

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 : P4666

ATTENTION : Ernie Wu



Cover Page

Order ID : P4666

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

P4666-01

Client Sample Number

VPB190-HYD-20241030

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 : N. N. Pandya

APPROVED

Date: 11/12/2024
By Nimisha Pandya, QA/QC Supervisor at 10:59 am, Nov 18, 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 11/12/2024 7:52 AM

JOB DESCRIPTION

1,4 Dioxane

JOB NUMBER

810-126629-1

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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574 233-4777

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Definitions/Glossary

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

Job ID: 810-126629-1

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
810-126629-1

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 11/5/2024 9:30 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 3.4°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: 810-126629-1

Client Sample ID: VPB190-HYD-20241030

Lab Sample ID: 810-126629-1

 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: 810-126629-1

Client Sample ID: VPB190-HYD-20241030
Date Collected: 10/30/24 09:15
Date Received: 11/05/24 09:30

Lab Sample ID: 810-126629-1
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		11/07/24 07:43	11/10/24 00:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	94		70 - 130			11/07/24 07:43	11/10/24 00:20	1

Default Detection Limits

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

Job ID: 810-126629-1

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: 810-126629-1

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)							
810-126629-1	VPB190-HYD-20241030	94							
810-126629-1 MS	VPB190-HYD-20241030	97							
810-126629-1 MSD	VPB190-HYD-20241030	101							
LLCS 810-121649/2-A	Lab Control Sample	100							
MBL 810-121649/1-A	Method Blank	94							

Surrogate Legend

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

QC Sample Results

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

Job ID: 810-126629-1

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

Lab Sample ID: MBL 810-121649/1-A
Matrix: Drinking Water
Analysis Batch: 121979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121649

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<0.062		0.070	ug/L		11/07/24 07:43	11/09/24 21:45	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	94		70 - 130			11/07/24 07:43	11/09/24 21:45	1

Lab Sample ID: LLCS 810-121649/2-A
Matrix: Drinking Water
Analysis Batch: 121979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121649

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	0.0700	0.0841		ug/L		120	50 - 150
Surrogate	LLCS %Recovery	LLCS Qualifier	Limits				
1,4-Dioxane-d8 (Surr)	100		70 - 130				

Lab Sample ID: 810-126629-1 MS
Matrix: Drinking Water
Analysis Batch: 121979

Client Sample ID: VPB190-HYD-20241030
Prep Type: Total/NA
Prep Batch: 121649

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	<0.070		1.00	0.988		ug/L		99	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,4-Dioxane-d8 (Surr)	97		70 - 130						

Lab Sample ID: 810-126629-1 MSD
Matrix: Drinking Water
Analysis Batch: 121979

Client Sample ID: VPB190-HYD-20241030
Prep Type: Total/NA
Prep Batch: 121649

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	<0.070		1.00	1.07		ug/L		107	70 - 130	8	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,4-Dioxane-d8 (Surr)	101		70 - 130								

QC Association Summary

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

Job ID: 810-126629-1

GC/MS Semi VOA

Prep Batch: 121649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-126629-1	VPB190-HYD-20241030	Total/NA	Drinking Water	522	
MBL 810-121649/1-A	Method Blank	Total/NA	Drinking Water	522	
LLCS 810-121649/2-A	Lab Control Sample	Total/NA	Drinking Water	522	
810-126629-1 MS	VPB190-HYD-20241030	Total/NA	Drinking Water	522	
810-126629-1 MSD	VPB190-HYD-20241030	Total/NA	Drinking Water	522	

Analysis Batch: 121979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-126629-1	VPB190-HYD-20241030	Total/NA	Drinking Water	522	121649
MBL 810-121649/1-A	Method Blank	Total/NA	Drinking Water	522	121649
LLCS 810-121649/2-A	Lab Control Sample	Total/NA	Drinking Water	522	121649
810-126629-1 MS	VPB190-HYD-20241030	Total/NA	Drinking Water	522	121649
810-126629-1 MSD	VPB190-HYD-20241030	Total/NA	Drinking Water	522	121649

Lab Chronicle

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

Job ID: 810-126629-1

Client Sample ID: VPB190-HYD-20241030
Date Collected: 10/30/24 09:15
Date Received: 11/05/24 09:30

Lab Sample ID: 810-126629-1
Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			121649	MW	EA SB	11/07/24 07:43
Total/NA	Analysis	522		1	121979	KO	EA SB	11/10/24 00:20

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: 810-126629-1

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	10-31-25
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	11-10-24

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

Eurofins Eaton Analytical South Bend

Accreditation/Certification Summary

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

Job ID: 810-126629-1

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: 810-126629-1

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: 810-126629-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
810-126629-1	VPB190-HYD-20241030	Drinking Water	10/30/24 09:15	11/05/24 09:30

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126629-1
SDG No.: _____
Instrument ID: GCMS-DM Analysis Batch Number: 121979
Lab Sample ID: MBL 810-121649/1-A Client Sample ID: _____
Date Analyzed: 11/09/24 21:45 Lab File ID: MBL1.D GC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.31	Incomplete Integration	JH8B	11/11/24 08:28

Lab Sample ID: LLCS 810-121649/2-A Client Sample ID: _____
Date Analyzed: 11/09/24 22:10 Lab File ID: LLC1.D GC Column: CPSelect 624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.31	Incomplete Integration	JH8B	11/11/24 08:28

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126629-1

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 00217	11/18/24	11/04/24	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_00115	05/04/25	11/04/24	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 CAS # 123-91-1 Purity 99% (Lot SHBM5092)	2,019.2 µg/mL	+/- 11.8498	µg/mL	Gravimetric	
			+/- 43.2613	µg/mL	Unstressed	
			+/- 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)

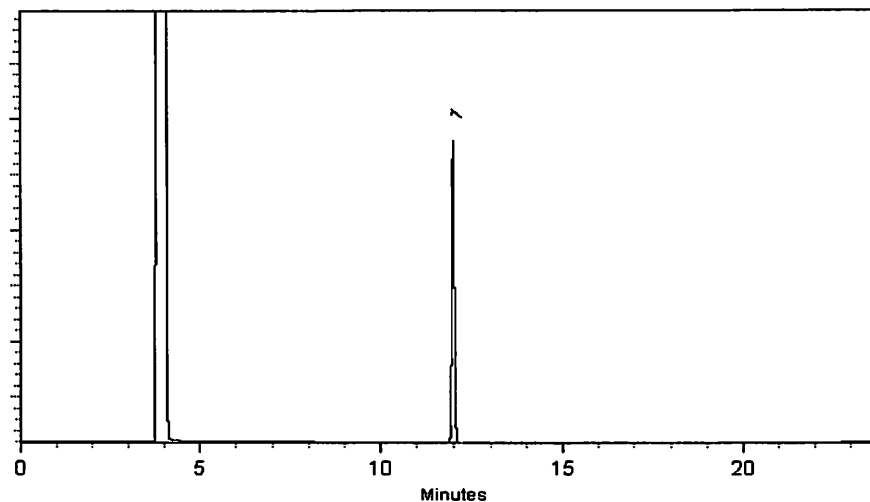
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

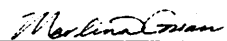
Det. Type:
FID



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

Certified Uncertainty Value Notes:

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

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

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

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

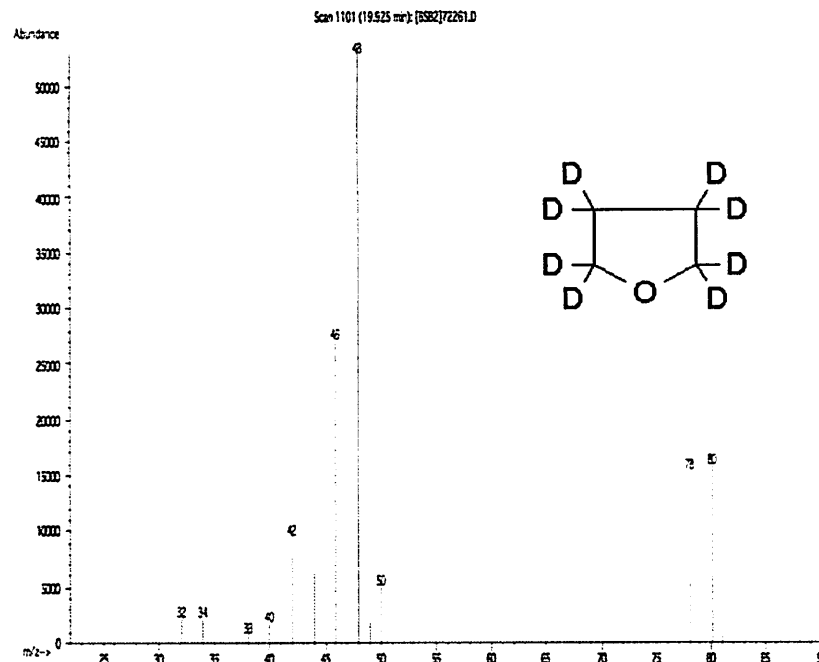
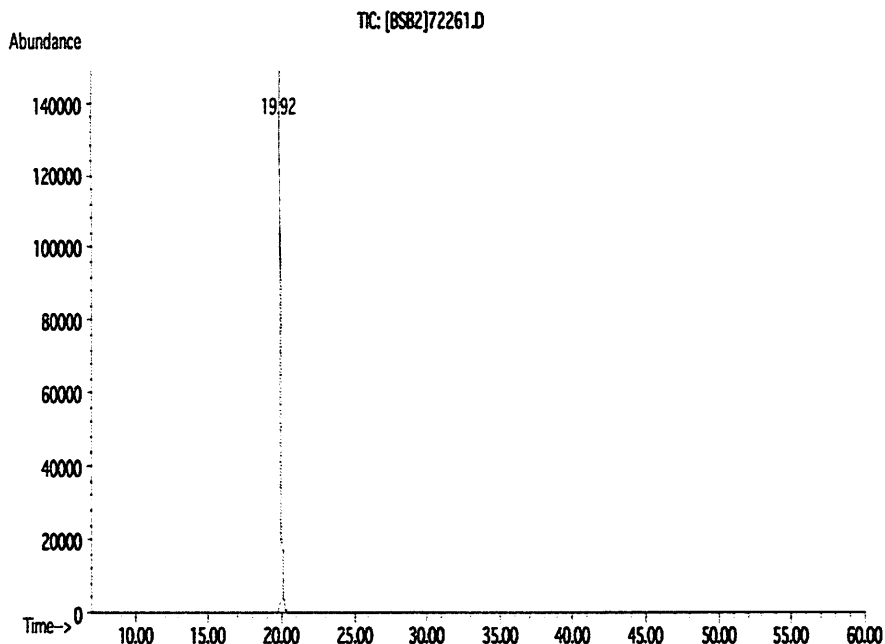
Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

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

Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.)		
	CAS#	OSHA PEL (TWA)	LD5

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 ±0.24%. The CRM Uncertainty calculated for this product is ±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

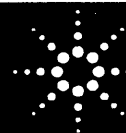
OR-ORG/INO-001
Rev. 7/11

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	2000	± 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.

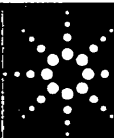
Intended Use:

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.: 810-126629-1

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-2024103 0	810-126629-1	94
	LLCS 810-121649/2-A	100
VPB190-HYD-2024103 0 MS	810-126629-1 MS	97
VPB190-HYD-2024103 0 MSD	810-126629-1 MSD	101
	MBL 810-121649/1-A	94

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.: 810-126629-1
Bend

SDG No.:

Matrix: Drinking Water Level: Low Lab File ID: LLC1.D

Lab ID: LLCS 810-121649/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LLCS CONCENTRATION (ug/L)	LLCS % REC	QC LIMITS REC	#
1,4-Dioxane	0.0700	0.0841	120	50-150	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Eaton Analytical South Job No.: 810-126629-1
Bend

SDG No.:

Matrix: Drinking Water Level: Low Lab File ID: 810-126629-A-1-A MS.D

Lab ID: 810-126629-1 MS Client ID: VPB190-HYD-20241030 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	1.00	<0.070	0.988	99	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Eaton Analytical South
Bend

Job No.: 810-126629-1

SDG No.:

Matrix: Drinking Water Level: Low

Lab File ID: 810-126629-A-1-B MSD.D

Lab ID: 810-126629-1 MSD

Client ID: VPB190-HYD-20241030 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,4-Dioxane	1.00	1.07	107	8	30	70-130	

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.: 810-126629-1
SDG No.:
Lab File ID: MBL1.D Lab Sample ID: MBL 810-121649/1-A
Matrix: Drinking Water Date Extracted: 11/07/2024 07:43
Instrument ID: GCMS-DM Date Analyzed: 11/09/2024 21:45
Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LLCS 810-121649/2-A	LLC1.D	11/09/2024 22:10
VPB190-HYD-20241030	810-126629-1	810-126629-B-1-A.D	11/10/2024 00:20
VPB190-HYD-20241030 MS	810-126629-1 MS	810-126629-A-1-A MS.D	11/10/2024 00:45
VPB190-HYD-20241030 MSD	810-126629-1 MSD	810-126629-A-1-B MSD.D	11/10/2024 01:11

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

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126629-1

SDG No.:

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

Instrument ID: GCMS-DM BFB Injection Time: 16:07

Analysis Batch No.: 120057

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.6
75	30.0 - 80.0 % of mass 95	51.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.6
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	>50.0 % of mass 95	73.8
175	5.0 - 9.0 % of mass 174	6.2 (8.4) 1
176	>95.0 but <101.0 % of mass 174	72.1 (97.7) 1
177	5.0 - 9.0 % of mass 176	4.8 (6.6) 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	L1.D	10/23/2024	16:39
	IC 810-119843/5-A	L2.D	10/23/2024	17:05
	IC 810-119843/6-A	L3.D	10/23/2024	17:31
	IC 810-119843/7-A	L4.D	10/23/2024	17:56
	ICISAV 810-119843/8-A	ICRT.D	10/23/2024	18:21
	IC 810-119843/9-A	L6.D	10/23/2024	18:46
	IC 810-119843/10-A	L7.D	10/23/2024	19:12
	IC 810-119843/11-A	L8.D	10/23/2024	19:37
	IC 810-119843/12-A	L9.D	10/23/2024	20:03
	ICV 810-119843/13-A	ICV.D	10/23/2024	21:21

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

Lab Name: Eurofins Eaton Analytical South Job No.: 810-126629-1
Bend

SDG No.:

Instrument I GCMS-DM Calibration Start Date: 10/23/2024 16:39

GC Column: CPSelect 624 MS ID: 0.25 (mm) Calibration End Date: 10/23/2024 20:03

Calibration ID: 13607

		THFd8					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		66408	6.12				
UPPER LIMIT		99612	6.62				
LOWER LIMIT		33204	5.62				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 810-119843/13-A		64500	6.12				
CCVLIS 810-121655/1-A		49153	6.11				
MBL 810-121649/1-A		43496	6.11				
LLCS 810-121649/2-A		44459	6.11				
810-126629-1	VPB190-HYD-20241030	50773	6.11				
810-126629-1 MS	VPB190-HYD-20241030 MS	48892	6.11				
810-126629-1 MSD	VPB190-HYD-20241030 MSD	49088	6.11				
CCVIS 810-121655/2-A		47934	6.11				

THFd8 = Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = $\pm$ 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton Analytical South Bend
Job No.: 810-126629-1

SDG No.:

Client Sample ID: VPB190-HYD-20241030
Lab Sample ID: 810-126629-1

Matrix: Drinking Water
Lab File ID: 810-126629-B-1-A.D

Analysis Method: 522
Date Collected: 10/30/2024 09:15

Extract. Method: 522
Date Extracted: 11/07/2024 07:43

Sample wt/vol: 100 (mL)
Date Analyzed: 11/10/2024 00:20

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.: 121979
Units: ug/L

Preparation Batch No.: 121649
Instrument ID: GCMS-DM

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)	94		70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\810-126629-B-1-A.D
Lims ID: 810-126629-B-1-A
Client ID: VPB190-HYD-20241030
Sample Type: Client
Inject. Date: 10-Nov-2024 00:20:16 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0031225-008
Misc. Info.: 810-126629-B-1-A
Operator ID: TD Instrument ID: GCMS-DM
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 11-Nov-2024 08:30:37 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1685

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 5 Tetrahydrofuran-d8	46	6.114	6.114	0.000	24	50773	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.233	8.232	0.001	0	33502	472.4	
11 1,4-Dioxane	88	8.305	8.305	0.000	81	229	2.43	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\810-126629-B-1-A.D

Injection Date: 10-Nov-2024 00:20:16

Instrument ID: GCMS-DM

Lims ID: 810-126629-B-1-A

Lab Sample ID: 810-126629-1

Client ID: VPB190-HYD-20241030

Operator ID: TD

ALS Bottle#: 0

Worklist Smp#: 8

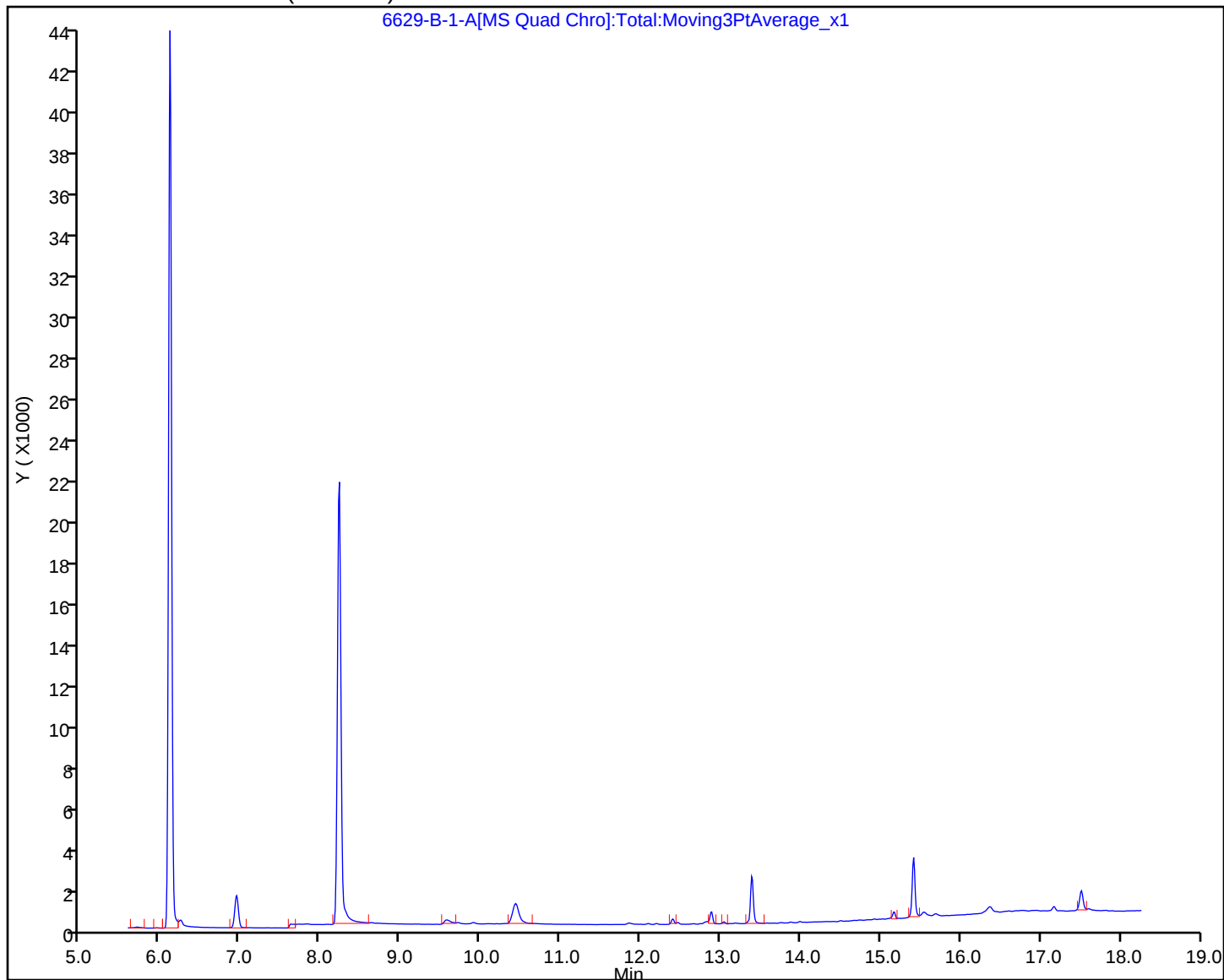
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 522_GCMS-DM

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-DM\20241109-31225.b\810-126629-B-1-A.D
Lims ID: 810-126629-B-1-A
Client ID: VPB190-HYD-20241030
Sample Type: Client
Inject. Date: 10-Nov-2024 00:20:16 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0031225-008
Misc. Info.: 810-126629-B-1-A
Operator ID: TD Instrument ID: GCMS-DM
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 11-Nov-2024 08:30:37 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1685

Compound	Amount Added	Amount Recovered	% Rec.
\$ 9 1,4-Dioxane-d8 (Surr)	500.0	472.4	94.49

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

Lab Name: Eurofins Eaton Analytical South Job No.: 810-126629-1 Analy Batch No.: 120057
Bend

SDG No.:

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

Calibration Start Date: 10/23/2024 16:39 Calibration End Date: 10/23/2024 20:03 Calibration ID: 13607

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-119843/4-A	L1.D
Level 2	IC 810-119843/5-A	L2.D
Level 3	IC 810-119843/6-A	L3.D
Level 4	IC 810-119843/7-A	L4.D
Level 5	ICISAV 810-119843/8-A	ICRT.D
Level 6	IC 810-119843/9-A	L6.D
Level 7	IC 810-119843/10-A	L7.D
Level 8	IC 810-119843/11-A	L8.D
Level 9	IC 810-119843/12-A	L9.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	0.8607 0.7942	0.8184 0.8633	0.7862 0.7956	0.8521 0.7734	0.8091	Lin1	0.332 7	0.792 5				5.1					
1,4-Dioxane-d8 (Surr)	0.6907 0.7057	0.7037 0.6912	0.7136 0.6966	0.6954 0.6919	0.6962	Ave		0.698 3				1.1		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.: 810-126629-1

Analy Batch No.: 120057

SDG No.:

Instrument ID: GCMS-DM

GC Column: CPSelect 6 ID: 0.25(mm)

Heated Purge: (Y/N) N

Calibration Start Date: 10/23/2024 16:39

Calibration End Date: 10/23/2024 20:03

Calibration ID: 13607

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-119843/4-A	L1.D
Level 2	IC 810-119843/5-A	L2.D
Level 3	IC 810-119843/6-A	L3.D
Level 4	IC 810-119843/7-A	L4.D
Level 5	ICISAV 810-119843/8-A	ICRT.D
Level 6	IC 810-119843/9-A	L6.D
Level 7	IC 810-119843/10-A	L7.D
Level 8	IC 810-119843/11-A	L8.D
Level 9	IC 810-119843/12-A	L9.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
1,4-Dioxane	THFd8	Lin1	384	525	1039	2825	5328	3.50	5.00	10.0	25.0	50.0
			10850	29183	54134	104546		100	250	500	1000	
1,4-Dioxane-d8 (Surr)	THFd8	Ave	44024	45145	47152	46113	45846	500	500	500	500	500
			48210	46731	47393	46759		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.: 810-126629-1 Analy Batch No.: 120057
SDG No.: _____
Instrument ID: GCMS-DM GC Column: CPSelect 62 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/23/2024 16:39 Calibration End Date: 10/23/2024 20:03 Calibration ID: 13607

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-119843/4-A	L1.D
Level 2	IC 810-119843/5-A	L2.D
Level 3	IC 810-119843/6-A	L3.D
Level 4	IC 810-119843/7-A	L4.D
Level 5	ICISAV 810-119843/8-A	ICRT.D
Level 6	IC 810-119843/9-A	L6.D
Level 7	IC 810-119843/10-A	L7.D
Level 8	IC 810-119843/11-A	L8.D
Level 9	IC 810-119843/12-A	L9.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	-3.4	-5.1	-5.0	5.8	1.3	-0.2	40	20	20	20	20	20
	8.8	0.3	-2.4				20	20	20			

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L1.D
 Lims ID: IC 810-119843/4-A
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 23-Oct-2024 16:39:59 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 810-0030673-003
 Misc. Info.: ic 810-119843/4-a
 Operator ID: TD Instrument ID: GCMS-DM
 Sublist: chrom-522_GCMS-DM*sub1
 Raw Data: Smoothed
 Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m
 Limit Group: MSS - 522
 Last Update: 24-Oct-2024 10:48:44 Calib Date: 23-Oct-2024 20:03:47
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
 Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
 Process Host: CTX1640

First Level Reviewer: JH8B

Date: 24-Oct-2024 10:48:12

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	6.114	6.122	-0.008	26	63736	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.243	8.243	0.000	0	44024	500.0	494.5	
11 1,4-Dioxane	88	8.316	8.315	0.001	83	384	3.50	3.38	

QC Flag Legend

Processing Flags

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L1.D

Injection Date: 23-Oct-2024 16:39:59

Instrument ID: GCMS-DM

Lims ID: IC 810-119843/4-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

3

Injection Vol: 1.0 ul

Dil. Factor:

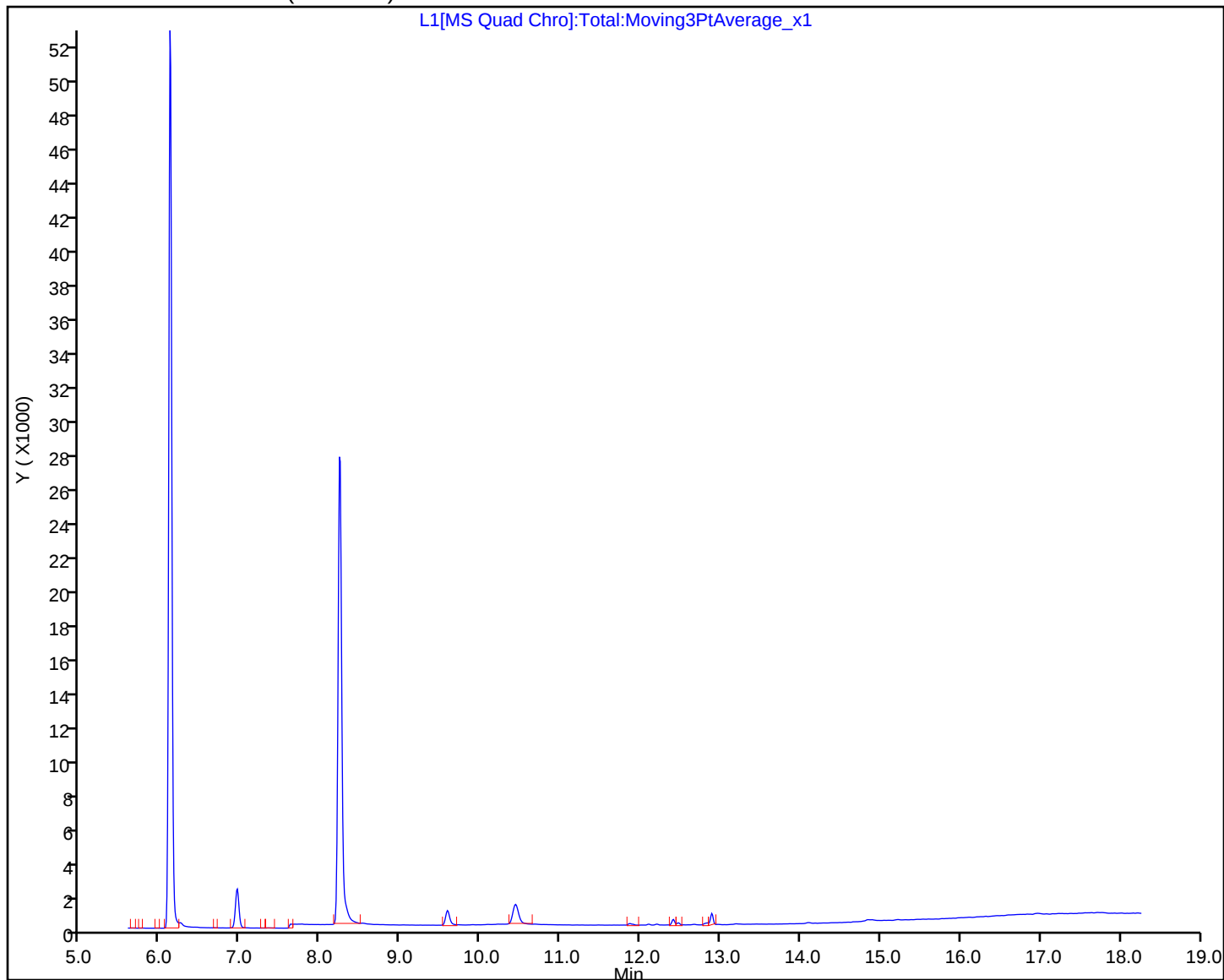
1.0000

Method: 522_GCMS-DM

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-DM\20241023-30673.b\L2.D
 Lims ID: IC 810-119843/5-A
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 23-Oct-2024 17:05:42 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 810-0030673-004
 Misc. Info.: ic 810-119843/5-a
 Operator ID: TD Instrument ID: GCMS-DM
 Sublist: chrom-522_GCMS-DM*sub1
 Raw Data: Smoothed
 Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m
 Limit Group: MSS - 522
 Last Update: 24-Oct-2024 10:48:45 Calib Date: 23-Oct-2024 20:03:47
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
 Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
 Process Host: CTX1640

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	6.114	6.122	-0.008	26	64152	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.243	8.243	0.000	0	45145	500.0	503.9	
11 1,4-Dioxane	88	8.316	8.315	0.001	84	525	5.00	4.74	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L2.D

Injection Date: 23-Oct-2024 17:05:42

Instrument ID: GCMS-DM

Lims ID: IC 810-119843/5-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

4

Injection Vol: 1.0 ul

Dil. Factor:

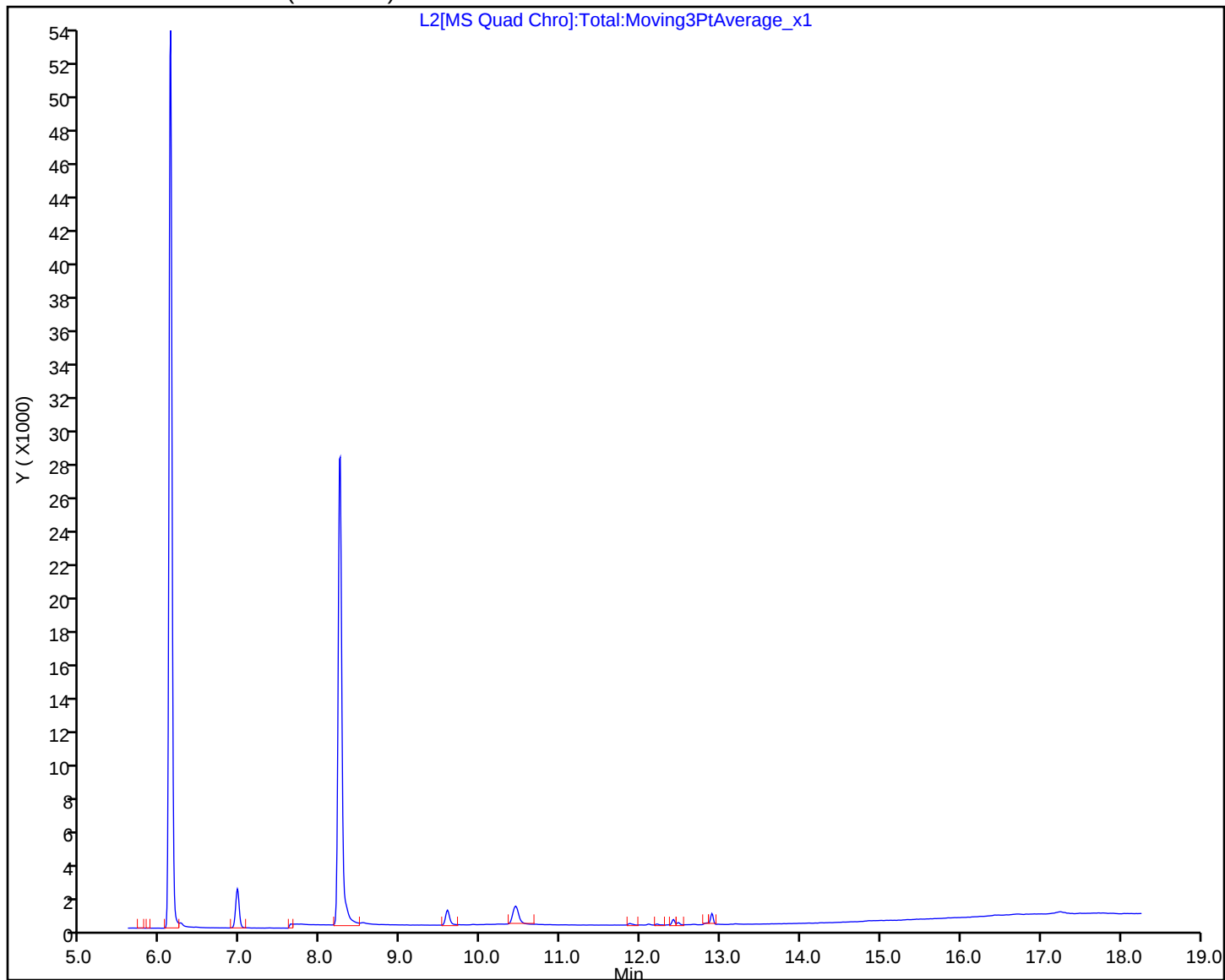
1.0000

Method: 522_GCMS-DM

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-DM\20241023-30673.b\L3.D
 Lims ID: IC 810-119843/6-A
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 23-Oct-2024 17:31:01 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 810-0030673-005
 Misc. Info.: ic 810-119843/6-a
 Operator ID: TD Instrument ID: GCMS-DM
 Sublist: chrom-522_GCMS-DM*sub1
 Raw Data: Smoothed
 Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m
 Limit Group: MSS - 522
 Last Update: 24-Oct-2024 10:48:46 Calib Date: 23-Oct-2024 20:03:47
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
 Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
 Process Host: CTX1640

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	6.122	6.122	0.000	25	66075	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.243	8.243	0.000	0	47152	500.0	510.9	
11 1,4-Dioxane	88	8.315	8.315	0.000	84	1039	10.0	9.50	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L3.D

Injection Date: 23-Oct-2024 17:31:01

Instrument ID: GCMS-DM

Lims ID: IC 810-119843/6-A

Client ID:

Operator ID: TD

ALS Bottle#: 0

Worklist Smp#: 5

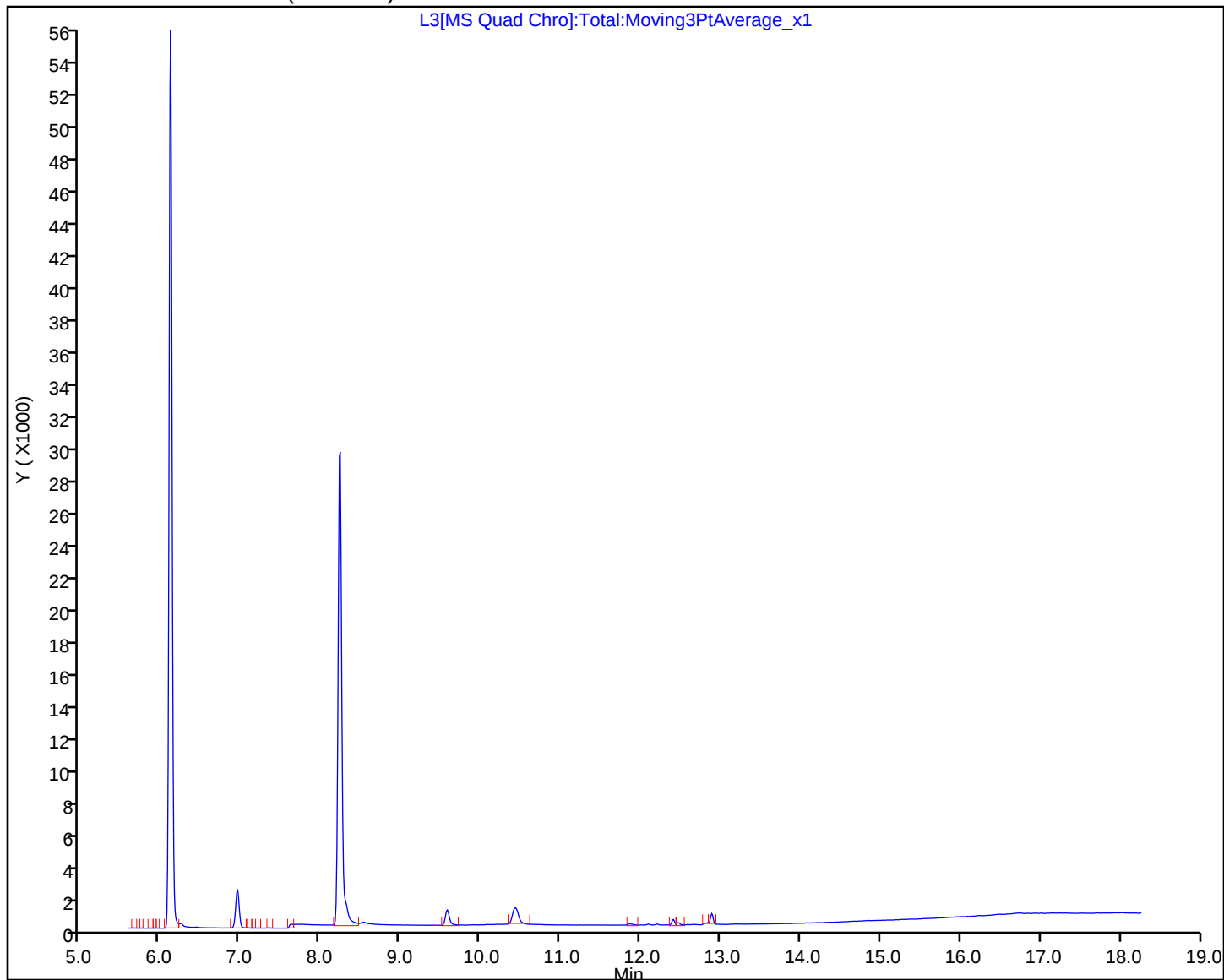
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 522_GCMS-DM

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-DM\20241023-30673.b\L4.D
Lims ID: IC 810-119843/7-A
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Oct-2024 17:56:13 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030673-006
Misc. Info.: ic 810-119843/7-a
Operator ID: TD Instrument ID: GCMS-DM
Sublist: chrom-522_GCMS-DM*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 10:48:47 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

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	6.122	6.122	0.000	25	66309	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.243	8.243	0.000	0	46113	500.0	497.9	
11 1,4-Dioxane	88	8.315	8.315	0.000	85	2825	25.0	26.5	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L4.D

Injection Date: 23-Oct-2024 17:56:13

Instrument ID: GCMS-DM

Lims ID: IC 810-119843/7-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

6

Injection Vol: 1.0 ul

Dil. Factor:

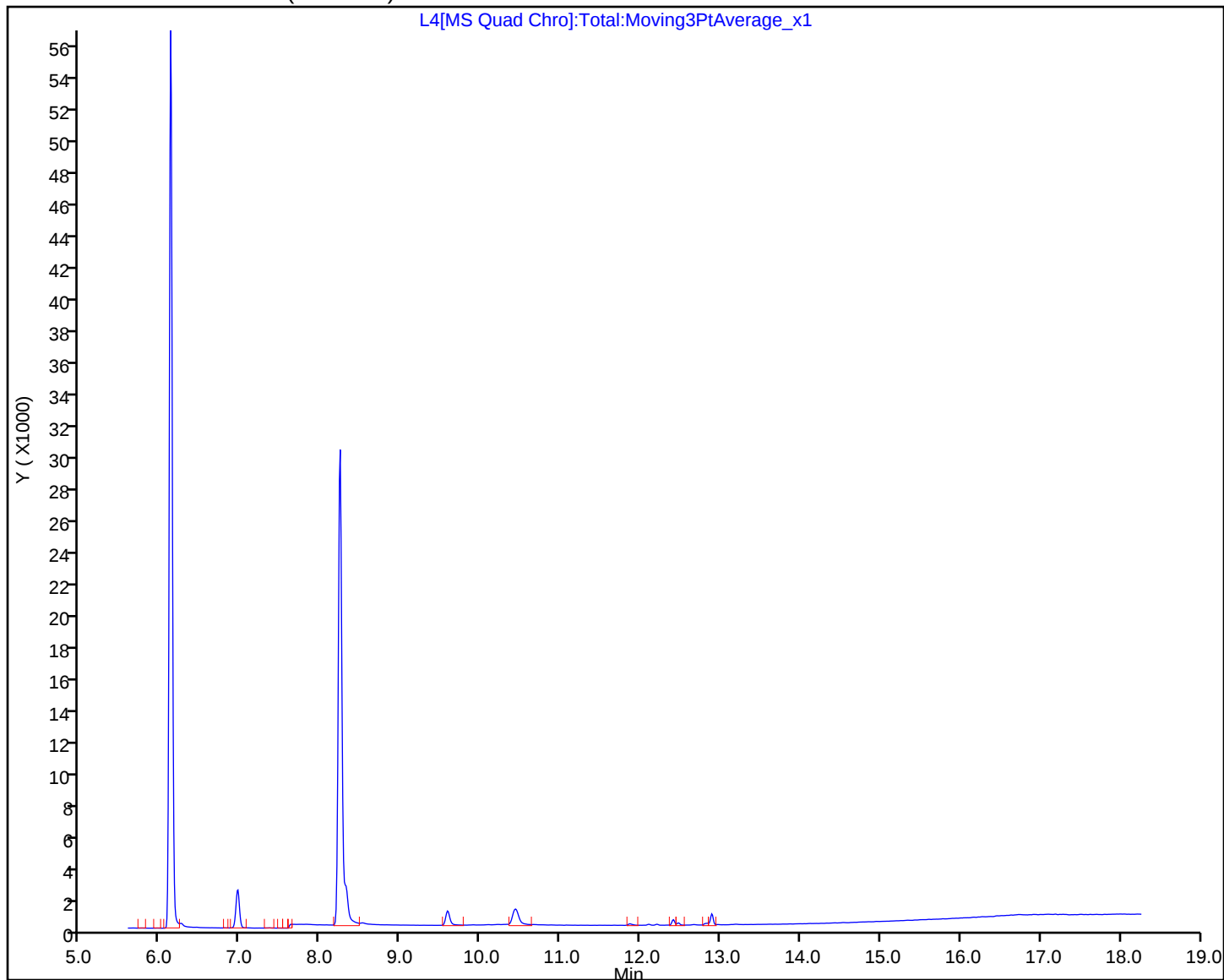
1.0000

Method: 522_GCMS-DM

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-DM\20241023-30673.b\ICRT.D
Lims ID: ICISAV 810-119843/8-A
Client ID:
Sample Type: ICISAV Calib Level: 5
Inject. Date: 23-Oct-2024 18:21:19 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030673-007
Misc. Info.: icisav 810-119843/8-a
Operator ID: TD Instrument ID: GCMS-DM
Sublist: chrom-522_GCMS-DM*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 10:48:48 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

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	6.122	6.122	0.000	25	65851	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.243	8.243	0.000	0	45846	500.0	498.5	
11 1,4-Dioxane	88	8.315	8.315	0.000	85	5328	50.0	50.6	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\ICRT.D

Injection Date: 23-Oct-2024 18:21:19

Instrument ID: GCMS-DM

Lims ID: ICISAV 810-119843/8-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

7

Injection Vol: 1.0 ul

Dil. Factor:

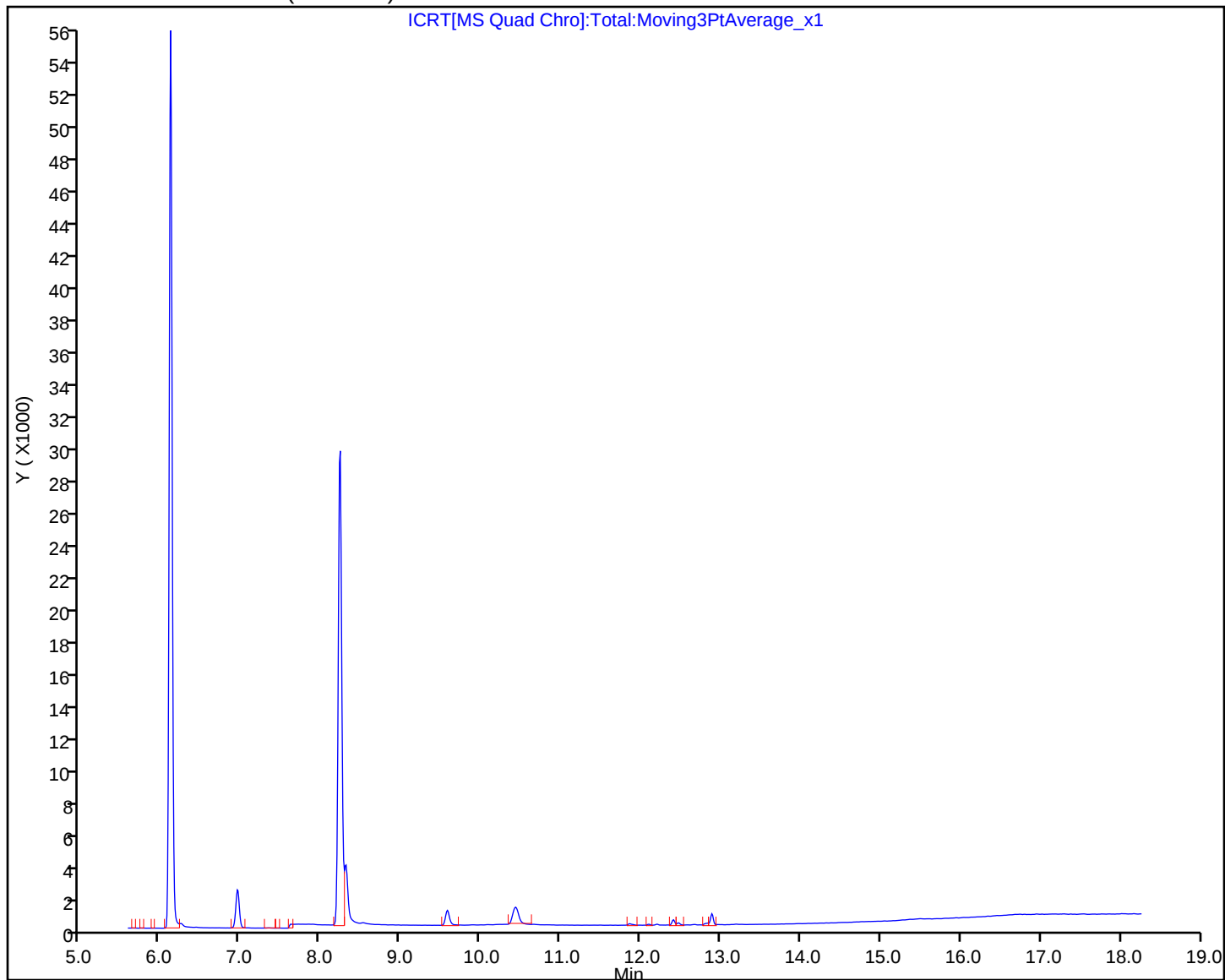
1.0000

Method: 522_GCMS-DM

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-DM\20241023-30673.b\L6.D
 Lims ID: IC 810-119843/9-A
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 23-Oct-2024 18:46:34 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 810-0030673-008
 Misc. Info.: ic 810-119843/9-a
 Operator ID: TD Instrument ID: GCMS-DM
 Sublist: chrom-522_GCMS-DM*sub1
 Raw Data: Smoothed
 Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m
 Limit Group: MSS - 522
 Last Update: 24-Oct-2024 10:48:49 Calib Date: 23-Oct-2024 20:03:47
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
 Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
 Process Host: CTX1640

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	6.122	6.122	0.000	26	68311	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.243	8.243	0.000	0	48210	500.0	505.3	
11 1,4-Dioxane	88	8.315	8.315	0.000	84	10850	100.0	99.8	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L6.D

Injection Date: 23-Oct-2024 18:46:34

Instrument ID: GCMS-DM

Lims ID: IC 810-119843/9-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

8

Injection Vol: 1.0 ul

Dil. Factor:

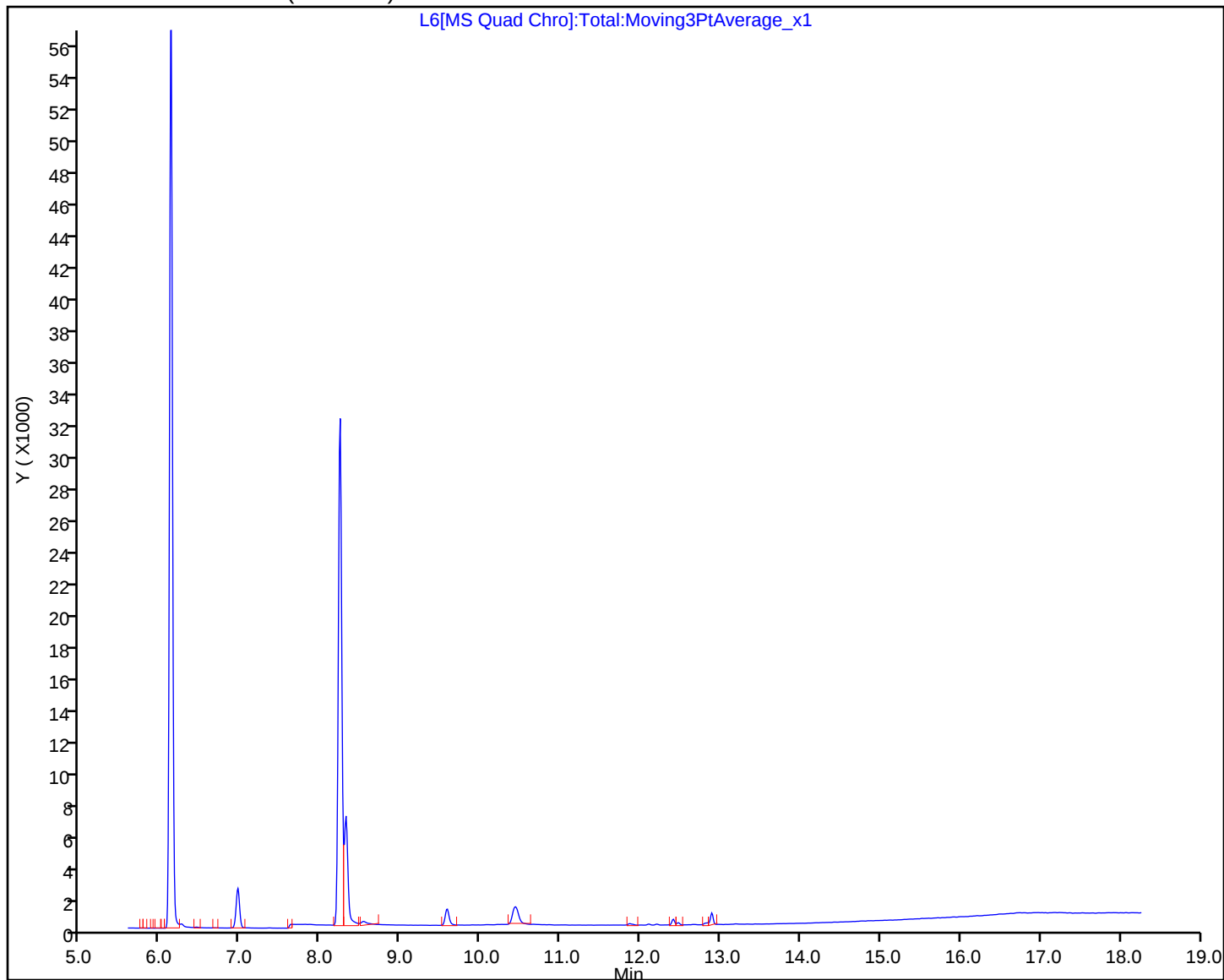
1.0000

Method: 522_GCMS-DM

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-DM\20241023-30673.b\L7.D
Lims ID: IC 810-119843/10-A
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 23-Oct-2024 19:12:01 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030673-009
Misc. Info.: ic 810-119843/10-a
Operator ID: TD Instrument ID: GCMS-DM
Sublist: chrom-522_GCMS-DM*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 10:48:50 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

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	6.122	6.122	0.000	26	67610	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.243	8.243	0.000	0	46731	500.0	494.9	
11 1,4-Dioxane	88	8.316	8.315	0.001	85	29183	250.0	271.9	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L7.D

Injection Date: 23-Oct-2024 19:12:01

Instrument ID: GCMS-DM

Lims ID: IC 810-119843/10-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

9

Injection Vol: 1.0 ul

Dil. Factor:

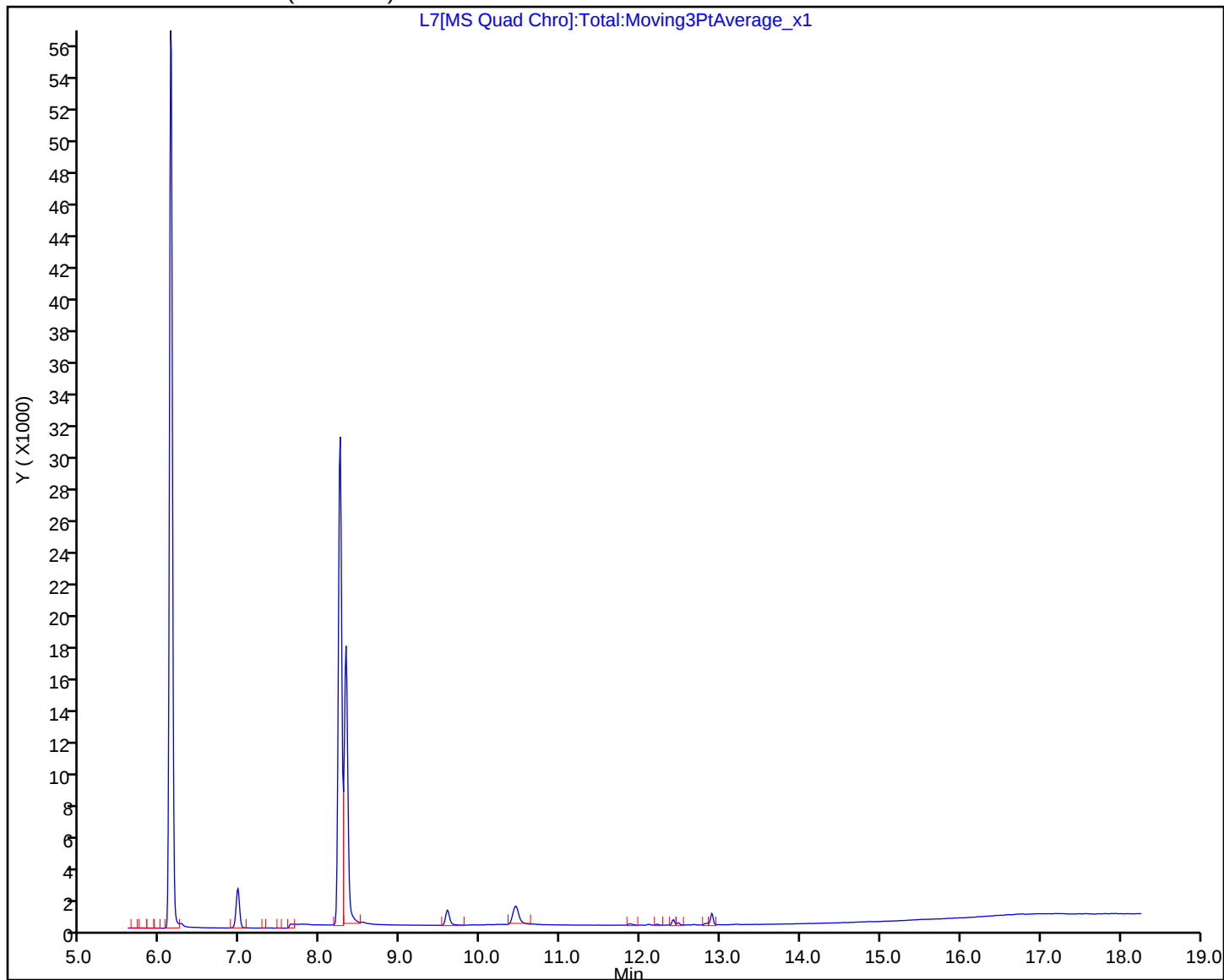
1.0000

Method: 522_GCMS-DM

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-DM\20241023-30673.b\L8.D
Lims ID: IC 810-119843/11-A
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 23-Oct-2024 19:37:55 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030673-010
Misc. Info.: ic 810-119843/11-a
Operator ID: TD Instrument ID: GCMS-DM
Sublist: chrom-522_GCMS-DM*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 10:48:50 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

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	6.122	6.122	0.000	26	68039	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.243	8.243	0.000	0	47393	500.0	498.7	
11 1,4-Dioxane	88	8.315	8.315	0.000	85	54134	500.0	501.6	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L8.D

Injection Date: 23-Oct-2024 19:37:55

Instrument ID: GCMS-DM

Lims ID: IC 810-119843/11-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

10

Injection Vol: 1.0 ul

Dil. Factor:

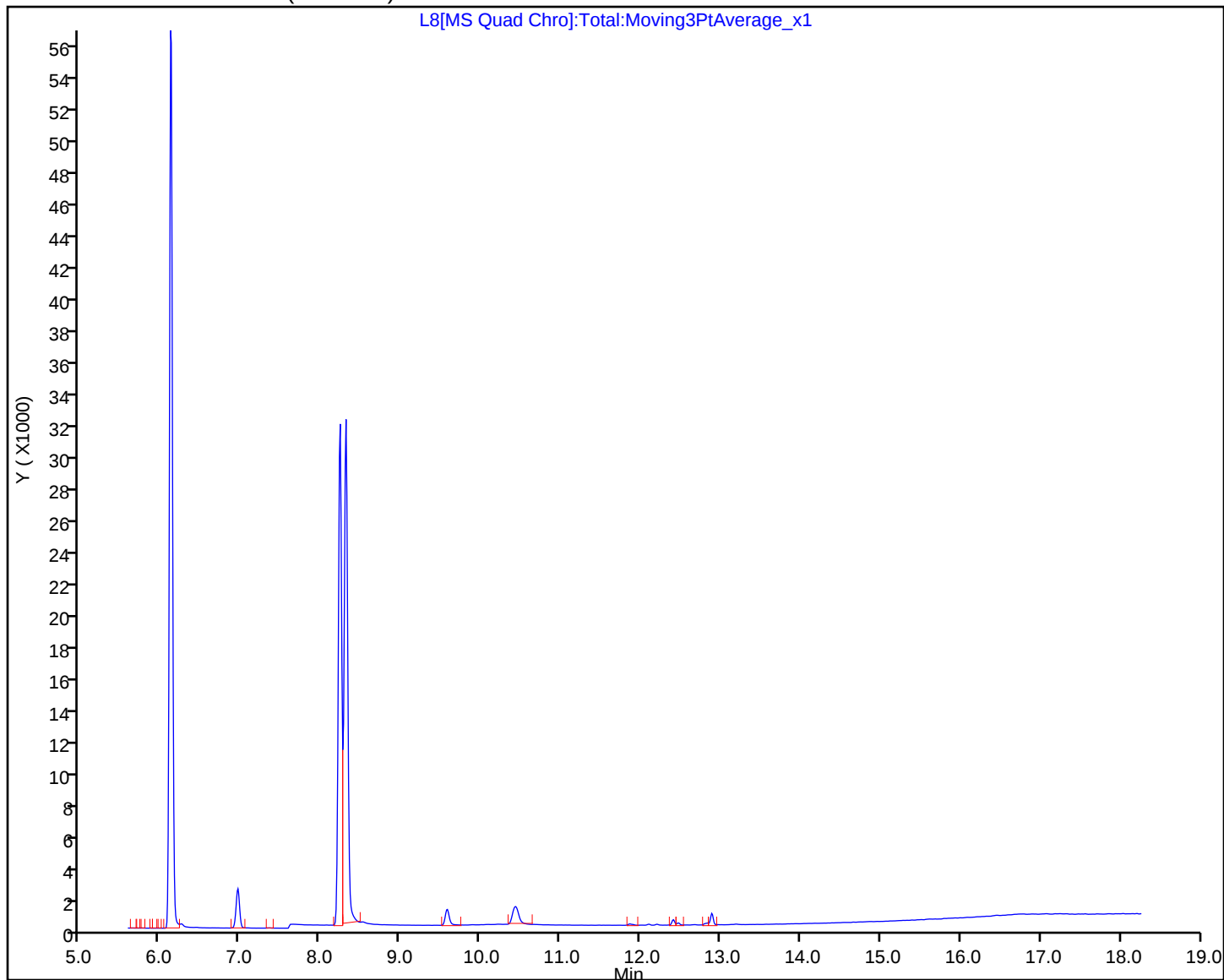
1.0000

Method: 522_GCMS-DM

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-DM\20241023-30673.b\L9.D
Lims ID: IC 810-119843/12-A
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 23-Oct-2024 20:03:47 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030673-011
Misc. Info.: ic 810-119843/12-a
Operator ID: TD Instrument ID: GCMS-DM
Sublist: chrom-522_GCMS-DM*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 10:48:51 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

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	6.122	6.122	0.000	26	67585	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.243	8.243	0.000	0	46759	500.0	495.4	
11 1,4-Dioxane	88	8.316	8.315	0.001	85	104546	1000.0	975.5	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D

Injection Date: 23-Oct-2024 20:03:47

Instrument ID: GCMS-DM

Lims ID: IC 810-119843/12-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

11

Injection Vol: 1.0 ul

Dil. Factor:

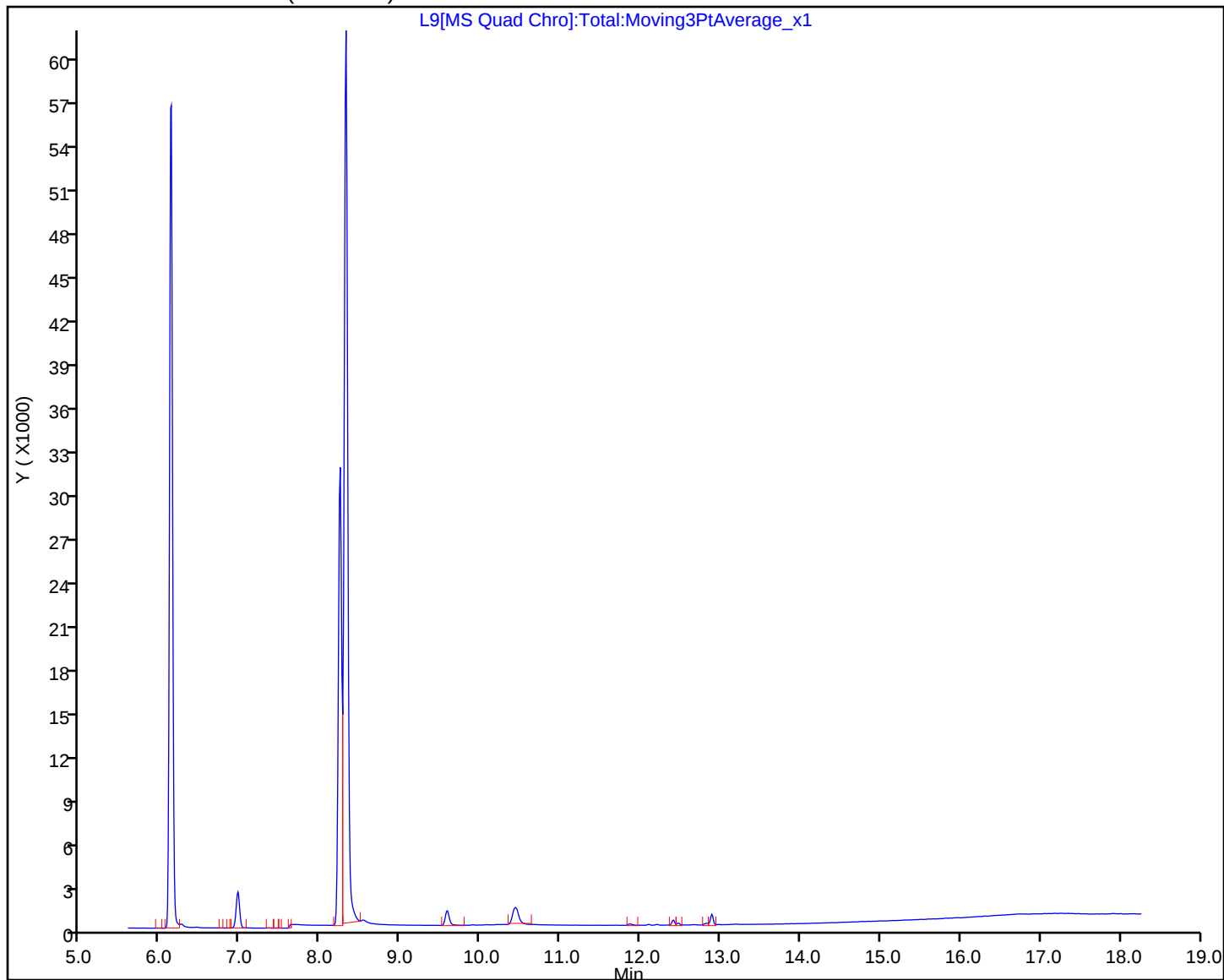
1.0000

Method: 522_GCMS-DM

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



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

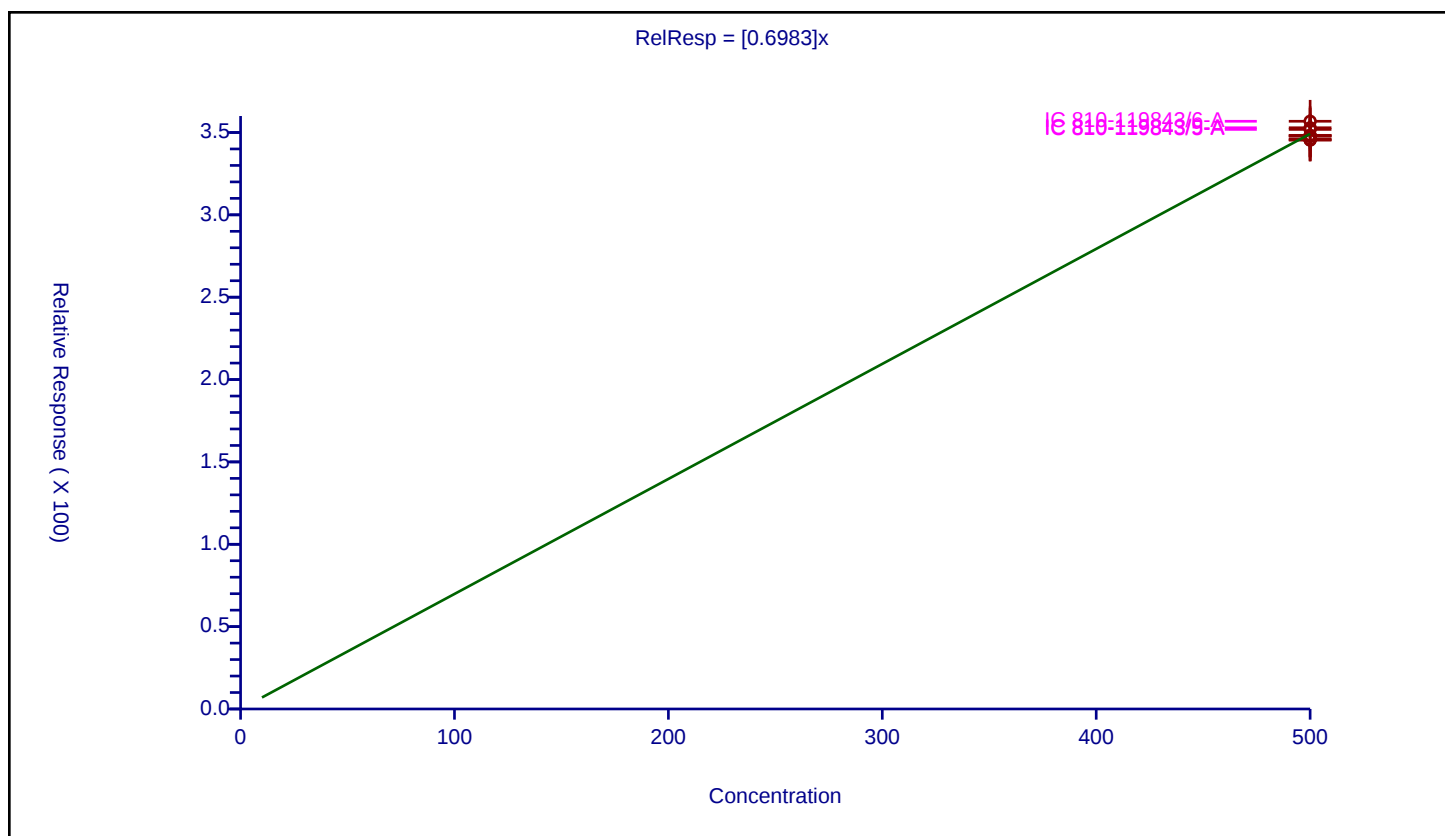
Curve Coefficients

Intercept: 0
 Slope: 0.6983

Error Coefficients

Relative Standard Deviation: 1.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 810-119843/4-A	500.0	345.362119	500.0	63736.0	0.690724	Y
2	IC 810-119843/5-A	500.0	351.859646	500.0	64152.0	0.703719	Y
3	IC 810-119843/6-A	500.0	356.806659	500.0	66075.0	0.713613	Y
4	IC 810-119843/7-A	500.0	347.71298	500.0	66309.0	0.695426	Y
5	ICISAV 810-119843/8-A	500.0	348.104053	500.0	65851.0	0.696208	Y
6	IC 810-119843/9-A	500.0	352.871426	500.0	68311.0	0.705743	Y
7	IC 810-119843/10-A	500.0	345.592368	500.0	67610.0	0.691185	Y
8	IC 810-119843/11-A	500.0	348.278193	500.0	68039.0	0.696556	Y
9	IC 810-119843/12-A	500.0	345.927351	500.0	67585.0	0.691855	Y



Calibration

/ 1,4-Dioxane

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

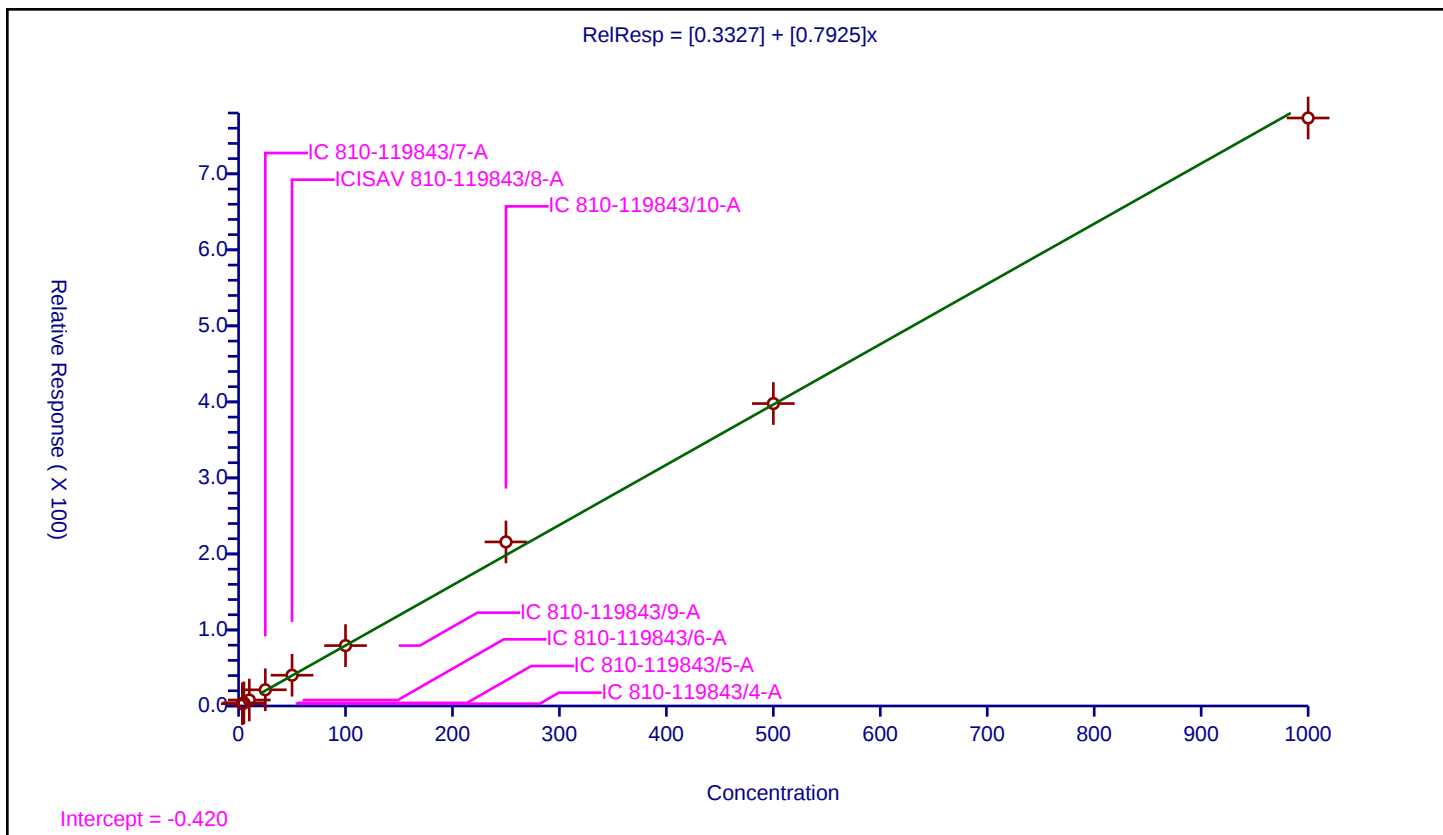
Curve Coefficients

Intercept: 0.3327
 Slope: 0.7925

Error Coefficients

Relative Standard Deviation: 5.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 810-119843/4-A	3.5	3.012426	500.0	63736.0	0.860693	Y
2	IC 810-119843/5-A	5.0	4.091844	500.0	64152.0	0.818369	Y
3	IC 810-119843/6-A	10.0	7.862278	500.0	66075.0	0.786228	Y
4	IC 810-119843/7-A	25.0	21.301784	500.0	66309.0	0.852071	Y
5	ICISAV 810-119843/8-A	50.0	40.454967	500.0	65851.0	0.809099	Y
6	IC 810-119843/9-A	100.0	79.416199	500.0	68311.0	0.794162	Y
7	IC 810-119843/10-A	250.0	215.818666	500.0	67610.0	0.863275	Y
8	IC 810-119843/11-A	500.0	397.815958	500.0	68039.0	0.795632	Y
9	IC 810-119843/12-A	1000.0	773.440852	500.0	67585.0	0.773441	Y



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126629-1
SDG No.: _____
Lab Sample ID: ICV 810-119843/13-A Calibration Date: 10/23/2024 21:21
Instrument ID: GCMS-DM Calib Start Date: 10/23/2024 16:39
GC Column: CPSelect 624 MS ID: 0.25 (mm) Calib End Date: 10/23/2024 20:03
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		0.7969		49.9	50.0	100	80-120
1,4-Dioxane-d8 (Surr)	Ave	0.6983	0.6853		491	500	98	70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\ICV.D
Lims ID: ICV 810-119843/13-A
Client ID:
Sample Type: ICV
Inject. Date: 23-Oct-2024 21:21:24 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0030673-013
Misc. Info.: ICV 810-119843/13-A
Operator ID: TD Instrument ID: GCMS-DM
Sublist:
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 11:38:36 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1640

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	6.122	6.122	0.000	25	64500	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.243	8.243	0.000	0	44202	500.0	490.7	
11 1,4-Dioxane	88	8.316	8.315	0.001	85	5140	50.0	49.9	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\ICV.D

Injection Date: 23-Oct-2024 21:21:24

Instrument ID: GCMS-DM

Lims ID: ICV 810-119843/13-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

13

Injection Vol: 1.0 ul

Dil. Factor:

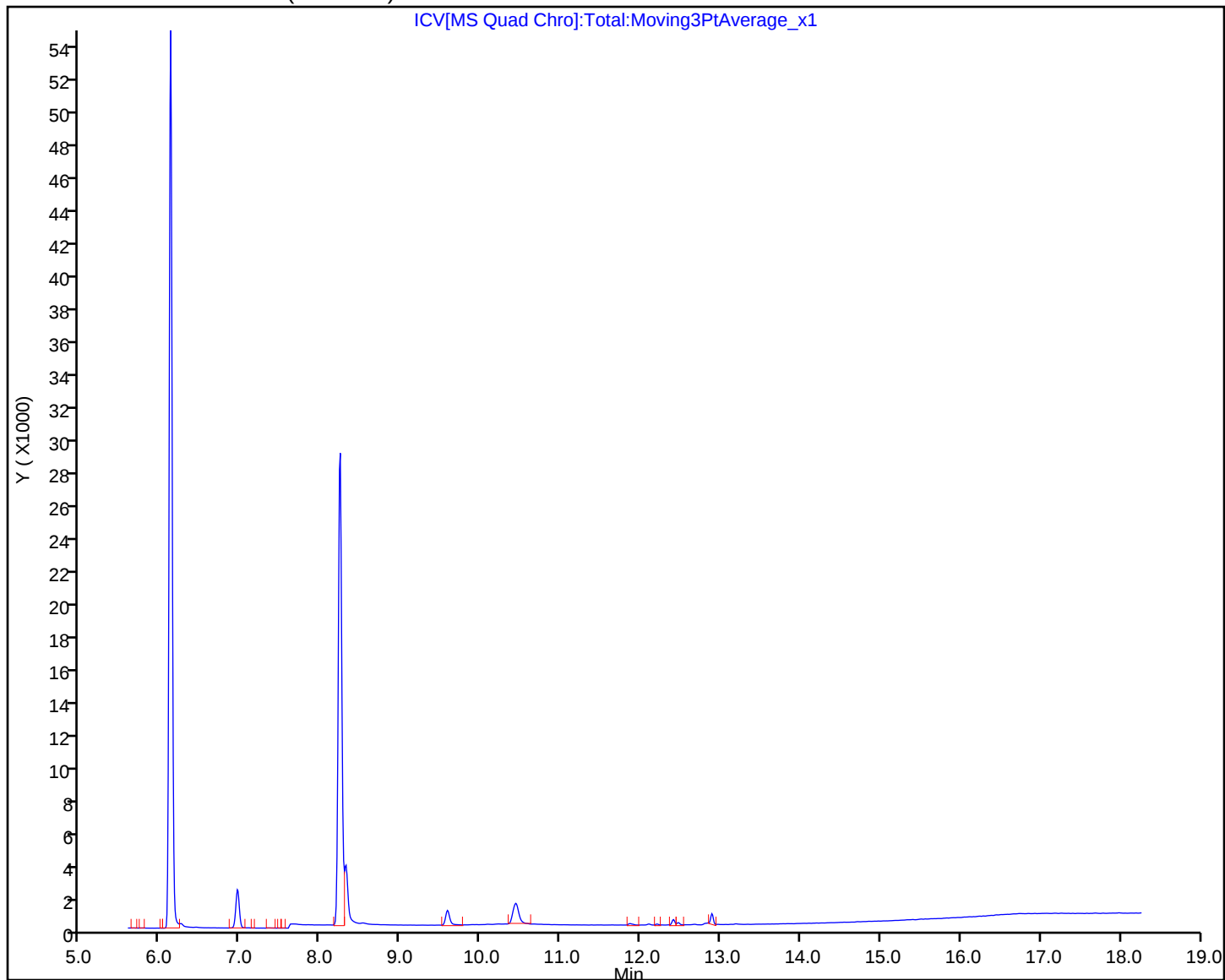
1.0000

Method: 522_GCMS-DM

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126629-1
SDG No.: _____
Lab Sample ID: CCVLIS 810-121655/1- Calibration Date: 11/09/2024 20:52
Instrument ID: GCMS-DM Calib Start Date: 10/23/2024 16:39
GC Column: CPSelect 624 MS ID: 0.25 (mm) Calib End Date: 10/23/2024 20:03
Lab File ID: CCVL1.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
1,4-Dioxane	Lin1		0.8022		3.12	3.50	89	50-150
1,4-Dioxane-d8 (Surr)	Ave	0.6983	0.6490		465	500	93	70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\CCVL1.D
Lims ID: CCVLIS 810-121655/1-A
Client ID:
Sample Type: CCVLIS
Inject. Date: 09-Nov-2024 20:52:40 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0031225-001
Misc. Info.: CCVLIS 810-121655/1-A
Operator ID: TD Instrument ID: GCMS-DM
Sublist: chrom-522_GCMS-DM*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 11-Nov-2024 08:30:37 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1685

First Level Reviewer: JH8B

Date: 11-Nov-2024 08:27:48

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	6.114	6.114	0.000	24	49153	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.232	8.232	0.000	0	31899	500.0	464.7	
11 1,4-Dioxane	88	8.305	8.305	0.000	82	276	3.50	3.12	

QC Flag Legend

Processing Flags

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\CCVL1.D

Injection Date: 09-Nov-2024 20:52:40

Instrument ID: GCMS-DM

Lims ID: CCVLIS 810-121655/1-A

Client ID:

Operator ID: TD

ALS Bottle#: 0

Worklist Smp#: 1

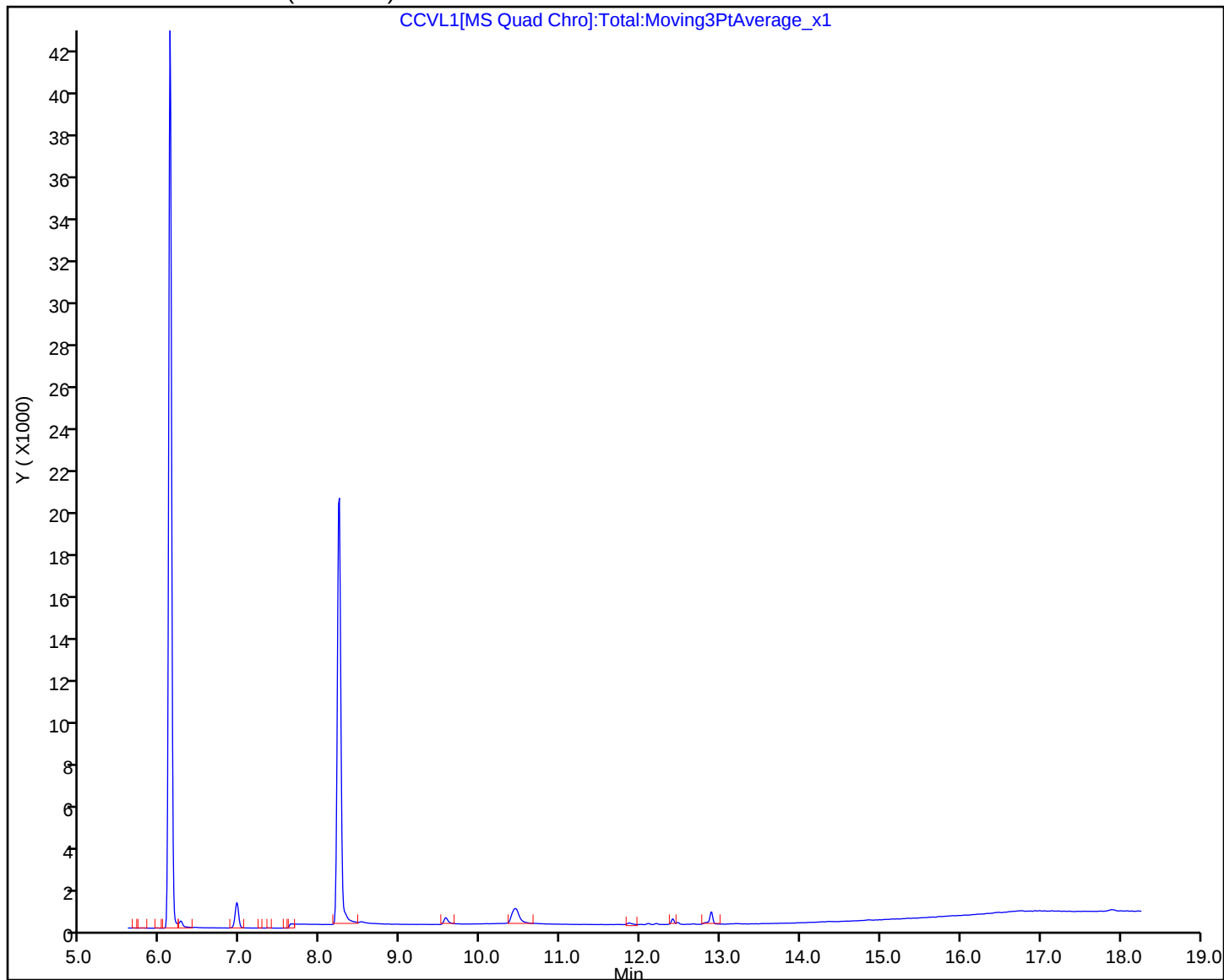
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 522_GCMS-DM

Limit Group: MSS - 522

Column: CP Select 624 MS (0.25 mm)



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126629-1
SDG No.: _____
Lab Sample ID: CCVIS 810-121655/2-A Calibration Date: 11/10/2024 03:46
Instrument ID: GCMS-DM Calib Start Date: 10/23/2024 16:39
GC Column: CPSelect 624 MS ID: 0.25 (mm) Calib End Date: 10/23/2024 20:03
Lab File ID: CCVM4.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
1,4-Dioxane	Lin1		0.7302		45.6	50.0	91	70-130
1,4-Dioxane-d8 (Surr)	Ave	0.6983	0.7257		520	500	104	70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\CCVM4.D
Lims ID: CCVIS 810-121655/2-A
Client ID:
Sample Type: CCVIS
Inject. Date: 10-Nov-2024 03:46:16 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0031225-016
Misc. Info.: CCVIS 810-121655/2-A
Operator ID: TD Instrument ID: GCMS-DM
Sublist: chrom-522_GCMS-DM*sub1
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 11-Nov-2024 08:30:50 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1685

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	6.106	6.106	0.000	26	47934	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.232	8.232	0.000	0	34784	500.0	519.6	
11 1,4-Dioxane	88	8.305	8.305	0.000	84	3500	50.0	45.6	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\CCVM4.D

Injection Date: 10-Nov-2024 03:46:16

Instrument ID: GCMS-DM

Lims ID: CCVIS 810-121655/2-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

16

Injection Vol: 1.0 ul

Dil. Factor:

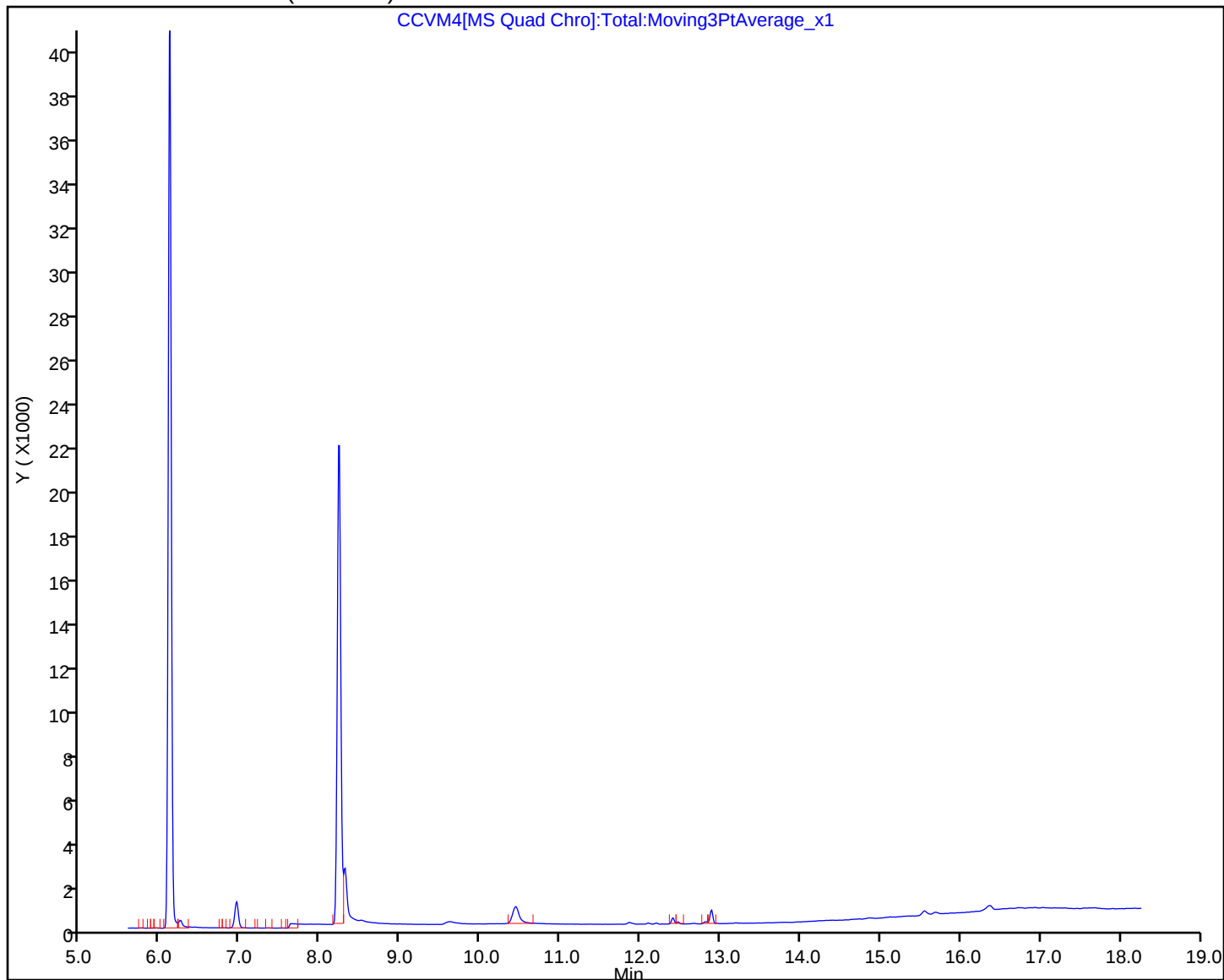
1.0000

Method: 522_GCMS-DM

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-DM\20241023-30673.b\BFB.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 23-Oct-2024 16:07:55 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 2.0 mL Dil. Factor: 1.0000
Sample Info: 810-0030673-001
Misc. Info.: BFB
Operator ID: TD Instrument ID: GCMS-DM
Raw Data: Smoothed

Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 24-Oct-2024 11:38:28 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D

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

First Level Reviewer: JH8B Date: 24-Oct-2024 10:47:52

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

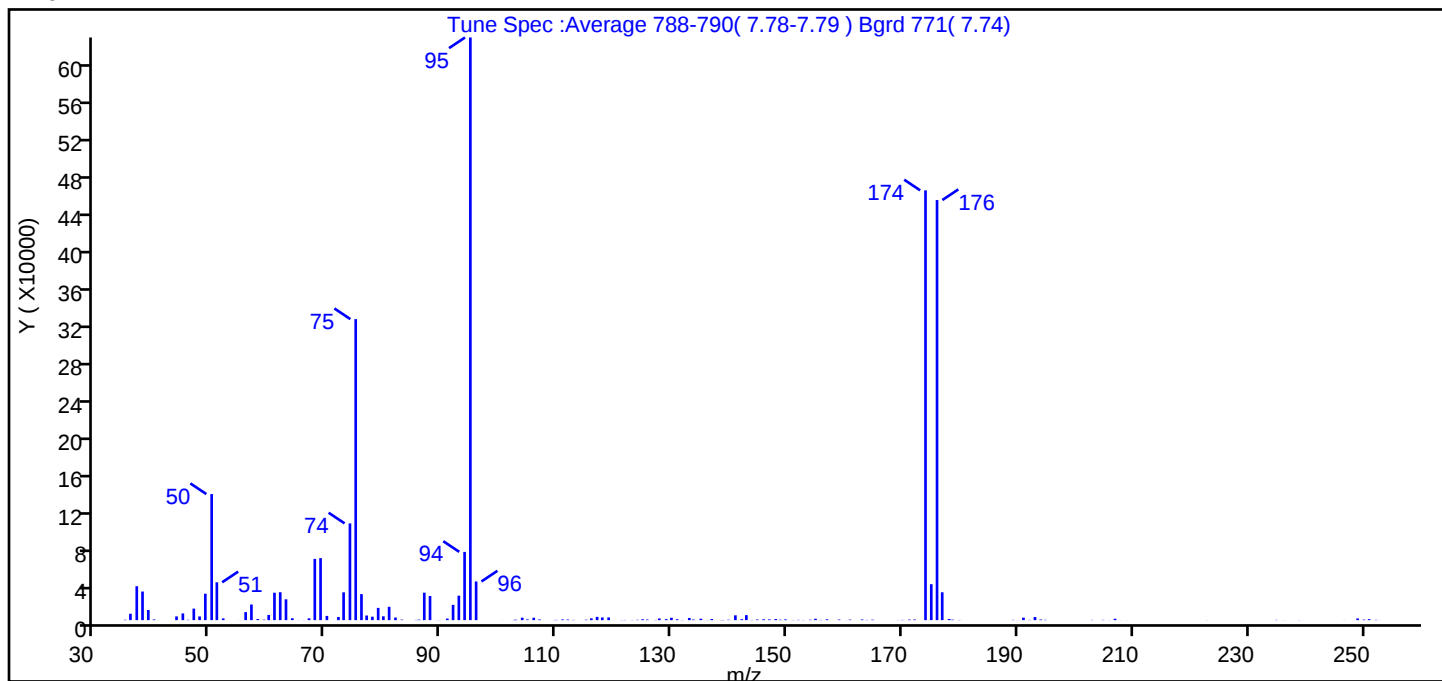
Reagents:

O-522BFBSUB_00015 Amount Added: 2.00 Units: mL

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\BFB.D
Injection Date: 23-Oct-2024 16:07:55 Instrument ID: GCMS-DM
Lims ID: BFB
Client ID:
Operator ID: TD ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 2.0 mL Dil. Factor: 1.0000
Method: 522_GCMS-DM 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	21.6
75	30-80% of mass 95	51.7
96	5-9% of mass 95	6.6
173	<2% of mass 174	0.0 (0.0)
174	>50% of mass 95	73.8
175	5-9% of mass 174	6.2 (8.4)
176	>95% but <101% of mass 174	72.1 (97.7)
177	5-9% of mass 176	4.8 (6.6)

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\BFB.D\522_GCMS-DM.rsl\spectra.d
Injection Date: 23-Oct-2024 16:07:55
Spectrum: Tune Spec :Average 788-790(7.78-7.79) Bgrd 771(7.74)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 156

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	426	79.00	13118	125.00	945	165.00	520
36.00	6830	80.00	4117	126.00	654	167.00	25
37.00	36312	81.00	14266	127.00	189	169.00	121
38.00	30608	82.00	2799	128.00	1788	170.00	260
39.00	10887	83.00	548	129.00	1099	171.00	615
40.00	743	86.00	235	130.00	2542	172.00	682
44.00	3991	86.00	575	131.00	987	174.00	460096
45.00	7230	87.00	29392	132.00	181	175.00	38480
46.00	371	88.00	25856	133.00	2322	176.00	449728
47.00	12325	89.00	62	134.00	661	177.00	29848
48.00	3958	90.00	120	135.00	1506	178.00	1208
49.00	28296	91.00	1709	136.00	103	179.00	549
50.00	134976	92.00	16366	137.00	1213	180.00	194
51.00	40536	93.00	26192	139.00	160	181.00	43
52.00	1905	94.00	73080	139.00	191	188.00	32
54.00	16	95.00	623744	140.00	437	189.00	286
55.00	110	96.00	41400	141.00	5164	190.00	70
56.00	8604	101.00	51	142.00	988	191.00	2667
57.00	16728	103.00	272	143.00	5369	192.00	272
58.00	1154	103.00	484	144.00	185	193.00	3337
59.00	512	104.00	2621	145.00	665	194.00	683
60.00	5564	105.00	753	146.00	919	195.00	364
61.00	29368	106.00	2560	147.00	800	203.00	243
62.00	29904	107.00	740	148.00	1174	205.00	300
63.00	22320	110.00	127	149.00	463	206.00	94
64.00	2043	110.00	260	150.00	816	207.00	1485
65.00	108	111.00	785	151.00	181	208.00	49
66.00	90	112.00	633	152.00	312	209.00	62
67.00	1957	113.00	290	153.00	135	223.00	94
68.00	65544	115.00	494	154.00	458	229.00	18
69.00	66400	116.00	1915	155.00	1505	235.00	272
70.00	4532	117.00	3500	156.00	238	236.00	78
72.00	3372	118.00	2886	157.00	867	239.00	127

Report Date: 24-Oct-2024 11:38:28

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\BFB.D\522_GCMS-DM.rsl\spectra.d

Injection Date: 23-Oct-2024 16:07:55

Spectrum: Tune Spec :Average 788-790(7.78-7.79) Bgrd 771(7.74)

Base Peak: 95.00

Minimum % Base Peak: 0

Number of Points: 156

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	29760	119.00	2913	158.00	25	247.00	84
74.00	103576	120.00	36	159.00	638	249.00	1845
75.00	322240	121.00	149	160.00	70	250.00	580
76.00	27856	122.00	214	161.00	574	251.00	1073
77.00	4973	123.00	174	163.00	720	252.00	326
78.00	3686	124.00	353	164.00	232	253.00	52

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\BFB.D

Injection Date: 23-Oct-2024 16:07:55

Instrument ID: GCMS-DM

Lims ID: BFB

Client ID:

Operator ID: TD

ALS Bottle#: 0

Worklist Smp#: 1

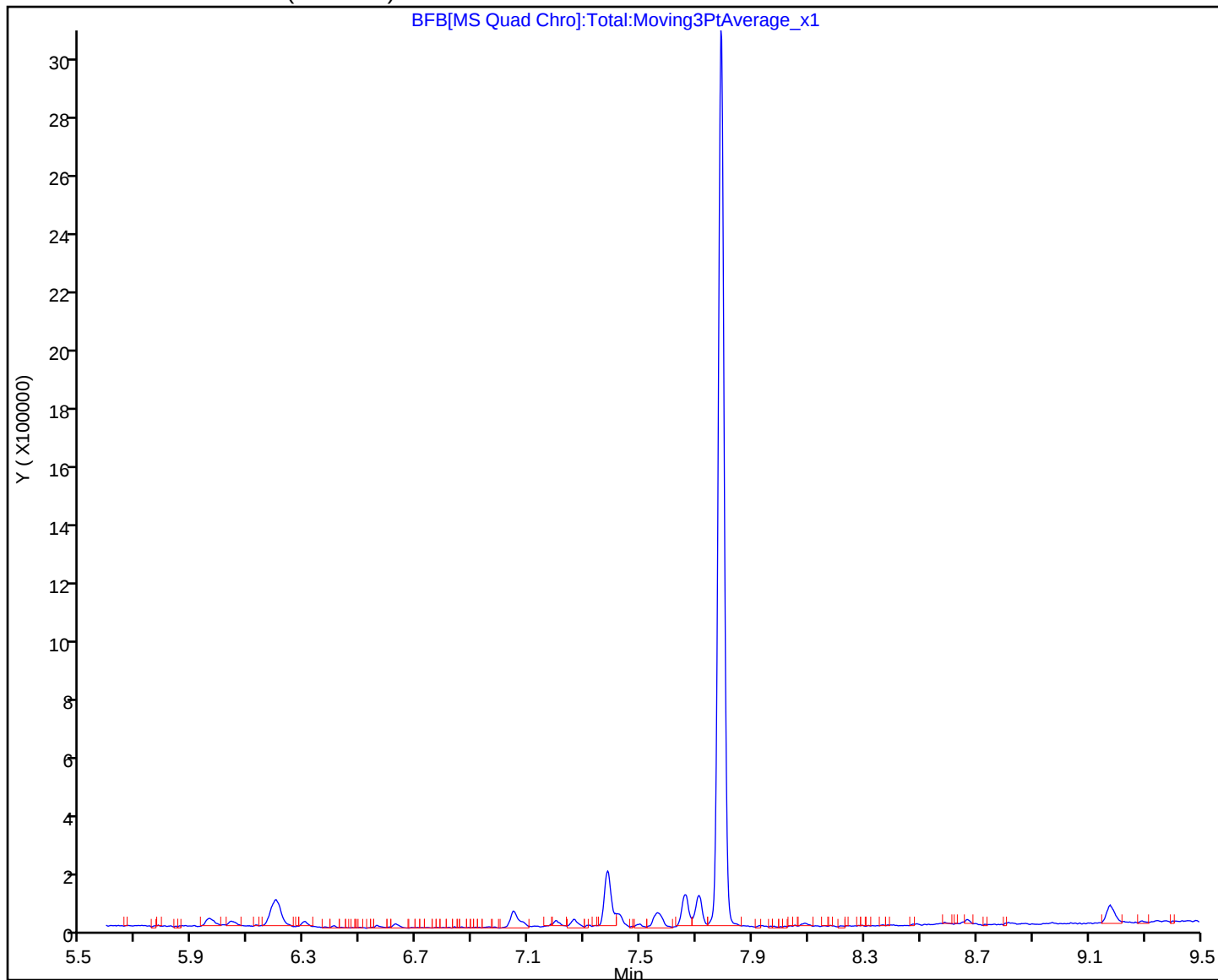
Injection Vol: 2.0 mL

Dil. Factor: 1.0000

Method: 522_GCMS-DM

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-DM\20241023-30673.b\BFB 2.D

Lims ID:

BFB

Client ID:

Sample Type:

BFB

Inject. Date:

23-Oct-2024 16:24:07

ALS Bottle#:

0

Worklist Smp#:

2

Injection Vol:

2.0 mL

Dil. Factor:

1.0000

Sample Info:

810-0030673-002

Misc. Info.:

BFB 2

Operator ID:

TD

Instrument ID:

GCMS-DM

Raw Data:

Smoothed

Method:

\\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\522_GCMS-DM.m

Limit Group:

MSS - 522

Last Update:

24-Oct-2024 11:38:29

Calib Date:

23-Oct-2024 20:03:47

Integrator:

RTE

ID Type:

Deconvolution ID

Quant Method:

Internal Standard

Quant By:

Initial Calibration

Last ICal File:

\\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D

Column 1 :

CP Select 624 MS (0.25 mm)

Det:

MS Quad

Process Host:

CTX1640

First Level Reviewer: JH8B

Date: 24-Oct-2024 10:51:17

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

Reagents:

O-522BFBSUB_00015

Amount Added:

2.00

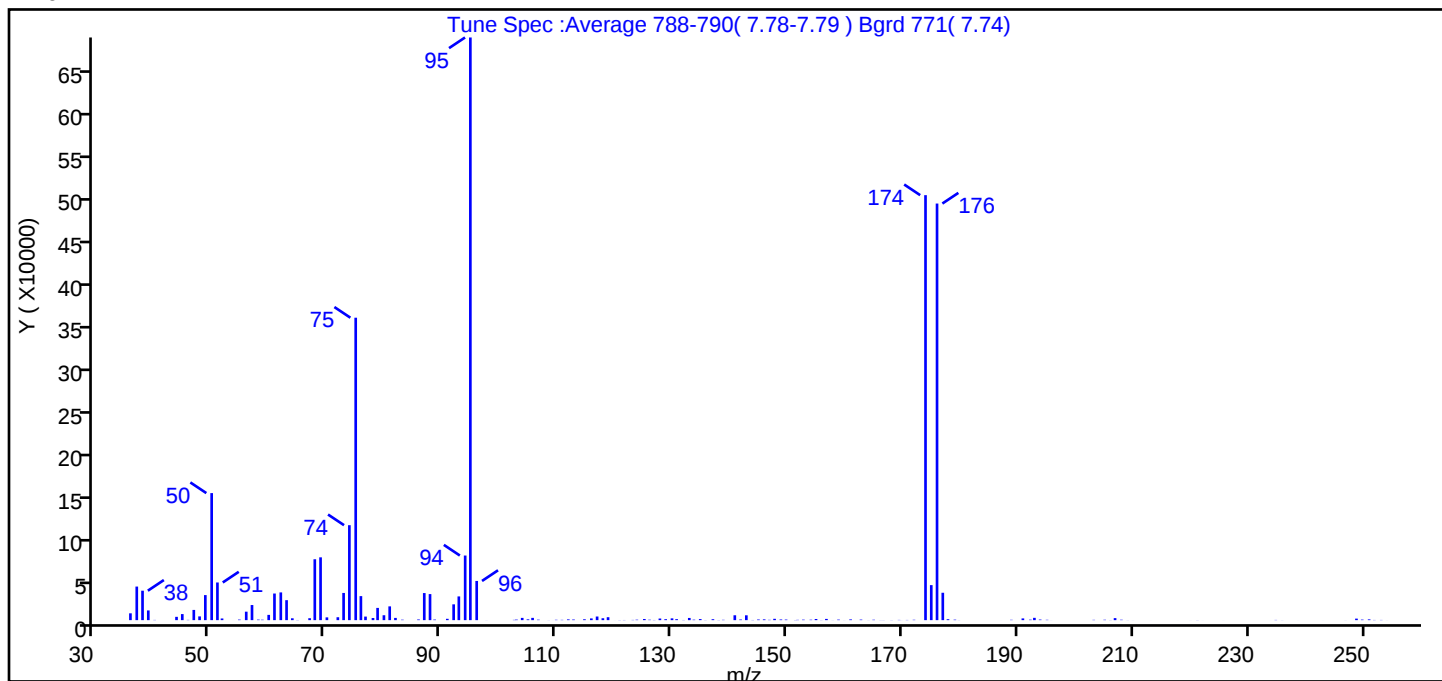
Units:

mL

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\BFB 2.D
Injection Date: 23-Oct-2024 16:24:07 Instrument ID: GCMS-DM
Lims ID: BFB
Client ID:
Operator ID: TD ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 2.0 mL Dil. Factor: 1.0000
Method: 522_GCMS-DM 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	21.8
75	30-80% of mass 95	51.9
96	5-9% of mass 95	6.7
173	<2% of mass 174	0.0 (0.0)
174	>50% of mass 95	72.9
175	5-9% of mass 174	6.0 (8.2)
176	>95% but <101% of mass 174	71.5 (98.0)
177	5-9% of mass 176	4.7 (6.6)

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\BFB 2.D\522_GCMS-DM.rslt\spectra.d
Injection Date: 23-Oct-2024 16:24:07
Spectrum: Tune Spec :Average 788-790(7.78-7.79) Bgrd 771(7.74)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 161

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	7971	83.00	518	132.00	187	176.00	486464
37.00	39208	86.00	785	133.00	2559	177.00	31984
38.00	34376	87.00	31624	134.00	547	178.00	1066
39.00	11346	88.00	30424	135.00	1251	179.00	570
40.00	256	89.00	665	136.00	119	180.00	78
44.00	3864	91.00	1562	137.00	1085	187.00	23
45.00	7076	92.00	18456	138.00	143	189.00	399
46.00	301	93.00	27704	139.00	382	191.00	2012
47.00	11937	94.00	75448	141.00	5689	192.00	570
48.00	4378	95.00	680384	142.00	736	193.00	2695
49.00	29248	96.00	45768	143.00	5651	194.00	686
50.00	148352	98.00	59	144.00	189	195.00	405
51.00	43984	103.00	315	145.00	751	196.00	41
52.00	1954	103.00	636	146.00	900	203.00	349
54.00	17	104.00	2631	147.00	358	205.00	462
55.00	658	105.00	930	148.00	1561	206.00	111
56.00	9893	106.00	2655	149.00	775	207.00	2356
57.00	17640	107.00	561	150.00	681	208.00	488
58.00	635	109.00	80	151.00	168	209.00	75
59.00	502	109.00	23	152.00	352	210.00	38
60.00	6152	110.00	424	153.00	577	213.00	22
61.00	31088	111.00	345	154.00	506	218.00	16
62.00	32384	112.00	880	155.00	1329	220.00	35
63.00	23328	113.00	724	156.00	121	221.00	110
64.00	2165	115.00	1021	157.00	1434	222.00	25
65.00	180	116.00	2010	158.00	67	226.00	25
67.00	2262	117.00	4236	159.00	634	234.00	21
68.00	71104	118.00	2220	160.00	53	235.00	259
69.00	73344	119.00	3433	161.00	862	236.00	71
70.00	3239	120.00	31	163.00	639	239.00	22
72.00	3398	121.00	140	164.00	70	243.00	20
73.00	31752	122.00	188	165.00	476	247.00	53
74.00	110880	123.00	263	166.00	95	249.00	1777

Report Date: 24-Oct-2024 11:38:29

Chrom Revision: 2.3 24-Sep-2024 15:19:46

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\BFB 2.D\522_GCMS-DM.rslt\spectra.d

Injection Date: 23-Oct-2024 16:24:07

Spectrum: Tune Spec :Average 788-790(7.78-7.79) Bgrd 771(7.74)

Base Peak: 95.00

Minimum % Base Peak: 0

Number of Points: 161

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	353152	124.00	544	167.00	103	250.00	628
76.00	28056	125.00	1317	168.00	121	251.00	897
77.00	4157	126.00	498	169.00	279	252.00	228
78.00	2509	127.00	187	170.00	53	253.00	239
79.00	14286	128.00	1865	171.00	232	254.00	37
80.00	5722	129.00	1113	172.00	438		
81.00	16088	130.00	2078	174.00	496256		
82.00	2609	131.00	1154	175.00	40896		

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\BFB 2.D

Injection Date: 23-Oct-2024 16:24:07

Instrument ID: GCMS-DM

Lims ID: BFB

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

2

Injection Vol: 2.0 mL

Dil. Factor:

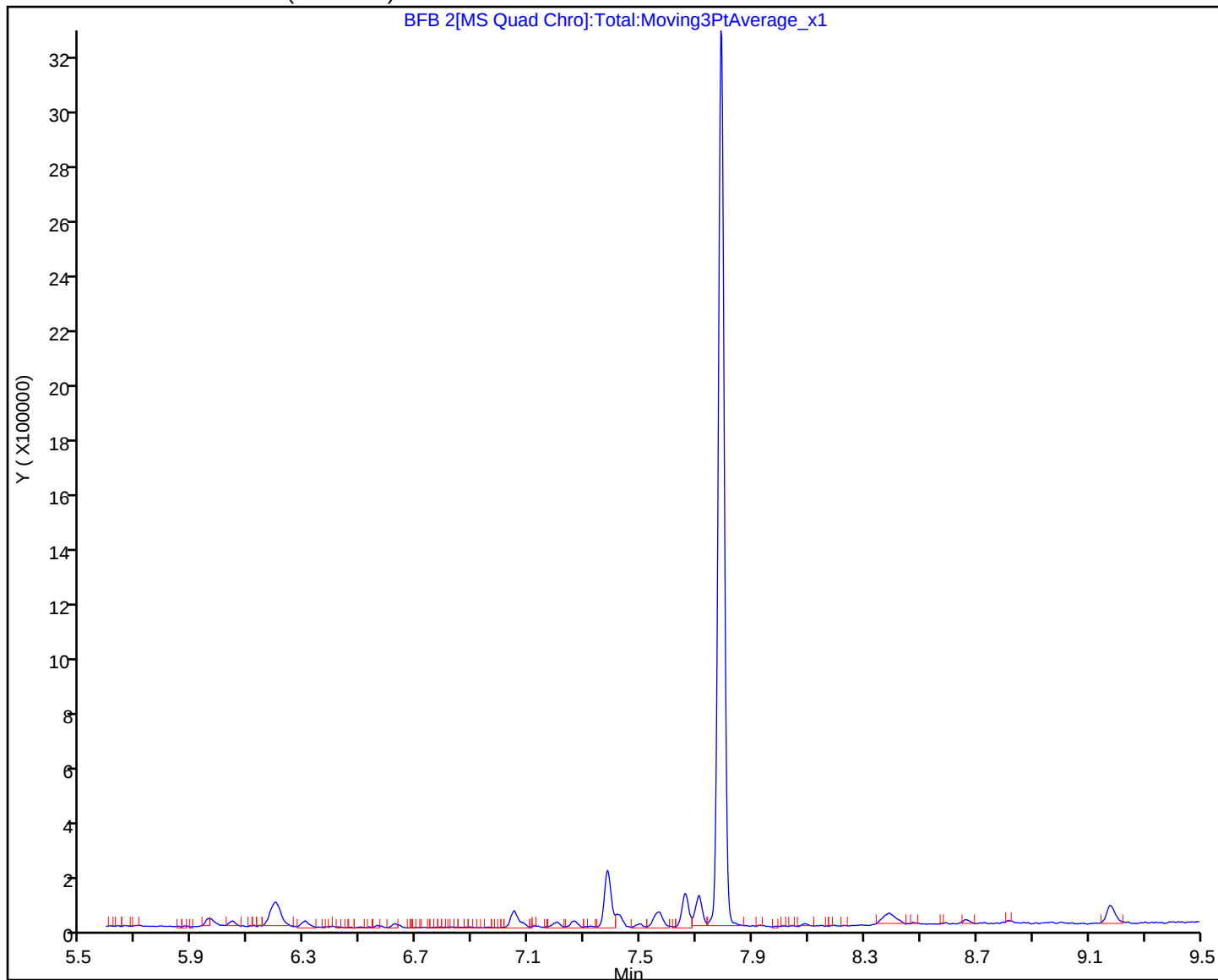
1.0000

Method: 522_GCMS-DM

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.: 810-126629-1
SDG No.:	
Client Sample ID:	Lab Sample ID: MBL 810-121649/1-A
Matrix: Drinking Water	Lab File ID: MBL1.D
Analysis Method: 522	Date Collected:
Extract. Method: 522	Date Extracted: 11/07/2024 07:43
Sample wt/vol: 100 (mL)	Date Analyzed: 11/09/2024 21:45
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.: 121979	Units: ug/L
Preparation Batch No.: 121649	Instrument ID: GCMS-DM

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)	94		70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\MBL1.D
Lims ID: MBL 810-121649/1-A
Client ID:
Sample Type: MBL
Inject. Date: 09-Nov-2024 21:45:11 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0031225-002
Misc. Info.: MBL 810-121649/1-A
Operator ID: TD Instrument ID: GCMS-DM
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 11-Nov-2024 08:30:37 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1685

First Level Reviewer: JH8B

Date: 11-Nov-2024 08:28:16

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	6.106	6.114	-0.008	24	43496	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.232	8.232	0.000	0	28700	500.0	472.4	
11 1,4-Dioxane	88	8.305	8.305	0.000	71	95		0.9582	M
10 BFB									

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\MBL1.D

Injection Date: 09-Nov-2024 21:45:11

Instrument ID: GCMS-DM

Lims ID: MBL 810-121649/1-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

2

Injection Vol: 1.0 ul

Dil. Factor:

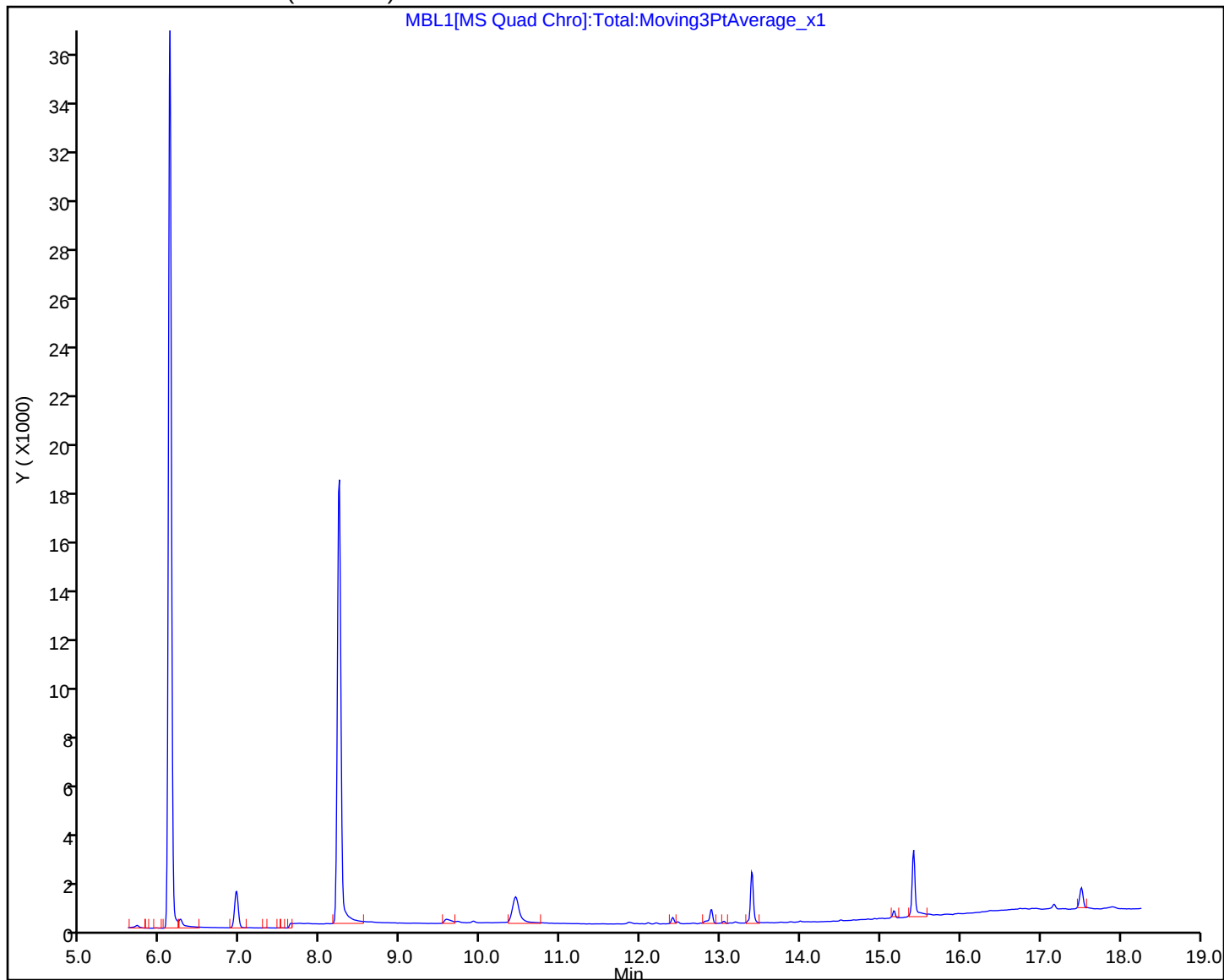
1.0000

Method: 522_GCMS-DM

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-DM\20241109-31225.b\MBL1.D
Lims ID: MBL 810-121649/1-A
Client ID:
Sample Type: MBL
Inject. Date: 09-Nov-2024 21:45:11 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0031225-002
Misc. Info.: MBL 810-121649/1-A
Operator ID: TD Instrument ID: GCMS-DM
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 11-Nov-2024 08:30:37 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1685

First Level Reviewer: JH8B

Date: 11-Nov-2024 08:28:16

Compound	Amount Added	Amount Recovered	% Rec.
\$ 9 1,4-Dioxane-d8 (Surr)	500.0	472.4	94.49

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\MBL1.D

Injection Date: 09-Nov-2024 21:45:11

Instrument ID: GCMS-DM

Lims ID: MBL 810-121649/1-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 522_GCMS-DM

Limit Group: MSS - 522

Column: CP Select 624 MS (0.25 mm)

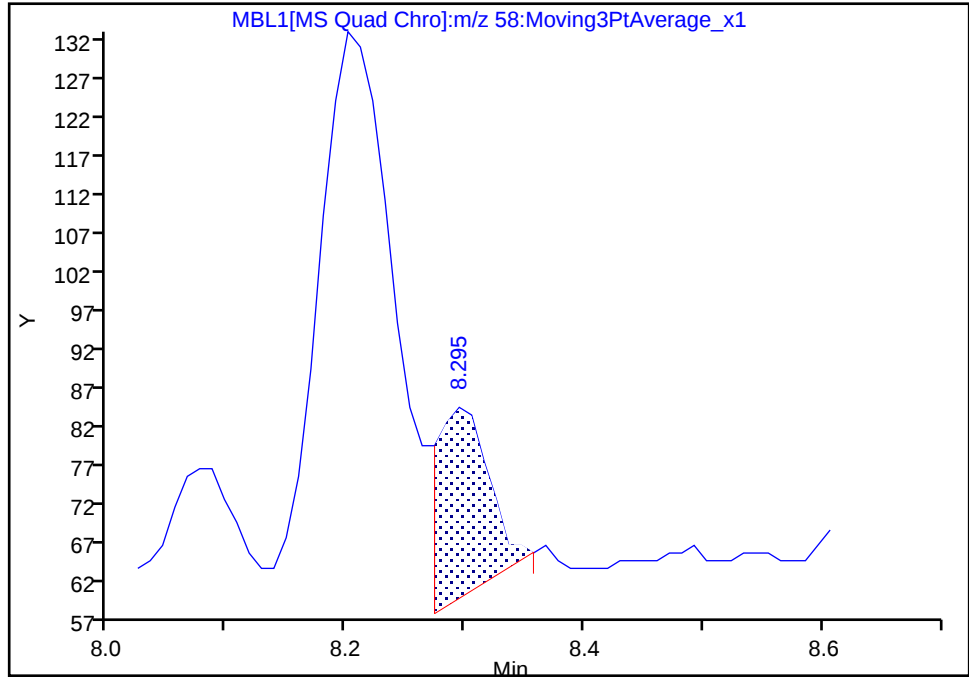
Detector MS Quad

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

Signal: 2

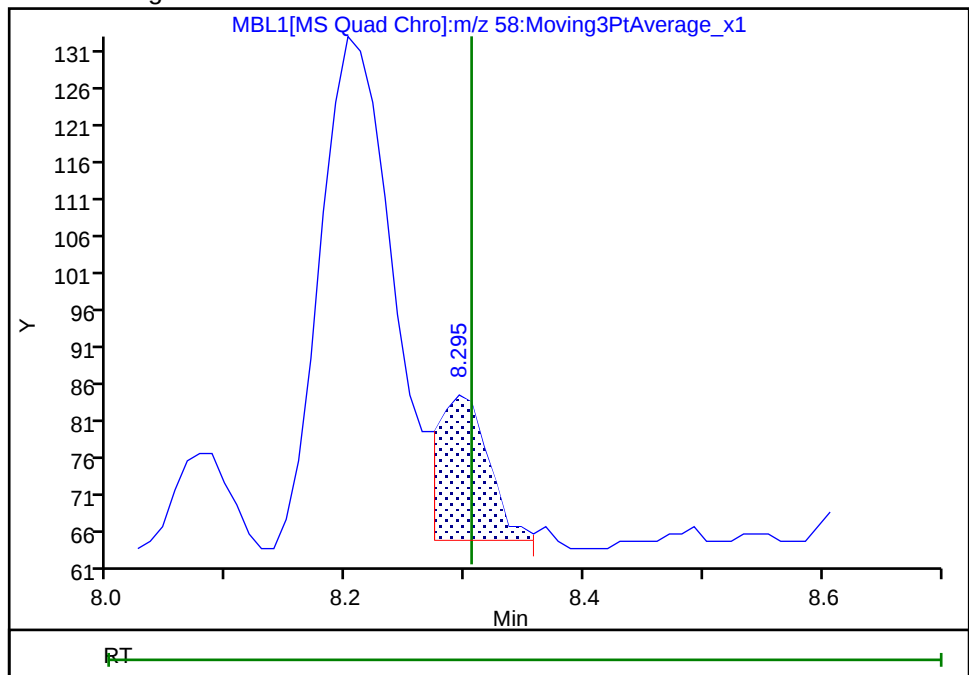
RT: 8.29
Area: 78
Amount: 0.958180
Amount Units: ug/l

Processing Integration Results



RT: 8.29
Area: 61
Amount: 0.958180
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 11-Nov-2024 08:28:14 -05:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton Analytical South Bend
Job No.: 810-126629-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: LLCS 810-121649/2-A

Matrix: Drinking Water Lab File ID: LLC1.D

Analysis Method: 522 Date Collected: _____

Extract. Method: 522 Date Extracted: 11/07/2024 07:43

Sample wt/vol: 100 (mL) Date Analyzed: 11/09/2024 22:10

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.: 121979 Units: ug/L

Preparation Batch No.: 121649 Instrument ID: GCMS-DM

CAS NO.	COMPOUND NAME	RESULT	Q	RL
123-91-1	1,4-Dioxane	0.0841		0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	100		70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\LLC1.D
 Lims ID: LLC8 810-121649/2-A
 Client ID:
 Sample Type: LLC8
 Inject. Date: 09-Nov-2024 22:10:42 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 810-0031225-003
 Misc. Info.: 810-126609-A-4-A
 Operator ID: TD Instrument ID: GCMS-DM
 Raw Data: Smoothed
 Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
 Limit Group: MSS - 522
 Last Update: 11-Nov-2024 08:30:37 Calib Date: 23-Oct-2024 20:03:47
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
 Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
 Process Host: CTX1685

First Level Reviewer: JH8B

Date: 11-Nov-2024 08:28:35

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	6.106	6.114	-0.008	24	44459	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.232	8.232	0.000	0	30902	500.0	497.7	
11 1,4-Dioxane	88	8.305	8.305	0.000	84	326	3.50	4.21	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\LLC1.D

Injection Date: 09-Nov-2024 22:10:42

Instrument ID: GCMS-DM

Lims ID: LLCS 810-121649/2-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

3

Injection Vol: 1.0 ul

Dil. Factor:

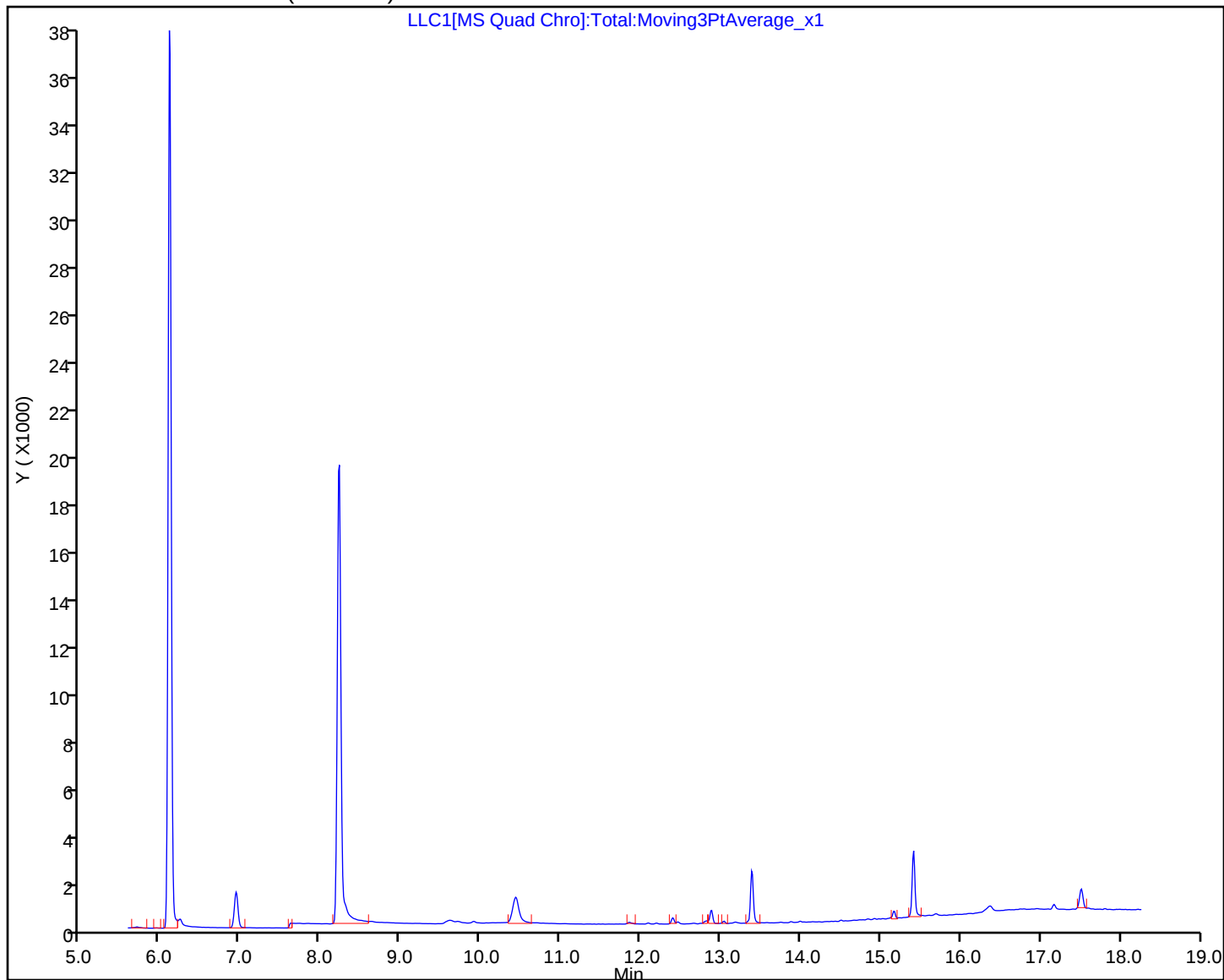
1.0000

Method: 522_GCMS-DM

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-DM\20241109-31225.b\LLC1.D
Lims ID: LLC8 810-121649/2-A
Client ID:
Sample Type: LLC8
Inject. Date: 09-Nov-2024 22:10:42 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0031225-003
Misc. Info.: 810-126609-A-4-A
Operator ID: TD Instrument ID: GCMS-DM
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 11-Nov-2024 08:30:37 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1685

First Level Reviewer: JH8B

Date: 11-Nov-2024 08:28:35

Compound	Amount Added	Amount Recovered	% Rec.
\$ 9 1,4-Dioxane-d8 (Surr)	500.0	497.7	99.53

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\LLC1.D

Injection Date: 09-Nov-2024 22:10:42

Instrument ID: GCMS-DM

Lims ID: LLCS 810-121649/2-A

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: 522_GCMS-DM

Limit Group:

MSS - 522

Column: CP Select 624 MS (0.25 mm)

Detector

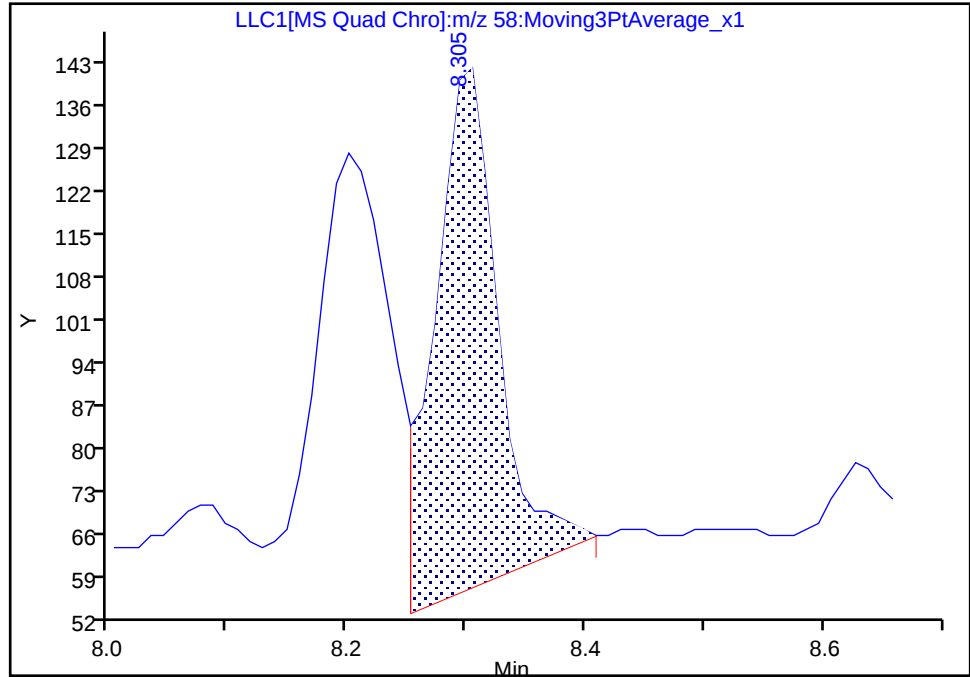
MS Quad

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

Signal: 2

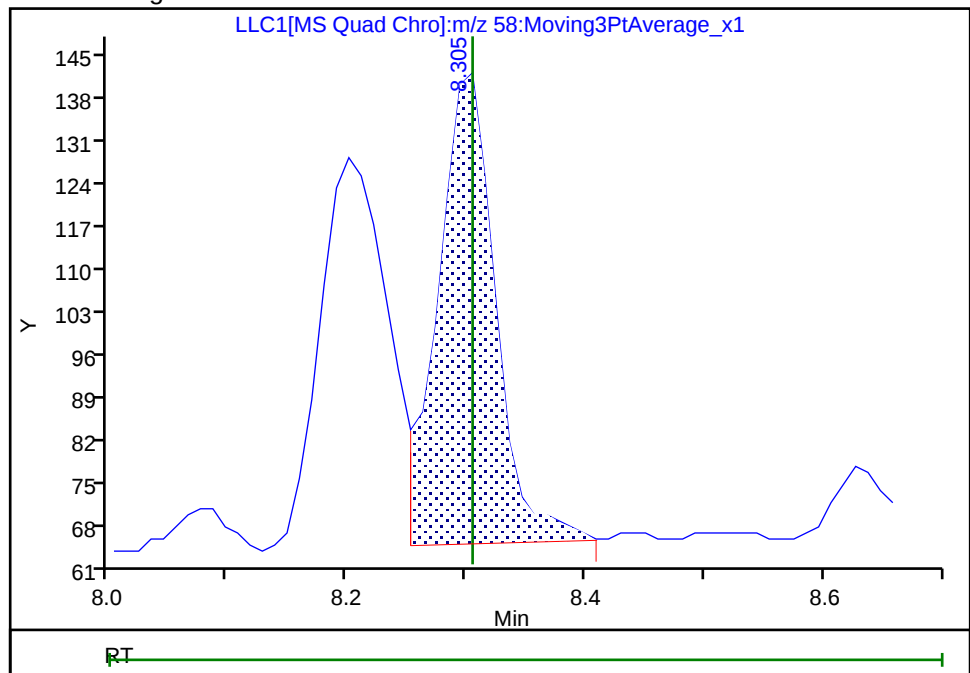
RT: 8.31
Area: 325
Amount: 4.206444
Amount Units: ug/l

Processing Integration Results



RT: 8.31
Area: 265
Amount: 4.206444
Amount Units: ug/l

Manual Integration Results



Reviewer: JH8B, 11-Nov-2024 08:28:32 -05:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton Analytical South Bend	Job No.: 810-126629-1
SDG No.:	
Client Sample ID: VPB190-HYD-20241030 MS	Lab Sample ID: 810-126629-1 MS
Matrix: Drinking Water	Lab File ID: 810-126629-A-1-A MS.D
Analysis Method: 522	Date Collected: 10/30/2024 09:15
Extract. Method: 522	Date Extracted: 11/07/2024 07:43
Sample wt/vol: 100 (mL)	Date Analyzed: 11/10/2024 00:45
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.: 121979	Units: ug/L
Preparation Batch No.: 121649	Instrument ID: GCMS-DM

CAS NO.	COMPOUND NAME	RESULT	Q	RL
123-91-1	1,4-Dioxane	0.988		0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	97		70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\810-126629-A-1-A MS.D
Lims ID: 810-126629-A-1-A MS
Client ID:
Sample Type: MS
Inject. Date: 10-Nov-2024 00:45:54 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0031225-009
Misc. Info.: 810-126629-A-1-A MS
Operator ID: TD Instrument ID: GCMS-DM
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 11-Nov-2024 08:30:37 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1685

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	6.106	6.114	-0.008	24	48892	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.232	8.232	0.000	0	33208	500.0	486.3	
11 1,4-Dioxane	88	8.305	8.305	0.000	85	3861	50.0	49.4	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\810-126629-A-1-A MS.D

Injection Date: 10-Nov-2024 00:45:54

Instrument ID: GCMS-DM

Lims ID: 810-126629-A-1-A MS

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

9

Injection Vol: 1.0 ul

Dil. Factor:

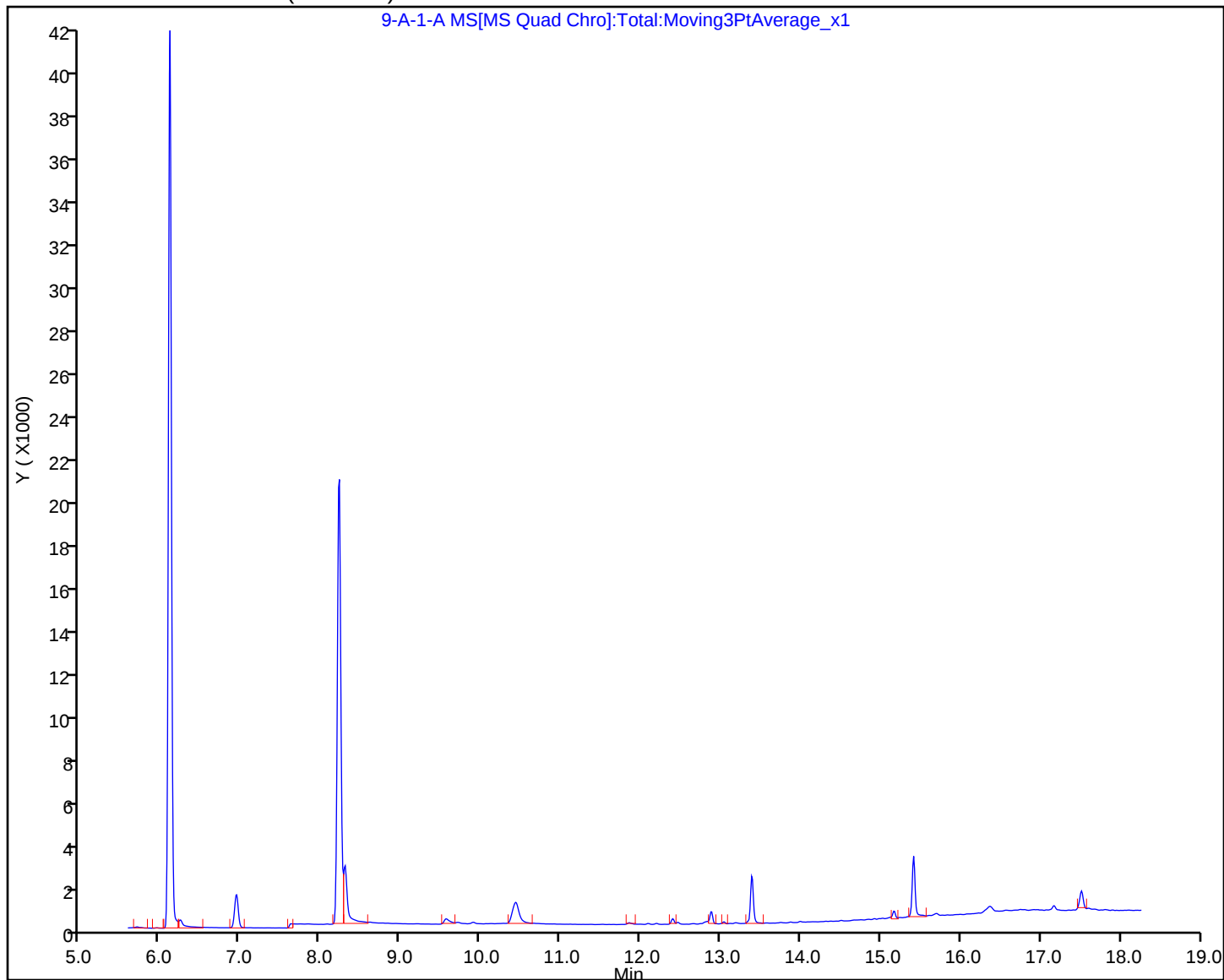
1.0000

Method: 522_GCMS-DM

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-DM\20241109-31225.b\810-126629-A-1-A MS.D
Lims ID: 810-126629-A-1-A MS
Client ID:
Sample Type: MS
Inject. Date: 10-Nov-2024 00:45:54 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0031225-009
Misc. Info.: 810-126629-A-1-A MS
Operator ID: TD Instrument ID: GCMS-DM
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 11-Nov-2024 08:30:37 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1685

Compound	Amount Added	Amount Recovered	% Rec.
\$ 9 1,4-Dioxane-d8 (Surr)	500.0	486.3	97.26

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton Analytical South Bend	Job No.: 810-126629-1
SDG No.:	
Client Sample ID: VPB190-HYD-20241030 MSD	Lab Sample ID: 810-126629-1 MSD
Matrix: Drinking Water	Lab File ID: 810-126629-A-1-B MSD.D
Analysis Method: 522	Date Collected: 10/30/2024 09:15
Extract. Method: 522	Date Extracted: 11/07/2024 07:43
Sample wt/vol: 100 (mL)	Date Analyzed: 11/10/2024 01:11
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.: 121979	Units: ug/L
Preparation Batch No.: 121649	Instrument ID: GCMS-DM

CAS NO.	COMPOUND NAME	RESULT	Q	RL
123-91-1	1,4-Dioxane	1.07		0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	101		70-130

Eurofins Eaton Analytical South Bend
Target Compound Quantitation Report

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\810-126629-A-1-B MSD.D
Lims ID: 810-126629-A-1-B MSD
Client ID:
Sample Type: MSD
Inject. Date: 10-Nov-2024 01:11:42 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0031225-010
Misc. Info.: 810-126629-A-1-B MSD
Operator ID: TD Instrument ID: GCMS-DM
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 11-Nov-2024 08:30:37 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1685

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	6.114	6.114	0.000	24	49088	500.0	500.0	
\$ 9 1,4-Dioxane-d8 (Surr)	96	8.232	8.232	0.000	0	34755	500.0	506.9	
11 1,4-Dioxane	88	8.305	8.305	0.000	84	4178	50.0	53.3	

Eurofins Eaton Analytical South Bend

Data File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\810-126629-A-1-B MSD.D

Injection Date: 10-Nov-2024 01:11:42

Instrument ID: GCMS-DM

Lims ID: 810-126629-A-1-B MSD

Client ID:

Operator ID: TD

ALS Bottle#:

0

Worklist Smp#:

10

Injection Vol: 1.0 ul

Dil. Factor:

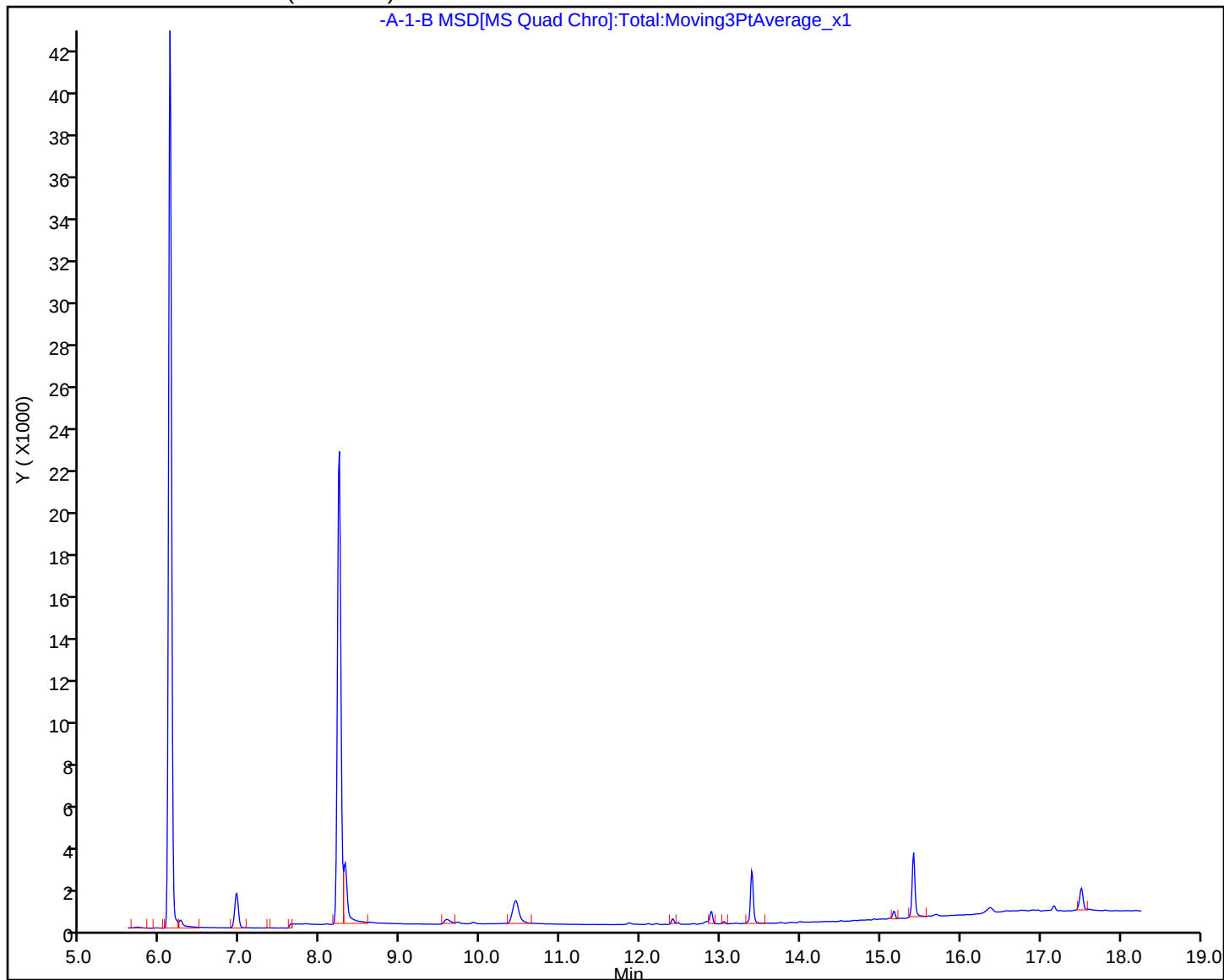
1.0000

Method: 522_GCMS-DM

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-DM\20241109-31225.b\810-126629-A-1-B MSD.D
Lims ID: 810-126629-A-1-B MSD
Client ID:
Sample Type: MSD
Inject. Date: 10-Nov-2024 01:11:42 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 810-0031225-010
Misc. Info.: 810-126629-A-1-B MSD
Operator ID: TD Instrument ID: GCMS-DM
Raw Data: Smoothed
Method: \\ChromFS\Southbend\ChromData\GCMS-DM\20241109-31225.b\522_GCMS-DM.m
Limit Group: MSS - 522
Last Update: 11-Nov-2024 08:30:37 Calib Date: 23-Oct-2024 20:03:47
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromFS\Southbend\ChromData\GCMS-DM\20241023-30673.b\L9.D
Column 1 : CP Select 624 MS (0.25 mm) Det: MS Quad
Process Host: CTX1685

Compound	Amount Added	Amount Recovered	% Rec.
\$ 9 1,4-Dioxane-d8 (Surr)	500.0	506.9	101.39

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Eaton Analytical South BendJob No.: 810-126629-1

SDG No.: _____

Instrument ID: GCMS-DMStart Date: 10/23/2024 16:07Analysis Batch Number: 120057End Date: 10/24/2024 08:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 810-120057/1		10/23/2024 16:07	1	BFB.D	CPSelect 624 MS 0.25 (mm)
BFB 810-120057/2		10/23/2024 16:24	1	BFB 2.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/4-A		10/23/2024 16:39	1	L1.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/5-A		10/23/2024 17:05	1	L2.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/6-A		10/23/2024 17:31	1	L3.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/7-A		10/23/2024 17:56	1	L4.D	CPSelect 624 MS 0.25 (mm)
ICISAV 810-119843/8-A		10/23/2024 18:21	1	ICRT.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/9-A		10/23/2024 18:46	1	L6.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/10-A		10/23/2024 19:12	1	L7.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/11-A		10/23/2024 19:37	1	L8.D	CPSelect 624 MS 0.25 (mm)
IC 810-119843/12-A		10/23/2024 20:03	1	L9.D	CPSelect 624 MS 0.25 (mm)
CCVLIS 810-119923/1-A		10/23/2024 20:55	1		CPSelect 624 MS 0.25 (mm)
ICV 810-119843/13-A		10/23/2024 21:21	1	ICV.D	CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/23/2024 22:12	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/23/2024 22:38	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 23:03	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 23:29	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/23/2024 23:54	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 00:20	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 00:46	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 01:12	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 01:38	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 02:04	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 02:30	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 02:55	1		CPSelect 624 MS 0.25 (mm)
CCVIS 810-119923/2-A		10/24/2024 03:21	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 03:46	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 04:11	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 04:37	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 05:03	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (QC)		10/24/2024 05:28	1		CPSelect 624 MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Eaton Analytical South Bend Job No.: 810-126629-1

SDG No.: _____

Instrument ID: GCMS-DM Start Date: 10/23/2024 16:07Analysis Batch Number: 120057 End Date: 10/24/2024 08:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ (QC)		10/24/2024 05:54	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 06:19	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 06:44	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 07:10	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 07:35	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 08:01	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		10/24/2024 08:27	1		CPSelect 624 MS 0.25 (mm)
CCV 810-119923/3-A		10/24/2024 08:53	1		CPSelect 624 MS 0.25 (mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Eaton Analytical South Bend

Job No.: 810-126629-1

SDG No.:

Instrument ID: GCMS-DM

Start Date: 11/09/2024 20:52

Analysis Batch Number: 121979

End Date: 11/10/2024 03:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVLIS 810-121655/1-A		11/09/2024 20:52	1	CCVL1.D	CPSelect 624 MS 0.25 (mm)
MBL 810-121649/1-A		11/09/2024 21:45	1	MBL1.D	CPSelect 624 MS 0.25 (mm)
LLCS 810-121649/2-A		11/09/2024 22:10	1	LLC1.D	CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		11/09/2024 22:36	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		11/09/2024 23:02	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		11/09/2024 23:28	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		11/09/2024 23:54	1		CPSelect 624 MS 0.25 (mm)
810-126629-1	VPB190-HYD-20241030	11/10/2024 00:20	1	810-126629-B-1-A.D	CPSelect 624 MS 0.25 (mm)
810-126629-1 MS	VPB190-HYD-20241030 MS	11/10/2024 00:45	1	810-126629-A-1-A MS.D	CPSelect 624 MS 0.25 (mm)
810-126629-1 MSD	VPB190-HYD-20241030 MSD	11/10/2024 01:11	1	810-126629-A-1-B MSD.D	CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		11/10/2024 01:37	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		11/10/2024 02:03	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		11/10/2024 02:29	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		11/10/2024 02:55	1		CPSelect 624 MS 0.25 (mm)
ZZZZZ (Client)		11/10/2024 03:20	1		CPSelect 624 MS 0.25 (mm)
CCVIS 810-121655/2-A		11/10/2024 03:46	1	CCVM4.D	CPSelect 624 MS 0.25 (mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Eaton Analytical Sout Job No.: 810-126629-1

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.: 810-126629-1

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.: 810-126629-1

SDG No.: _____

Batch Number: 120057 Batch Start Date: 10/23/24 16:07 Batch Analyst: Orpurt, KylaBatch Method: 522 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	O-522BFBSUB 00015				
BFB 810-120057/1		522			2 mL	2 mL				
BFB 810-120057/2		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.: 810-126629-1

SDG No.: _____

Batch Number: 121649 Batch Start Date: 11/07/24 07:43 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 00217	522-Sur-SS 00115
MBL 810-121649/1		522, 522			100 g	0 g	100 mL	2 mL	10 uL	10 uL
LLCS 810-121649/2		522, 522			100 g	0 g	100 mL	2 mL	10 uL	10 uL
810-126629-A-1 MS	VPB190-HYD-2024 1030	522, 522		T	100 g	0 g	100 mL	2 mL	10 uL	10 uL
810-126629-A-1 MSD	VPB190-HYD-2024 1030	522, 522		T	100 g	0 g	100 mL	2 mL	10 uL	10 uL
810-126629-B-1	VPB190-HYD-2024 1030	522, 522	inking W	T	100 g	0 g	100 mL	2 mL	10 uL	10 uL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	O-522 CalM 00015	O522-CalL 00016	AnalysisCommen t			
MBL 810-121649/1		522, 522					Y1			
LLCS 810-121649/2		522, 522				7 uL	Y2			
810-126629-A-1 MS	VPB190-HYD-2024 1030	522, 522		T	10 uL		Y3			
810-126629-A-1 MSD	VPB190-HYD-2024 1030	522, 522		T	10 uL		Y4			
810-126629-B-1	VPB190-HYD-2024 1030	522, 522	inking W	T			Y5			

Batch Notes	
MeCL2 ID	1637476
Methanol ID	1635761
SPE Cartridge Lot ID	1473493
Sodium Sulfite ID	1456825
Na2SO4 ID	1636670
Sodium Bisulfate ID	660717
Reagent Water ID	micro 11/7/24
Balance ID	B27
Balance is Level? (Y/N)	yes

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.: 810-126629-1

SDG No.: _____

Batch Number: 121649 Batch Start Date: 11/07/24 07:43 Batch Analyst: Wang, MarissaBatch Method: 522 Batch End Date: _____

Basis	Basis Description
T	Total/NA

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

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Eaton Analytical Sout Job No.: 810-126629-1

SDG No.: _____

Batch Number: 121655 Batch Start Date: 11/07/24 08:27 Batch Analyst: Wang, MarissaBatch Method: 522 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	522 IS SS 00217	522-Sur-SS 00115	O-522 CalM 00015	O522-CalL 00016
CCVLIS 810-121655/1		522, 522			2 mL	2 mL	10 uL	10 uL		7 uL
CCVIS 810-121655/2		522, 522			2 mL	2 mL	10 uL	10 uL	10 uL	

Batch Notes	
MeCL2 ID	1637476
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

CHEMTECH CHAIN OF CUSTODY RECORD		284 Sheffield Street, Mountainside, NJ 07092 (908) 789-8900 Fax: (908) 78-8922 www.chemtech.net		Chemtech Project Number: <u>P46665/666</u>																					
		COC Number:																							
CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION																					
COMPANY: Tetra Tech		PROJECT NAME: NWIRP Bethpage		BILL TO: SEE CONTRACT PO#																					
ADDRESS: 4433 Corporation Lane Suite 300		PROJECT #: 112G08005-WE13 LOCATION: VPB-189		ADDRESS:																					
CITY: Virginia Beach STATE: VA ZIP: 23462		PROJECT MANAGER: Ernie Wu		CITY: STATE: ZIP:																					
ATTENTION: Ernie Wu		E-MAIL: ernie.wu@tetrattech.com		ATTENTION: PHONE:																					
PHONE: 757-466-4901 FAX: 757-461-4148		PHONE: 757-466-4901 FAX: 757-461-4148																							
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		ANALYSIS																					
FAX: <u>2 & 10</u> DAYS* HARD COPY: <u>2 & 10</u> DAYS* EDD: <u>2 & 10</u> 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 _____		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">VOC(SW846-8260B)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">1,4 Dioxane (8270 SIM)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td></td> </tr> </table>		VOC(SW846-8260B)	1,4 Dioxane (8270 SIM)									1	2	3	4	5	6	7	8	9	
VOC(SW846-8260B)	1,4 Dioxane (8270 SIM)																								
1	2	3	4	5	6	7	8	9																	
				PRESERVATIVES																					
				COMMENTS																					
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION		# of Bottles	A											<-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other							
			COMP GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9										
1.	BP-VPB-190-TB-20241029	QA		X	10/29/24	8:00	2	2										Trip Blank							
2.	VPB190-HYD-20241030	QA		X	10/30/24	9:15	5	2	1	2								Hydrant Sample							
3.	BP-VPB-190-EB-20241030	QA		X	10/30/24	10:25	2	2										Equipment Blank							
4.	BP-VPB-190-GW-538-540	AQ		X	10/29/24	10:40	2	2																	
5.	BP-VPB-190-GW-558-560	AQ		X	10/29/24	13:30	5	4	1									Collected extra vials due to high particulate matter							
6.	BP-VPB-190-GW-583-585	AQ		X	10/30/24	12:05	4	4										Collected extra vials due to high particulate matter							
7.	BP-VPB-190-GW-598-600	AQ		X	10/30/24	14:15	3	2	1																
8.																									
9.																									
10.																									
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSESSION INCLUDING COURIER DELIVERY																									
RELINQUISHED BY SAMPLER		DATE/TIME		RECEIVED BY		Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp <u>2.9C</u> MeOH extraction requires an additional 4oz. Jar for percent solid ☐ Ice in Cooler?: _____ 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		DATE/TIME		RECEIVED BY																					
RELINQUISHED BY		DATE/TIME		RECEIVED FOR LAB BY		Page <u>1</u> of <u>1</u>				SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight CHEMTECH: ☐ Picked Up ☐ Overnight				Shipment Complete ☐ YES ☐ NO											

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY



810-126629 Chain of Custody

CHAIN OF CUSTODY RECORD

Sub Lab INFORMATION		CLIENT PROJECT INFORMATION		CLIENT BILLING INFORMATION	
COMPANY :	Eurofins Eaton Analytical South Bend	ORDER ID :	P4666	BILL TO:	CHEMTECH PO# : P4666
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

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

EDD : ADAPT

ID	CLIENT SAMPLE IDENTIFICATION	SAMPLE MATRIX	ANALYSIS	Preservative	Method	SAMPLE COLLECTION DATE	TIME	# OF BOTTLES	TAT DAYS
01	VPB190-HYD-20241030	Water	1,4 Dioxane	1:1 HNO3 to pH < 2	522	10/30/2024	09:15:00	2	10

Initial Temp: 3.6
Corrected Temp: 3.4
IR Gun # 25067

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGES POSSESSION INCLUDING COURIER DELIVERY					
RELINQUISHED BY SAMPLER:	DATETIME:	RECEIVED BY:	Conditions of bottles or Coolers at receipt:		Cooler Temp
1.	11/4/24	1.	☐ Compliant	☐ Non Compliant	Ice or Cooler?
RELINQUISHED BY:	DATETIME:	RECEIVED BY:			
2.	11/5/24 0900	2. <i>Keimig</i>			
RELINQUISHED BY:	DATETIME:	RECEIVED BY:			
3.		3.			
			☐ OVERNIGHT ☐ OVERNIGHT		Shipment Complete: ☐ YES ☐ NO

Login Sample Receipt Checklist

Client: Chemtech Consulting Group Inc.

Job Number: 810-126629-1

Login Number: 126629

List Number: 1

Creator: Williams, Kameron

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	