane-d8 (Surr)	92		70 - 130				

QC Association Summary

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

GC/MS Semi VOA

Prep Batch: 120690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-126005-1	VPB190-HYD-20241023	Total/NA	Drinking Water	522	
MBL 810-120690/1-A	Method Blank	Total/NA	Drinking Water	522	
LLCS 810-120690/2-A	Lab Control Sample	Total/NA	Drinking Water	522	

Analysis Batch: 120756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-126005-1	VPB190-HYD-20241023	Total/NA	Drinking Water	522	120690
MBL 810-120690/1-A	Method Blank	Total/NA	Drinking Water	522	120690
LLCS 810-120690/2-A	Lab Control Sample	Total/NA	Drinking Water	522	120690

Lab Chronicle

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

Client Sample ID: VPB190-HYD-20241023
Date Collected: 10/23/24 09:05
Date Received: 10/29/24 09:00

Lab Sample ID: 810-126005-1
Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			120690	MW	EA SB	10/30/24 07:11
Total/NA	Analysis	522		1	120756	KO	EA SB	10/31/24 13:54

Laboratory References:
EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Accreditation/Certification Summary

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

Laboratory: Eurofins Eaton Analytical South Bend

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	ISO/IEC 17025	5794.01	07-31-26
Alabama	State	40700	06-30-25
Alaska	State	IN00035	06-30-25
Arizona	State	AZ0432	07-26-25
Arkansas (DW)	State	EPA IN00035	06-30-25
California	State	2920	06-30-25
Colorado	State	IN00035	02-28-25
Connecticut	State	PH-0132	03-31-26
Delaware (DW)	State	IN00035	06-30-25
Florida	NELAP	E87775	06-30-25
Georgia (DW)	State	929	06-30-25
Guam	State	23-011R	07-15-25
Hawaii	State	IN035	06-30-25
Idaho (DW)	State	IN00035	12-31-24
IL Dept. of Public Health (Micro)	State	17767	06-30-25
Illinois	NELAP	200001	09-30-25
Indiana	State	C-71-01	12-31-25
Indiana (Micro)	State	M-76-07	12-31-25
Iowa	State	IA Lab #098	11-01-25
Kansas	NELAP	E-10233	10-31-24
Kentucky (DW)	State	KY90056	12-31-24
Louisiana (DW)	State	LA014	12-31-24
Maine	State	IN00035	05-01-25
Maryland	State	209	06-30-25
Massachusetts	State	M-IN035	06-30-25
MI - RadChem Recognition	State	9926	03-22-25
Michigan	State	9926	03-22-25
Minnesota	NELAP	1989807	12-31-24
Mississippi	State	IN00035	06-30-25
Missouri	State	880	09-30-27
Montana (DW)	State	CERT0026	01-01-25
Nebraska	State	NE-OS-05-04	06-30-25
Nevada	State	IN000352024-01	07-31-25
New Hampshire	NELAP	2124	11-05-24
New Jersey	NELAP	IN598	06-30-25
New Mexico	State	IN00035	06-30-25
New York	NELAP	11398	04-01-25

Accreditation/Certification Summary

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

Laboratory: Eurofins Eaton Analytical South Bend (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	18700	07-31-25
North Dakota	State	R-035	06-30-24 *
Northern Mariana Islands (DW)	State	IN00035	06-30-25
Ohio	State	87775	06-30-25
Oklahoma	NELAP	D9508	12-31-24
Oregon	NELAP	4156	09-16-25
Pennsylvania	NELAP	68-00466	04-30-25
Puerto Rico	State	IN00035	04-01-25
Rhode Island	State	LAO00343	12-30-24
South Carolina	State	95005001	06-30-24 *
South Dakota (DW)	State	IN00035	06-30-25
Tennessee	State	TN02973	06-30-25
Texas	NELAP	T104704187-22-16	12-31-24
Texas	TCEQ Water Supply	TX207	06-30-25
USEPA UCMR 5	US Federal Programs	IN00035	12-31-25
Utah	NELAP	IN00035	07-31-25
Vermont	State	VT-8775	11-15-24
Virginia	NELAP	460275	03-14-25
Washington	State	C837	01-01-25
West Virginia (DW)	State	9927 C	01-31-25
Wisconsin	State	999766900	08-31-25
Wisconsin (Micro)	State	10121	12-31-24
Wyoming	State	8TMS-L	06-30-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Eaton Analytical South Bend

Method Summary

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

Method	Method Description	Protocol	Laboratory
522	1,4 Dioxane (GC/MS SIM)	EPA	EA SB
522	Solid-Phase Extraction (SPE)	EPA	EA SB

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Sample Summary

Client: Chemtech Consulting Group Inc.
Project/Site: 1,4 Dioxane

Job ID: 810-126005-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
810-126005-1	VPB190-HYD-20241023	Drinking Water	10/23/24 09:05	10/29/24 09:00

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Eaton Analytical South BendJob No.: 810-126005-1

SDG No.: _____

Instrument ID: GCMS-FEAnalysis Batch Number: 119892Lab Sample ID: IC 810-119843/4-A

Client Sample ID: _____

Date Analyzed: 10/23/24 08:03Lab File ID: IC 007.DGC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.35	Incomplete Integration	JH8B	10/24/24 11:46

Lab Sample ID: IC 810-119843/6-A

Client Sample ID: _____

Date Analyzed: 10/23/24 08:47Lab File ID: IC 02.DGC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.35	Incomplete Integration	JH8B	10/23/24 11:38

Lab Sample ID: IC 810-119843/10-A

Client Sample ID: _____

Date Analyzed: 10/23/24 10:15Lab File ID: IC 5.DGC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.35	Incomplete Integration	JH8B	10/23/24 11:37

Lab Sample ID: IC 810-119843/11-A

Client Sample ID: _____

Date Analyzed: 10/23/24 10:37Lab File ID: IC 10.DGC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.35	Incomplete Integration	JH8B	10/23/24 11:36

Lab Sample ID: IC 810-119843/12-A

Client Sample ID: _____

Date Analyzed: 10/23/24 11:00Lab File ID: IC 20.DGC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.35	Incomplete Integration	JH8B	10/23/24 11:37

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126005-1
SDG No.: _____
Instrument ID: GCMS-FE Analysis Batch Number: 119892
Lab Sample ID: ICV 810-119843/13-A Client Sample ID: _____
Date Analyzed: 10/23/24 12:06 Lab File ID: ICV.D GC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.36	Incomplete Integration	JH8B	10/23/24 13:34

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Eaton Analytical South BendJob No.: 810-126005-1

SDG No.: _____

Instrument ID: GCMS-FEAnalysis Batch Number: 120756Lab Sample ID: CCVLIS 810-120719/1-A

Client Sample ID: _____

Date Analyzed: 10/31/24 09:31Lab File ID: CCVL re.DGC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.36	Baseline	JH8B	10/31/24 12:04

Lab Sample ID: MBL 810-120690/1-A

Client Sample ID: _____

Date Analyzed: 10/31/24 10:14Lab File ID: MBL.DGC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.36	Baseline	JH8B	10/31/24 12:04

Lab Sample ID: LLCS 810-120690/2-A

Client Sample ID: _____

Date Analyzed: 10/31/24 10:36Lab File ID: LLCS.DGC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.36	Baseline	JH8B	10/31/24 12:04

Lab Sample ID: CCVIS 810-120719/3-A

Client Sample ID: _____

Date Analyzed: 10/31/24 14:37Lab File ID: CCVM.DGC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.36	Baseline	JH8B	10/31/24 15:23

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Eaton Analytical South Bend

Job No.: 810-126005-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
522 IS SS 00214	11/01/24	10/18/24	MeCl2, Lot EF755-US	2 mL	522 IS Stock 00029	200 uL	Tetrahydrofuran-d8	100 ug/mL
.522 IS Stock 00029	03/17/28	10/11/24	Methanol, Lot na	1 mL	522-IS-Stock_00008	1 mL	Tetrahydrofuran-d8	1000 ug/mL
..522-IS-Stock_00008	10/25/28	Absolute Standards Inc., Lot 102523			(Purchased Reagent)		Tetrahydrofuran-d8	1000 ug/mL
522 IS SS 00216	11/10/24	10/29/24	MeCl2, Lot EF755-US	2 mL	522 IS Stock 00029	200 uL	Tetrahydrofuran-d8	100 ug/mL
.522 IS Stock 00029	03/17/28	10/11/24	Methanol, Lot na	1 mL	522-IS-Stock_00008	1 mL	Tetrahydrofuran-d8	1000 ug/mL
..522-IS-Stock_00008	10/25/28	Absolute Standards Inc., Lot 102523			(Purchased Reagent)		Tetrahydrofuran-d8	1000 ug/mL
522-Sur-SS_00113	04/22/25	10/22/24	Methanol, Lot 24G0262002	2 mL	522-SUR-Stock_00020	100 uL	1,4-Dioxane-d8 (Surr)	100 ug/mL
.522-SUR-Stock_00020	02/28/26	06/27/24		1 mL	522-SUR-Stock_00011	1 mL	1,4-Dioxane-d8 (Surr)	2000 ug/mL
..522-SUR-Stock_00011	02/28/26	Restek, Lot A0195206			(Purchased Reagent)		1,4-Dioxane-d8 (Surr)	2000 ug/mL
522-Sur-SS_00114	04/25/25	10/25/24	Methanol, Lot 24G0262002	2 mL	522-SUR-Stock_00020	100 uL	1,4-Dioxane-d8 (Surr)	100 ug/mL
.522-SUR-Stock_00020	02/28/26	06/27/24		1 mL	522-SUR-Stock_00011	1 mL	1,4-Dioxane-d8 (Surr)	2000 ug/mL
..522-SUR-Stock_00011	02/28/26	Restek, Lot A0195206			(Purchased Reagent)		1,4-Dioxane-d8 (Surr)	2000 ug/mL
O-522 CalM_00015	04/22/25	10/22/24	Methanol, Lot 24G0262002	2 mL	522 AnalyteST_00003	10 uL	1,4-Dioxane	10 ug/mL
.522 AnalyteST_00003	05/31/26	10/22/24	Methanol, Lot na	1 mL	522-Analyte_00003	1 mL	1,4-Dioxane	2000 ug/mL
..522-Analyte_00003	05/31/26	Restek, Lot A0172836			(Purchased Reagent)		1,4-Dioxane	2000 ug/mL
O-522-CalH_00012	04/22/25	10/22/24	Methanol, Lot 24G0262002	2 mL	522 AnalyteST_00003	100 uL	1,4-Dioxane	100 ug/mL
.522 AnalyteST_00003	05/31/26	10/22/24	Methanol, Lot na	1 mL	522-Analyte_00003	1 mL	1,4-Dioxane	2000 ug/mL
..522-Analyte_00003	05/31/26	Restek, Lot A0172836			(Purchased Reagent)		1,4-Dioxane	2000 ug/mL
O-522-QCS-Sub_00007	12/02/24	08/29/24	Methanol, Lot 23I0762004	2 mL	522-QCS_00001	20 uL	1,4-Dioxane	10 ug/mL
.522-QCS_00001	12/02/24	AccuStandard, Lot 214121041			(Purchased Reagent)		1,4-Dioxane	1000 ug/mL
O-522BFBSub_00015	01/14/25	10/14/24	MeCl2, Lot EI661-US	2 mL	o-522-bfb_00004	2 uL	BFB	2.005 ug/mL
.o-522-bfb_00004	09/30/28	07/21/22	METHANOL, Lot NA	1 mL	O-522-BFB_00003	1 mL	BFB	2005 ug/mL
..O-522-BFB_00003	09/30/28	Agilent, Lot 6629793			(Purchased Reagent)		BFB	2005 ug/mL
O522-CalL_00016	04/22/25	10/22/24	Methanol, Lot 24G0262002	2 mL	O-522-CalH_00012	20 uL	1,4-Dioxane	1 ug/mL
.O-522-CalH_00012	04/22/25	10/22/24	Methanol, Lot 24G0262002	2 mL	522 AnalyteST_00003	100 uL	1,4-Dioxane	100 ug/mL
..522 AnalyteST_00003	05/31/26	10/22/24	Methanol, Lot na	1 mL	522-Analyte_00003	1 mL	1,4-Dioxane	2000 ug/mL
...522-Analyte_00003	05/31/26	Restek, Lot A0172836			(Purchased Reagent)		1,4-Dioxane	2000 ug/mL

Reagent

522-Analyte_00003



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30287 Lot No.: A0172836
Description : 1,4-Dioxane Standard
1,4-Dioxane 2000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL Pkg Amt: > 1 mL
Expiration Date : May 31, 2026 Storage: 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,4-Dioxane	2,019.2 µg/mL	+/- 11.8498	µg/mL	Gravimetric	
	CAS # 123-91-1 (Lot SHBM5092)		+/- 43.2613	µg/mL	Unstressed	
	Purity 99%		+/- 44.5173	µg/mL	Stressed	

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

Rec'd: 12/14/2021 Hms

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

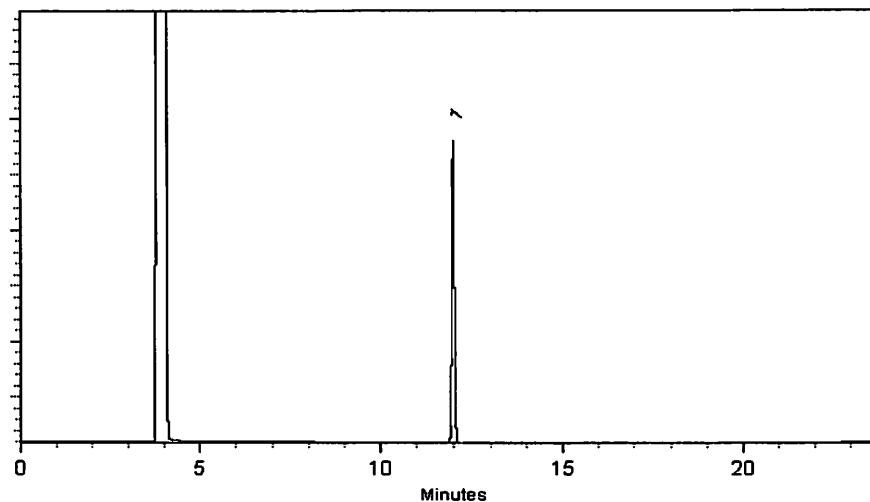
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

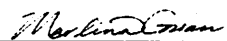
Det. Type:
FID



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


Walker Workman - Operations Technician I

Date Mixed: 27-May-2021 Balance: 1128360905


Marlene Cowan - Operations Tech I

Date Passed: 01-Jun-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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified 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:

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

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

- 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

522-IS-Stock_00008



CERTIFIED WEIGHT REPORT

Part Number: 72261
Lot Number: 102523
Description: Tetrahydrofuran-d8

Solvent(s):	Lot#
Methanol	EG359-US

<i>Eli Aliaga</i>		102523
Formulated By:	Eli Aliaga	DATE
<i>Pedro L. Rentas</i>		102523
Reviewed By:	Pedro L. Rentas	DATE

Recd 03/08/2024
Hms

Expiration Date: 102528

Recommended Storage: Refrigerate (4 °C)

Nominal Concentration ($\mu\text{g/mL}$): 1000

NIST Test ID#: 6UTE

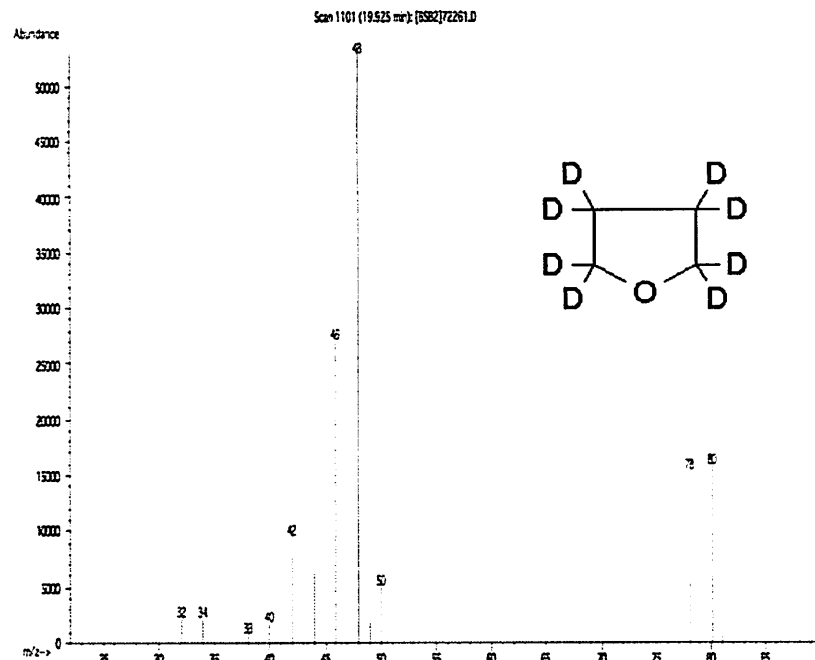
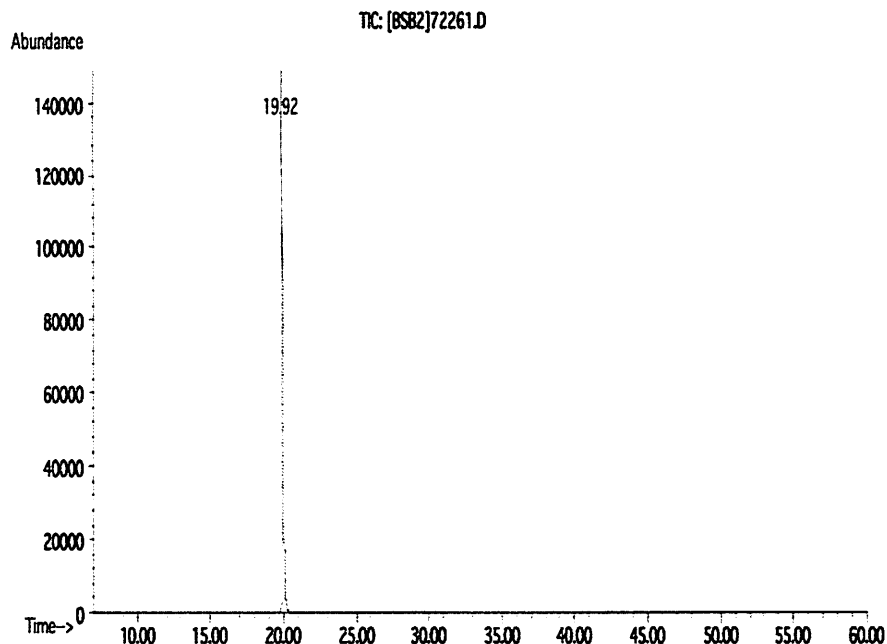
5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

Expanded Uncertainty	SDS Information (Solvent Safety Info. On Attached pg.)		
(+/-) µg/mL	CAS#	OSHA PEL (TWA)	LD50

Compound	RM#	Lot	Nominal	Purity	Uncertainty	Target	Actual	Actual	Uncertainty	(Solvent Safety Info. On Attached pg.)		
		Number	Conc (µg/mL)	(%)	Purity	Weight(g)	Weight(g)	Conc (µg/mL)	(+/-) µg/mL	CAS#	OSHA PEL (TWA)	LD50
1. Tetrahydrofuran-d8	2261	I-24862H	1000	99.6	0.2	0.10045	0.10054	1000.9	4.2	1693-74-9	N/A	N/A

Method: GC6MSD-1. **Detector:** MSD (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1=35°C (10 min.), Temp. 2=200°C (8.75 min.), Rate=4°C/min., **Injector Temp.=**200°C, **Detector Temp.=**200°C. **Analyst:** Candice Warren.



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

Reagent

522-QCS_00001

125 Market Street
New Haven, CT 06513
USA



AccuStandard®, Inc.

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

CERTIFICATE OF ANALYSIS

Catalog No: APP-9-096-10X

Description: p-Dioxane Standard

Lot: 214121041

Solvent: Methanol

Hazards: **HIGHLY FLAMMABLE** - Refer to SDS for safety info

Date Certified: Dec 2, 2014

Expiration: Dec 2, 2024

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)

Included on ISO/IEC 17025 Scope of Accreditation: Yes

Included on ISO Guide 34 Scope of Accreditation: Yes



Danger 2

Component	CAS #	Purity %	Prepared Concentration ¹	Certified Analyte Concentration ²
		(MFG)	(µg/mL)	(µg/mL)
p-Dioxane	123-91-1	99.0	1005	995

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

¹ All weights are traceable through NIST, Test No. 822-275872-11

² Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is $\pm 0.24\%$. The CRM Uncertainty calculated for this product is $\pm 5\%$. These values are the expanded uncertainty and represent 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.

See reverse side for additional information

Certified By:

Larry Decker, Organic QC Manager

Page 1 of 1

For use in routine laboratory analysis.

AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

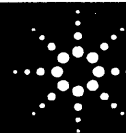
OR-ORGANO-001
Rev. 7/11

Reagent

O-522-BFB_00003

Recd at 07/06/2022
07/06/2022
HMS

ISO 17034



Agilent

Trusted Answers

Reference Material Certificate

Product Name: 4-Bromofluorobenzene Standard

Lot Number: 0006629793

Product Number: STS-110N-1

Lot Issue Date: 10-Aug-2021

Storage Conditions: Store Frozen (-25° to -10°C).

Expiration Date: 30-Sep-2028

Component Name	CERTIFIED VALUES		CAS#	Analyte Lot
	Concentration	Expanded Uncertainty		
4-bromofluorobenzene	2009	± 10 µg/mL	000460-00-4	RM12184

Matrix: methanol (methyl alcohol)

Description:

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

Traceability:

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

Homogeneity:

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

Instructions for Use:

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

Safety:

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

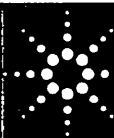
Intended Use:

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.

ISO 17034



Agilent

Trusted Answers

Maintenance of Certification:

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

Sample lot approver:



Monica Bourgeois

QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO 9001:2015
Quality Management System. Cert# 951215321

Page: 2 of 2

www.agilent.com/quality/

CSD-QA-015.1



ISO 17025 Cert
No. AT-1937

Method 522

1,4 Dioxane (GC/MS SIM) by Method
522

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126005-1

SDG No.: _____

Matrix: Drinking Water Level: Low

GC Column (1): CPSelect 62 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DXE #
VPB190-HYD-20241023	810-126005-1	79
	LLCS 810-120690/2-A	92
	MBL 810-120690/1-A	96

DXE = 1,4-Dioxane-d8 (Surr)

QC LIMITS
70-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LOW LEVEL CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Eaton Analytical South Job No.: 810-126005-1
Bend

SDG No.:

Matrix: Drinking Water Level: Low Lab File ID: LLC.S.D

Lab ID: LLC.S 810-120690/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LLCS CONCENTRATION (ug/L)	LLCS % REC	QC LIMITS REC	#
1,4-Dioxane	0.0700	0.0740	106	50-150	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Eaton Analytical South Bend
Job No.: 810-126005-1
SDG No.:
Lab File ID: MBL.D
Lab Sample ID: MBL 810-120690/1-A
Matrix: Drinking Water
Date Extracted: 10/30/2024 07:11
Instrument ID: GCMS-FE
Date Analyzed: 10/31/2024 10:14
Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LLCS 810-120690/2-A	LLCS.D	10/31/2024 10:36
VPB190-HYD-20241023	810-126005-1	810-126005-A-1-A.D	10/31/2024 13:54

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126005-1

SDG No.:

Lab File ID: BFB 1.D BFB Injection Date: 10/23/2024

Instrument ID: GCMS-FE BFB Injection Time: 07:36

Analysis Batch No.: 119892

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	28.6
75	30.0 - 80.0 % of mass 95	59.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.2
173	Less than 2.0 % of mass 174	0.5 (0.7) 1
174	>50.0 % of mass 95	62.5
175	5.0 - 9.0 % of mass 174	5.0 (8.1) 1
176	>95.0 but <101.0 % of mass 174	60.5 (96.7) 1
177	5.0 - 9.0 % of mass 176	3.8 (6.2) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 810-119843/4-A	IC 007.D	10/23/2024	8:03
	IC 810-119843/5-A	IC 01.D	10/23/2024	8:25
	IC 810-119843/6-A	IC 02.D	10/23/2024	8:47
	IC 810-119843/7-A	IC 05.D	10/23/2024	9:09
	ICISAV 810-119843/8-A	IC 1.D	10/23/2024	9:31
	IC 810-119843/9-A	IC 2.D	10/23/2024	9:53
	IC 810-119843/10-A	IC 5.D	10/23/2024	10:15
	IC 810-119843/11-A	IC 10.D	10/23/2024	10:37
	IC 810-119843/12-A	IC 20.D	10/23/2024	11:00
	ICV 810-119843/13-A	ICV.D	10/23/2024	12:06

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Eaton Analytical South Job No.: 810-126005-1
Bend

SDG No.:

Instrument I GCMS-FE Calibration Start Date: 10/23/2024 08:03

GC Column: CPSelect 624 MS ID: 0.25 (mm) Calibration End Date: 10/23/2024 11:00

Calibration ID: 13604

		THFd8					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		110467	6.20				
UPPER LIMIT		165701	6.70				
LOWER LIMIT		55234	5.70				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 810-119843/13-A		112109	6.21				
CCVLIS 810-120719/1-A		103724	6.20				
MBL 810-120690/1-A		99470	6.21				
LLCS 810-120690/2-A		103776	6.21				
810-126005-1	VPB190-HYD-20241023	81674	6.21				
CCVIS 810-120719/3-A		83177	6.20				

THFd8 = Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII

Lab Name: Eurofins Eaton Analytical South Bend

Job No.: 810-126005-1

SDG No. :

Sample No.: CCVLIS 810-120719/1-A

Date Analyzed: 10/31/2024 09:31

Instrument ID: GCMS-FE

GC Column: CPSelect 624 MS ID: 0.25 (mm)

Lab File ID (Standard): CCVL re.D

Heated Purge: (Y/N) N

Calibration ID: 13604

		THFd8					
		AREA #	RT #	#	RT #	#	RT #
Low Level 12/24 HOUR STD		103724	6.20				
UPPER LIMIT		134841	6.70				
LOWER LIMIT		72607	5.70				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MBL 810-120690/1-A		99470	6.21				
LLCS 810-120690/2-A		103776	6.21				
810-126005-1	VPB190-HYD-20241023	81674	6.21				
CCVIS 810-120719/3-A		83177	6.20				

THFd8 = Tetrahydrofuran-d8

Area Limit = 70%-130% of internal standard area
RT Limit = $\pm$ 0.5 minutes of internal standard R

```
# Column used to flag values outside QC limits
```

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126005-1
SDG No.:
Client Sample ID: VPB190-HYD-20241023 Lab Sample ID: 810-126005-1
Matrix: Drinking Water Lab File ID: 810-126005-A-1-A.D
Analysis Method: 522 Date Collected: 10/23/2024 09:05
Extract. Method: 522 Date Extracted: 10/30/2024 07:11
Sample wt/vol: 100 (mL) Date Analyzed: 10/31/2024 13:54
Con. Extract Vol.: 2 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: CPSelect 624 MS ID: 0.25 (mm)
% Moisture: % Solids: GPC Cleanup: (Y/N) N
Cleanup Factor: Level: (low/med) Low
Analysis Batch No.: 120756 Units: ug/L
Preparation Batch No.: 120690 Instrument ID: GCMS-FE

CAS NO.	COMPOUND NAME	RESULT	Q	RL
123-91-1	1,4-Dioxane	<0.070		0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	79		70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\810-126005-A-1-A.D
Lims ID: 810-126005-A-1-A
Client ID: VPB190-HYD-20241023
Sample Type: Client
Inject. Date: 31-Oct-2024 13:54:03 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030884-012
Misc. Info.: 810-126005-A-1-A
Operator ID: BC Instrument ID: GCMS-FE
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 31-Oct-2024 15:25:13 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1650

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.212	6.204	0.008	26	81674	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.289	8.279	0.010	93	39659	394.3	
11 1,4-Dioxane	88	8.362	8.362	0.000	80	258	1.72	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\810-126005-A-1-A.D

Injection Date: 31-Oct-2024 13:54:03

Instrument ID: GCMS-FE

Lims ID: 810-126005-A-1-A

Lab Sample ID: 810-126005-1

Client ID: VPB190-HYD-20241023

Operator ID: BC

ALS Bottle#: 0

Worklist Smp#: 12

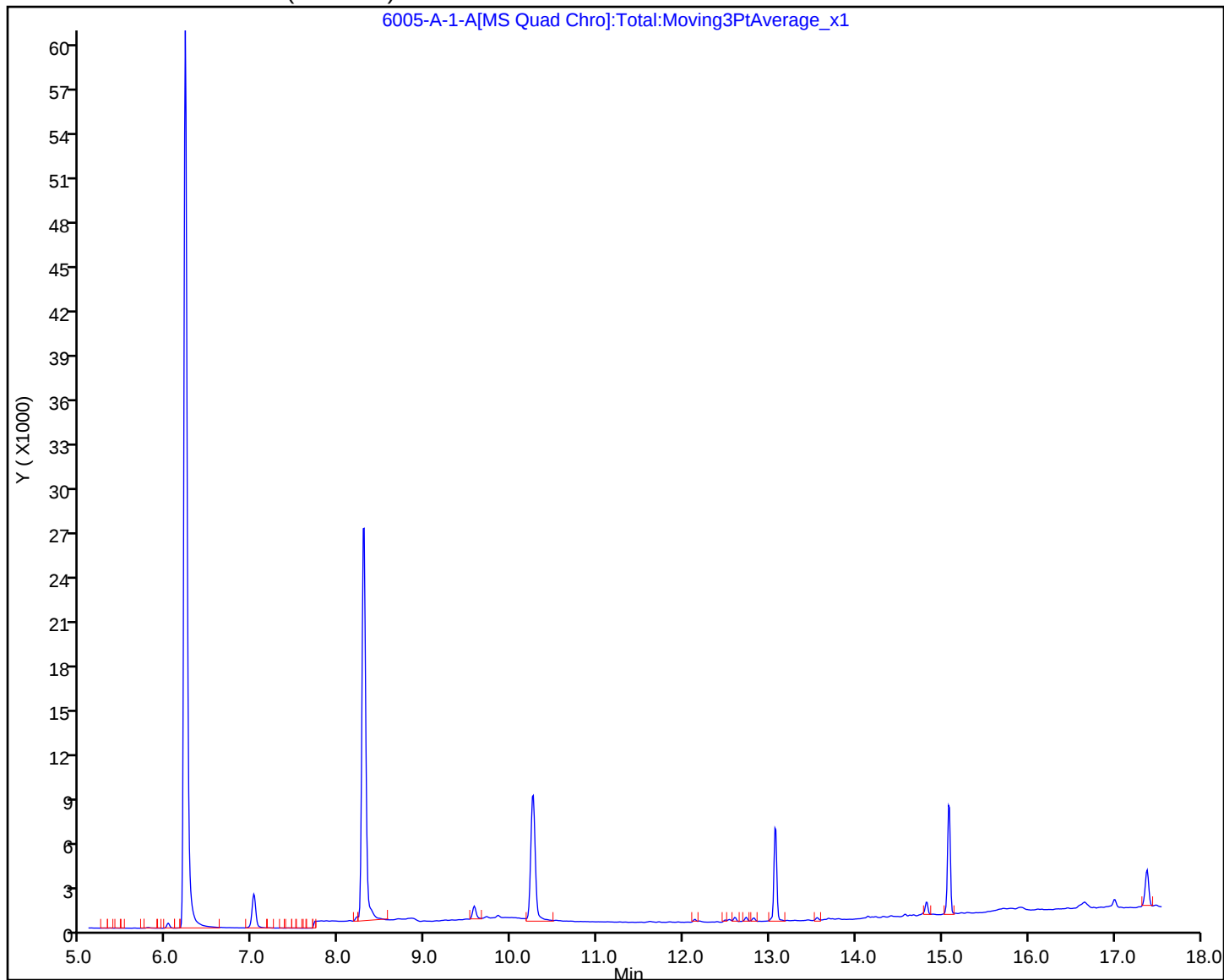
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 522_GCMS-FE

Limit Group: MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend
Recovery Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\810-126005-A-1-A.D
Lims ID: 810-126005-A-1-A
Client ID: VPB190-HYD-20241023
Sample Type: Client
Inject. Date: 31-Oct-2024 13:54:03 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030884-012
Misc. Info.: 810-126005-A-1-A
Operator ID: BC Instrument ID: GCMS-FE
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 31-Oct-2024 15:25:13 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1650

Compound	Amount Added	Amount Recovered	% Rec.
\$ 9 1,4-Dioxane-d8 (Surr)	500.0	394.3	78.87

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Eaton Analytical South Job No.: 810-126005-1 Analy Batch No.: 119892
Bend

SDG No.:

Instrument ID: GCMS-FE GC Column: CPSelect 62 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/23/2024 08:03 Calibration End Date: 10/23/2024 11:00 Calibration ID: 13604

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-119843/4-A	IC 007.D
Level 2	IC 810-119843/5-A	IC 01.D
Level 3	IC 810-119843/6-A	IC 02.D
Level 4	IC 810-119843/7-A	IC 05.D
Level 5	ICISAV 810-119843/8-A	IC 1.D
Level 6	IC 810-119843/9-A	IC 2.D
Level 7	IC 810-119843/10-A	IC 5.D
Level 8	IC 810-119843/11-A	IC 10.D
Level 9	IC 810-119843/12-A	IC 20.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,4-Dioxane	0.8770 0.6896	0.7011 0.7759	0.6624 0.6929	0.7308 0.6819	0.7154	Lin1	0.380 0	0.697 3				8.1					
1,4-Dioxane-d8 (Surr)	0.6267 0.6165	0.6237 0.6057	0.6218 0.6086	0.6158 0.6008	0.6216	Ave		0.615 7				1.4		30.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126005-1 Analy Batch No.: 119892
SDG No.: _____
Instrument ID: GCMS-FE GC Column: CPSelect 6 ID: 0.25(mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/23/2024 08:03 Calibration End Date: 10/23/2024 11:00 Calibration ID: 13604

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-119843/4-A	IC 007.D
Level 2	IC 810-119843/5-A	IC 01.D
Level 3	IC 810-119843/6-A	IC 02.D
Level 4	IC 810-119843/7-A	IC 05.D
Level 5	ICISAV 810-119843/8-A	IC 1.D
Level 6	IC 810-119843/9-A	IC 2.D
Level 7	IC 810-119843/10-A	IC 5.D
Level 8	IC 810-119843/11-A	IC 10.D
Level 9	IC 810-119843/12-A	IC 20.D

ANALYTE	IS REF	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
1,4-Dioxane	THFd8	Lin1	670 15328	775 41405	1456 78919	4009 151854	8000	3.50 100	5.00 250	10.0 500	25.0 1000	50.0
1,4-Dioxane-d8 (Surr)	THFd8	Ave	68396 68510	68947 64645	68332 69319	67566 66893	69510	500 500	500 500	500 500	500 500	500

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126005-1 Analy Batch No.: 119892
SDG No.: _____
Instrument ID: GCMS-FE GC Column: CPSelect 62 ID: 0.25(mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/23/2024 08:03 Calibration End Date: 10/23/2024 11:00 Calibration ID: 13604

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-119843/4-A	IC 007.D
Level 2	IC 810-119843/5-A	IC 01.D
Level 3	IC 810-119843/6-A	IC 02.D
Level 4	IC 810-119843/7-A	IC 05.D
Level 5	ICISAV 810-119843/8-A	IC 1.D
Level 6	IC 810-119843/9-A	IC 2.D
Level 7	IC 810-119843/10-A	IC 5.D
Level 8	IC 810-119843/11-A	IC 10.D
Level 9	IC 810-119843/12-A	IC 20.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #	LVL 9 #				LVL 7	LVL 8	LVL 9			
1,4-Dioxane	10.2	-10.4	-10.4	2.6	1.5	-1.6	40	20	20	20	20	20
	11.1	-0.7	-2.3				20	20	20			

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 007.D
 Lims ID: IC 810-119843/4-A
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 23-Oct-2024 08:03:52 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 810-0030634-003
 Misc. Info.: IC 810-119843/4-A
 Operator ID: BC Instrument ID: GCMS-FE
 Sublist: chrom-522_GCMS-FE*sub1
 Raw Data: Smoothed
 Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\522_GCMS-FE.m
 Limit Group: MSS - 522
 Last Update: 24-Oct-2024 12:03:05 Calib Date: 23-Oct-2024 11:00:04
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
 Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
 Process Host: CTX1640

First Level Reviewer: JH8B

Date: 23-Oct-2024 11:36:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.204	6.204	0.000	26	109135	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.279	8.279	0.000	93	68396	500.0	508.9	
11 1,4-Dioxane	88	8.351	8.351	0.000	83	670	3.50	3.86	Ma

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 007.D

Injection Date: 23-Oct-2024 08:03:52

Instrument ID: GCMS-FE

Lims ID: IC 810-119843/4-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#:

3

Injection Vol: 1.0 ul

Dil. Factor:

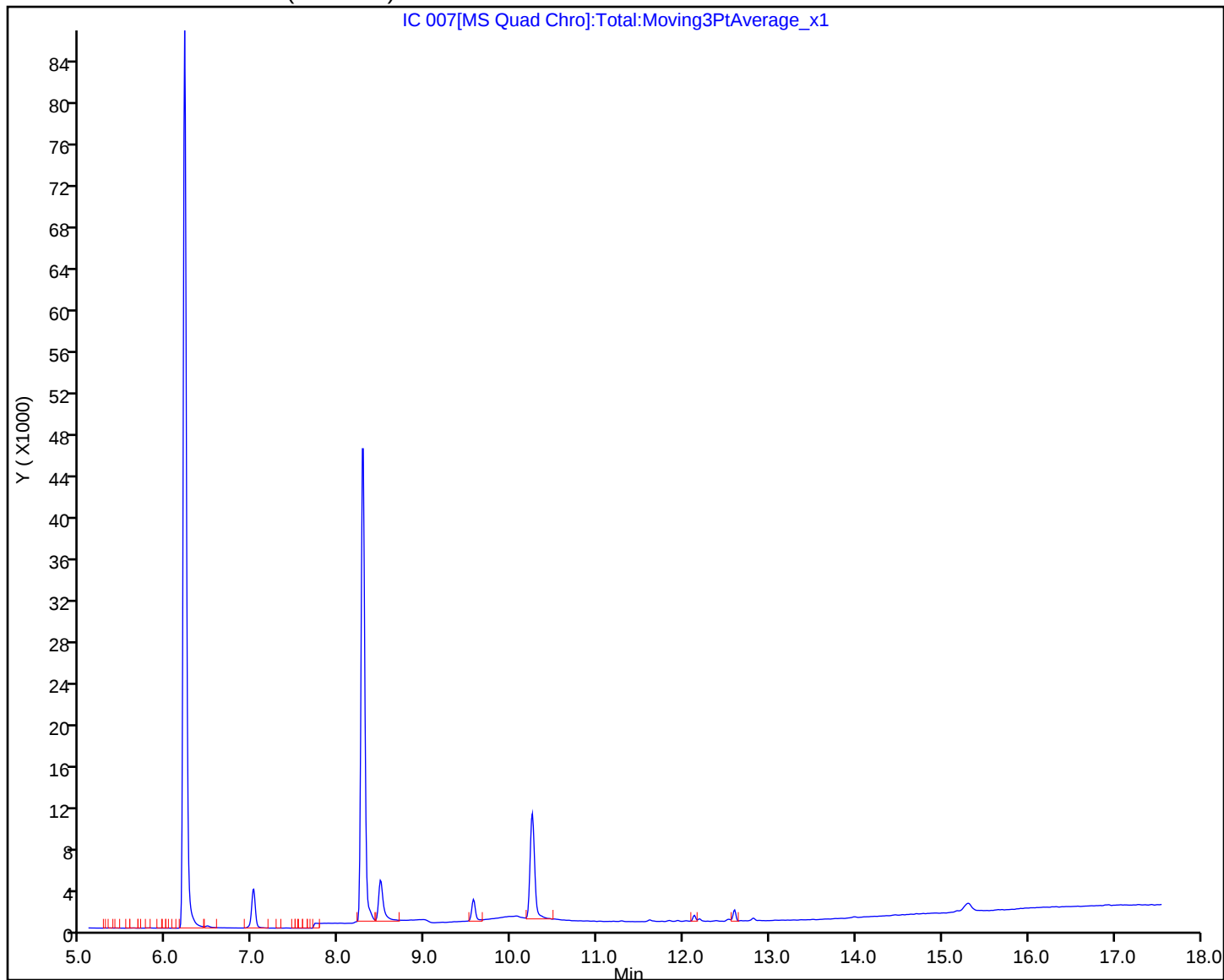
1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 007.D

Injection Date: 23-Oct-2024 08:03:52

Instrument ID: GCMS-FE

Lims ID: IC 810-119843/4-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)

Detector

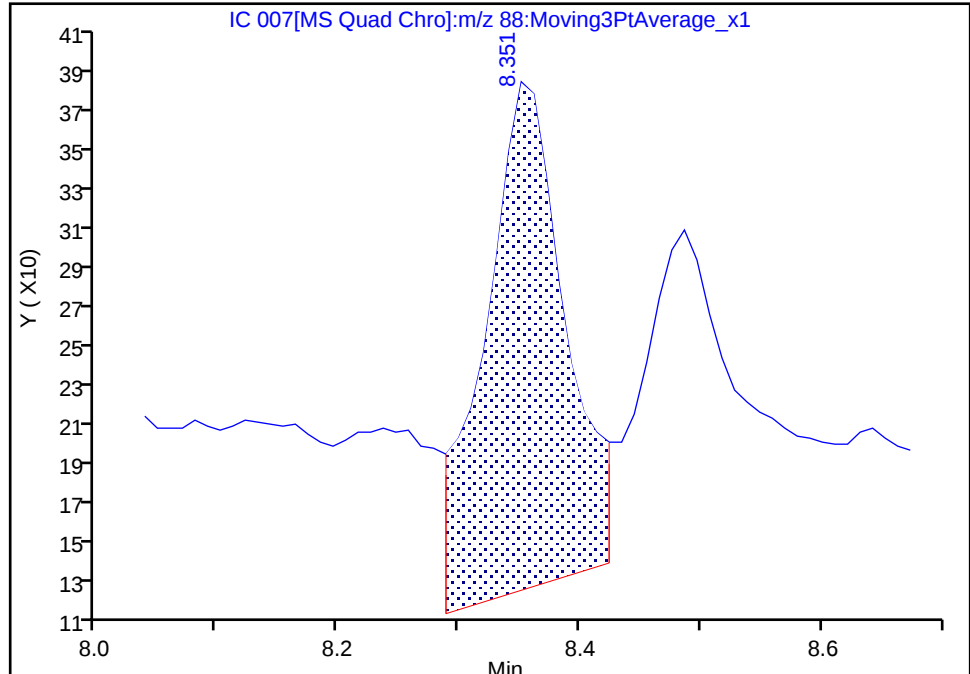
MS Quad

11 1,4-Dioxane, CAS: 123-91-1

Signal: 1

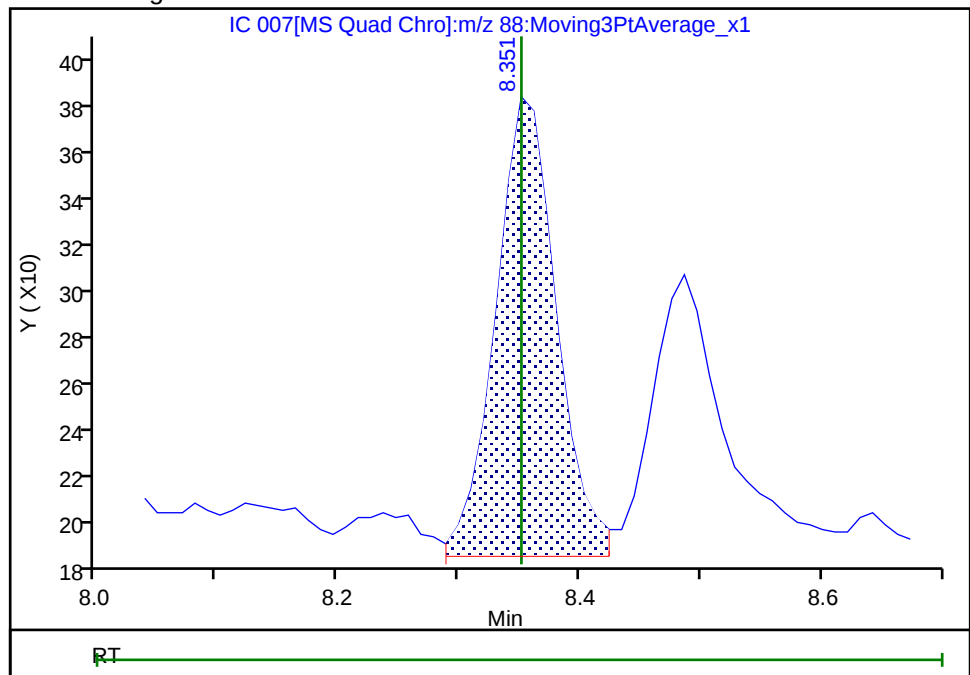
RT: 8.35
Area: 1216
Amount: 6.046503
Amount Units: ug/l

Processing Integration Results



RT: 8.35
Area: 670
Amount: 3.857389
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 24-Oct-2024 11:46:45 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 01.D
Lims ID: IC 810-119843/5-A
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 23-Oct-2024 08:25:53 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030634-004
Misc. Info.: IC 810-119843/5-A
Operator ID: BC Instrument ID: GCMS-FE
Sublist: chrom-522_GCMS-FE*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 12:03:07 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

First Level Reviewer: JH8B

Date: 24-Oct-2024 11:46:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.204	6.204	0.000	26	110543	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.279	8.279	0.000	93	68947	500.0	506.5	
11 1,4-Dioxane	88	8.362	8.351	0.011	84	775	5.00	4.48	

QC Flag Legend

Processing Flags

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 01.D

Injection Date: 23-Oct-2024 08:25:53

Instrument ID: GCMS-FE

Lims ID: IC 810-119843/5-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#:

4

Injection Vol: 1.0 ul

Dil. Factor:

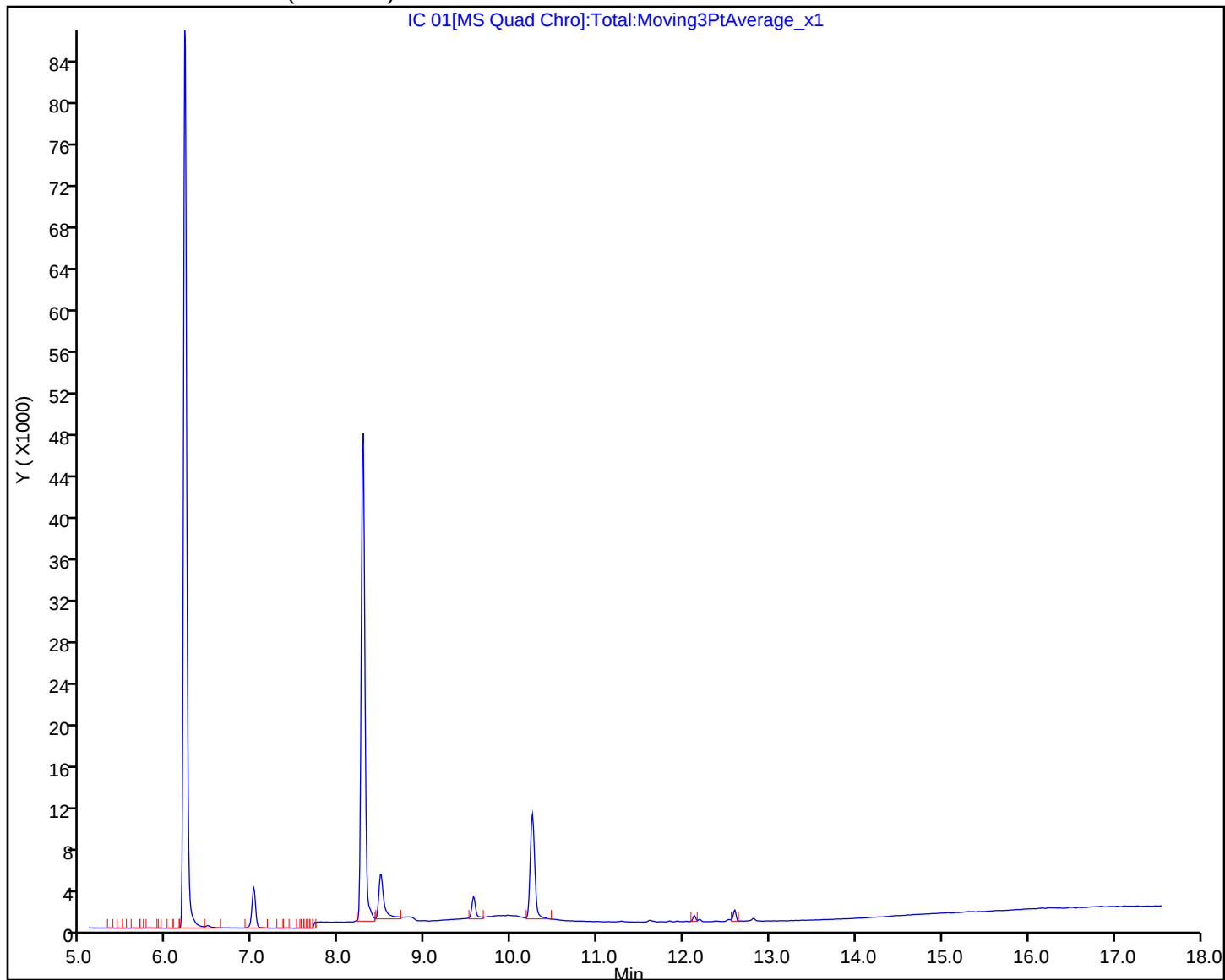
1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 02.D
 Lims ID: IC 810-119843/6-A
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 23-Oct-2024 08:47:55 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 810-0030634-005
 Misc. Info.: IC 810-119843/6-A
 Operator ID: BC Instrument ID: GCMS-FE
 Sublist: chrom-522_GCMS-FE*sub1
 Raw Data: Smoothed
 Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\522_GCMS-FE.m
 Limit Group: MSS - 522
 Last Update: 24-Oct-2024 12:03:08 Calib Date: 23-Oct-2024 11:00:04
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
 Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
 Process Host: CTX1640

First Level Reviewer: JH8B

Date: 23-Oct-2024 11:36:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.204	6.204	0.000	25	109897	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.278	8.279	-0.001	94	68332	500.0	504.9	
11 1,4-Dioxane	88	8.351	8.351	0.000	84	1456	10.0	8.96	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 02.D

Injection Date: 23-Oct-2024 08:47:55

Instrument ID: GCMS-FE

Lims ID: IC 810-119843/6-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#:

5

Injection Vol: 1.0 ul

Dil. Factor:

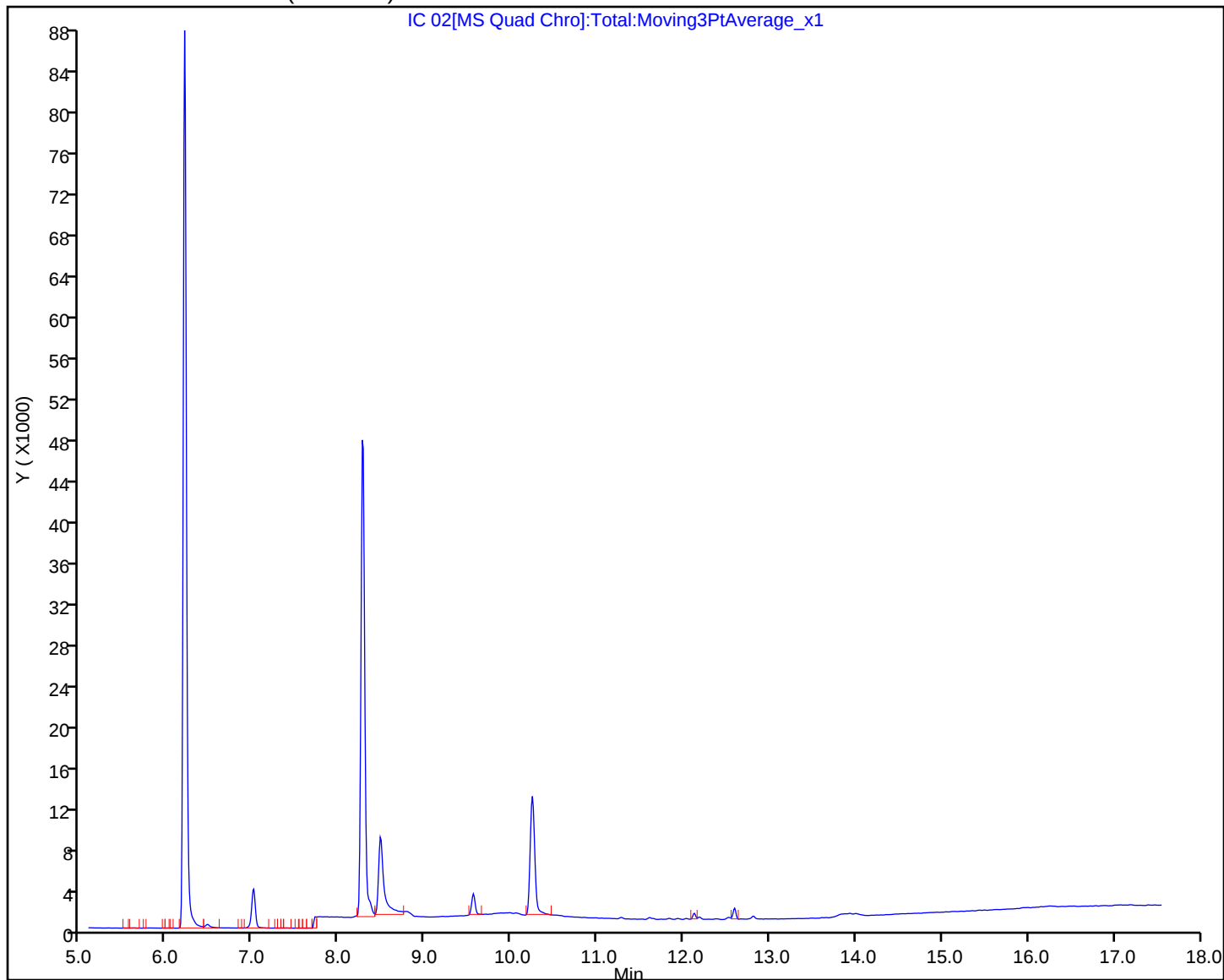
1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend

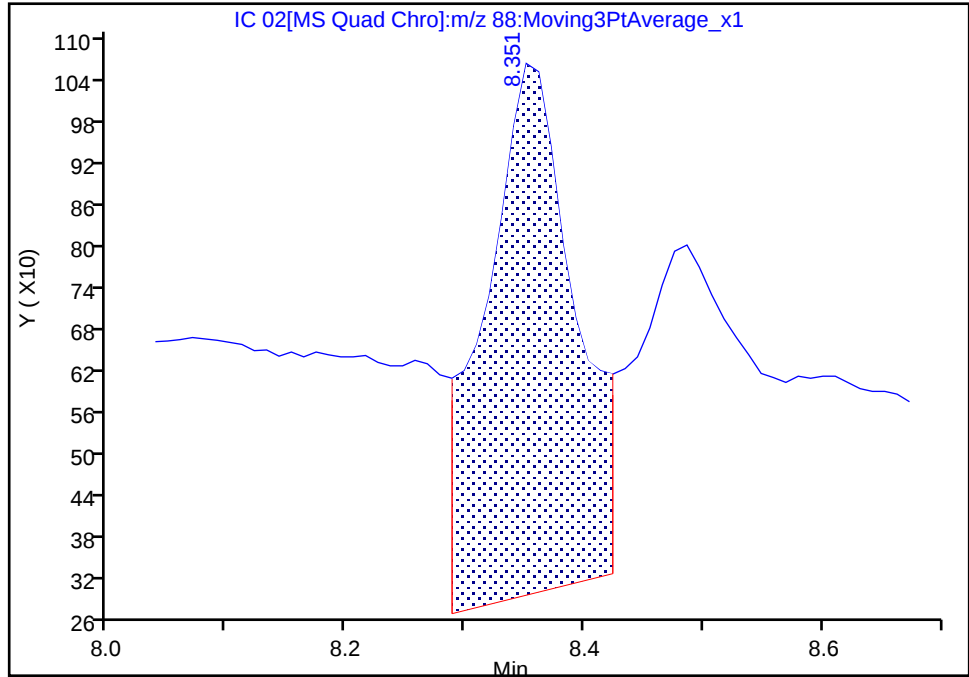
Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 02.D
Injection Date: 23-Oct-2024 08:47:55 Instrument ID: GCMS-FE
Lims ID: IC 810-119843/6-A
Client ID:
Operator ID: BC ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 522_GCMS-FE Limit Group: MSS - 522
Column: CP Select 624 MS (0.25 mm) Detector MS Quad

11 1,4-Dioxane, CAS: 123-91-1

Signal: 1

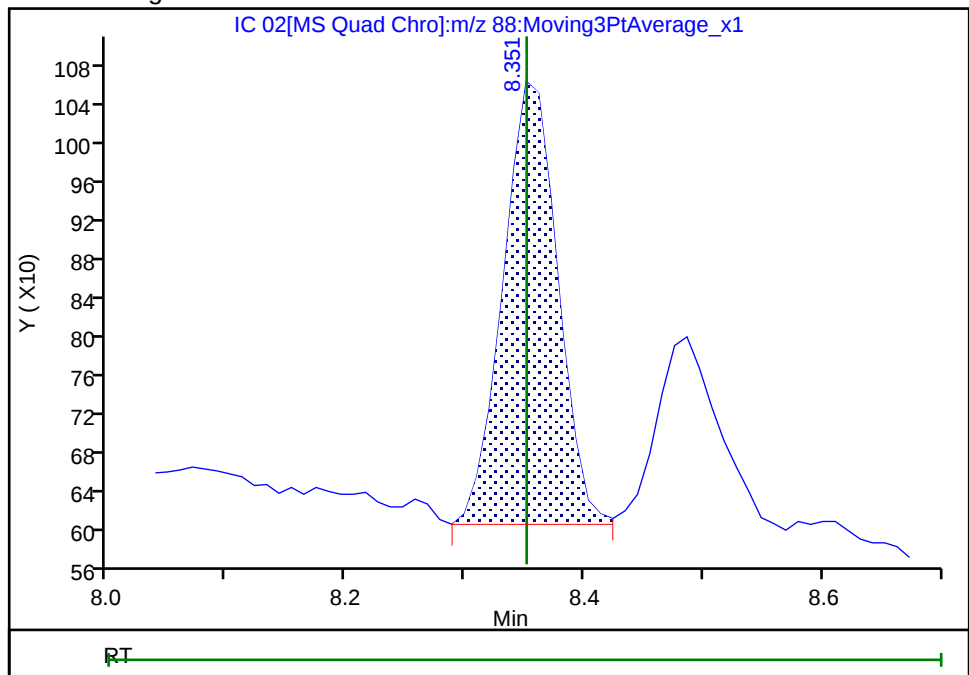
RT: 8.35
Area: 4180
Amount: 27.855703
Amount Units: ug/l

Processing Integration Results



RT: 8.35
Area: 1456
Amount: 8.955613
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 23-Oct-2024 11:38:15 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 05.D
Lims ID: IC 810-119843/7-A
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Oct-2024 09:09:49 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030634-006
Misc. Info.: IC 810-119843/7-A
Operator ID: BC Instrument ID: GCMS-FE
Sublist: chrom-522_GCMS-FE*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 12:03:09 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

First Level Reviewer: JH8B

Date: 24-Oct-2024 11:47:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.204	6.204	0.000	25	109716	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.279	8.279	0.000	93	67566	500.0	500.1	
11 1,4-Dioxane	88	8.351	8.351	0.000	84	4009	25.0	25.7	

QC Flag Legend

Processing Flags

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 05.D

Injection Date: 23-Oct-2024 09:09:49

Instrument ID: GCMS-FE

Lims ID: IC 810-119843/7-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#:

6

Injection Vol: 1.0 ul

Dil. Factor:

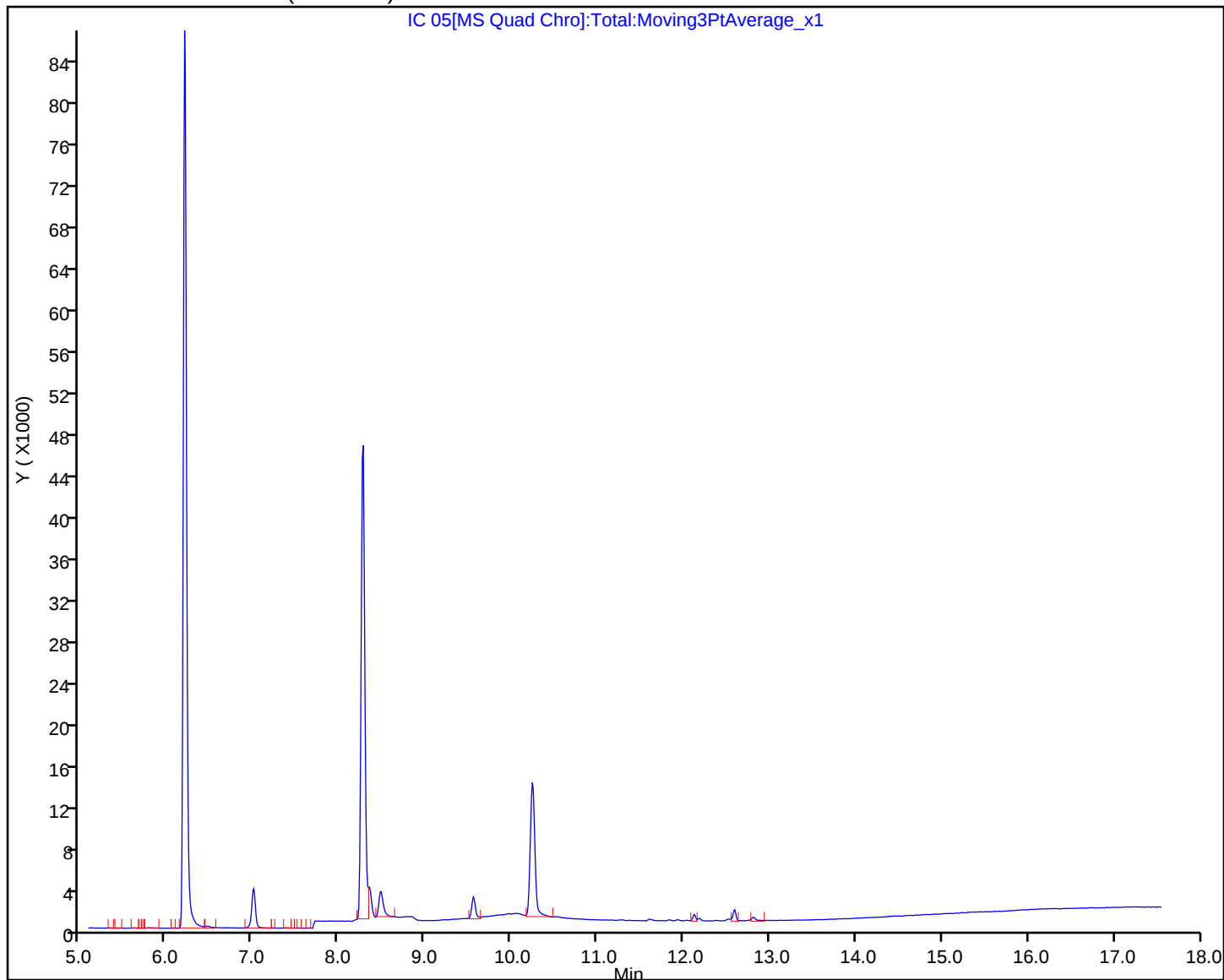
1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 1.D
Lims ID: ICISAV 810-119843/8-A
Client ID:
Sample Type: ICISAV Calib Level: 5
Inject. Date: 23-Oct-2024 09:31:48 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030634-007
Misc. Info.: IC 810-119843/9-A
Operator ID: BC Instrument ID: GCMS-FE
Sublist: chrom-522_GCMS-FE*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 12:03:10 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

First Level Reviewer: JH8B

Date: 24-Oct-2024 11:47:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.204	6.204	0.000	26	111819	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.279	8.279	0.000	93	69510	500.0	504.8	
11 1,4-Dioxane	88	8.351	8.351	0.000	85	8000	50.0	50.8	

QC Flag Legend

Processing Flags

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 1.D

Injection Date: 23-Oct-2024 09:31:48

Instrument ID: GCMS-FE

Lims ID: ICISAV 810-119843/8-A

Client ID:

Operator ID: BC

ALS Bottle#: 0

Worklist Smp#: 7

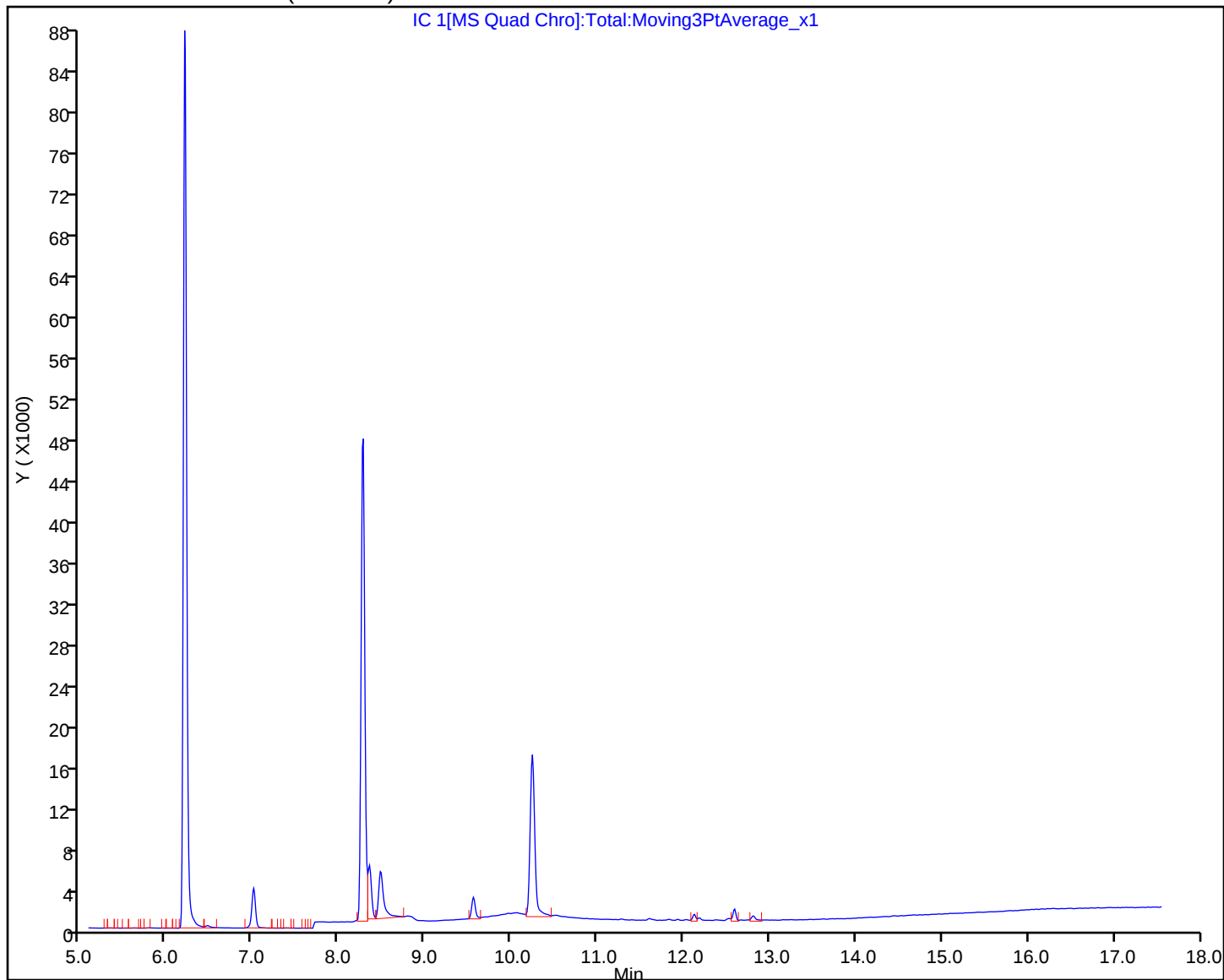
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 522_GCMS-FE

Limit Group: MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 2.D
 Lims ID: IC 810-119843/9-A
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 23-Oct-2024 09:53:48 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 810-0030634-008
 Misc. Info.: IC 810-119843/9-A
 Operator ID: BC Instrument ID: GCMS-FE
 Sublist: chrom-522_GCMS-FE*sub1
 Raw Data: Smoothed
 Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\522_GCMS-FE.m
 Limit Group: MSS - 522
 Last Update: 24-Oct-2024 12:03:11 Calib Date: 23-Oct-2024 11:00:04
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
 Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
 Process Host: CTX1640

First Level Reviewer: JH8B

Date: 24-Oct-2024 11:47:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.204	6.204	0.000	25	111129	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.279	8.279	0.000	94	68510	500.0	500.6	
11 1,4-Dioxane	88	8.351	8.351	0.000	84	15328	100.0	98.4	

QC Flag Legend

Processing Flags

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 2.D

Injection Date: 23-Oct-2024 09:53:48

Instrument ID: GCMS-FE

Lims ID: IC 810-119843/9-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#:

8

Injection Vol: 1.0 ul

Dil. Factor:

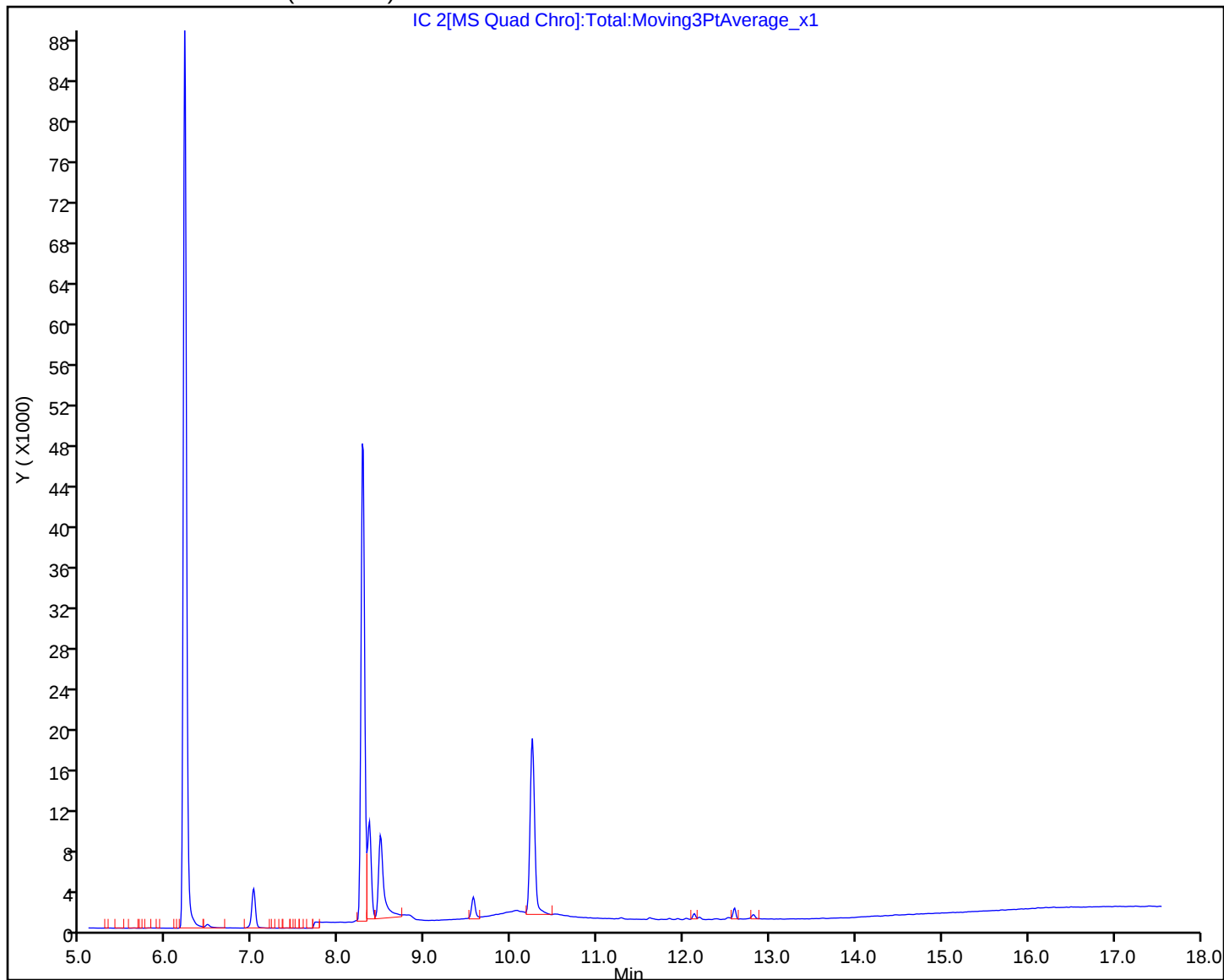
1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 5.D
 Lims ID: IC 810-119843/10-A
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 23-Oct-2024 10:15:54 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 810-0030634-009
 Misc. Info.: IC 810-119843/10-A
 Operator ID: BC Instrument ID: GCMS-FE
 Sublist: chrom-522_GCMS-FE*sub1
 Raw Data: Smoothed
 Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\522_GCMS-FE.m
 Limit Group: MSS - 522
 Last Update: 24-Oct-2024 12:03:12 Calib Date: 23-Oct-2024 11:00:04
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
 Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
 Process Host: CTX1640

First Level Reviewer: JH8B

Date: 23-Oct-2024 11:37:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.196	6.204	-0.008	26	106728	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.279	8.279	0.000	94	64645	500.0	491.9	
11 1,4-Dioxane	88	8.351	8.351	0.000	84	41405	250.0	277.6	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 5.D

Injection Date: 23-Oct-2024 10:15:54

Instrument ID: GCMS-FE

Lims ID: IC 810-119843/10-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#:

9

Injection Vol: 1.0 ul

Dil. Factor:

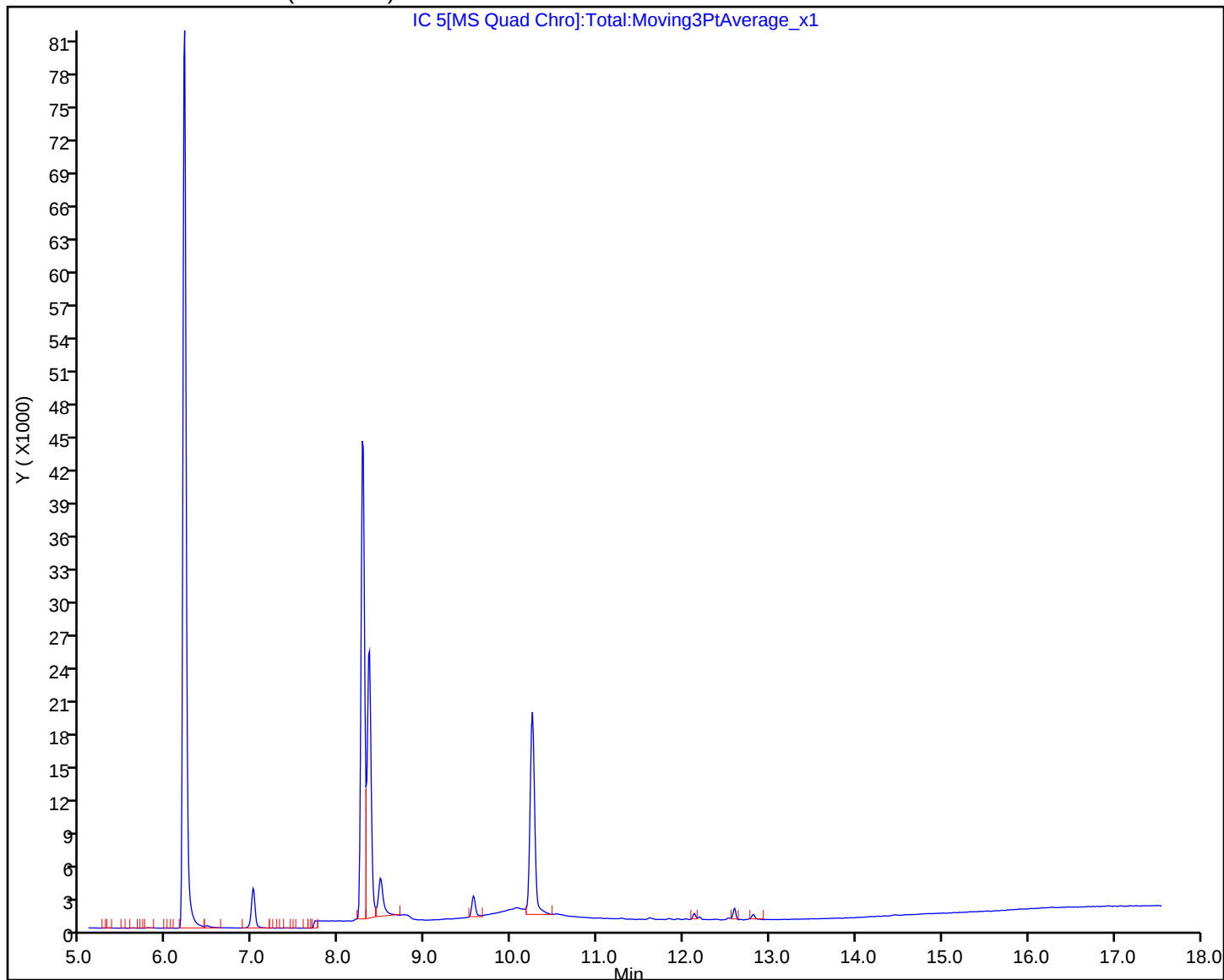
1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend

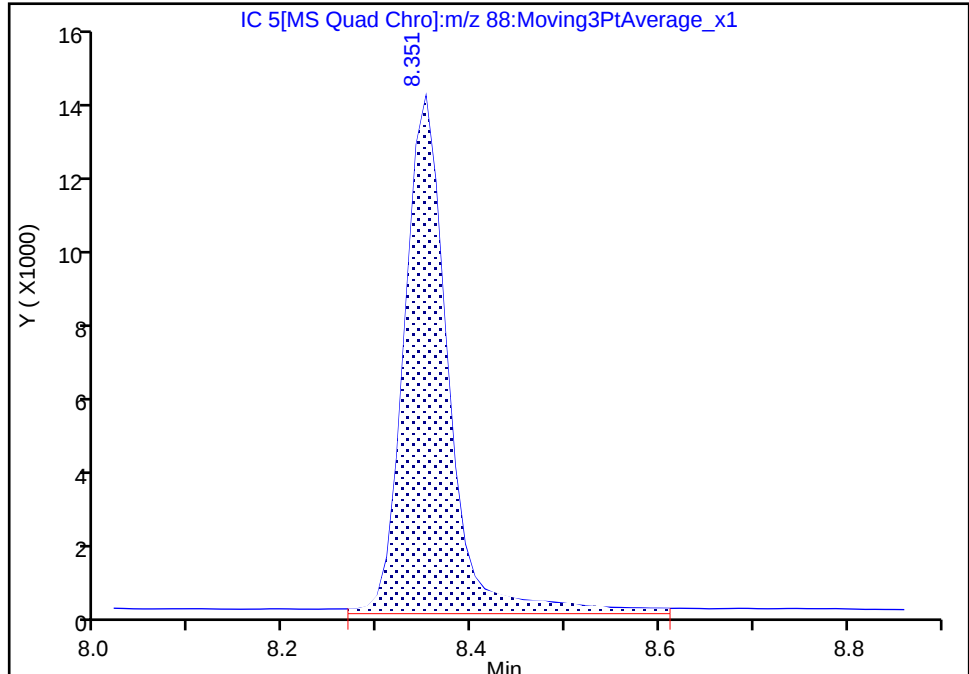
Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 5.D
Injection Date: 23-Oct-2024 10:15:54 Instrument ID: GCMS-FE
Lims ID: IC 810-119843/10-A
Client ID:
Operator ID: BC ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 522_GCMS-FE Limit Group: MSS - 522
Column: CP Select 624 MS (0.25 mm) Detector MS Quad

11 1,4-Dioxane, CAS: 123-91-1

Signal: 1

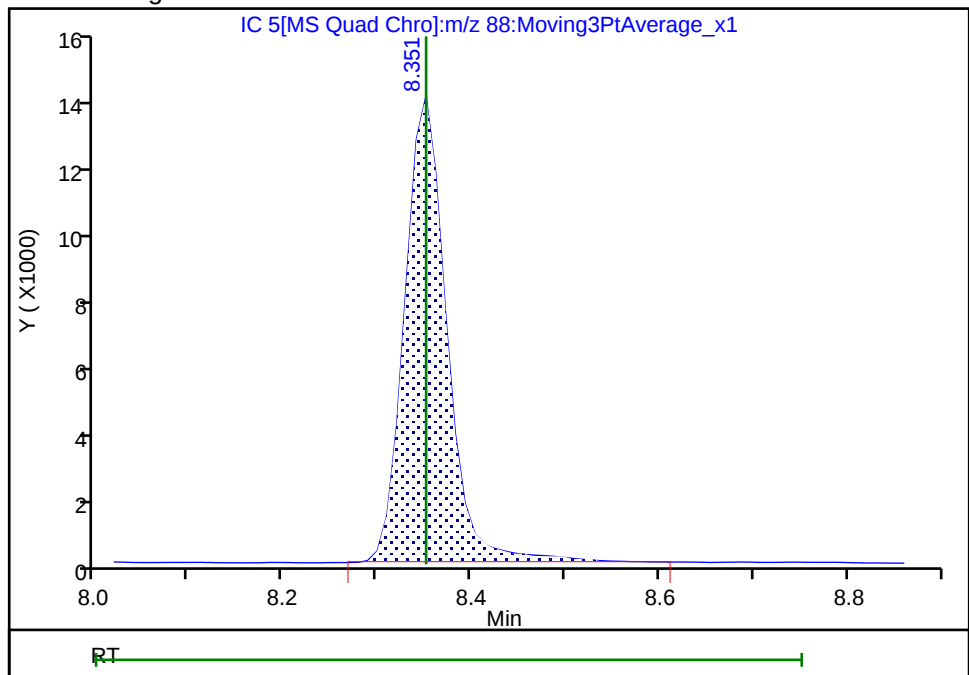
RT: 8.35
Area: 43897
Amount: 293.2804
Amount Units: ug/l

Processing Integration Results



RT: 8.35
Area: 41405
Amount: 277.6499
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 23-Oct-2024 11:37:51 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 10.D
Lims ID: IC 810-119843/11-A
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 23-Oct-2024 10:37:59 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030634-010
Misc. Info.: IC 810-119843/11-A
Operator ID: BC Instrument ID: GCMS-FE
Sublist: chrom-522_GCMS-FE*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 12:03:13 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

First Level Reviewer: JH8B

Date: 23-Oct-2024 11:37:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.204	6.204	0.000	25	113890	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.279	8.279	0.000	93	69319	500.0	494.3	
11 1,4-Dioxane	88	8.351	8.351	0.000	84	78919	500.0	496.4	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 10.D

Injection Date: 23-Oct-2024 10:37:59

Instrument ID: GCMS-FE

Lims ID: IC 810-119843/11-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#:

10

Injection Vol: 1.0 ul

Dil. Factor:

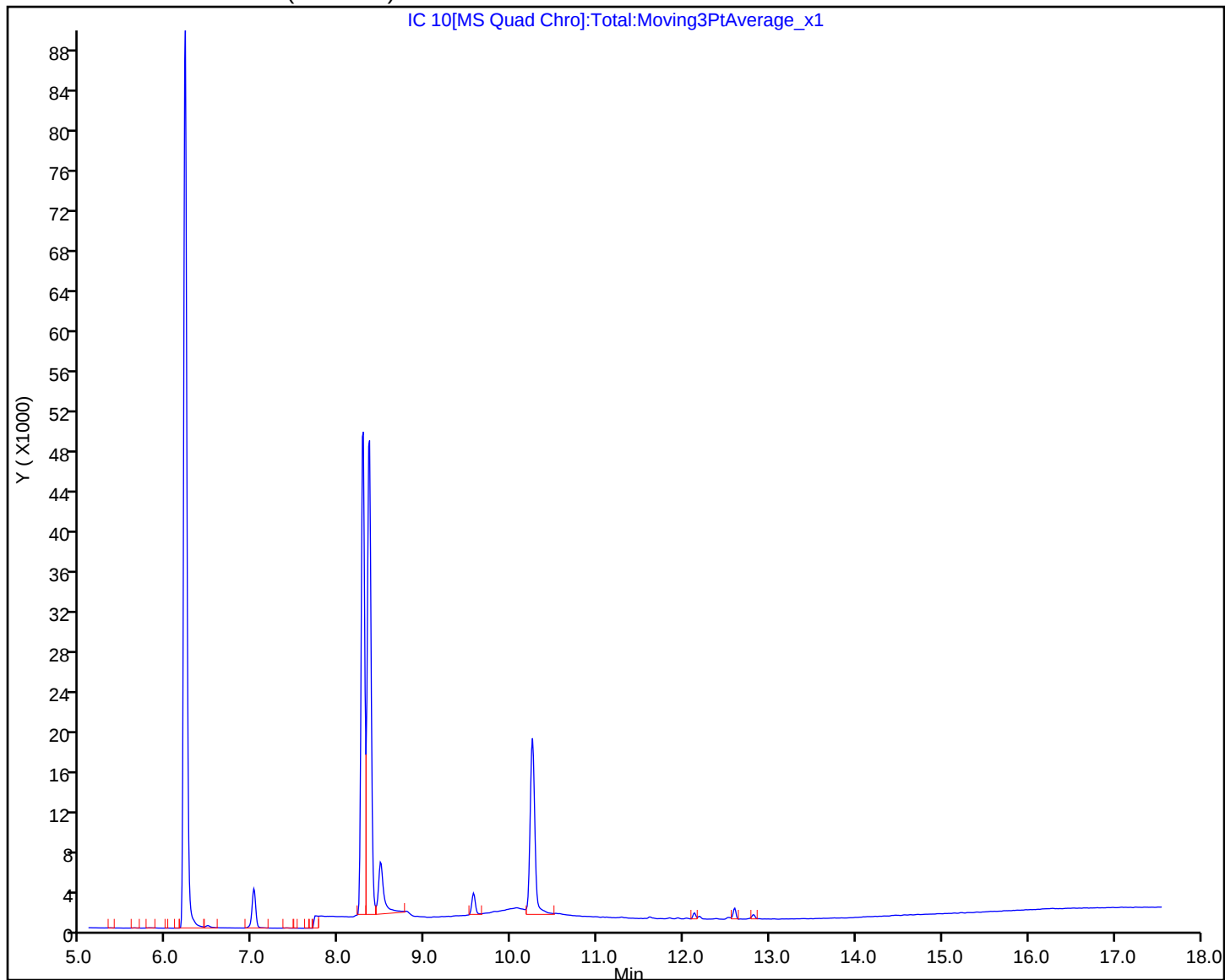
1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 10.D

Injection Date: 23-Oct-2024 10:37:59

Instrument ID: GCMS-FE

Lims ID: IC 810-119843/11-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#: 10

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)

Detector

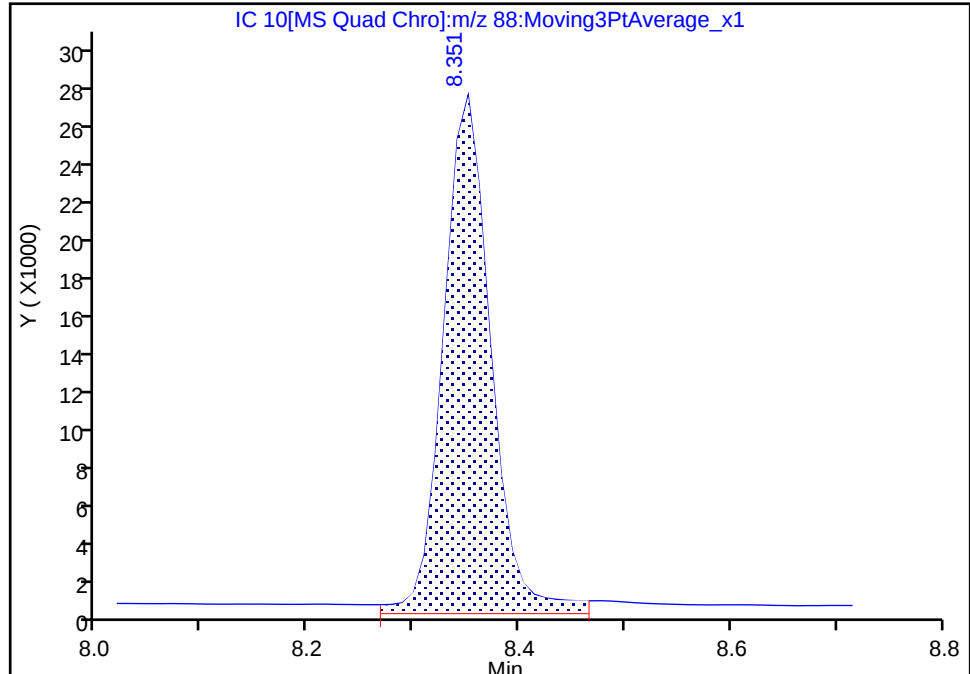
MS Quad

11 1,4-Dioxane, CAS: 123-91-1

Signal: 1

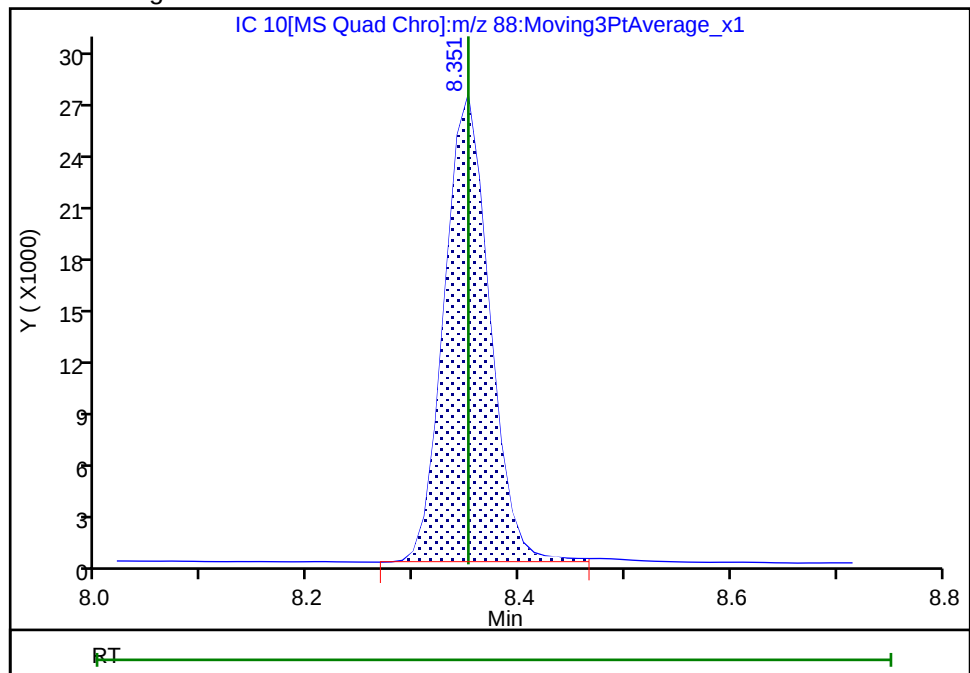
RT: 8.35
Area: 85136
Amount: 600.5735
Amount Units: ug/l

Processing Integration Results



RT: 8.35
Area: 78919
Amount: 496.3570
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 23-Oct-2024 11:36:58 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Lims ID: IC 810-119843/12-A
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 23-Oct-2024 11:00:04 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030634-011
Misc. Info.: IC 810-119843/12-A
Operator ID: BC Instrument ID: GCMS-FE
Sublist: chrom-522_GCMS-FE*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 12:03:14 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

First Level Reviewer: JH8B

Date: 23-Oct-2024 11:37:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.204	6.204	0.000	26	111347	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.279	8.279	0.000	94	66893	500.0	487.9	
11 1,4-Dioxane	88	8.351	8.351	0.000	84	151854	1000.0	977.4	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D

Injection Date: 23-Oct-2024 11:00:04

Instrument ID: GCMS-FE

Lims ID: IC 810-119843/12-A

Client ID:

Operator ID: BC

ALS Bottle#: 0

Worklist Smp#: 11

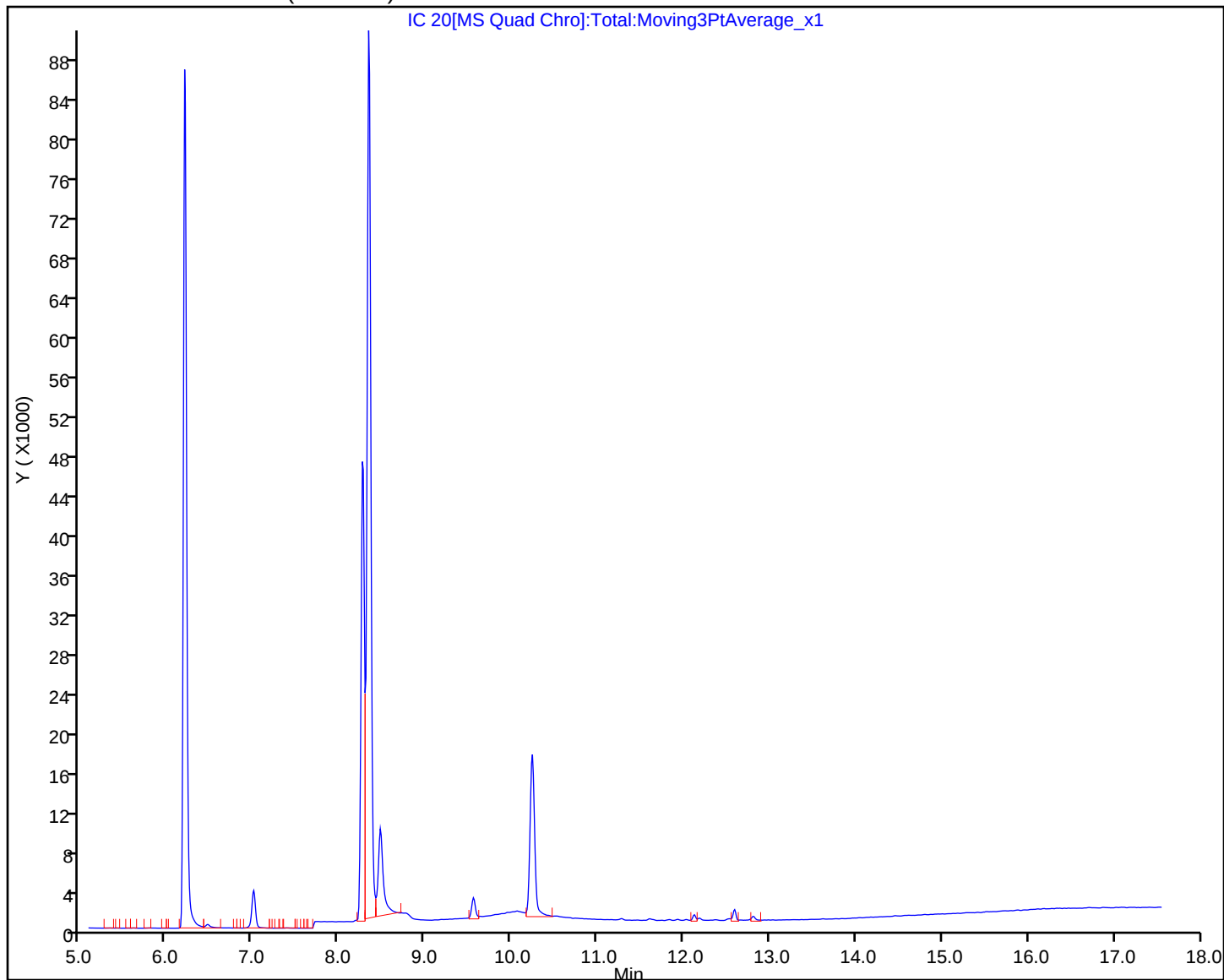
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 522_GCMS-FE

Limit Group: MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend

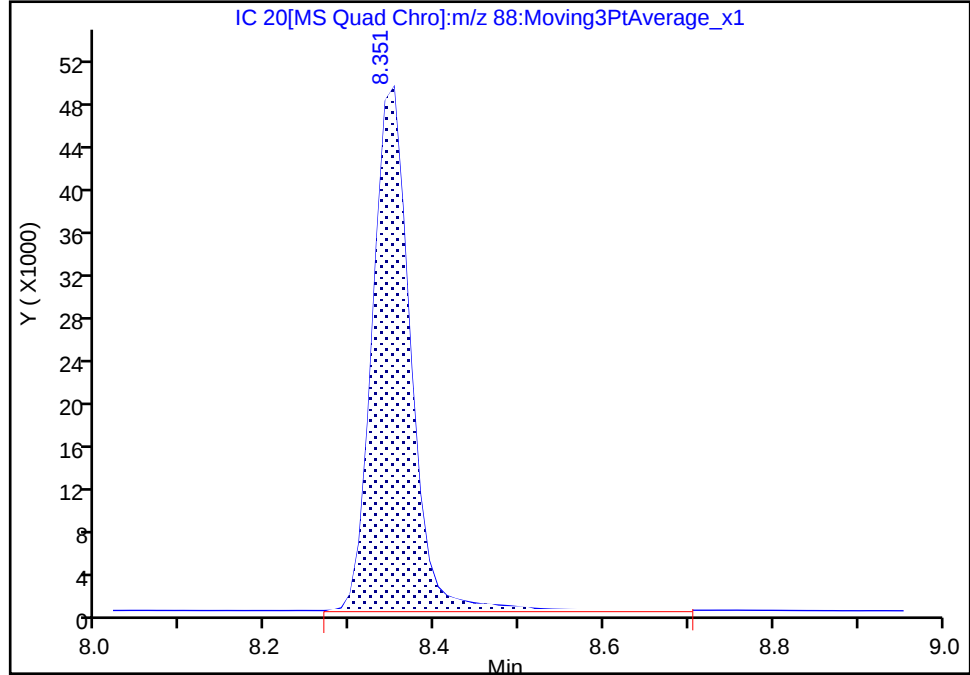
Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Injection Date: 23-Oct-2024 11:00:04 Instrument ID: GCMS-FE
Lims ID: IC 810-119843/12-A
Client ID:
Operator ID: BC ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 522_GCMS-FE Limit Group: MSS - 522
Column: CP Select 624 MS (0.25 mm) Detector MS Quad

11 1,4-Dioxane, CAS: 123-91-1

Signal: 1

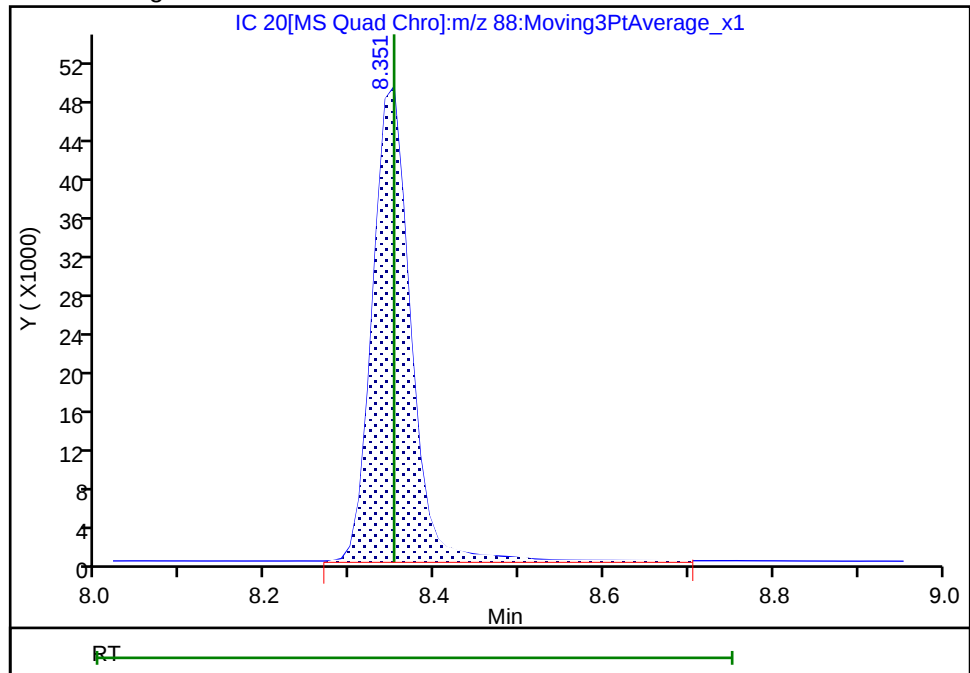
RT: 8.35
Area: 155555
Amount: 1022.6356
Amount Units: ug/l

Processing Integration Results



RT: 8.35
Area: 151854
Amount: 977.4181
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 23-Oct-2024 11:37:30 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Calibration

/ 1,4-Dioxane-d8 (Surr)

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

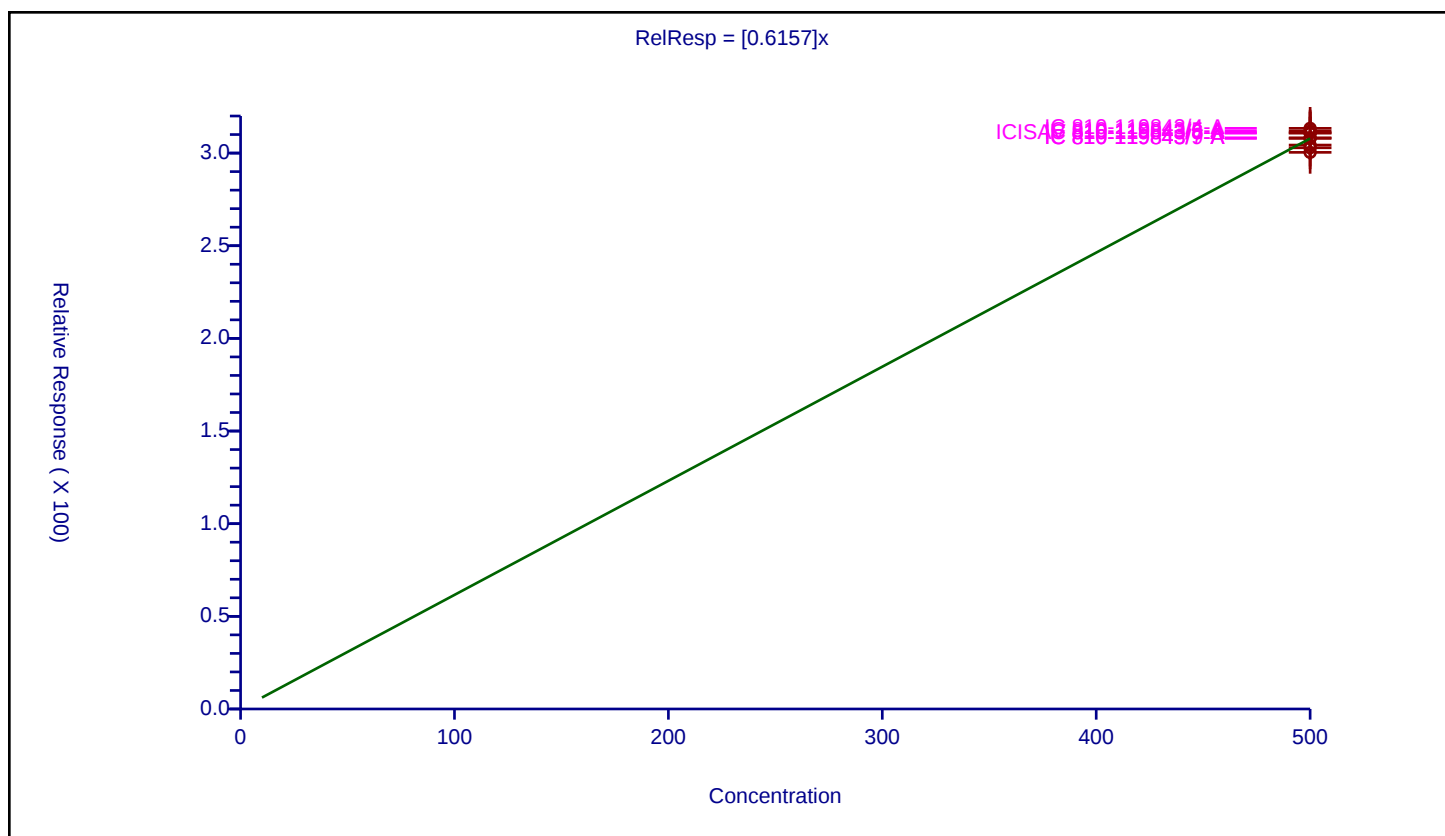
Curve Coefficients

Intercept: 0
Slope: 0.6157

Error Coefficients

Relative Standard Deviation: 1.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 810-119843/4-A	500.0	313.355019	500.0	109135.0	0.62671	Y
2	IC 810-119843/5-A	500.0	311.85602	500.0	110543.0	0.623712	Y
3	IC 810-119843/6-A	500.0	310.891107	500.0	109897.0	0.621782	Y
4	IC 810-119843/7-A	500.0	307.913158	500.0	109716.0	0.615826	Y
5	ICISAV 810-119843/8-A	500.0	310.814799	500.0	111819.0	0.62163	Y
6	IC 810-119843/9-A	500.0	308.245372	500.0	111129.0	0.616491	Y
7	IC 810-119843/10-A	500.0	302.849299	500.0	106728.0	0.605699	Y
8	IC 810-119843/11-A	500.0	304.324348	500.0	113890.0	0.608649	Y
9	IC 810-119843/12-A	500.0	300.380792	500.0	111347.0	0.600762	Y



Calibration

/ 1,4-Dioxane

Curve Type: Linear
Weighting: Conc
Origin: None
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

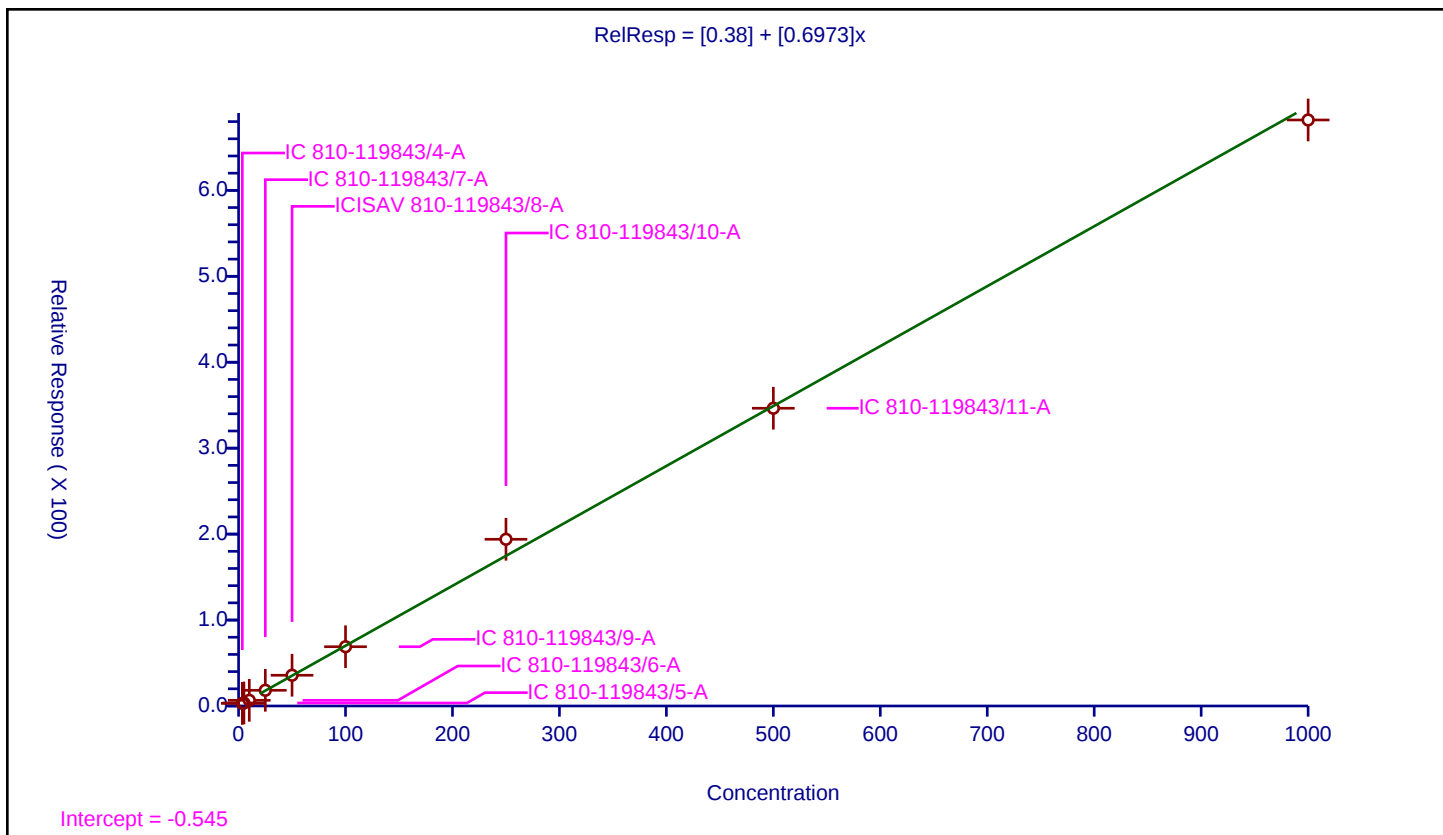
Curve Coefficients

Intercept: 0.38
Slope: 0.6973

Error Coefficients

Relative Standard Deviation: 8.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 810-119843/4-A	3.5	3.069593	500.0	109135.0	0.877026	Y
2	IC 810-119843/5-A	5.0	3.505423	500.0	110543.0	0.701085	Y
3	IC 810-119843/6-A	10.0	6.624385	500.0	109897.0	0.662438	Y
4	IC 810-119843/7-A	25.0	18.269897	500.0	109716.0	0.730796	Y
5	ICISAV 810-119843/8-A	50.0	35.772096	500.0	111819.0	0.715442	Y
6	IC 810-119843/9-A	100.0	68.964897	500.0	111129.0	0.689649	Y
7	IC 810-119843/10-A	250.0	193.974402	500.0	106728.0	0.775898	Y
8	IC 810-119843/11-A	500.0	346.470278	500.0	113890.0	0.692941	Y
9	IC 810-119843/12-A	1000.0	681.895336	500.0	111347.0	0.681895	Y



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126005-1
SDG No.: _____
Lab Sample ID: ICV 810-119843/13-A Calibration Date: 10/23/2024 12:06
Instrument ID: GCMS-FE Calib Start Date: 10/23/2024 08:03
GC Column: CPSelect 624 MS ID: 0.25 (mm) Calib End Date: 10/23/2024 11:00
Lab File ID: ICV.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
1,4-Dioxane	Lin1		0.6931		49.2	50.0	98	80-120
1,4-Dioxane-d8 (Surr)	Ave	0.6157	0.6011		488	500	98	70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\ICV.D
Lims ID: ICV 810-119843/13-A
Client ID:
Sample Type: ICV
Inject. Date: 23-Oct-2024 12:06:14 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030634-013
Misc. Info.: ICV 810-119843/13-A
Operator ID: BC Instrument ID: GCMS-FE
Sublist:
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 12:10:34 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

First Level Reviewer: JH8B

Date: 23-Oct-2024 13:34:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.212	6.204	0.008	26	112109	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.279	8.279	0.000	92	67394	500.0	488.2	
11 1,4-Dioxane	88	8.362	8.351	0.011	84	7770	50.0	49.2	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\ICV.D

Injection Date: 23-Oct-2024 12:06:14

Instrument ID: GCMS-FE

Lims ID: ICV 810-119843/13-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#:

13

Injection Vol: 1.0 ul

Dil. Factor:

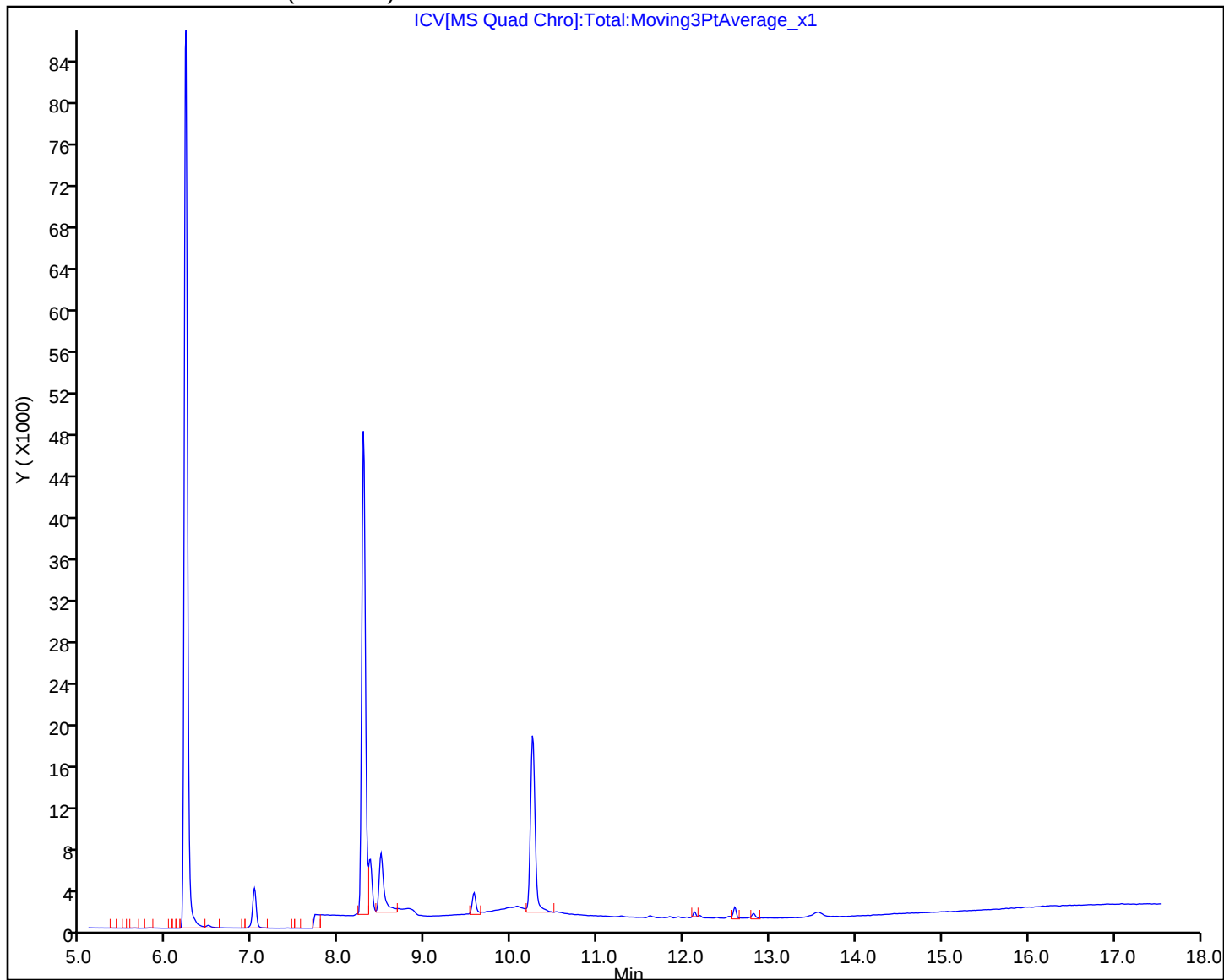
1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\ICV.D

Injection Date: 23-Oct-2024 12:06:14

Instrument ID: GCMS-FE

Lims ID: ICV 810-119843/13-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#: 13

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)

Detector

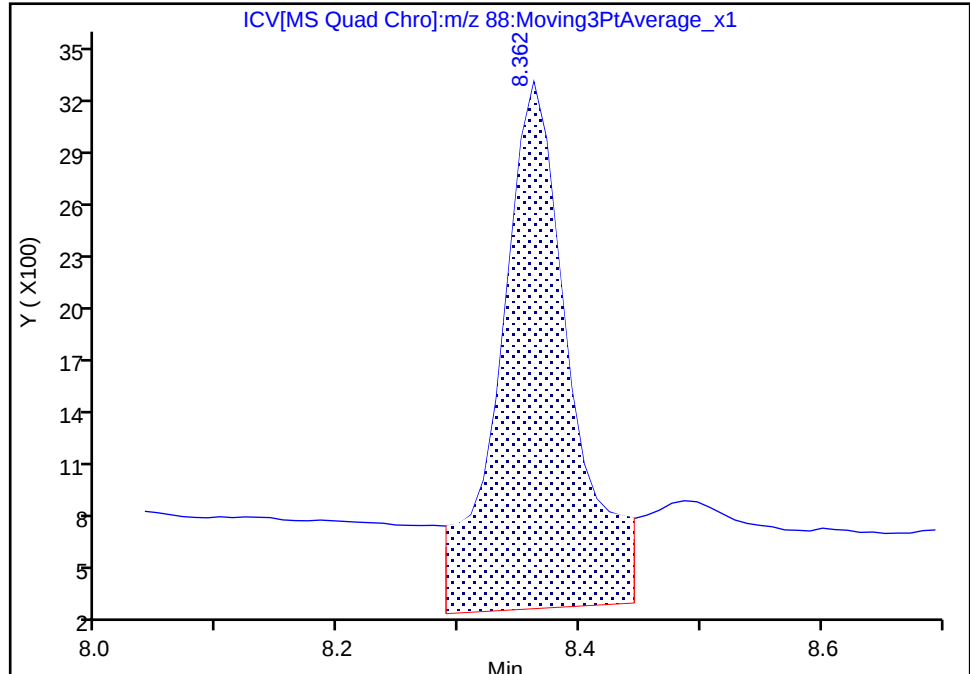
MS Quad

11 1,4-Dioxane, CAS: 123-91-1

Signal: 1

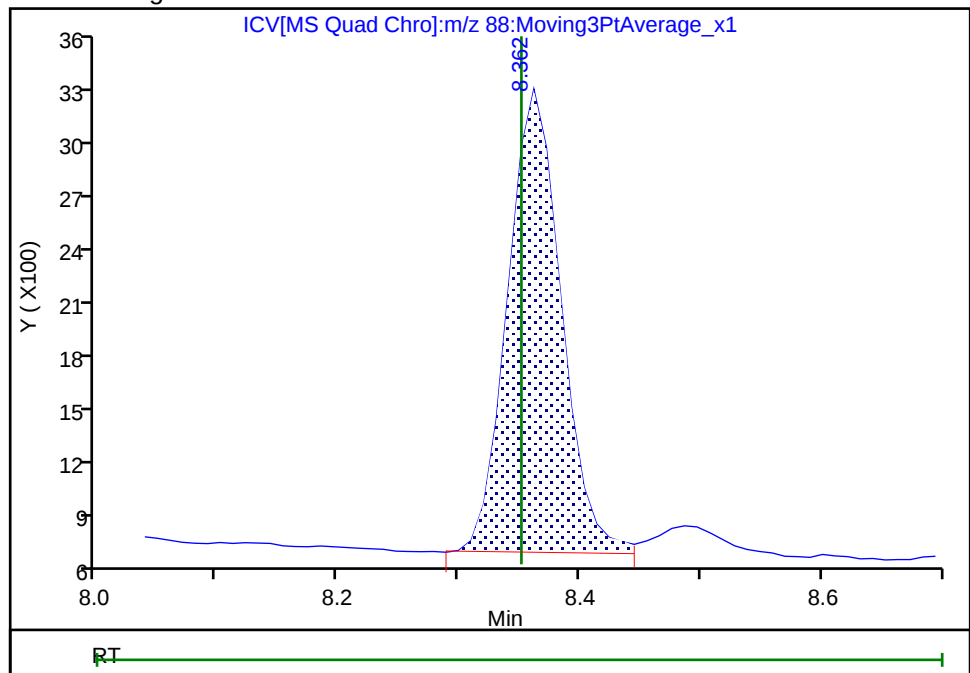
RT: 8.36
Area: 12450
Amount: 79.767441
Amount Units: ug/l

Processing Integration Results



RT: 8.36
Area: 7770
Amount: 49.154902
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 23-Oct-2024 13:34:18 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126005-1
SDG No.: _____
Lab Sample ID: CCVLIS 810-120719/1- Calibration Date: 10/31/2024 09:31
Instrument ID: GCMS-FE Calib Start Date: 10/23/2024 08:03
GC Column: CPSelect 624 MS ID: 0.25 (mm) Calib End Date: 10/23/2024 11:00
Lab File ID: CCVL re.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
1,4-Dioxane	Lin1		0.6859		2.90	3.50	83	50-150
1,4-Dioxane-d8 (Surr)	Ave	0.6157	0.6044		491	500	98	70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\CCVL re.D
 Lims ID: CCVLIS 810-120719/1-A
 Client ID:
 Sample Type: CCVLIS
 Inject. Date: 31-Oct-2024 09:31:05 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 810-0030884-001
 Misc. Info.: CCVLIS 810-120719/1-A
 Operator ID: BC Instrument ID: GCMS-FE
 Sublist: chrom-522_GCMS-FE*sub1
 Raw Data: Smoothed
 Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\522_GCMS-FE.m
 Limit Group: MSS - 522
 Last Update: 31-Oct-2024 15:25:13 Calib Date: 23-Oct-2024 11:00:04
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
 Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
 Process Host: CTX1650

First Level Reviewer: JH8B

Date: 31-Oct-2024 12:04:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.204	6.204	0.000	26	103724	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.279	8.279	0.000	92	62689	500.0	490.8	
11 1,4-Dioxane	88	8.362	8.362	0.000	85	498	3.50	2.90	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\CCVL re.D

Injection Date: 31-Oct-2024 09:31:05

Instrument ID: GCMS-FE

Lims ID: CCVLIS 810-120719/1-A

Client ID:

Operator ID: BC

ALS Bottle#: 0

Worklist Smp#: 1

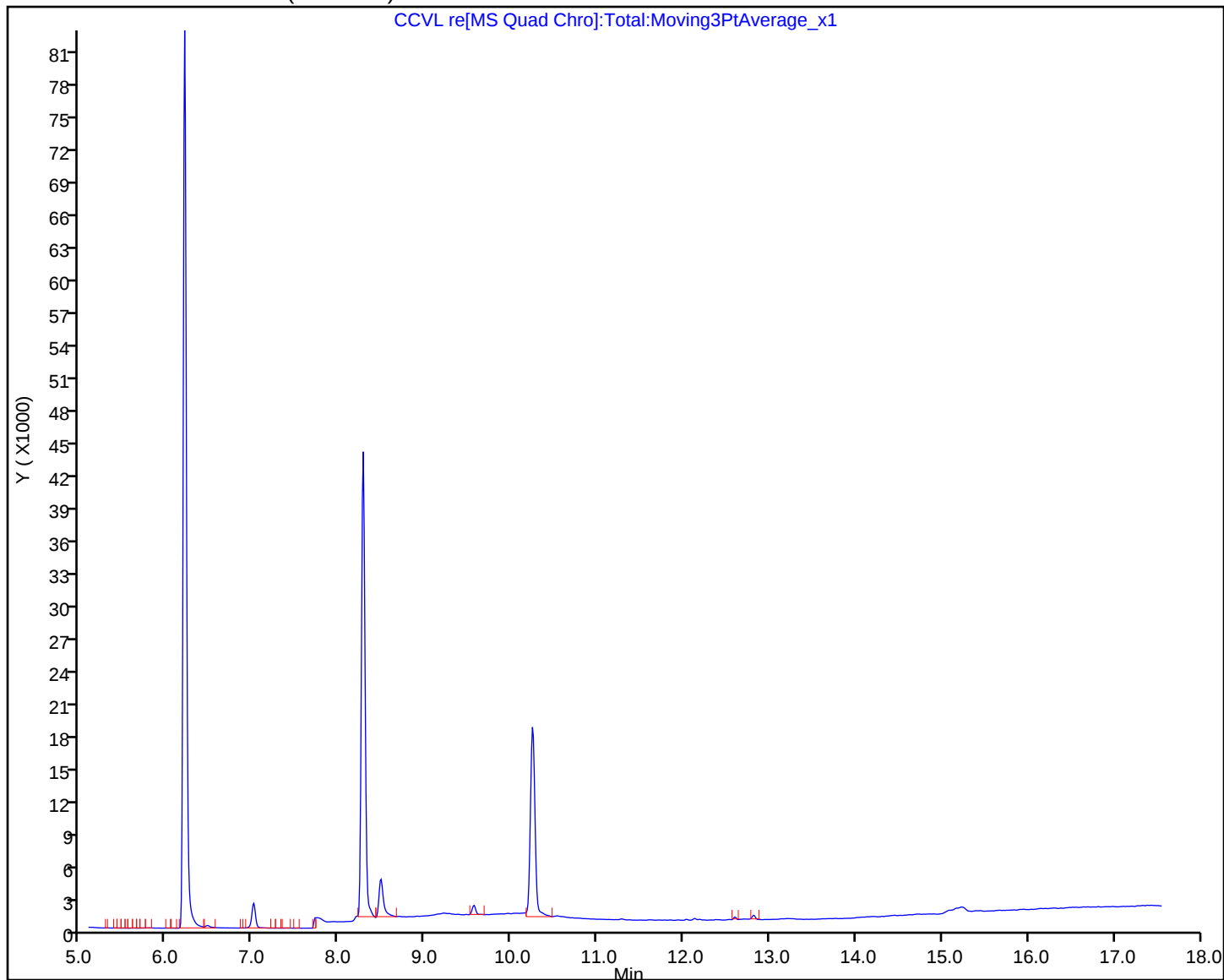
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 522_GCMS-FE

Limit Group: MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend

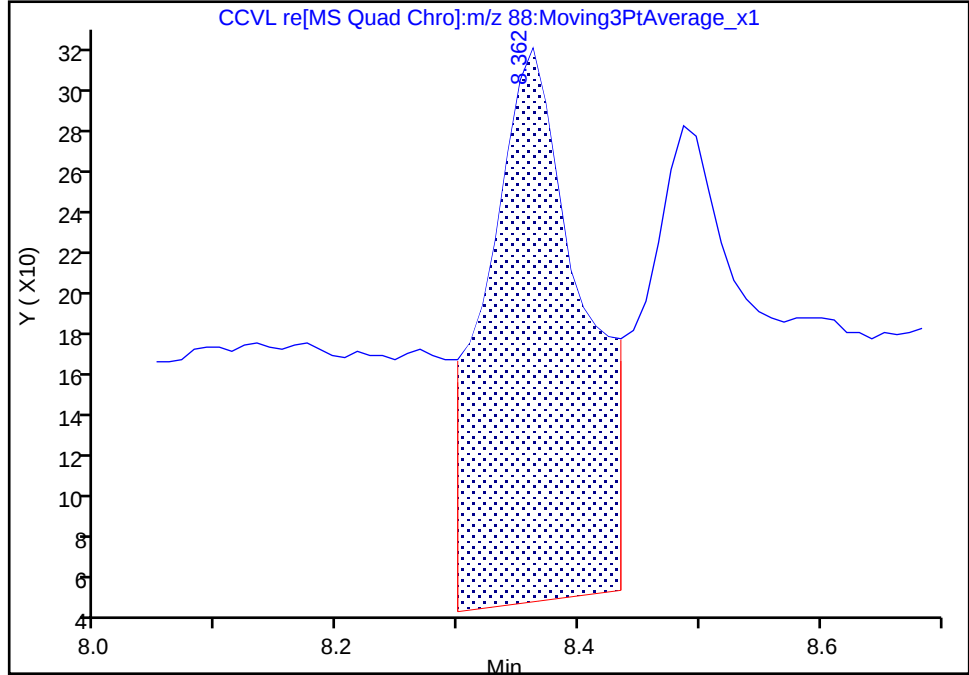
Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\CCVL re.D
Injection Date: 31-Oct-2024 09:31:05 Instrument ID: GCMS-FE
Lims ID: CCVLIS 810-120719/1-A
Client ID:
Operator ID: BC ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 522_GCMS-FE Limit Group: MSS - 522
Column: CP Select 624 MS (0.25 mm) Detector MS Quad

11 1,4-Dioxane, CAS: 123-91-1

Signal: 1

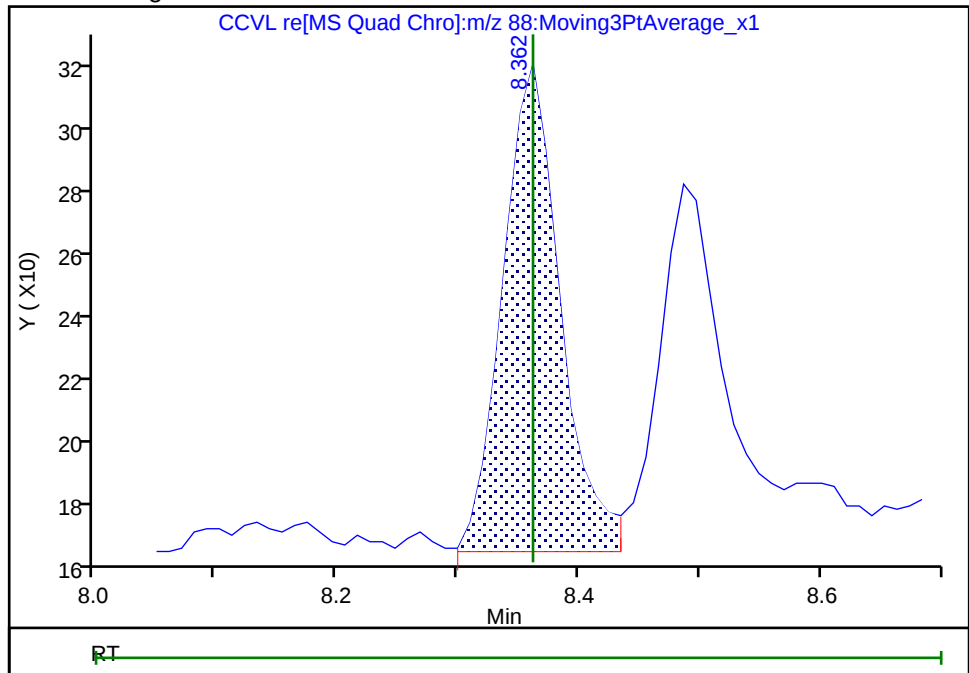
RT: 8.36
Area: 1497
Amount: 9.804480
Amount Units: ug/l

Processing Integration Results



RT: 8.36
Area: 498
Amount: 2.897933
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 31-Oct-2024 12:04:13 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126005-1
SDG No.: _____
Lab Sample ID: CCVIS 810-120719/3-A Calibration Date: 10/31/2024 14:37
Instrument ID: GCMS-FE Calib Start Date: 10/23/2024 08:03
GC Column: CPSelect 624 MS ID: 0.25 (mm) Calib End Date: 10/23/2024 11:00
Lab File ID: CCVM.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
1,4-Dioxane	Lin1		0.6115		43.3	50.0	87	70-130
1,4-Dioxane-d8 (Surr)	Ave	0.6157	0.5854		475	500	95	70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\CCVM.D
Lims ID: CCVIS 810-120719/3-A
Client ID:
Sample Type: CCVIS
Inject. Date: 31-Oct-2024 14:37:57 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030884-014
Misc. Info.: CCVIS 810-120719/3-A
Operator ID: BC Instrument ID: GCMS-FE
Sublist: chrom-522_GCMS-FE*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 31-Oct-2024 15:25:35 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1650

First Level Reviewer: JH8B

Date: 31-Oct-2024 15:23:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.204	6.204	0.000	27	83177	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.279	8.279	0.000	91	48693	500.0	475.4	
11 1,4-Dioxane	88	8.362	8.362	0.000	85	5086	50.0	43.3	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\CCVM.D

Injection Date: 31-Oct-2024 14:37:57

Instrument ID: GCMS-FE

Lims ID: CCVIS 810-120719/3-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#:

14

Injection Vol: 1.0 ul

Dil. Factor:

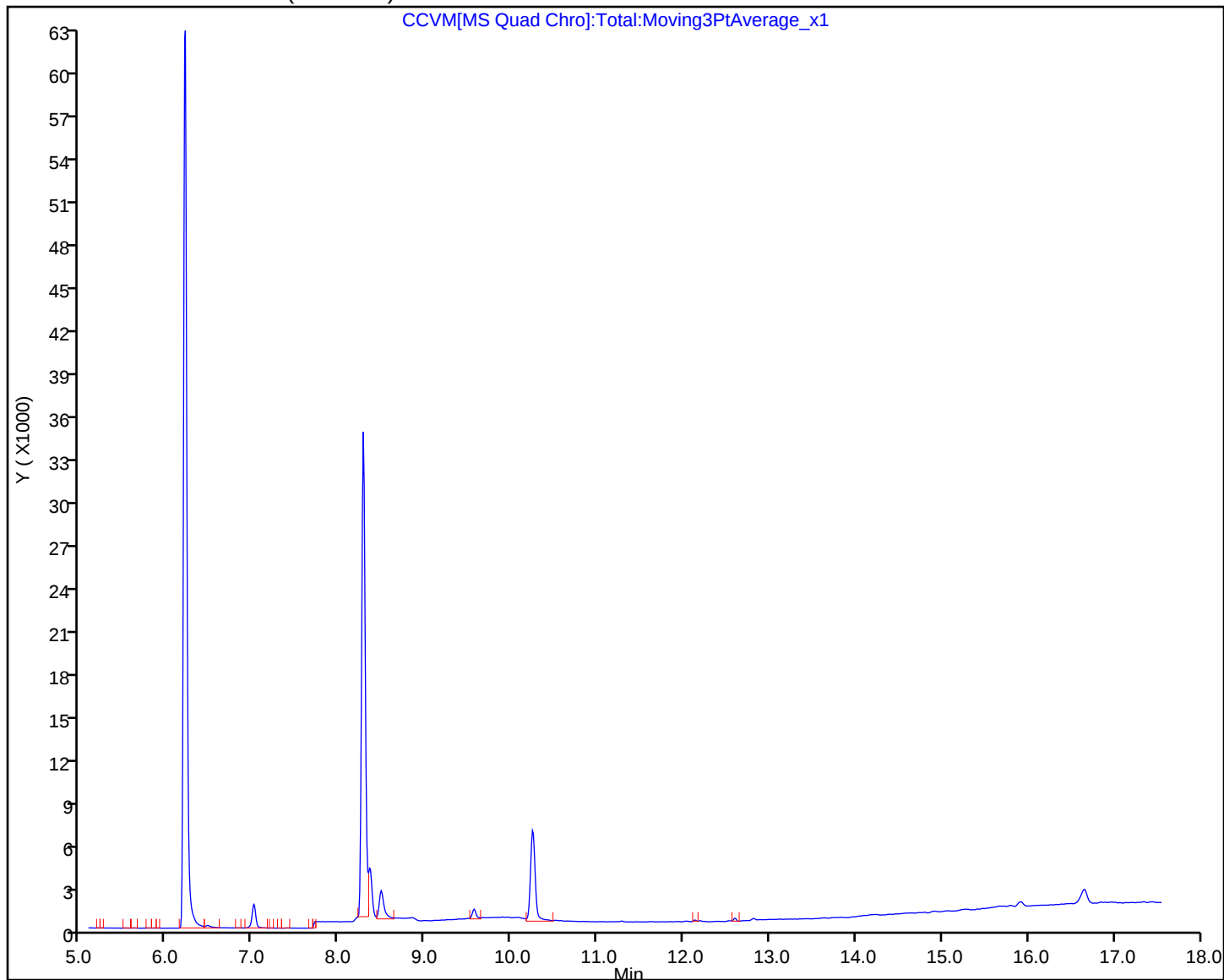
1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\CCVM.D

Injection Date: 31-Oct-2024 14:37:57

Instrument ID: GCMS-FE

Lims ID: CCVIS 810-120719/3-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#: 14

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 522_GCMS-FE

Limit Group: MSS - 522

Column: CP Select 624 MS (0.25 mm)

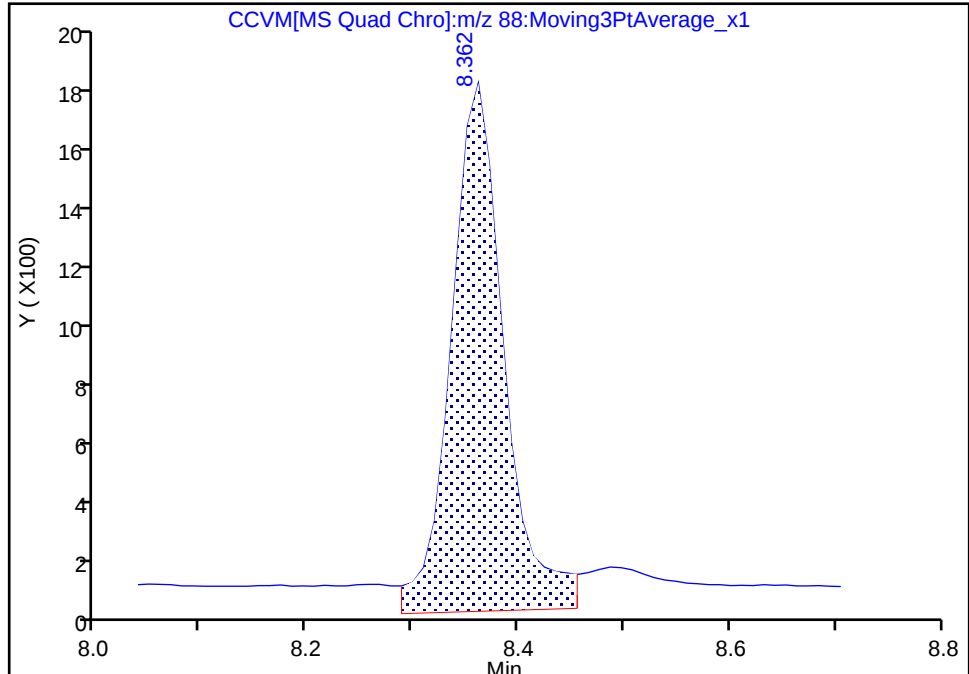
Detector: MS Quad

11 1,4-Dioxane, CAS: 123-91-1

Signal: 1

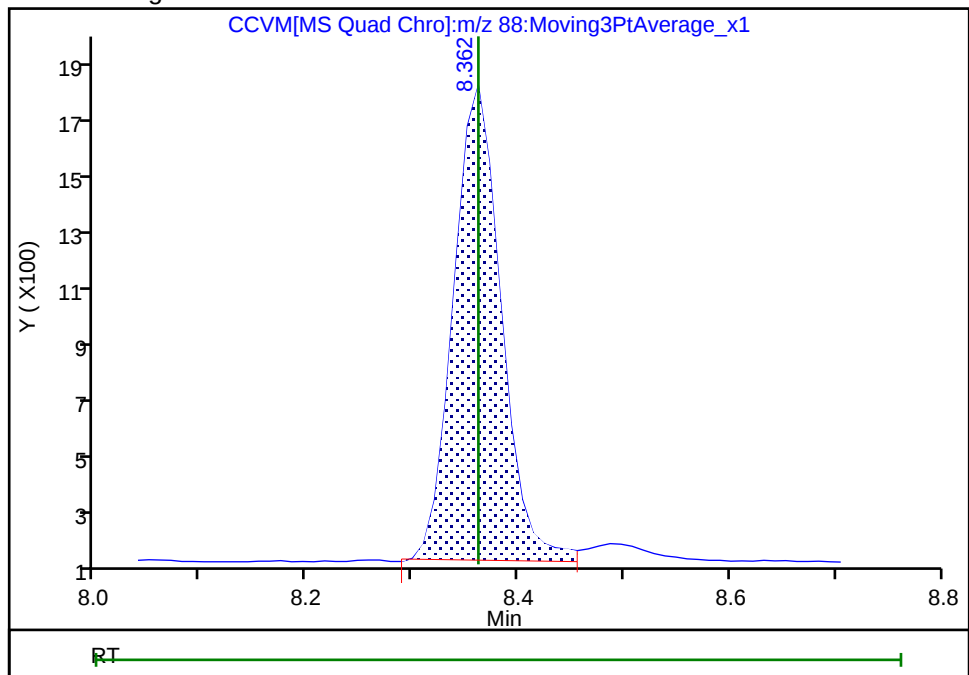
RT: 8.36
Area: 5992
Amount: 51.113708
Amount Units: ug/l

Processing Integration Results



RT: 8.36
Area: 5086
Amount: 43.302833
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 31-Oct-2024 15:23:20 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\BFB 1.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 23-Oct-2024 07:36:57 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 2.0 mL Dil. Factor: 1.0000
Sample Info: 810-0030634-001
Misc. Info.: BFB 1
Operator ID: BC Instrument ID: GCMS-FE
Raw Data: Smoothed

Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 12:10:28 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D

Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

First Level Reviewer: JH8B

Date: 23-Oct-2024 11:25:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
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10 BFB

QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

Reagents:

O-522BFBSUB_00015

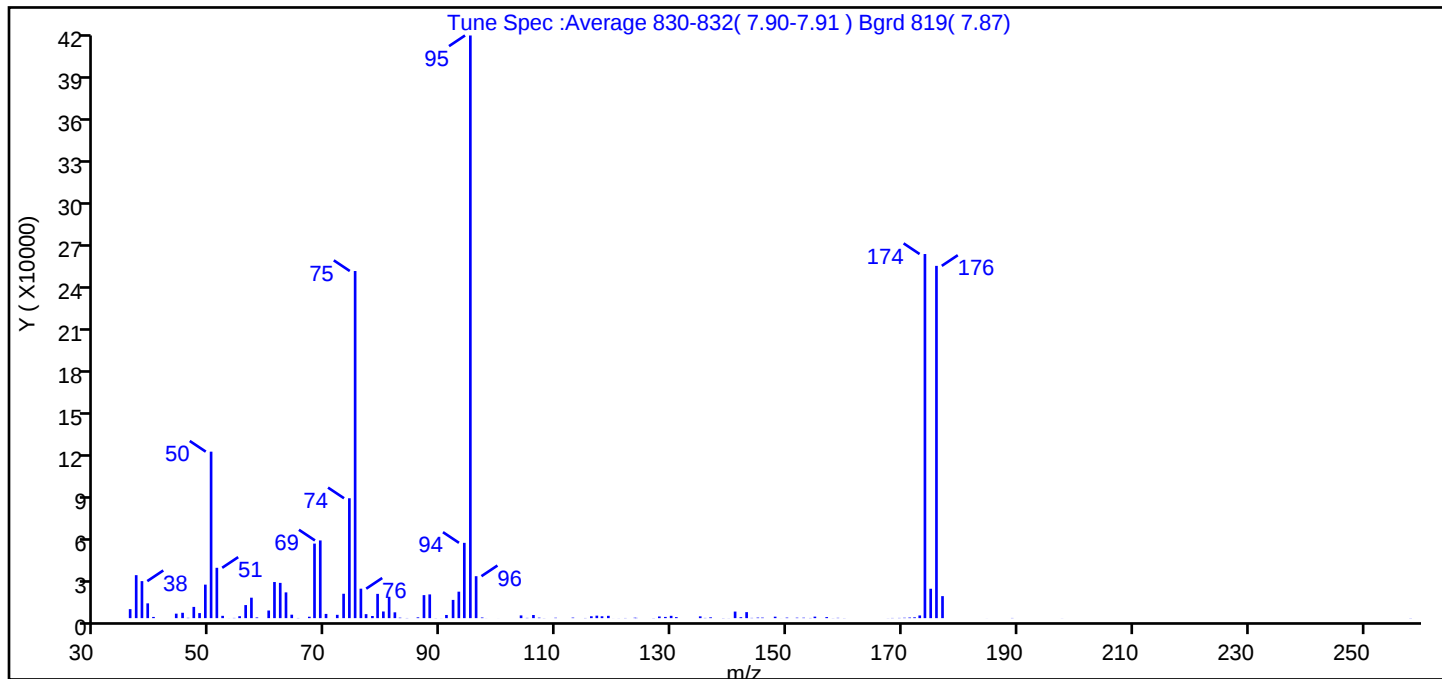
Amount Added: 2.00

Units: mL

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\BFB 1.D
Injection Date: 23-Oct-2024 07:36:57 Instrument ID: GCMS-FE
Lims ID: BFB
Client ID:
Operator ID: BC ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 2.0 mL Dil. Factor: 1.0000
Method: 522_GCMS-FE Limit Group: MSS - 522
Tune Method: BFB Method 524

10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100.0
50	15-40% of mass 95	28.6
75	30-80% of mass 95	59.6
96	5-9% of mass 95	7.2
173	<2% of mass 174	0.5 (0.7)
174	>50% of mass 95	62.5
175	5-9% of mass 174	5.0 (8.1)
176	>95% but <101% of mass 174	60.5 (96.7)
177	5-9% of mass 176	3.8 (6.2)

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\BFB 1.D\522_GCMS-FE.rsl\spectra.d
Injection Date: 23-Oct-2024 07:36:57
Spectrum: Tune Spec :Average 830-832(7.90-7.91) Bgrd 819(7.87)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 116

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	6380	70.00	2999	105.00	179	144.00	178
37.00	30448	72.00	2350	106.00	2222	145.00	393
38.00	26224	73.00	17280	107.00	335	146.00	380
39.00	10478	74.00	84920	108.00	70	148.00	1029
40.00	855	75.00	245888	110.00	283	149.00	21
44.00	3180	76.00	20880	113.00	380	150.00	382
45.00	3801	77.00	2830	115.00	121	152.00	333
46.00	225	78.00	1509	116.00	1327	153.00	314
47.00	7963	79.00	17200	117.00	1758	154.00	130
48.00	3577	80.00	4720	118.00	1321	155.00	1060
49.00	23744	81.00	15134	119.00	1646	157.00	743
50.00	117936	82.00	4121	120.00	27	158.00	66
51.00	35664	83.00	335	121.00	46	159.00	218
52.00	1639	84.00	114	122.00	119	160.00	76
53.00	27	86.00	568	124.00	295	168.00	56
54.00	163	87.00	16300	124.00	184	168.00	137
55.00	1361	88.00	16816	127.00	98	169.00	159
56.00	9253	89.00	80	128.00	1175	170.00	282
57.00	14493	90.00	37	129.00	869	171.00	424
58.00	523	91.00	2249	130.00	1644	172.00	593
60.00	5407	92.00	12921	131.00	717	173.00	1908
61.00	25584	93.00	18752	135.00	1268	174.00	257920
62.00	24976	94.00	53344	136.00	157	175.00	20824
63.00	18256	95.00	412736	137.00	576	176.00	249536
64.00	2444	96.00	29720	139.00	99	177.00	15594
65.00	122	97.00	464	140.00	53	185.00	24
67.00	1000	98.00	26	141.00	4654	189.00	135
68.00	52808	100.00	19	142.00	667	198.00	41
69.00	55040	104.00	1936	143.00	4265	258.00	96

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\BFB 1.D

Injection Date: 23-Oct-2024 07:36:57

Instrument ID: GCMS-FE

Lims ID: BFB

Client ID:

Operator ID: BC

ALS Bottle#: 0

Worklist Smp#: 1

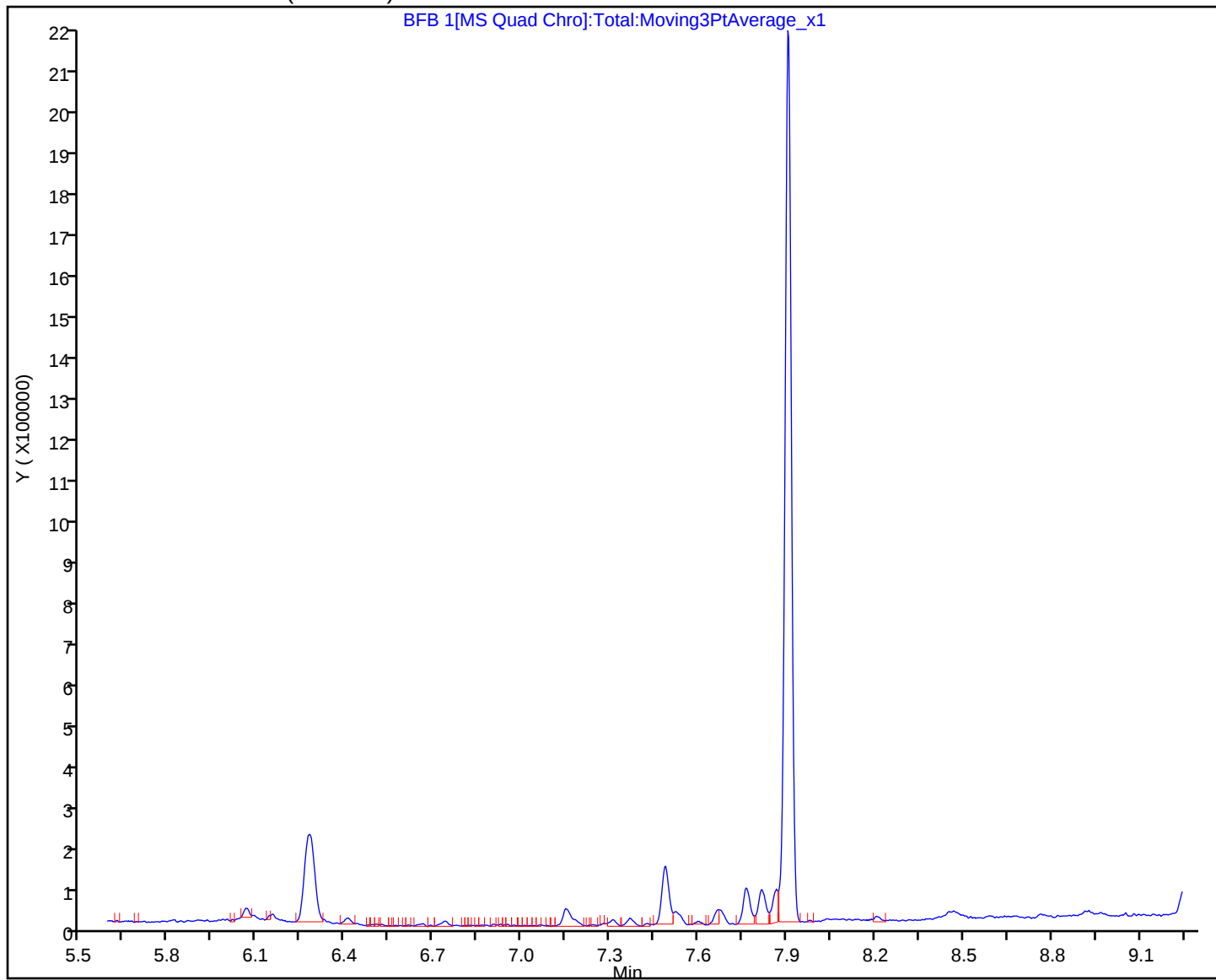
Injection Vol: 2.0 mL

Dil. Factor: 1.0000

Method: 522_GCMS-FE

Limit Group: MSS - 522

Column: CP Select 624 MS (0.25 mm)



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton Analytical South Bend
Job No.: 810-126005-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: MBL 810-120690/1-A

Matrix: Drinking Water Lab File ID: MBL.D

Analysis Method: 522 Date Collected: _____

Extract. Method: 522 Date Extracted: 10/30/2024 07:11

Sample wt/vol: 100 (mL) Date Analyzed: 10/31/2024 10:14

Con. Extract Vol.: 2 (mL) Dilution Factor: 1

Injection Volume: 1 (uL) GC Column: CPSelect 624 MS ID: 0.25 (mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____ Level: (low/med) Low

Analysis Batch No.: 120756 Units: ug/L

Preparation Batch No.: 120690 Instrument ID: GCMS-FE

CAS NO.	COMPOUND NAME	RESULT	Q	RL
123-91-1	1,4-Dioxane	<0.062		0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	96		70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\MBL.D
Lims ID: MBL 810-120690/1-A
Client ID:
Sample Type: MBL
Inject. Date: 31-Oct-2024 10:14:42 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030884-002
Misc. Info.: MBL 810-120690/1-A
Operator ID: BC Instrument ID: GCMS-FE
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 31-Oct-2024 15:25:13 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1650

First Level Reviewer: JH8B

Date: 31-Oct-2024 12:04:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.212	6.204	0.008	25	99470	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.289	8.279	0.010	94	58520	500.0	477.8	
11 1,4-Dioxane	88	8.362	8.362	0.000	79	216		1.01	M
10 BFB									

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\MBL.D

Injection Date: 31-Oct-2024 10:14:42

Instrument ID: GCMS-FE

Lims ID: MBL 810-120690/1-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#:

2

Injection Vol: 1.0 ul

Dil. Factor:

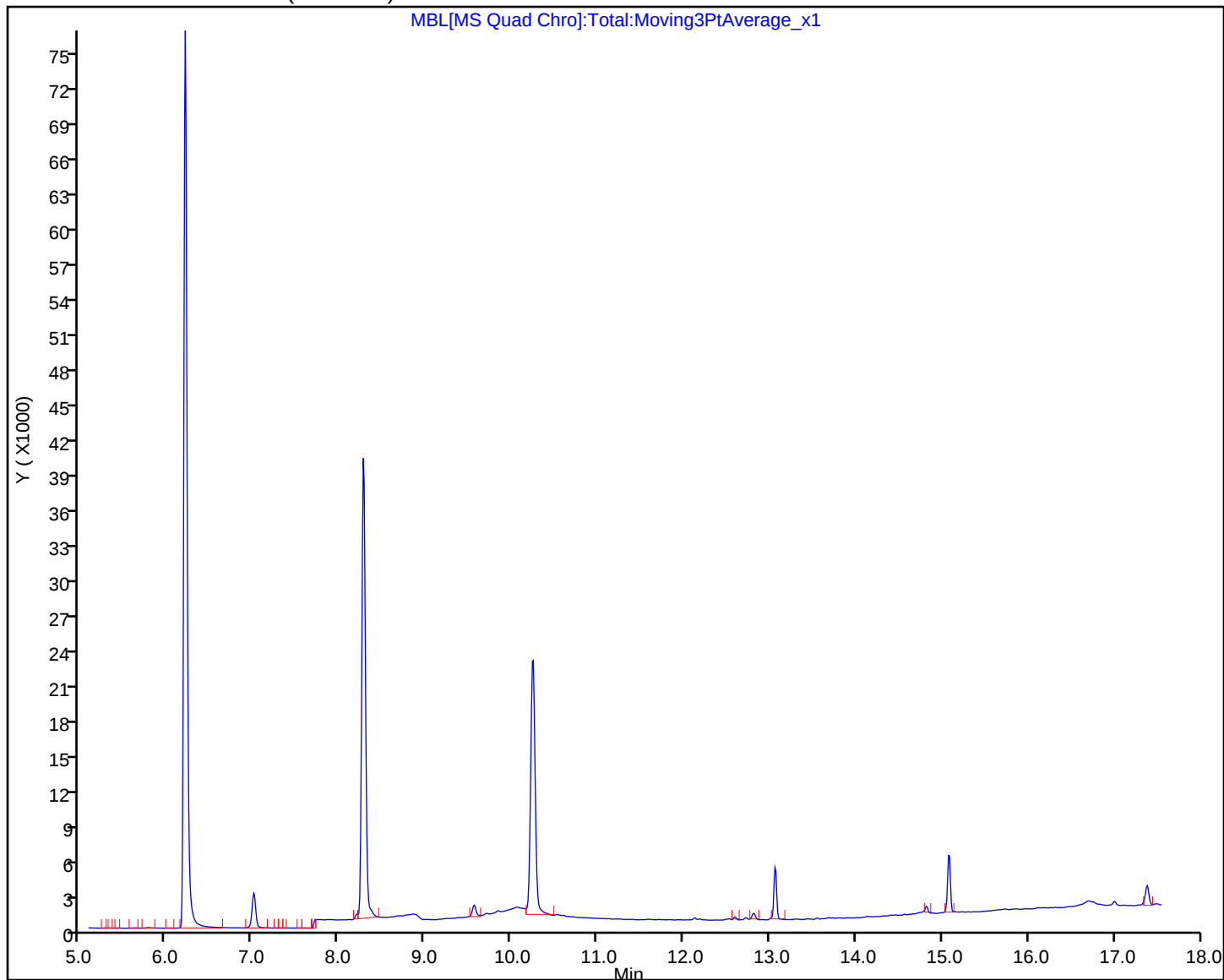
1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend
Recovery Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\MBL.D
Lims ID: MBL 810-120690/1-A
Client ID:
Sample Type: MBL
Inject. Date: 31-Oct-2024 10:14:42 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030884-002
Misc. Info.: MBL 810-120690/1-A
Operator ID: BC Instrument ID: GCMS-FE
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 31-Oct-2024 15:25:13 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1650

First Level Reviewer: JH8B

Date: 31-Oct-2024 12:04:39

Compound	Amount Added	Amount Recovered	% Rec.
\$ 9 1,4-Dioxane-d8 (Surr)	500.0	477.8	95.55

Eurofins Eaton Analytical South Bend

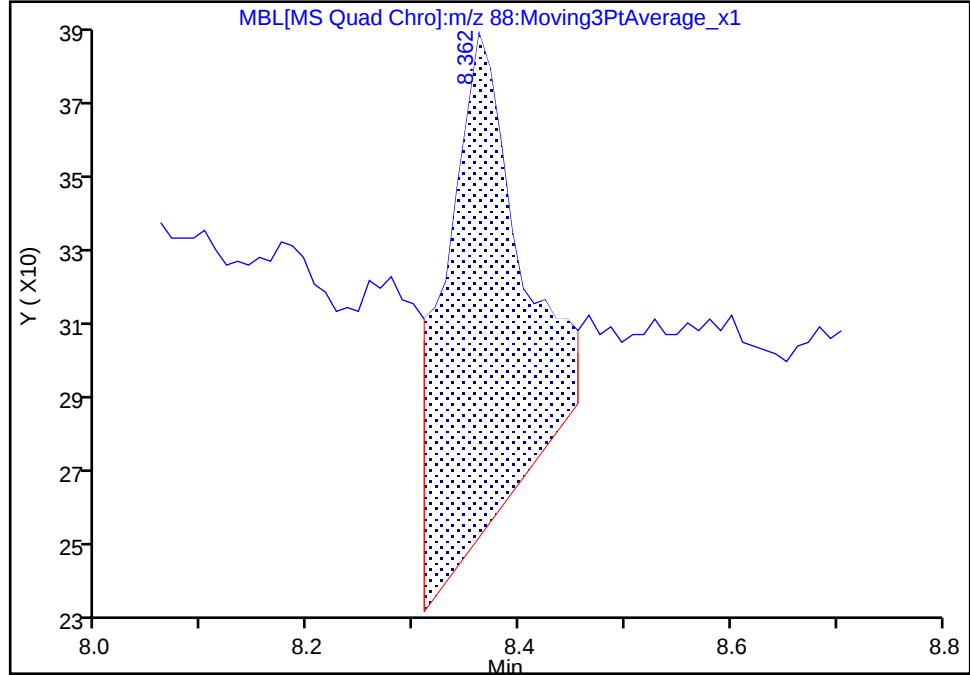
Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\MBL.D
Injection Date: 31-Oct-2024 10:14:42 Instrument ID: GCMS-FE
Lims ID: MBL 810-120690/1-A
Client ID:
Operator ID: BC ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 522_GCMS-FE Limit Group: MSS - 522
Column: CP Select 624 MS (0.25 mm) Detector MS Quad

11 1,4-Dioxane, CAS: 123-91-1

Signal: 1

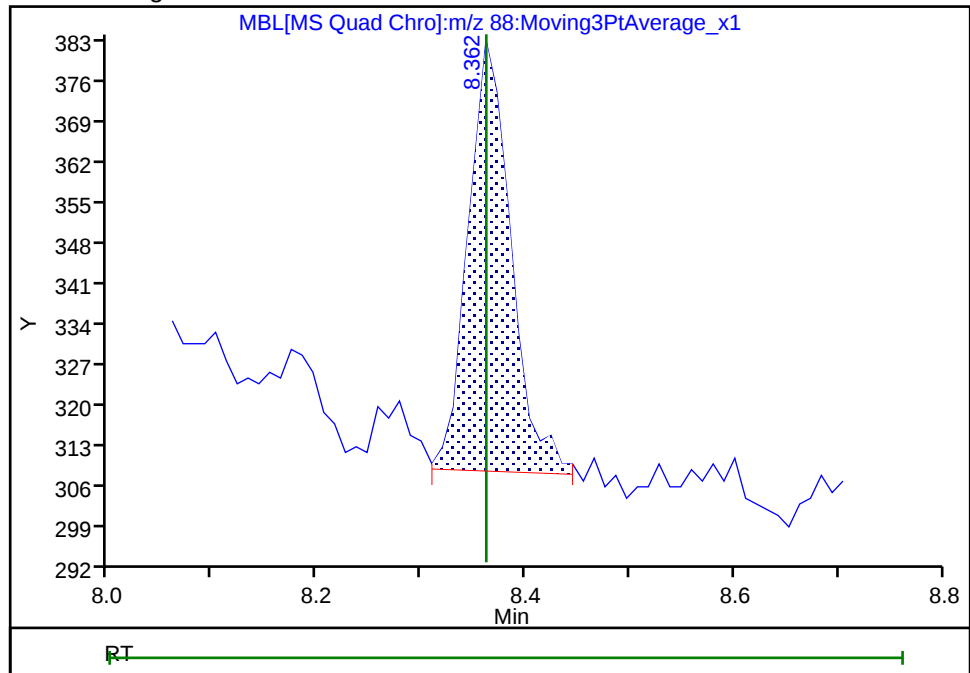
RT: 8.36
Area: 660
Amount: 4.213053
Amount Units: ug/l

Processing Integration Results



RT: 8.36
Area: 216
Amount: 1.012201
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 31-Oct-2024 12:04:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\MBL.D

Injection Date: 31-Oct-2024 10:14:42

Instrument ID: GCMS-FE

Lims ID: MBL 810-120690/1-A

Client ID:

Operator ID: BC

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: 522_GCMS-FE

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)

Detector

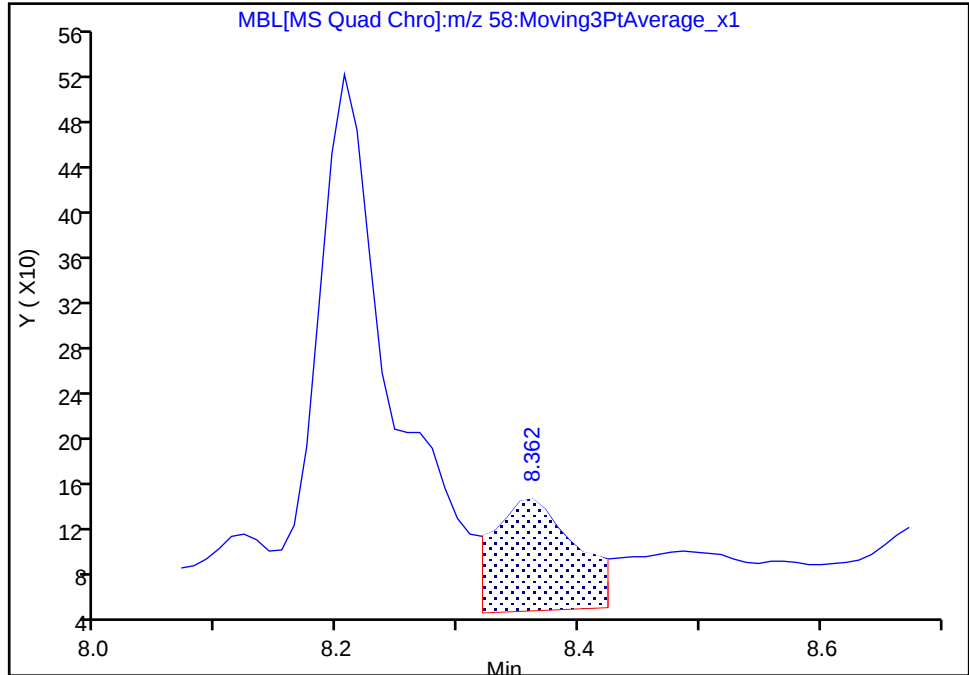
MS Quad

11 1,4-Dioxane, CAS: 123-91-1

Signal: 2

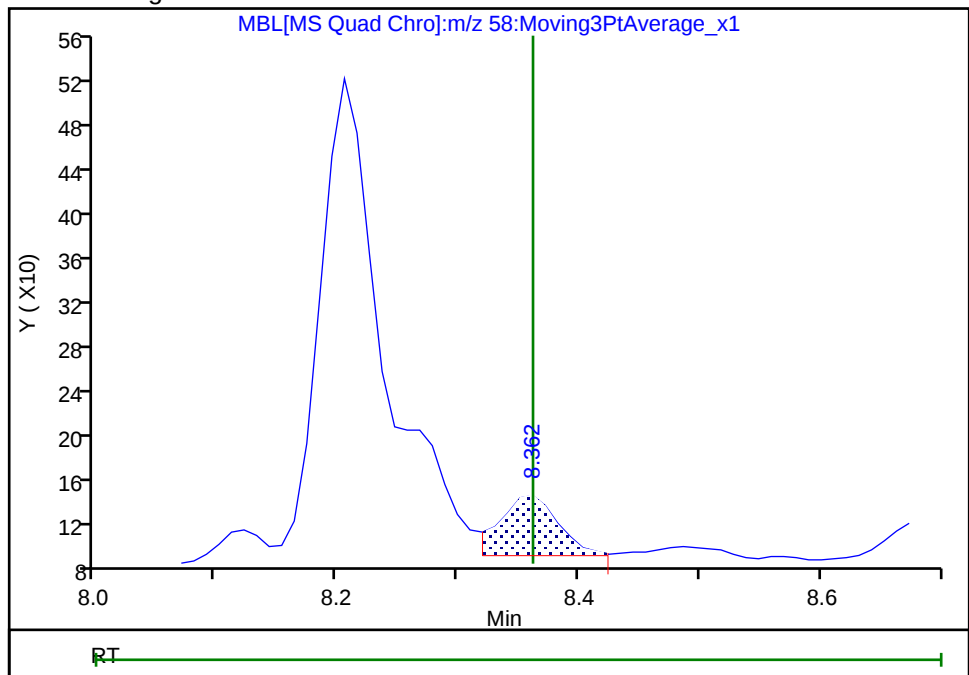
RT: 8.36
Area: 489
Amount: 4.213053
Amount Units: ug/l

Processing Integration Results



RT: 8.36
Area: 183
Amount: 1.012201
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 31-Oct-2024 12:04:35 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Page 93 of 109

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton Analytical South Bend
Job No.: 810-126005-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: LLCS 810-120690/2-A

Matrix: Drinking Water Lab File ID: LLCS.D

Analysis Method: 522 Date Collected: _____

Extract. Method: 522 Date Extracted: 10/30/2024 07:11

Sample wt/vol: 100 (mL) Date Analyzed: 10/31/2024 10:36

Con. Extract Vol.: 2 (mL) Dilution Factor: 1

Injection Volume: 1 (uL) GC Column: CPSelect 624 MS ID: 0.25 (mm)

% Moisture: _____ % Solids: _____ GPC Cleanup: (Y/N) N

Cleanup Factor: _____ Level: (low/med) Low

Analysis Batch No.: 120756 Units: ug/L

Preparation Batch No.: 120690 Instrument ID: GCMS-FE

CAS NO.	COMPOUND NAME	RESULT	Q	RL
123-91-1	1,4-Dioxane	0.0740		0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	92		70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\LLCS.D
Lims ID: LLCS 810-120690/2-A
Client ID:
Sample Type: LLCS
Inject. Date: 31-Oct-2024 10:36:40 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030884-003
Misc. Info.: LLCS 810-120690/2-A
Operator ID: BC Instrument ID: GCMS-FE
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 31-Oct-2024 15:25:13 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1650

First Level Reviewer: JH8B

Date: 31-Oct-2024 12:04:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.212	6.204	0.008	25	103776	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.289	8.279	0.010	95	58948	500.0	461.3	
11 1,4-Dioxane	88	8.362	8.362	0.000	83	614	3.50	3.70	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\LLCS.D

Injection Date: 31-Oct-2024 10:36:40

Instrument ID: GCMS-FE

Lims ID: LLCS 810-120690/2-A

Client ID:

Operator ID: BC

ALS Bottle#: 0

Worklist Smp#: 3

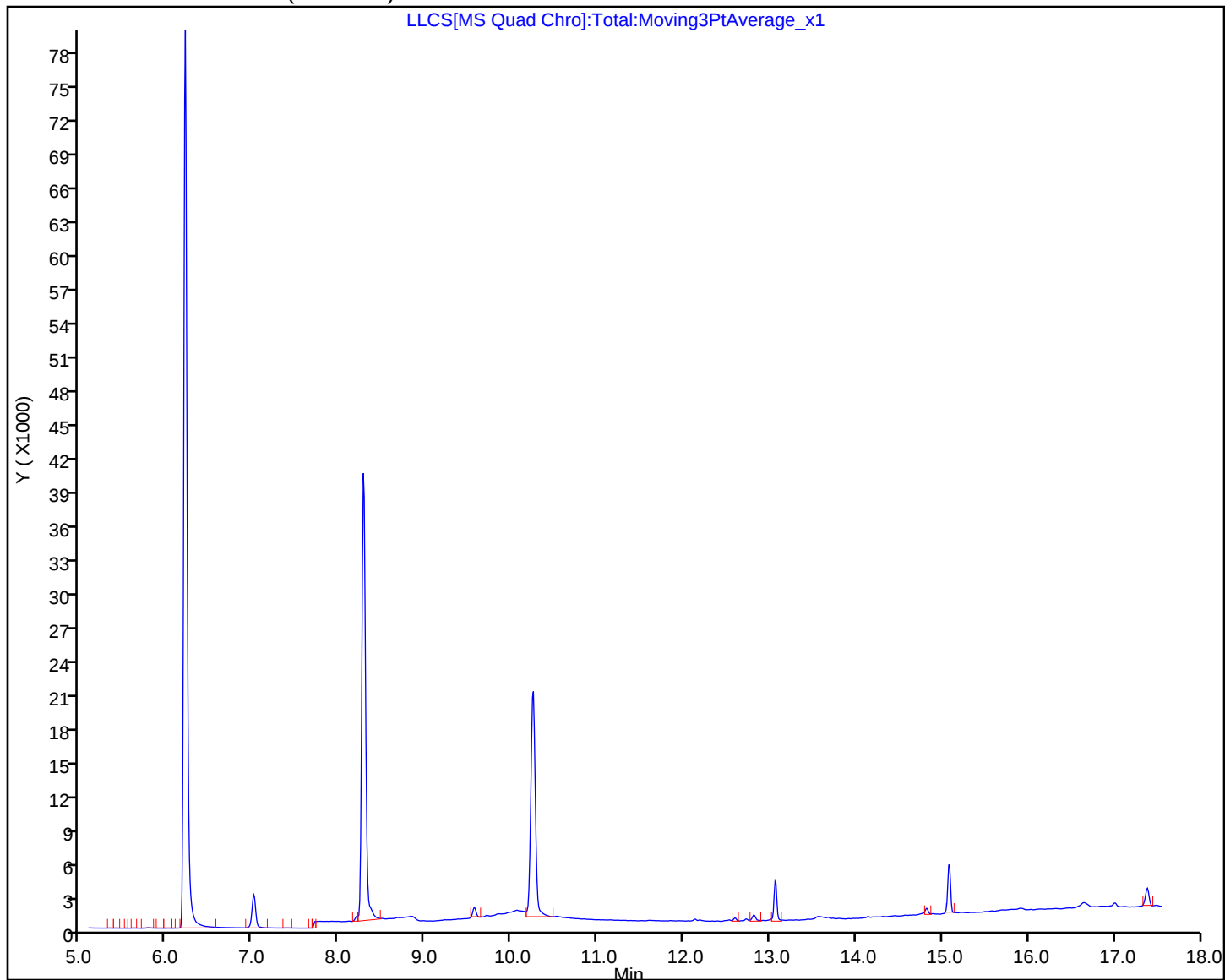
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 522_GCMS-FE

Limit Group: MSS - 522

Column: CP Select 624 MS (0.25 mm)



Eurofins Eaton Analytical South Bend
Recovery Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\LLCS.D
Lims ID: LLCS 810-120690/2-A
Client ID:
Sample Type: LLCS
Inject. Date: 31-Oct-2024 10:36:40 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030884-003
Misc. Info.: LLCS 810-120690/2-A
Operator ID: BC Instrument ID: GCMS-FE
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\522_GCMS-FE.m
Limit Group: MSS - 522
Last Update: 31-Oct-2024 15:25:13 Calib Date: 23-Oct-2024 11:00:04
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241022-30634.b\IC 20.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1650

First Level Reviewer: JH8B

Date: 31-Oct-2024 12:04:57

Compound	Amount Added	Amount Recovered	% Rec.
\$ 9 1,4-Dioxane-d8 (Surr)	500.0	461.3	92.26

Eurofins Eaton Analytical South Bend

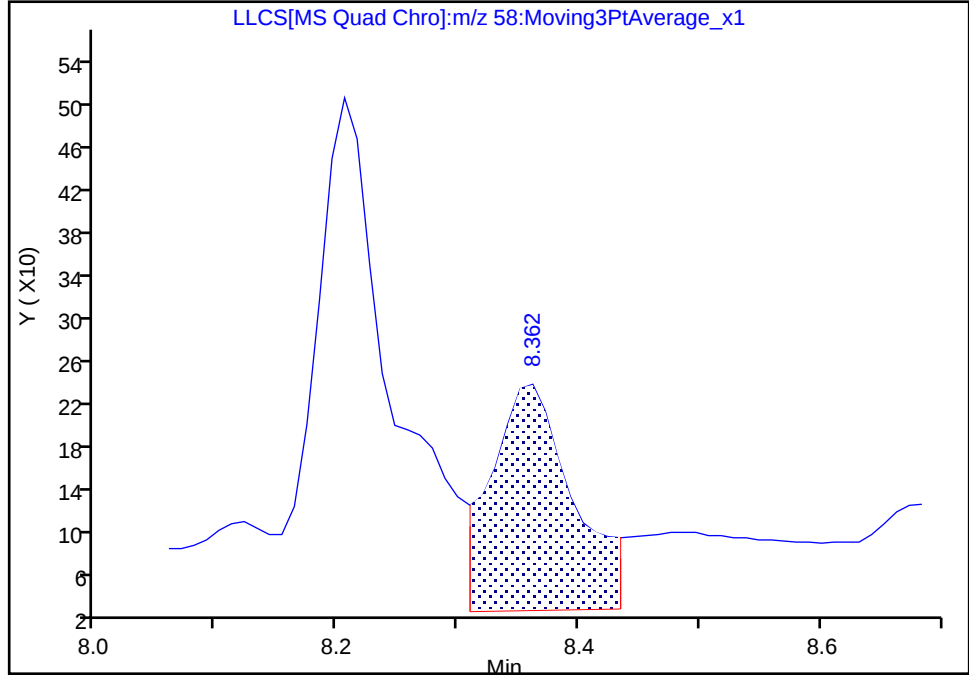
Data File: \\ChromFS\Southbend\ChromData\GCMS-FE\20241030-30884.b\LLCS.D
Injection Date: 31-Oct-2024 10:36:40 Instrument ID: GCMS-FE
Lims ID: LLCS 810-120690/2-A
Client ID:
Operator ID: BC ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 522_GCMS-FE Limit Group: MSS - 522
Column: CP Select 624 MS (0.25 mm) Detector MS Quad

11 1,4-Dioxane, CAS: 123-91-1

Signal: 2

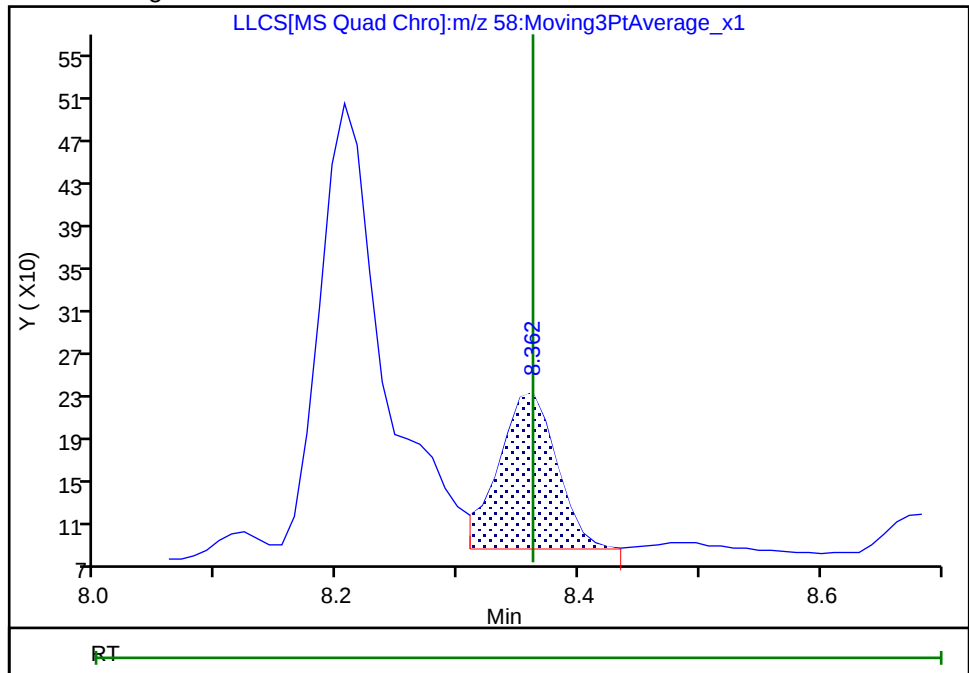
RT: 8.36
Area: 1022
Amount: 3.697768
Amount Units: ug/l

Processing Integration Results



RT: 8.36
Area: 495
Amount: 3.697768
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 31-Oct-2024 12:04:55 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Eaton Analytical South Bend

Job No.: 810-126005-1

SDG No.:

Instrument ID: GCMS-FE

Start Date: 10/23/2024 07:36

Analysis Batch Number: 119892

End Date: 10/24/2024 10:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 810-119892/1		10/23/2024 07:36	1	BFB 1.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/4-A		10/23/2024 08:03	1	IC 007.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/5-A		10/23/2024 08:25	1	IC 01.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/6-A		10/23/2024 08:47	1	IC 02.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/7-A		10/23/2024 09:09	1	IC 05.D	CPSelect 624 MS 0.25 (mm)
ICISAV 810-119843/8-A		10/23/2024 09:31	1	IC 1.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/9-A		10/23/2024 09:53	1	IC 2.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/10-A		10/23/2024 10:15	1	IC 5.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/11-A		10/23/2024 10:37	1	IC 10.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/12-A		10/23/2024 11:00	1	IC 20.D	CPSelect 624 MS 0.25 (mm)
CCVLIS 810-119843/1-A		10/23/2024 11:44	1		CPSelect 624 MS 0.25 (mm)
ICV 810-119843/13-A		10/23/2024 12:06	1	ICV.D	CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/23/2024 12:50	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/23/2024 13:12	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/23/2024 13:34	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 13:56	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 14:18	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 14:40	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 15:02	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 15:24	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 15:46	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 16:08	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 16:30	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 16:52	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 17:14	1		CPSelect 624 MS 0.25 (mm)
CCVIS 810-119843/2-A		10/23/2024 17:36	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 17:58	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 18:19	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 18:41	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/23/2024 19:03	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/23/2024 19:25	1		CPSelect 624 MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Eaton Analytical South Bend

Job No.: 810-126005-1

SDG No.:

Instrument ID: GCMS-FE

Start Date: 10/23/2024 07:36

Analysis Batch Number: 119892

End Date: 10/24/2024 10:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ (Client)		10/23/2024 19:47	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 20:09	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 20:31	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 20:53	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 21:15	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 21:38	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 22:00	1		CPSelect 624 MS 0.25 (mm)
CCV 810-119843/3-A		10/23/2024 22:22	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/24/2024 08:50	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/24/2024 09:12	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/24/2024 09:34	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/24/2024 09:56	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/24/2024 10:18	1		CPSelect 624 MS 0.25 (mm)
CCVIS 810-119843/2-A		10/24/2024 10:40	1		CPSelect 624 MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Eaton Analytical South Bend

Job No.: 810-126005-1

SDG No.:

Instrument ID: GCMS-FE

Start Date: 10/31/2024 09:31

Analysis Batch Number: 120756

End Date: 10/31/2024 14:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVLIS 810-120719/1-A		10/31/2024 09:31	1	CCVL re.D	CPSelect 624 MS 0.25 (mm)
MBL 810-120690/1-A		10/31/2024 10:14	1	MBL.D	CPSelect 624 MS 0.25 (mm)
LLCS 810-120690/2-A		10/31/2024 10:36	1	LLCS.D	CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/31/2024 10:58	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/31/2024 11:20	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/31/2024 11:42	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/31/2024 12:04	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/31/2024 12:26	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/31/2024 12:48	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/31/2024 13:10	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/31/2024 13:32	1		CPSelect 624 MS 0.25 (mm)
810-126005-1	VPB190-HYD-20241023	10/31/2024 13:54	1	810-126005-A-1- A.D	CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/31/2024 14:15	1		CPSelect 624 MS 0.25 (mm)
CCVIS 810-120719/3-A		10/31/2024 14:37	1	CCVM.D	CPSelect 624 MS 0.25 (mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Eaton Analytical Sout Job No.: 810-126005-1

SDG No.: _____

Batch Number: 119843 Batch Start Date: 10/22/24 10:21 Batch Analyst: Balkema, HaleyBatch Method: 522 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	522 IS SS 00214	522-Sur-SS 00113	O-522 CalM 00015	O-522-CalH 00012
IC 810-119843/4		522, 522			2 mL	2 mL	10 uL	10 uL		
IC 810-119843/5		522, 522			2 mL	2 mL	10 uL	10 uL		
IC 810-119843/6		522, 522			2 mL	2 mL	10 uL	10 uL		
IC 810-119843/7		522, 522			2 mL	2 mL	10 uL	10 uL	5 uL	
ICISAV 810-119843/8		522, 522			2 mL	2 mL	10 uL	10 uL	10 uL	
IC 810-119843/9		522, 522			2 mL	2 mL	10 uL	10 uL	20 uL	
IC 810-119843/10		522, 522			2 mL	2 mL	10 uL	10 uL		5 uL
IC 810-119843/11		522, 522			2 mL	2 mL	10 uL	10 uL		10 uL
IC 810-119843/12		522, 522			2 mL	2 mL	10 uL	10 uL		20 uL
ICV 810-119843/13		522, 522			2 mL	2 mL	10 uL	10 uL		

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	O-522-QCS-Sub 00007	O522-CalL 00016				
IC 810-119843/4		522, 522				7 uL				
IC 810-119843/5		522, 522				10 uL				
IC 810-119843/6		522, 522				20 uL				
IC 810-119843/7		522, 522								
ICISAV 810-119843/8		522, 522								
IC 810-119843/9		522, 522								
IC 810-119843/10		522, 522								
IC 810-119843/11		522, 522								
IC 810-119843/12		522, 522								
ICV 810-119843/13		522, 522			10 uL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Eaton Analytical Sout Job No.: 810-126005-1

SDG No.: _____

Batch Number: 119843 Batch Start Date: 10/22/24 10:21 Batch Analyst: Balkema, HaleyBatch Method: 522 Batch End Date: _____

Batch Notes	
MeCL2 ID	1608540
Balance ID	B27
Balance is Level? (Y/N)	yes

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Eaton Analytical Sout Job No.: 810-126005-1

SDG No.: _____

Batch Number: 119892 Batch Start Date: 10/23/24 07:36 Batch Analyst: Orpurt, KylaBatch Method: 522 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	O-522BFBSUB 00015				
BFB 810-119892/1		522			2 mL	2 mL				
IC 810-119843/4-A		522			2 mL					
IC 810-119843/5-A		522			2 mL					
IC 810-119843/6-A		522			2 mL					
IC 810-119843/7-A		522			2 mL					
ICISAV 810-119843/8-A		522			2 mL					
IC 810-119843/9-A		522			2 mL					
IC 810-119843/10-A		522			2 mL					
IC 810-119843/11-A		522			2 mL					
IC 810-119843/12-A		522			2 mL					
ICV 810-119843/13-A		522			2 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Eaton Analytical Sout Job No.: 810-126005-1

SDG No.: _____

Batch Number: 120690 Batch Start Date: 10/30/24 07:11 Batch Analyst: Wang, MarissaBatch Method: 522 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	522 IS SS 00216	522-Sur-SS 00114
MBL 810-120690/1		522, 522			100 g	0 g	100 mL	2 mL	10 uL	10 uL
LLCS 810-120690/2		522, 522			100 g	0 g	100 mL	2 mL	10 uL	10 uL
810-126005-A-1	VPB190-HYD-2024 1023	522, 522	aking W	T	100 g	0 g	100 mL	2 mL	10 uL	10 uL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	O522-CalL 00016	AnalysisCommen t				
MBL 810-120690/1		522, 522				Y1				
LLCS 810-120690/2		522, 522			7 uL	Y2				
810-126005-A-1	VPB190-HYD-2024 1023	522, 522	aking W	T		P2				

Batch Notes	
MeCL2 ID	1622278
Methanol ID	1630190
SPE Cartridge Lot ID	1473497
Sodium Sulfite ID	1456825
Na2SO4 ID	1622734
Sodium Bisulfate ID	660717
Reagent Water ID	micro 10/30/24
Balance ID	B27
Balance is Level? (Y/N)	yes

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Eaton Analytical Sout Job No.: 810-126005-1

SDG No.: _____

Batch Number: 120719 Batch Start Date: 10/30/24 10:05 Batch Analyst: Wang, MarissaBatch Method: 522 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	522 IS SS 00216	522-Sur-SS 00114	O-522 CalM 00015	O522-CalL 00016
CCVLIS 810-120719/1		522, 522			2 mL	2 mL	10 uL	10 uL		7 uL
CCVIS 810-120719/3		522, 522			2 mL	2 mL	10 uL	10 uL	10 uL	

Batch Notes	
MeCL2 ID	1622278
Balance ID	B27
Balance is Level? (Y/N)	yes

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.

Shipping and Receiving Documents



CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax: (908) 78-8922

www.chemtech.net

Chemtech Project Number:

P4550

p4551

COC Number:

CLIENT INFORMATION

PROJECT INFORMATION

BILLING INFORMATION

COMPANY: Tetra Tech

ADDRESS: 4433 Corporation Lane Suite 300

CITY: Virginia Beach

STATE: VA

ZIP: 23462

ATTENTION: Ernie Wu

PHONE: 757-466-4901

FAX: 757-461-4148

PROJECT NAME: NWIRP Bethpage

PROJECT #: 112G08005-WE13 LOCATION: VPB-189

PROJECT MANAGER: Ernie Wu

E-MAIL: ernie.wu@tetratech.com

PHONE: 757-466-4901

FAX: 757-461-4148

BILL TO: SEE CONTRACT

PO#

ADDRESS:

CITY:

STATE: ZIP:

ATTENTION:

PHONE:

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

FAX: 2 & 10 DAYS*

HARD COPY: 2 & 10 DAYS*

EDD 2 & 10 DAYS*

* TO BE APPROVED BY CHEMTECH

STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

- ☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other _____
☐ EDD Format _____

ANALYSIS

VOC(SW846-8260B)

1,4 Dioxane (8270 SIM)

1,4 Dioxane (522 PREC)

1

2

3

4

5

6

7

8

9

PRESERVATIVES

COMMENTS

<-- Specify Preservatives
A-HCl B-HNO3
C-H2SO4 D-NaOH
E-ICE F-Other

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles										
			COMP	GRAB	DATE	TIME		A									
1.	BP-VPB-190-TB-20241022	QA		X	10/22/24	8:00	2	2									Trip Blank
2.	VPB190-HYD-20241023	QA		X	10/23/24	9:05	5	2	1	2							Hydrant Sample
3.	BP-VPB-190-EB-20241023	QA		X	10/23/24	11:05	2	2									Equipment Blank
4.	BP-VPB-190-GW-298-300	AQ		X	10/22/24	9:55	2	2									
5.	BP-VPB-190-GW-318-320	AQ		X	10/22/24	12:05	3	2	1								
6.	BP-VPB-190-GW-338-340	AQ		X	10/22/24	14:30	6	6									MS/MSD
7.	BP-VPB-190-GW-358-360	AQ		X	10/23/24	10:40	3	2	1								
8.	BP-VPB-190-GW-378-380	AQ		X	10/23/24	13:05	2	2									
9.	BP-VPB-190-GW-398-400	AQ		X	10/23/24	15:25	3	2	1								
10.	BP-VPB-190-GW-418-420	AQ		X	10/24/24	12:35	4	4									Collected extra vials due to high particulate matter

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER 1. <i>[Signature]</i>	DATE/TIME 10/24/24 15:30	RECEIVED BY 1. <i>[Signature]</i>	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp <u>2.9°C</u> MeOH extraction requires an additional 4oz. Jar for percent solid ☒ Ice in Cooler?: <u>yes</u>
RELINQUISHED BY 2. <i>[Signature]</i>	DATE/TIME 10-24-2024	RECEIVED BY 2. <i>[Signature]</i>	Comments: 48hr TAT - For VOC's see worksheet #15 of SAP 2018 for VPB program VOC list 10-DAY TAT - For 1,4 Dioxane (8270 SIM)
RELINQUISHED BY 3. <i>[Signature]</i>	DATE/TIME 10-24-2024	RECEIVED FOR LAB BY 3. <i>[Signature]</i>	SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight CHEMTECH: ☐ Picked Up ☐ Overnight
Page <u>1</u> of <u>1</u>			Shipment Complete ☐ YES ☐ NO

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT

YELLOW - CHEMTECH COPY

PINK - SAMPLER COPY

P4551

110 of 112



110 L6005 CUC

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
WWW.CHEMTECH.NET

7947

CHAIN OF CUSTODY RECORD

Sub Lab INFORMATION		CLIENT PROJECT INFORMATION		CLIENT BILLING INFORMATION	
COMPANY : EUROFINIS Eaton Analytical	ORDER ID : P4551	BILL TO: CHEMTECH		PO# : p4551	
ADDRESS : 110 South Bend	PROJECT ID: CTO WE13	ADDRESS : 284, Sheffield Street			
CITY: South Bend State : IN ZIP : 46617	PROJECT MANAGER Yazmeen	CITY: Mountainside State : NJ		ZIP : 07092	
E-mail :	E-mail : YAZMEEN@CHEMTECH.NET	ATTENTION : Yazmeen			
PHONE : 717-693-5814	PHONE : (908) 789 8900	FAX: (908) 789 8922		PHONE : (908) 789 8900 FAX : (908) 789 8922	

EDD : ADAPT Report : Level 4+ Level 2+ EDD Comment : *DOD (REPORT TO THE LOD AND INCLUDE PRESENTATION OF THE LOQ & DL)

ID	CLIENT SAMPLE IDENTIFICATION	SAMPLE MATRIX	ANALYSIS	Preservative	Method	SAMPLE COLLECTION		# OF BOTTLES	TAT DAYS
01	VPB190-HYD-20241023	Water	1,5 Dioxane	um thiosulfate/Na2S2	522	DATE	TIME		
						10/23/2024	09:05:00	2	2

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGES POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME: 10-28-24	RECEIVED BY: 1.	Conditions of bottles or Coolers at receipt:	☐ Compliant ☐ Non Compliant	Cooler Temp
RELINQUISHED BY:	DATE TIME: 10-29-24	RECEIVED BY: 2. 10-29-24			Ice or Cooler?
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:		☐ OVERNIGHT ☐ OVERNIGHT	Shipment Complete: ☐ YES ☐ NO

Initial Temp: 1.2
Corrected Temp: 0.4
IR Gun # 18

W2

Login Sample Receipt Checklist

Client: Chemtech Consulting Group Inc.

Job Number: 810-126005-1

Login Number: 126005

List Number: 1

Creator: DePriest, Kellie

List Source: Eurofins Eaton Analytical South Bend

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
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").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	