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ANALYTICAL REPORT

PREPARED FOR

Attn: Terri Choy
AECOM
1001 Bishop Street
Honolulu HI 96813

Generated 12/21/2022 6:24 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-121295-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

my EOL

Eurofins Seattle

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

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 Environment Testing Northwest, LLC Project Manager.

Authorization

M. Elaine Walker

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Authorized for release by
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Definitions/Glossary

Client: AECOM
Job ID: 580-121295-1
Project/Site: Red Hill - AFFF Assessment Sampling

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Glossary

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

CASE NARRATIVE
Client: AECOM
Project: Red Hill - AFFF Assessment Sampling
Report Number: 580-121295-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

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

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

RECEIPT

One sample was received on 12/15/2022 9:35 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 was 2.4º C.

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

GLYCOLS - 2-(2-BUTOXYETHOXY)ETHANOL

Sample AF-RHMW17-WGN01B-2212WK2 (580-121295-1) was analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The sample was analyzed on 12/17/2022.

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

Detection Summary

Client: AECOM
Job ID: 580-121295-1
Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW17-WGN01B-2212WK2 — Lab Sample ID: 580-121295-1

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM
Job ID: 580-121295-1
Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW17-WGN01B-2212WK2
Lab Sample ID: 580-121295-1

Date Collected: 12/13/22 13:50
Matrix: Water
Date Received: 12/15/22 09:35

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			12/17/22 21:07	1

Default Detection Limits

Client: AECOM
Job ID: 580-121295-1
Project/Site: Red Hill - AFFF Assessment Sampling

Method: 8015C GLY - Glycols- Direct Injection (GC/FID)

Analyte	LOQ	DL	Units
2-(2-Butoxyethoxy)ethanol	5.0	1.1	mg/L

QC Sample Results

Client: AECOM
Job ID: 580-121295-1
Project/Site: Red Hill - AFFF Assessment Sampling

Method: 8015C GLY - Glycols- Direct Injection (GC/FID)

Lab Sample ID: MB 680-755698/10
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 755698

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	1.1	mg/L			12/17/22 19:59	1

Lab Sample ID: LCS 680-755698/1006
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 755698

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2-(2-Butoxyethoxy)ethanol			20.0	22.8		mg/L		114	50 - 150		

Lab Sample ID: LCSD 680-755698/7
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 755698

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol			20.0	20.7		mg/L		103	50 - 150	10	50

QC Association Summary

Client: AECOM
Job ID: 580-121295-1
Project/Site: Red Hill - AFFF Assessment Sampling

GC Semi VOA

Analysis Batch: 755698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-121295-1	AF-RHMW17-WGN01B-2212WK2	Total/NA	Water	8015C GLY	
MB 680-755698/10	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-755698/1006	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-755698/7	Lab Control Sample Dup	Total/NA	Water	8015C GLY	

Lab Chronicle

Client: AECOM
Job ID: 580-121295-1
Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW17-WGN01B-2212WK2
Lab Sample ID: 580-121295-1

Date Collected: 12/13/22 13:50
Matrix: Water
Date Received: 12/15/22 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	755698	JCK	EET SAV	12/17/22 21:07

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: AECOM
Job ID: 580-121295-1
Project/Site: Red Hill - AFFF Assessment Sampling

Laboratory: Eurofins Savannah

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

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

Analysis Method	Prep Method	Matrix	Analyte
8015C GLY		Water	2-(2-Butoxyethoxy)ethanol

Method Summary

Client: AECOM
Job ID: 580-121295-1
Project/Site: Red Hill - AFFF Assessment Sampling

Method	Method Description	Protocol	Laboratory
8015C GLY	Glycols- Direct Injection (GC/FID)	SW846	EET SAV

Protocol References:

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

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: AECOM
Job ID: 580-121295-1
Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-121295-1	AF-RHMW17-WGN01B-2212WK2	Water	12/13/22 13:50	12/15/22 09:35

12/21/2022
6:24 PM
Eurofins Seattle

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 755296

Lab Sample ID: IC 680-755296/7 Client Sample ID:

Date Analyzed: 12/15/22 13:40 Lab File ID: 22GL15007.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	7.82	Baseline Smoothing	SWK1	12/15/22 18:33
Ethylene glycol	8.22	Baseline Smoothing	SWK1	12/15/22 18:33
Triethylene Glycol	11.16	Baseline Smoothing	SWK1	12/15/22 18:27

Lab Sample ID: IC 680-755296/8 Client Sample ID:

Date Analyzed: 12/15/22 14:03 Lab File ID: 22GL15008.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	11.16	Baseline Smoothing	SWK1	12/15/22 18:28

Lab Sample ID: IC 680-755296/9 Client Sample ID:

Date Analyzed: 12/15/22 14:26 Lab File ID: 22GL15009.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	11.16	Baseline Smoothing	SWK1	12/15/22 18:28

Lab Sample ID: ICIS 680-755296/10 Client Sample ID:

Date Analyzed: 12/15/22 14:48 Lab File ID: 22GL15010.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	7.83	Baseline Smoothing	SWK1	12/15/22 18:31
Ethylene glycol	8.22	Baseline Smoothing	SWK1	12/15/22 18:31
2-(2-Butoxyethoxy)ethanol	9.49	Baseline Smoothing	SWK1	12/15/22 18:31
Triethylene Glycol	11.16	Baseline Smoothing	SWK1	12/15/22 18:28

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 755296

Lab Sample ID: IC 680-755296/11 Client Sample ID:

Date Analyzed: 12/15/22 15:11 Lab File ID: 22GL15011.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	7.84	Baseline Smoothing	SWK1	12/15/22 18:31
Ethylene glycol	8.22	Baseline Smoothing	SWK1	12/15/22 18:31
Triethylene Glycol	11.16	Baseline Smoothing	SWK1	12/15/22 18:28

Lab Sample ID: IC 680-755296/12 Client Sample ID:

Date Analyzed: 12/15/22 15:34 Lab File ID: 22GL15012.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	7.82	Baseline Smoothing	SWK1	12/15/22 18:29
Ethylene glycol	8.22	Baseline Smoothing	SWK1	12/15/22 18:29
Triethylene Glycol	11.16	Baseline Smoothing	SWK1	12/15/22 18:29

Lab Sample ID: ICV 680-755296/13 CCV Client Sample ID:

Date Analyzed: 12/15/22 15:56 Lab File ID: 22GL15013.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	11.16	Baseline Smoothing	SWK1	12/15/22 18:29

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SG_Gly_CAL_00047	02/07/23		o2si, Lot 480919		(Purchased Reagent)		2,2'-Oxybisethanol	2000 ug/mL
							2-(2-Butoxyethoxy)ethanol	2000 ug/mL
							2-Butoxyethanol	2000 ug/mL
							4-Hydroxy-4-methyl-2-pentanone	2000 ug/mL
							Dipropylene Glycol Methyl Ether	2000 ug/mL
							Ethanol, 2-propoxy	2000 ug/mL
							Ethylene glycol	2000 ug/mL
							Propylene glycol	2000 ug/mL
							Tetraethylene Glycol	4000 ug/mL
							Triethylene Glycol	2000 ug/mL
SG_GLY_ISTD_00099	04/25/23		Agilent, Lot 0006670821		(Purchased Reagent)		n-Heptyl Alcohol	5000 ug/mL
SG_GlyICV_00056	05/04/23		o2si, Lot 454407		(Purchased Reagent)		2-(2-Butoxyethoxy)ethanol	2000 ug/mL

Reagent

SG_Gly_CAL_00047

ISO/IEC 17025 Accredited
Chemical Testing Lab
Cert. No. 3031.01

o2si smart solutions®

ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Rev 0

Certificate of Analysis

Catalog No.	Lot No.	Storage	Solvent	Date Received	Exp. Date
G34-120070-04	480919	≤ -10 °C	P/T Methanol	_____	2-May-2024

Description:
ISO 17034 -Custom Volatiles Mix,105-12, 2000 & 4,000 mg/L, 1 mL

Container:
1 ml Ampule, Amber Glass

Certified Values:

The certified value is based on gravimetric and volumetric preparation of this Certified Reference Material (CRM). This CRM has been confirmed by GC/MS, GC, HPLC, UPLC/HRAM-MS, UV/VIS, Enzymatic, and/or wet chemistry techniques using internally developed method(s) against independent source(s). The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2. The purity of neat materials not traceable to an ISO 17034:2016 accredited Reference Material Provider is traceable to internal analysis by GC, GC/MS, HPLC, Enzymatic, or wet chemistry techniques and compared to a National Metrological Institute such as NIST where feasible.

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration	
2-butoxyethanol	111-76-2	99.6	311.9.2P	1986 ± 100	mg/L
diethylene glycol butyl ether	112-34-5	99.8	2323.7.2P	2008 ± 100	mg/L
propyl cellosolve	2807-30-9	99.9	1570.7.2P	1980 ± 100	mg/L
dipropylene glycol monomethyl ether	34590-94-8	99.7	2333.7.2P	2014 ± 100	mg/L
ethylene glycol	107-21-1	100	307.201.1P	1968 ± 99	mg/L
di(ethylene glycol)	111-46-6	99.5	309.7.2P	1994 ± 100	mg/L
tri(ethylene glycol)	112-27-6	99.9	310.7.2.1.1P	1974 ± 110	mg/L
4-Hydroxy-4-methyl-2-pentanone	123-42-2	98	2334.286.1P	1991 ± 110	mg/L
1,2-propanediol	57-55-6	99.5	306.9.3P	1998 ± 100	mg/L
tetraethylene glycol	112-60-7	98	3754.7.1P	3959 ± 200	mg/L

Intended Uses:

This CRM is intended for use as a calibration standard or a quality control standard for chromatography equipment such as GC, GC/MS, HPLC, and HPLC/MS. It may also be used for various USEPA, NIOSH and ASTM methods.

Recommended storage container for ampuled products after opening is a 12 mm x 32 mm amber vial with screw cap Teflon lined silicon septum. The modeled % change per day can be calculated using the following:

Certificate of Analysis

Catalog No. G34-120070-04 **Lot No.** 480919 **Expiration Date** 2 -May-2024

$$\% \text{ Change} = 116192x^{-2.578} + 40.383e^{-0.03y}$$

where x = boiling point of the most volatile analyte in the mix (in degrees K)
y = boiling point of the solvent (in degrees K)

This model assumes the container is stored at -10 °C and is unopened during storage. The user should determine what the acceptable error for their process is and calculate the maximum number of days the opened ampule should be stored.

Method of Preparation:

This standard was prepared gravimetrically using balances calibrated with National Institute of Standards and Technology (NIST) traceable weights (NIST Test Numbers 822/273070-06, 822/275141-07, 822/278993-10). Only calibrated Class A volumetric glassware and/or calibrated syringes were used to prepare this standard. Raw materials may have been checked for stoichiometry and purity prior to use. This standard has been analyzed against an independent source.

Packaging and Storage:

The solution should be stored according to the following storage requirements: ≤ -10 °C
Once the product is opened, it should be transferred to a vial with minimum head space if the product was received in a sealed ampule.

Glassware Calibration:

Only Class A glassware and/or calibrated syringes are used in the manufacture and quality control of standards. All glassware is calibrated using NIST traceable weights.

Weights and Balance Calibration:

Weights used to perform daily checks on balances are calibrated annually by the State of South Carolina Department of Agriculture Metrology Laboratory and are traceable to NIST. Balances are checked daily in accordance to procedure O2-LB-G-002. Balances are calibrated annually by an ISO/IEC 17025:2017 accredited metrology service.

Homogeneity:

Homogeneity has been established in accordance with internal procedure O2-QS-011 and has a maximum uncertainty of 0.1%. This is consistent with the intended use of this CRM. The homogeneity of this product has been confirmed by procedures consistent with ISO/IEC 17025:2017 and ISO 17034:2016. The homogeneity of this CRM is valid for sample sub-sizes that the end user can quantitatively reproduce.

Hazardous Information:

Refer to MSDS.

Calculation of Uncertainty:

The following equations are used to calculate the value of the expanded uncertainty:
$u = ku_c$ u = Expanded Uncertainty, k = the coverage factor at the 95% confidence level, k = 2, u_c = the combined uncertainty
$u_c = (u_{char}^2 + u_{tran}^2 + u_{homo}^2 + u_{lts}^2)^{1/2}$ where u_i are the individual uncertainty components for manufacturing, transportation, homogeneity, and shelf life. While no significant uncertainty was detected in the replicates, a minimum contribution to

Manufactured By:	Certified By:	Released By:
Brian Stokes		Susan Mathews
3 -May-2022	14 -Jun-2022	14 -Jun-2022
Production Chemist I	**Quality Control Chemist I**	**Quality Control Team Lead**

7290B Investment Drive • North Charleston, SC 29418
Phone: 866.272.0932 • Fax: 866.509.5146 www.o2si.com

Certificate of Analysis

Catalog No. G34-120070-04 **Lot No.** 480919 **Expiration Date** 2 -May-2024

uncertainty was added for homogeneity and long term stability as described in ISO Guide 35:2017.

Expiration Information:

The stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. These tests include the effect of temperature and packaging on the product. Studies on the short term instability have determined no contribution to instability as observed on the concentration under controlled transportation conditions. This standard is guaranteed until 2-May-2024

Quality Standard Documentation:

- ISO/IEC 17025:2017 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 3031.01
- ISO 17034:2016 "General Requirements for the Competence of Reference Material Producers" - Reference Material Production - Accredited A2LA Certificate Number 3031.02

Manufactured By:	Certified By:	Released By:
Brian Stokes		Susan Mat
Brian Stokes	Tyler Sherman	Susan Mathews
3 -May-2022	14 -Jun-2022	14 -Jun-2022
Production Chemist I	**Quality Control Chemist I**	**Quality Control Team Lead**

7290B Investment Drive • North Charleston, SC 29418
Phone: 866.272.0932 • Fax: 866.509.5146 www.o2si.com

Reagent

SG_GLY_ISTD_00099

ISO 17034

Agilent
Trusted Answers

Reference Material Certificate

Product Name:	Custom Standard	**Lot Number:**	0006670821
Product Number:	CUS-6046	**Lot Issue Date:**	14-Mar-2022
Storage Conditions:	Store at Room Temperature (15° to 30°C).	**Expiration Date:**	30-Apr-2024

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
n-heptanol	5024 ±	25 µg/mL	000111-70-6	RM04540

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

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

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

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

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

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

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

Sample lot approver:

Monica Bourgeois
QMS Representative

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

Sample lot approver:

Monica Bourgeois
QMS Representative

Reagent

SG_GlyICV_00056

ISO/IEC 17025 Accredited
Chemical Testing Lab
Cert. No. 3031.01

o2si smart solutions®

ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Rev 0

Certificate of Analysis

Catalog No.	Lot No.	Storage	Solvent	Date Received	Exp. Date
G34-120070-04-SS	454407	≤ -10 °C	P/T Methanol		1-Jul-2023

Description:
ISO 17034 -Custom Volatiles Mix,105-12, Second Source, 2000 & 4,000 mg/L, 1 mL

Container:
1 ml Ampule, Amber Glass

Certified Values:

The certified value is based on gravimetric and volumetric preparation of this Certified Reference Material (CRM). This CRM has been confirmed by GC/MS, GC, HPLC, UPLC/HRAM-MS, UV/VIS, Enzymatic, and/or wet chemistry techniques using internally developed method(s) against independent source(s). The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2. The purity of neat materials not traceable to an ISO 17034:2016 accredited Reference Material Provider is traceable to internal analysis by GC, GC/MS, HPLC, Enzymatic, or wet chemistry techniques and compared to a National Metrological Institute such as NIST where feasible.

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration	
2-butoxyethanol	111-76-2	99.5	311.7.1.1S	1994 ± 100	mg/L
diethylene glycol butyl ether	112-34-5	99.8	2323.7.2.1S	1992 ± 100	mg/L
2-propoxyethanol	2807-30-9	99.5	1570.7.1S	1998 ± 110	mg/L
dipropylene glycol monomethyl ether	34590-94-8	99.7	2333.7.2.1S	1998 ± 100	mg/L
ethylene glycol	107-21-1	100	307.201.1.1S	2016 ± 100	mg/L
di(ethylene glycol)	111-46-6	99.9	309.7.1.1S	1998 ± 100	mg/L
tri(ethylene glycol)	112-27-6	99.9	310.7.3.1S	2010 ± 100	mg/L
4-Hydroxy-4-methyl-2-pentanone	123-42-2	98	2334.286.1.1S	2003 ± 110	mg/L
1,2-propanediol	57-55-6	99.6	306.370.1.1S	2004 ± 110	mg/L
tetraethylene glycol	112-60-7	98	3754.7.1.1S	4049 ± 200	mg/L

Intended Uses:

This CRM is intended for use as a calibration standard or a quality control standard for chromatography equipment such as GC, GC/MS, HPLC, and HPLC/MS. It may also be used for various USEPA, NIOSH and ASTM methods.

Recommended storage container for ampuled products after opening is a 12 mm x 32 mm amber vial with screw cap Teflon lined silicon septum. The modeled % change per day can be calculated using the following:

Certificate of Analysis

Catalog No. G34-120070-04-SS **Lot No.** 454407 **Expiration Date** 1 -Jul-2023

$$\% \text{ Change} = 116192x^{-2.578} + 40.383e^{-0.03y}$$

where x = boiling point of the most volatile analyte in the mix (in degrees K)
y = boiling point of the solvent (in degrees K)

This model assumes the container is stored at -10 °C and is unopened during storage. The user should determine what the acceptable error for their process is and calculate the maximum number of days the opened ampule should be stored.

Method of Preparation:

This standard was prepared gravimetrically using balances calibrated with National Institute of Standards and Technology (NIST) traceable weights (NIST Test Numbers 822/273070-06, 822/275141-07, 822/278993-10). Only calibrated Class A volumetric glassware and/or calibrated syringes were used to prepare this standard. Raw materials may have been checked for stoichiometry and purity prior to use. This standard has been analyzed against an independent source.

Packaging and Storage:

The solution should be stored according to the following storage requirements: ≤ -10 °C
Once the product is opened, it should be transferred to a vial with minimum head space if the product was received in a sealed ampule.

Glassware Calibration:

Only Class A glassware and/or calibrated syringes are used in the manufacture and quality control of standards. All glassware is calibrated using NIST traceable weights.

Weights and Balance Calibration:

Weights used to perform daily checks on balances are calibrated annually by the State of South Carolina Department of Agriculture Metrology Laboratory and are traceable to NIST. Balances are checked daily in accordance to procedure O2-LB-G-002. Balances are calibrated annually by an ISO/IEC 17025:2017 accredited metrology service.

Homogeneity:

Homogeneity has been established in accordance with internal procedure O2-QS-011 and has a maximum uncertainty of 0.1%. This is consistent with the intended use of this CRM. The homogeneity of this product has been confirmed by procedures consistent with ISO/IEC 17025:2017 and ISO 17034:2016. The homogeneity of this CRM is valid for sample sub-sizes that the end user can quantitatively reproduce.

Hazardous Information:

Refer to MSDS.

Calculation of Uncertainty:

The following equations are used to calculate the value of the expanded uncertainty:
$u = ku_c$ u = Expanded Uncertainty, k = the coverage factor at the 95% confidence level, k = 2, u_c = the combined uncertainty
$u_c = (u_{char}^2 + u_{tran}^2 + u_{homo}^2 + u_{lts}^2)^{1/2}$ where u_i are the individual uncertainty components for manufacturing, transportation, homogeneity, and shelf life. While no significant uncertainty was detected in the replicates, a minimum contribution to

Manufactured By:	Certified By:	Released By:
Jared Ball	Claire Desrochers	Susan Mathews
1 -Jul-2021	7 -Jul-2021	8 -Jul-2021
Quality Control Chemist I	**Quality Control Chemist I**	**Quality Control Team Lead**

7290B Investment Drive • North Charleston, SC 29418
Phone: 866.272.0932 • Fax: 866.509.5146 www.o2si.com

Certificate of Analysis

Catalog No. G34-120070-04-SS **Lot No.** 454407 **Expiration Date** 1 -Jul-2023

uncertainty was added for homogeneity and long term stability as described in ISO Guide 35:2017.

Expiration Information:

The stability of this product is based upon rigorous short term and long term testing of the solution for the certified value. These tests include the effect of temperature and packaging on the product. Studies on the short term instability have determined no contribution to instability as observed on the concentration under controlled transportation conditions. This standard is guaranteed until 1-Jul-2023

Quality Standard Documentation:

- ISO/IEC 17025:2017 "General Requirements for the Competence of Testing and Calibration" - Chemical Testing - Accredited A2LA Certificate Number 3031.01
- ISO 17034:2016 "General Requirements for the Competence of Reference Material Producers" - Reference Material Production - Accredited A2LA Certificate Number 3031.02

Manufactured By:	Certified By:	Released By:
Jared Ball	Claire Desrochers	Susan Mathews
1 -Jul-2021	7 -Jul-2021	8 -Jul-2021
Quality Control Chemist I	**Quality Control Chemist I**	**Quality Control Team Lead**

7290B Investment Drive • North Charleston, SC 29418
Phone: 866.272.0932 • Fax: 866.509.5146 www.o2si.com

Method 8015C - DAI Glycols

Glycols -Direct Injection (GC/FID) - Method 8015C

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: -22GL17006-LCS.d

Lab ID: LCS 680-755698/1006 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	22.8	114	50-150	

Column to be used to flag recovery and RPD values

FORM III 8015C GLY

FORM III
GC SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 22GL17007.D

Lab ID: LCSD 680-755698/7 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	20.7	103	10	50	50-150	

Column to be used to flag recovery and RPD values

FORM III 8015C GLY

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Lab Sample ID: MB 680-755698/10

Matrix: Water Date Extracted:

Lab File ID:(1) 22GL17010.D Lab File ID:(2)

Date Analyzed:(1) 12/17/2022 19:59 Date Analyzed:(2)

Instrument ID:(1) CVGG2 Instrument ID:(2)

GC Column:(1) J&W DB WAX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 680-755698/1006	12/17/2022 18:28	
	LCSD 680-755698/7	12/17/2022 18:51	
AF-RHMW17-WGN01B-2212WK2	580-121295-1	12/17/2022 21:07	

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

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Sample No.: ICIS 680-755296/10 Date Analyzed: 12/15/2022 14:48

Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45(mm)

Lab File ID (Standard): 22GL15010.D Heated Purge: (Y/N) N

Calibration ID: 88697

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		6443842	5.71				
UPPER LIMIT		12887684	6.21				
LOWER LIMIT		3221921	5.21				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-755296/13 CCV		7820966	5.71				

nHPA = n-Heptyl Alcohol

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8015C GLY

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

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Sample No.: CCVIS 680-755698/6 Date Analyzed: 12/17/2022 18:28

Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45(mm)

Lab File ID (Standard): 22GL17006.D Heated Purge: (Y/N) N

Calibration ID: 88697

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		6078535	5.74				
UPPER LIMIT		12157070	6.24				
LOWER LIMIT		3039268	5.24				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 680-755698/1006		6078535	5.74				
LCSD 680-755698/7		5536898	5.74				
MB 680-755698/10		7536137	5.74				
580-121295-1	AF-RHMW17-WGN01B-2212 WK2	6361092	5.74				
CCV 680-755698/24		6728487	5.74				

nHPA = n-Heptyl Alcohol

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8015C GLY

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah
Job No.: 580-121295-1
SDG No.:
Client Sample ID: AF-RHMW17-WGN01B-2212WK2
Lab Sample ID: 580-121295-1
Matrix: Water
Lab File ID: 22GL17013.D
Analysis Method: 8015C GLY
Date Collected: 12/13/2022 13:50
Extraction Method:
Date Extracted:
Sample wt/vol: 1(mL)
Date Analyzed: 12/17/2022 21:07
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: J&W DB WAX ID: 0.45(mm)
% Moisture: % Solids:
GPC Cleanup:(Y/N) N
Cleanup Factor:
Analysis Batch No.: 755698
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\22GL17013.D				
Lims ID:	580-121295-A-1				
Client ID:	AF-RHMW17-WGN01B-2212WK2				
Sample Type:	Client				
Inject. Date:	17-Dec-2022 21:07:47	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	680-0082806-013				
Operator ID:		Instrument ID:	CVGG2		
Method:	\\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\8015_GLY_VGG.m				
Limit Group:	8015C_DAI				
Last Update:	18-Dec-2022 10:31:44	Calib Date:	15-Dec-2022 15:34:13		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D				
Column 1 :	J&W DB WAX (0.45 mm)		Det: GC FID2B		
Process Host:	CTX1606				

First Level Reviewer: SWK1 Date: 18-Dec-2022 10:31:39

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
* 4 n-Heptyl Alcohol					
5.741	5.743	-0.002	6361092	50.0	

QC Flag Legend

Processing Flags

Reagents:

SG_GLY_ISTD_00099 Amount Added: 10.00 Units: uL Run Reagent

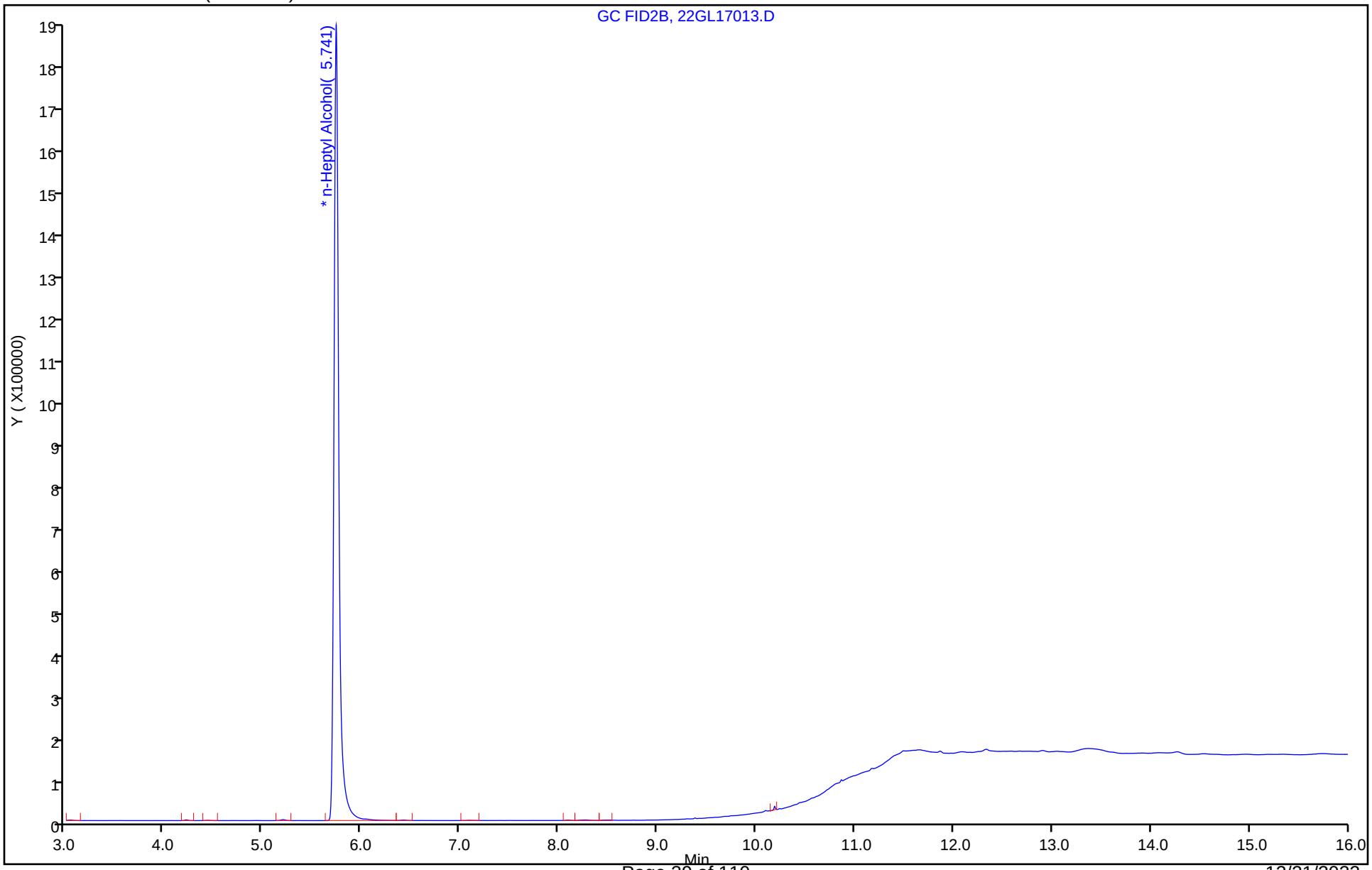
Report Date: 18-Dec-2022 10:32:34 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\22GL17013.D

Injection Date:	17-Dec-2022 21:07:47	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-121295-A-1	Lab Sample ID:	680-121295-1	Worklist Smp#:	13
Client ID:	AF-RHMW17-WGN01B-2212WK2				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



12/21/2022
6:24 PM

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

Lab Name: Eurofins Savannah Job No.: 580-121295-1 Analy Batch No.: 755296

SDG No.:

Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2022 13:40 Calibration End Date: 12/15/2022 15:34 Calibration ID: 88697

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-755296/12	22GL15012.D
Level 2	IC 680-755296/11	22GL15011.D
Level 3	ICIS 680-755296/10	22GL15010.D
Level 4	IC 680-755296/9	22GL15009.D
Level 5	IC 680-755296/8	22GL15008.D
Level 6	IC 680-755296/7	22GL15007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethanol, 2-propoxy	0.5816 0.4737	0.5568	0.5171	0.4615	0.5207	Ave		0.5186				8.9		20.0			
4-Hydroxy-4-methyl-2-pentanone	0.6069 0.4985	0.5826	0.5431	0.4794	0.5476	Ave		0.5430				8.9		20.0			
2-Butoxyethanol	0.6374 0.5121	0.6038	0.5557	0.4918	0.5613	Ave		0.5604				9.7		20.0			
Dipropylene Glycol Methyl Ether	0.0431 0.0367	0.0396	0.0435	0.0351	0.0416	Ave		0.0399				8.6		20.0			
Propylene glycol	0.3771 +++++	0.3055	0.3662	0.3077	0.3466	Ave		0.3406				9.7		20.0			
Ethylene glycol	0.3909 +++++	0.3167	0.3413	0.2928	0.3158	Ave		0.3315				11.3		20.0			
2-(2-Butoxyethoxy)ethanol	0.5666 0.4465	0.5278	0.4873	0.4391	0.5106	Ave		0.4963				9.9		20.0			
2,2'-Oxybisethanol	0.3586 0.2979	0.3343	0.3201	0.2784	0.3203	Ave		0.3183				8.8		20.0			
Triethylene Glycol	0.4069 0.2998	0.3723	0.3329	0.2783	0.3204	Lin2	0.5931	0.2963							0.9940		0.9900
Tetraethylene Glycol	0.3889 0.3018	0.3481	0.3168	0.2619	0.3191	Lin2	1.0184	0.2895							0.9920		0.9900

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 SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Savannah Job No.: 580-121295-1 Analy Batch No.: 755296

SDG No.:

Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2022 13:40 Calibration End Date: 12/15/2022 15:34 Calibration ID: 88697

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-755296/12	22GL15012.D
Level 2	IC 680-755296/11	22GL15011.D
Level 3	ICIS 680-755296/10	22GL15010.D
Level 4	IC 680-755296/9	22GL15009.D
Level 5	IC 680-755296/8	22GL15008.D
Level 6	IC 680-755296/7	22GL15007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Ethanol, 2-propoxy	nHPA	Ave	416727 7053688	791260	1332867	2587988	6285698	5.00 100	10.0	20.0	50.0	80.0
4-Hydroxy-4-methyl-2-pentanone	nHPA	Ave	434849 7423255	827949	1399741	2688287	6609451	5.00 100	10.0	20.0	50.0	80.0
2-Butoxyethanol	nHPA	Ave	456743 7626714	858121	1432260	2757997	6774865	5.00 100	10.0	20.0	50.0	80.0
Dipropylene Glycol Methyl Ether	nHPA	Ave	30872 546715	56303	112172	196877	502049	5.00 100	10.0	20.0	50.0	80.0
Propylene glycol	nHPA	Ave	270235 +++++	434131	943990	1725397	4183063	5.00 +++++	10.0	20.0	50.0	80.0
Ethylene glycol	nHPA	Ave	280066 +++++	450038	879839	1642095	3811895	5.00 +++++	10.0	20.0	50.0	80.0
2-(2-Butoxyethoxy)ethanol	nHPA	Ave	405977 6649122	750029	1256158	2462169	6163303	5.00 100	10.0	20.0	50.0	80.0
2,2'-Oxybisethanol	nHPA	Ave	256938 4436367	475084	824970	1561212	3866081	5.00 100	10.0	20.0	50.0	80.0
Triethylene Glycol	nHPA	Lin2	291568 4464024	529150	858022	1560681	3867921	5.00 100	10.0	20.0	50.0	80.0
Tetraethylene Glycol	nHPA	Lin2	557362 8988059	989281	1633146	2937100	7703370	10.0 200	20.0	40.0	100	160

Curve Type Legend
Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

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

Lab Name: Eurofins Savannah Job No.: 580-121295-1 Analy Batch No.: 755296

SDG No.:

Instrument ID: CVGG2 GC Column: J&W DB WAX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/15/2022 13:40 Calibration End Date: 12/15/2022 15:34 Calibration ID: 88697

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-755296/12	22GL15012.D
Level 2	IC 680-755296/11	22GL15011.D
Level 3	ICIS 680-755296/10	22GL15010.D
Level 4	IC 680-755296/9	22GL15009.D
Level 5	IC 680-755296/8	22GL15008.D
Level 6	IC 680-755296/7	22GL15007.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
Ethanol, 2-propoxy	12.2	7.4	-0.3	-11.0	0.4	-8.7	20	20	20	20	20	20
4-Hydroxy-4-methyl-2-pentanone	11.8	7.3	0.0	-11.7	0.8	-8.2	20	20	20	20	20	20
2-Butoxyethanol	13.8	7.8	-0.8	-12.2	0.2	-8.6	20	20	20	20	20	20
Dipropylene Glycol Methyl Ether	7.9	-0.8	9.0	-12.1	4.1	-8.1	20	20	20	20	20	20
Propylene glycol	10.7	-10.3	7.5	-9.7	1.7	+++++	20	20	20	20	20	
Ethylene glycol	17.9	-4.5	3.0	-11.7	-4.7	+++++	20	20	20	20	20	
2-(2-Butoxyethoxy)ethanol	14.2	6.3	-1.8	-11.5	2.9	-10.0	20	20	20	20	20	20
2,2'-Oxybisethanol	12.7	5.0	0.6	-12.5	0.6	-6.4	20	20	20	20	20	20
Triethylene Glycol	-2.7	5.6	2.3	-10.1	5.6	-0.8	20	20	20	20	20	20
Tetraethylene Glycol	-0.8	2.7	0.7	-13.0	8.0	2.5	20	20	20	20	20	20

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15007.D
Lims ID: ic g6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-Dec-2022 13:40:52 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0082752-007
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-Dec-2022 18:35:03 Calib Date: 15-Dec-2022 15:34:13
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1659

First Level Reviewer: SK9U Date: 15-Dec-2022 17:24:57

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy							
	3.984	3.983	0.001	7053688	100.0	91.3	
2 4-Hydroxy-4-methyl-2-pentanone							
	4.806	4.806	0.000	7423255	100.0	91.8	
3 2-Butoxyethanol							
	5.175	5.175	0.000	7626714	100.0	91.4	
* 4 n-Heptyl Alcohol							
	5.708	5.708	0.000	7445839	50.0	50.0	
5 Dipropylene Glycol Methyl Ether							
	6.827	6.831	-0.004	546715	100.0	91.9	
6 Propylene glycol							M
	7.822	7.827	-0.005	3624516	100.0	71.5	M
7 Ethylene glycol							M
	8.217	8.218	-0.001	3043727	100.0	61.7	M
8 2-(2-Butoxyethoxy)ethanol							
	9.493	9.491	0.002	6649122	100.0	90.0	
9 2,2'-Oxybisethanol							
	10.178	10.176	0.002	4436367	100.0	93.6	
10 Triethylene Glycol							M
	11.159	11.159	0.000	4464024	100.0	99.2	M
11 Tetraethylene Glycol							
	12.824	12.821	0.003	8988059	200.0	205.0	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00047	Amount Added: 50.00	Units: uL	
SG_GLY_ISTD_00099	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 15-Dec-2022 18:35:03 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15007.D

Injection Date: 15-Dec-2022 13:40:52 Instrument ID: CVGG2 Operator ID:

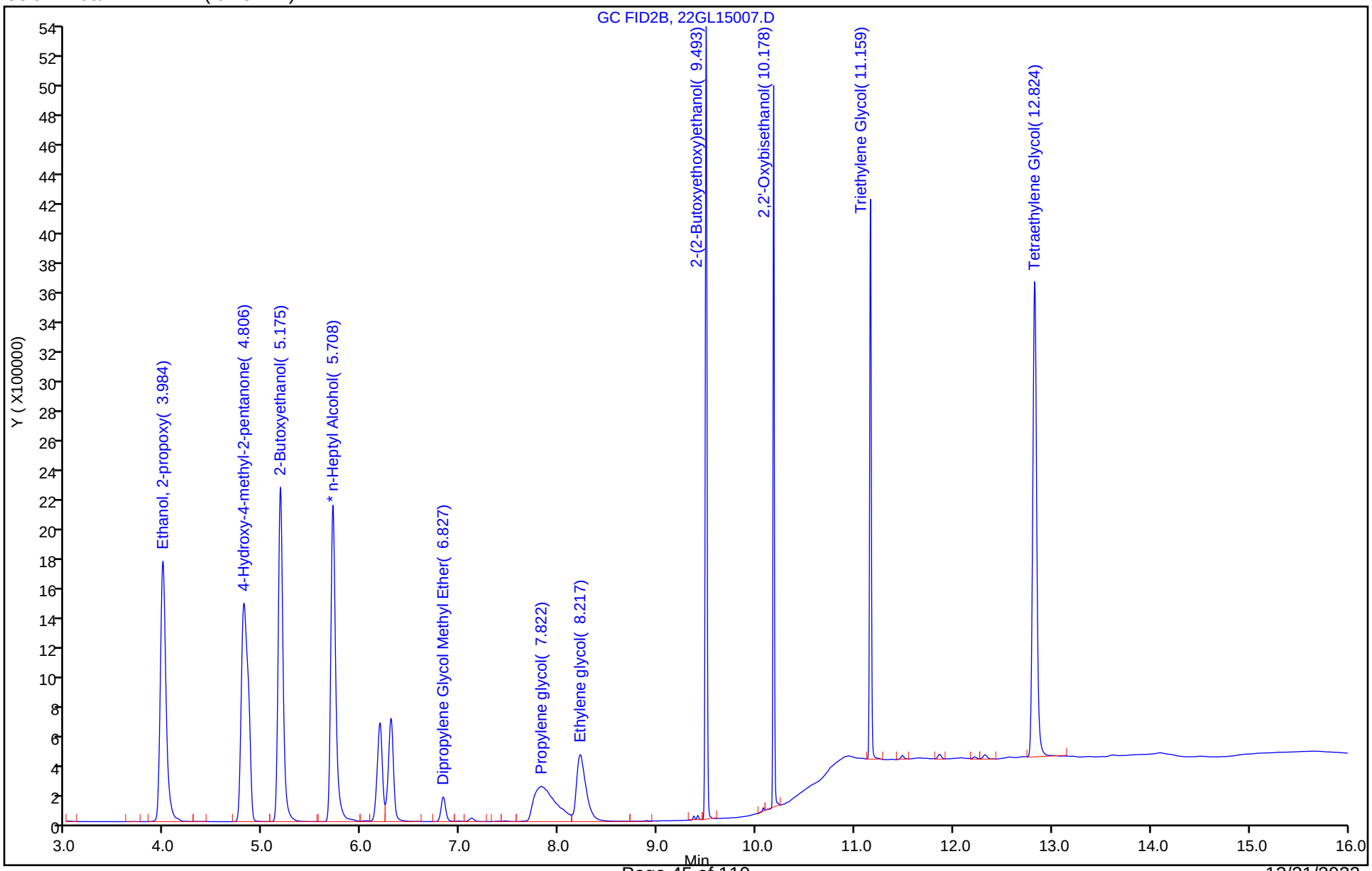
Lims ID: ic g6 Worklist Smp#: 7

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 7

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



12/21/2022
6:24 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

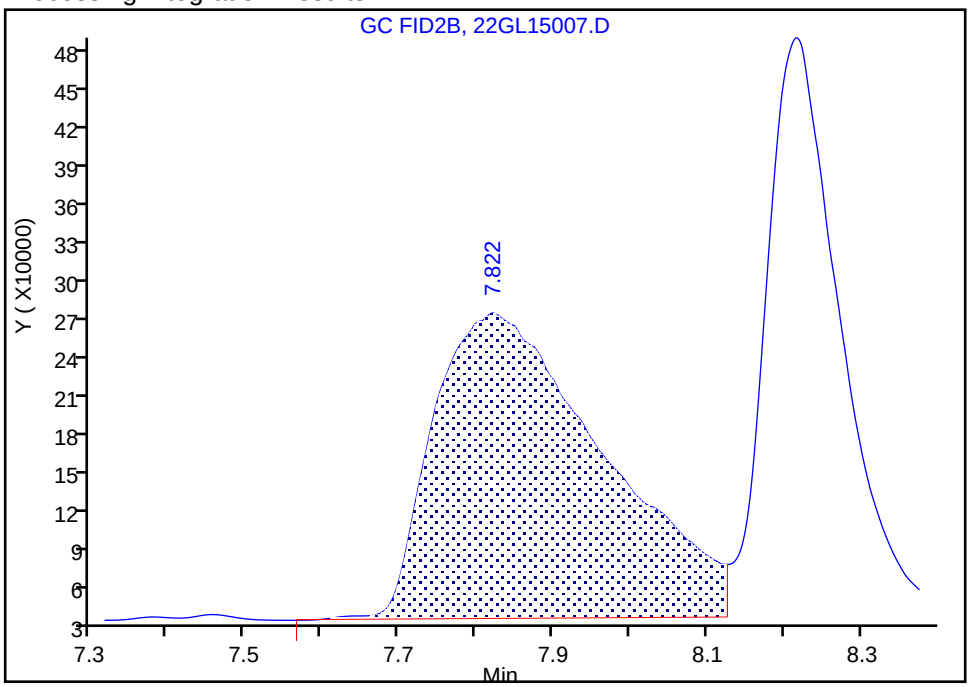
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15007.D				
Injection Date:	15-Dec-2022 13:40:52	Instrument ID:	CVGG2		
Lims ID:	ic g6				
Client ID:					
Operator ID:		ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

6 Propylene glycol, CAS: 57-55-6

Signal: 1

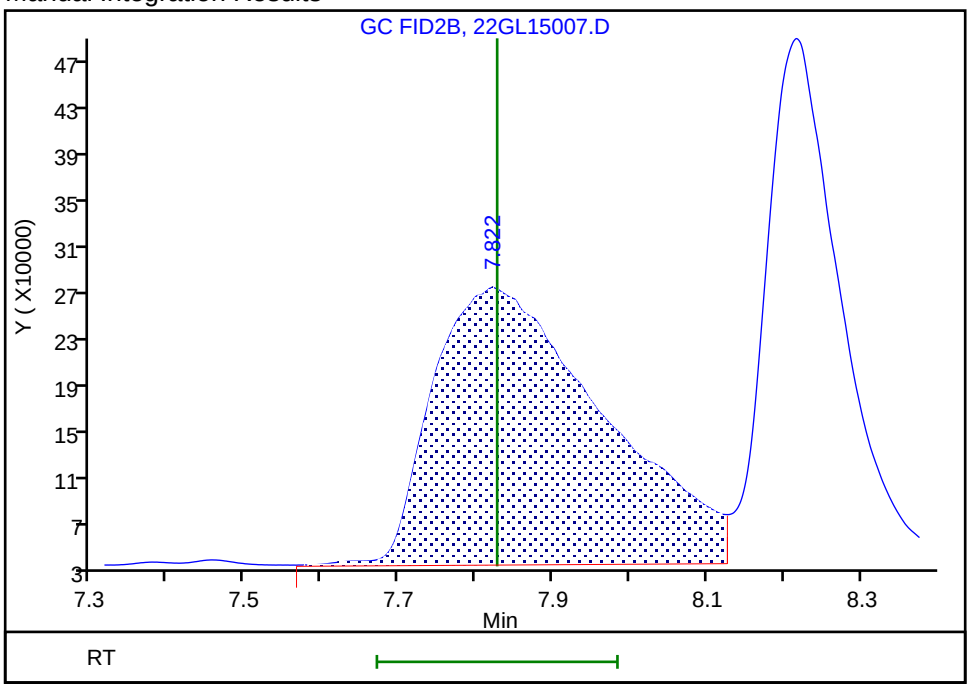
Processing Integration Results

RT: 7.82
Area: 3607792
Amount: 74.721268
Amount Units: ug/ml



Manual Integration Results

RT: 7.82
Area: 3624516
Amount: 71.455054
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:33:27
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah

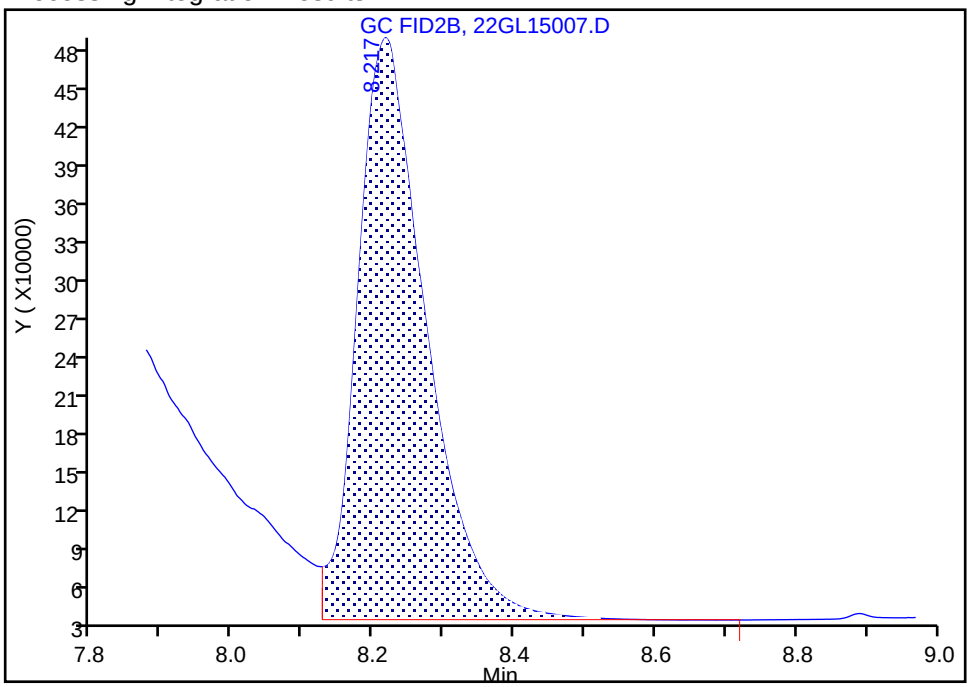
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15007.D				
Injection Date:	15-Dec-2022 13:40:52	Instrument ID:	CVGG2		
Lims ID:	ic g6				
Client ID:					
Operator ID:		ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

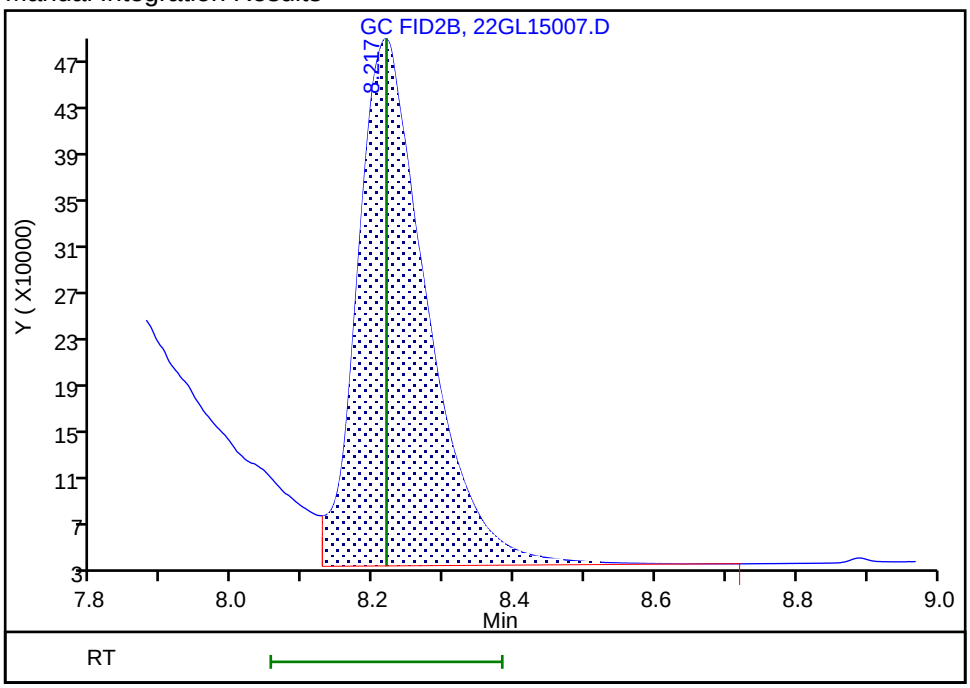
Processing Integration Results

RT: 8.22
Area: 3026716
Amount: 65.536617
Amount Units: ug/ml



Manual Integration Results

RT: 8.22
Area: 3043727
Amount: 61.655254
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:33:27
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah

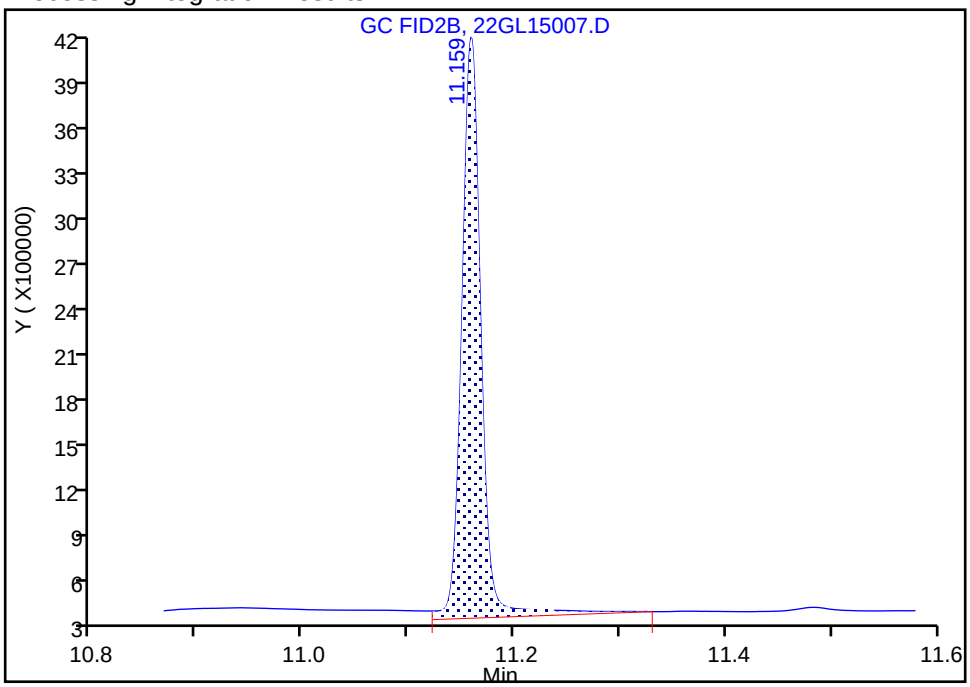
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15007.D				
Injection Date:	15-Dec-2022 13:40:52	Instrument ID:	CVGG2		
Lims ID:	ic g6				
Client ID:					
Operator ID:		ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

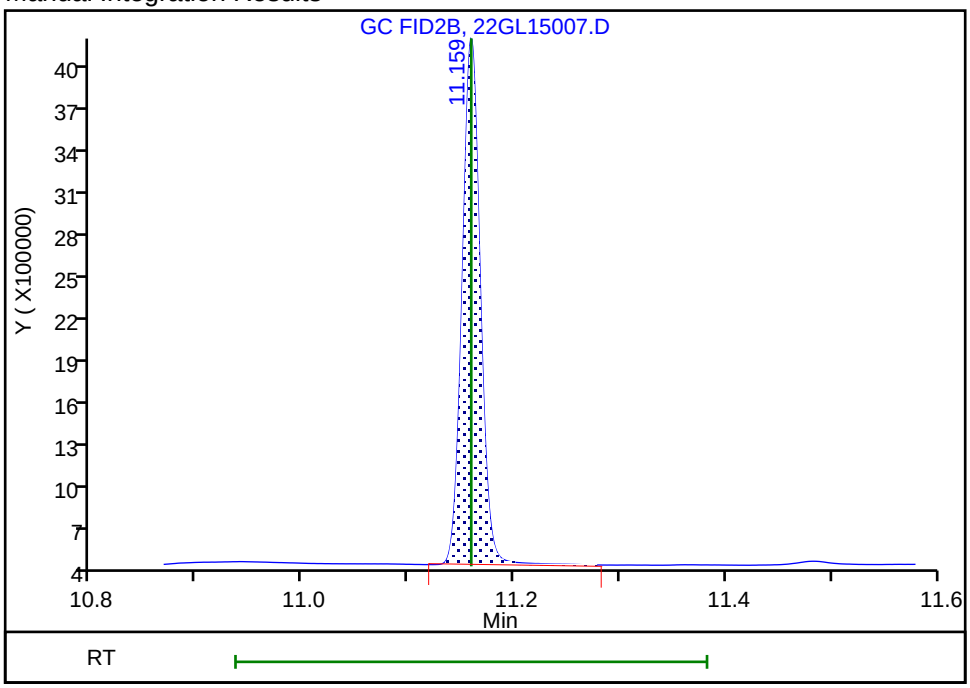
Processing Integration Results

RT: 11.16
Area: 4844633
Amount: 101.9642
Amount Units: ug/ml



Manual Integration Results

RT: 11.16
Area: 4464024
Amount: 99.163918
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:27:49
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15008.D				
Lims ID:	ic g5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	15-Dec-2022 14:03:30	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	680-0082752-008				
Operator ID:		Instrument ID:	CVGG2		
Sublist:	chrom-8015_GLY_VGG*sub2				
Method:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\8015_GLY_VGG.m				
Limit Group:	8015C_DAI				
Last Update:	15-Dec-2022 18:35:03	Calib Date:	15-Dec-2022 15:34:13		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D				
Column 1 :	J&W DB WAX (0.45 mm)		Det: GC FID2B		
Process Host:	CTX1659				

First Level Reviewer: SWK1 Date: 15-Dec-2022 18:28:03

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy							
	3.981	3.983	-0.002	6285698	80.0	80.3	
2 4-Hydroxy-4-methyl-2-pentanone							
	4.806	4.806	0.000	6609451	80.0	80.7	
3 2-Butoxyethanol							
	5.176	5.175	0.001	6774865	80.0	80.1	
* 4 n-Heptyl Alcohol							
	5.710	5.708	0.002	7544066	50.0	50.0	
5 Dipropylene Glycol Methyl Ether							
	6.831	6.831	0.000	502049	80.0	83.3	
6 Propylene glycol							
	7.826	7.827	-0.001	4183063	80.0	81.4	
7 Ethylene glycol							
	8.218	8.218	0.000	3811895	80.0	76.2	
8 2-(2-Butoxyethoxy)ethanol							
	9.493	9.491	0.002	6163303	80.0	82.3	
9 2,2'-Oxybisethanol							
	10.178	10.176	0.002	3866081	80.0	80.5	
10 Triethylene Glycol							M
	11.159	11.159	0.000	3867921	80.0	84.5	M
11 Tetraethylene Glycol							
	12.822	12.821	0.001	7703370	160.0	172.9	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00047	Amount Added: 40.00	Units: uL	
SG_GLY_ISTD_00099	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 15-Dec-2022 18:35:03 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15008.D

Injection Date: 15-Dec-2022 14:03:30 Instrument ID: CVGG2 Operator ID:

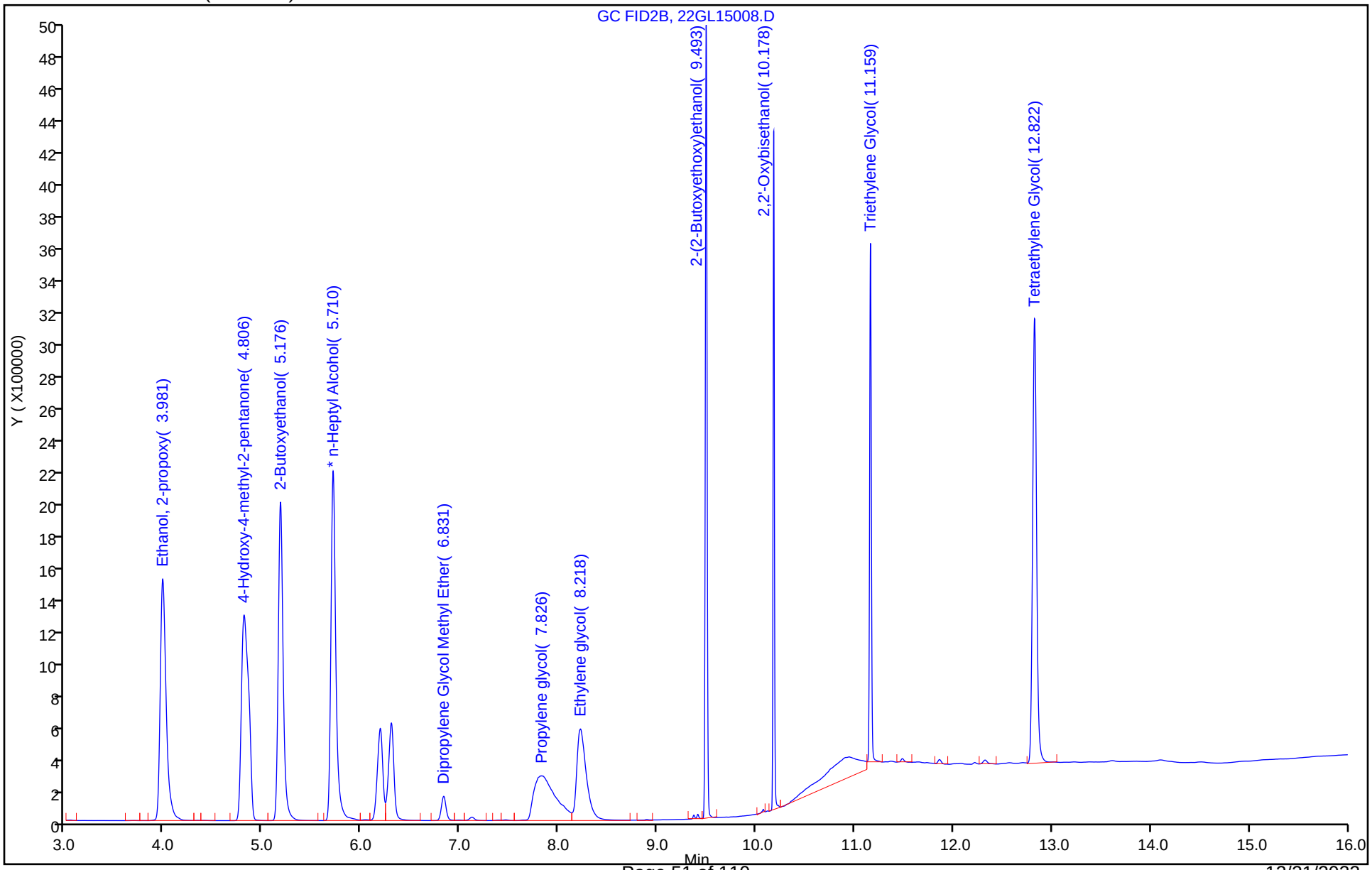
Lims ID: ic g5 Worklist Smp#: 8

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 8

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



12/21/2022
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Eurofins Savannah

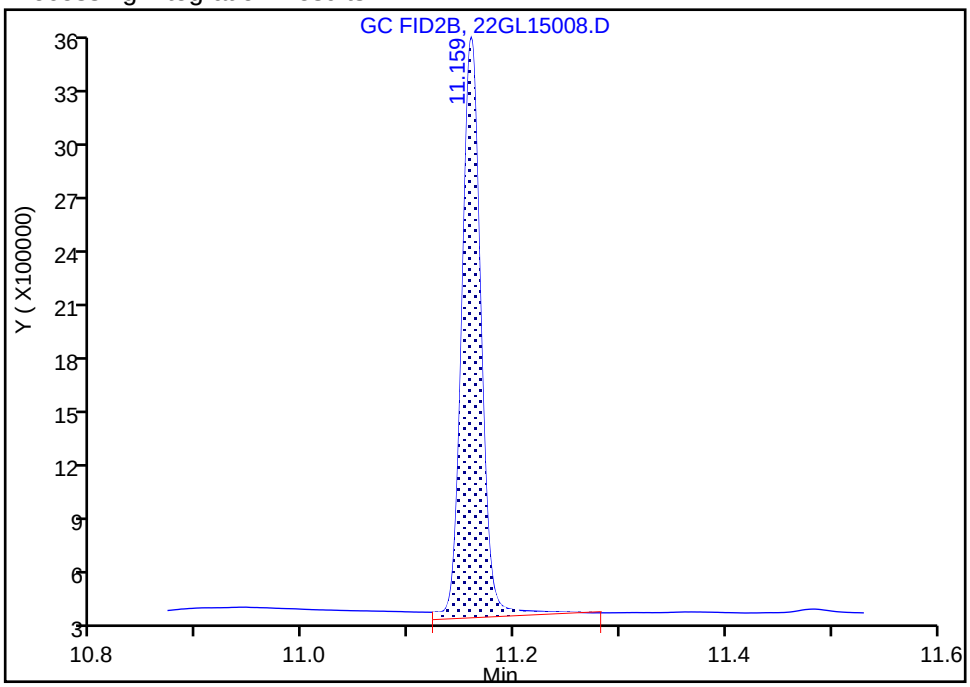
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15008.D				
Injection Date:	15-Dec-2022 14:03:30	Instrument ID:	CVGG2		
Lims ID:	ic g5				
Client ID:					
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

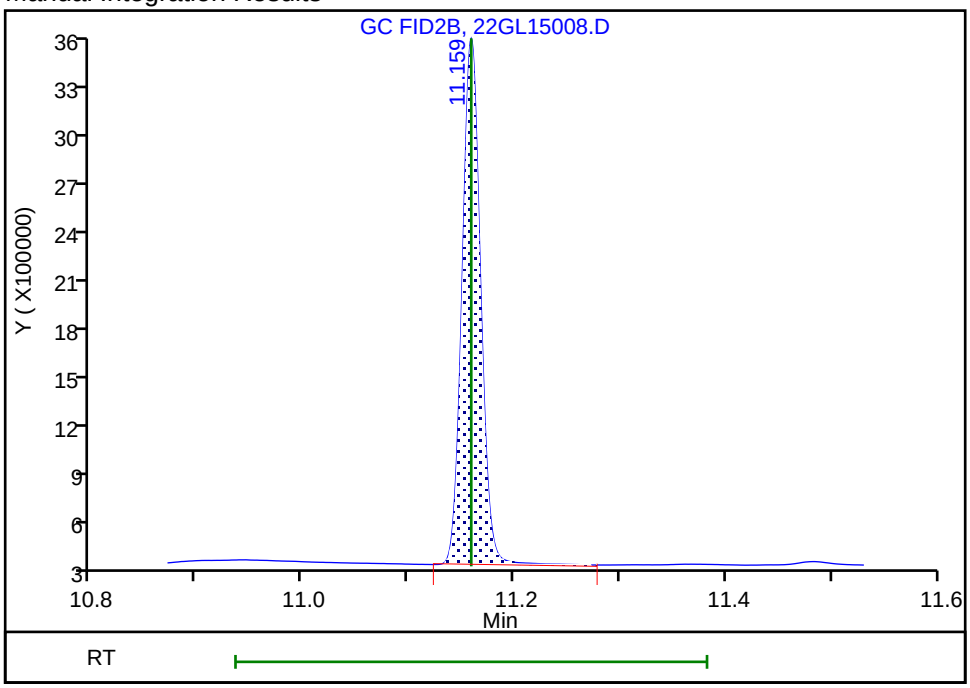
Processing Integration Results

RT: 11.16
Area: 4076952
Amount: 85.617419
Amount Units: ug/ml



Manual Integration Results

RT: 11.16
Area: 3867921
Amount: 84.513452
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:28:02
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15009.D
Lims ID: ic g4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-Dec-2022 14:26:10 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0082752-009
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-Dec-2022 18:35:04 Calib Date: 15-Dec-2022 15:34:13
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1659

First Level Reviewer: SWK1 Date: 15-Dec-2022 18:28:15

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy							
	3.981	3.981	0.000	2587988	50.0	44.5	
2 4-Hydroxy-4-methyl-2-pentanone							
	4.806	4.806	0.000	2688287	50.0	44.1	
3 2-Butoxyethanol							
	5.175	5.175	0.000	2757997	50.0	43.9	
* 4 n-Heptyl Alcohol							
	5.709	5.709	0.000	5607434	50.0	50.0	
5 Dipropylene Glycol Methyl Ether							
	6.829	6.829	0.000	196877	50.0	44.0	
6 Propylene glycol							
	7.829	7.829	0.000	1725397	50.0	45.2	
7 Ethylene glycol							
	8.218	8.218	0.000	1642095	50.0	44.2	
8 2-(2-Butoxyethoxy)ethanol							
	9.492	9.492	0.000	2462169	50.0	44.2	
9 2,2'-Oxybisethanol							
	10.177	10.177	0.000	1561212	50.0	43.7	
10 Triethylene Glycol							M
	11.159	11.159	0.000	1560681	50.0	45.0	M
11 Tetraethylene Glycol							
	12.823	12.823	0.000	2937100	100.0	87.0	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00047	Amount Added:	25.00	Units: uL	
SG_GLY_ISTD_00099	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 15-Dec-2022 18:35:04 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15009.D

Injection Date: 15-Dec-2022 14:26:10 Instrument ID: CVGG2 Operator ID:

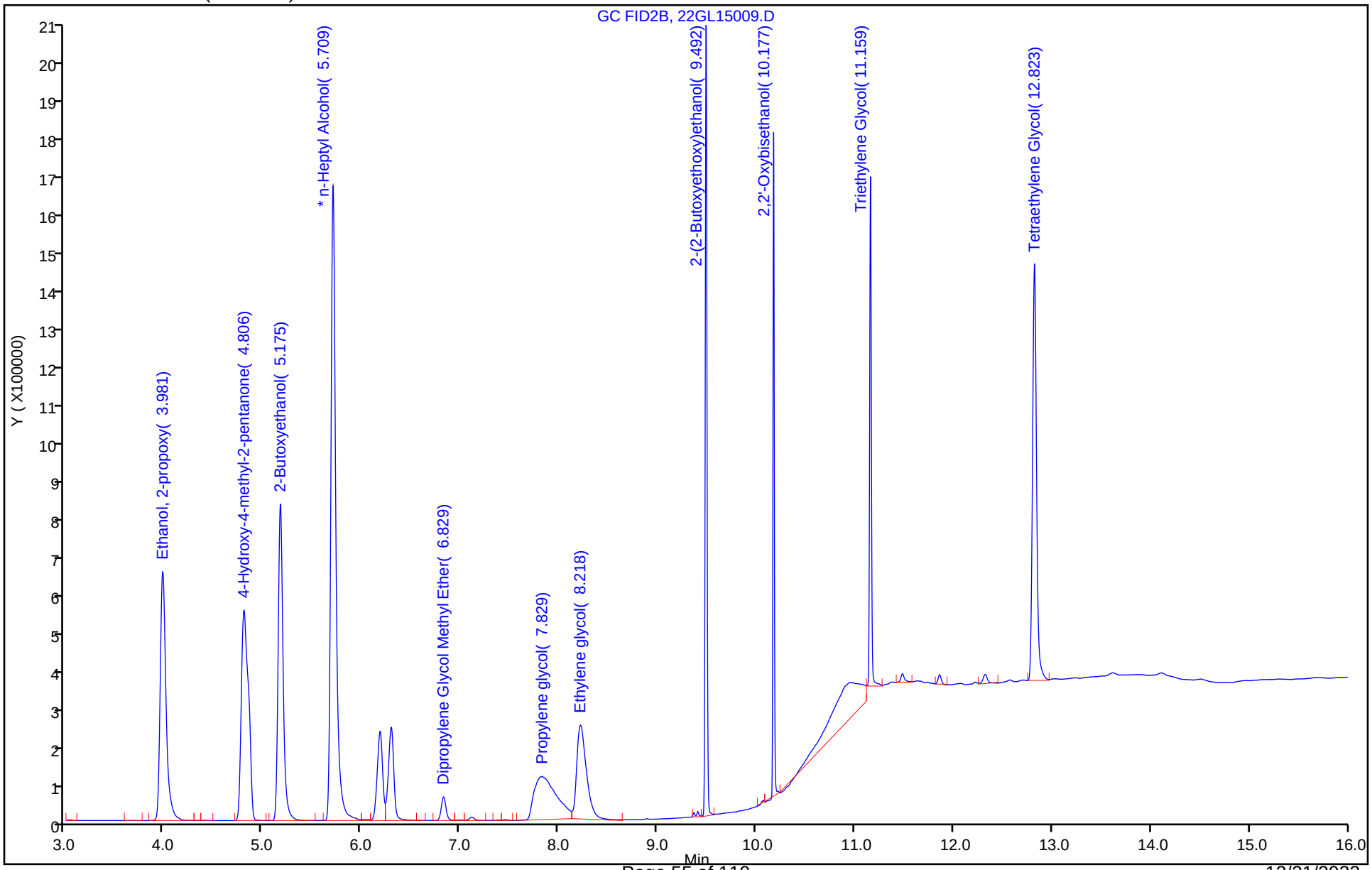
Lims ID: ic g4 Worklist Smp#: 9

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 9

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



12/21/2022
6:24 PM

Eurofins Savannah

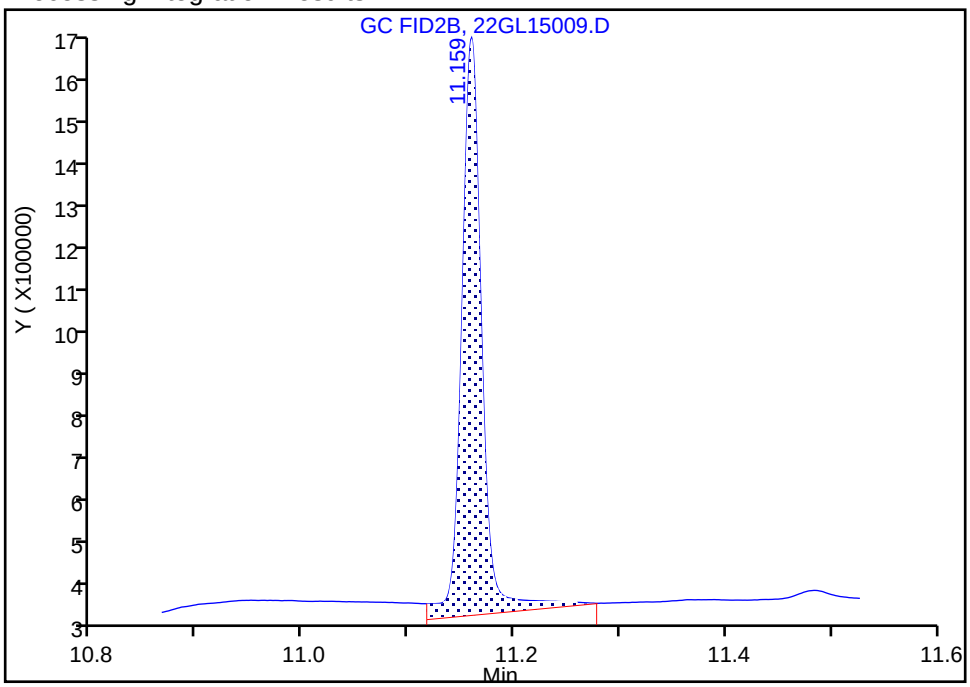
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15009.D				
Injection Date:	15-Dec-2022 14:26:10	Instrument ID:	CVGG2		
Lims ID:	ic g4				
Client ID:					
Operator ID:		ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

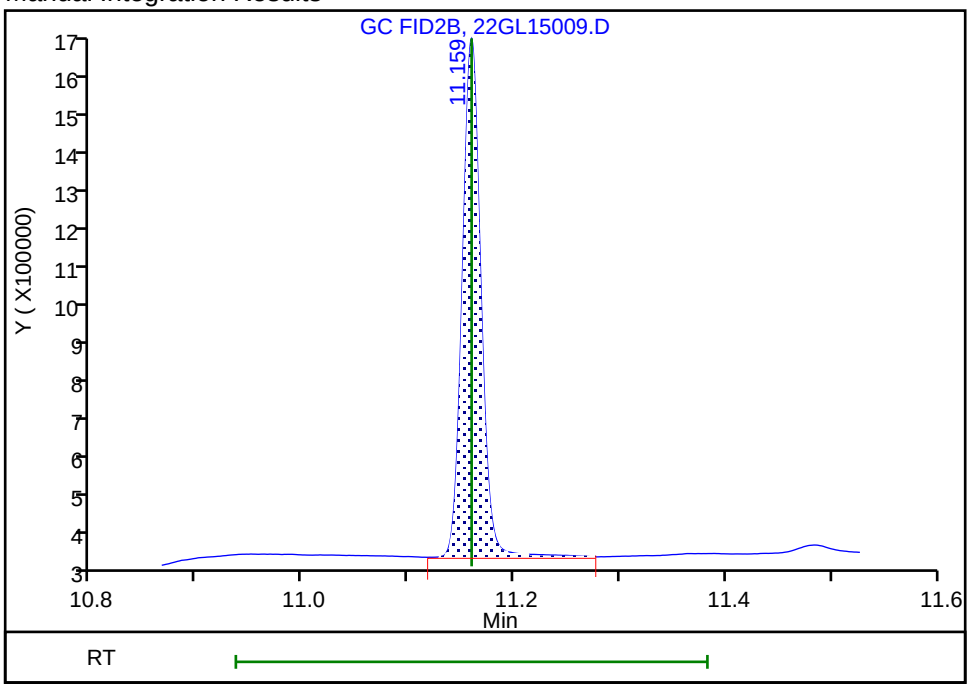
Processing Integration Results

RT: 11.16
Area: 1737472
Amount: 46.932084
Amount Units: ug/ml



Manual Integration Results

RT: 11.16
Area: 1560681
Amount: 44.962836
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:28:13
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15010.D
Lims ID: icis g3
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 15-Dec-2022 14:48:56 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0082752-010
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-Dec-2022 18:35:05 Calib Date: 15-Dec-2022 15:34:13
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1659

First Level Reviewer: SWK1 Date: 15-Dec-2022 18:28:35

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy							
	3.983	3.983	0.000	1332867	20.0	19.9	
2 4-Hydroxy-4-methyl-2-pentanone							
	4.806	4.806	0.000	1399741	20.0	20.0	
3 2-Butoxyethanol							
	5.175	5.175	0.000	1432260	20.0	19.8	
* 4 n-Heptyl Alcohol							
	5.708	5.708	0.000	6443842	50.0	50.0	
5 Dipropylene Glycol Methyl Ether							
	6.831	6.831	0.000	112172	20.0	21.8	
6 Propylene glycol							M
	7.827	7.827	0.000	943990	20.0	21.5	M
7 Ethylene glycol							M
	8.218	8.218	0.000	879839	20.0	20.6	M
8 2-(2-Butoxyethoxy)ethanol							M
	9.491	9.491	0.000	1256158	20.0	19.6	M
9 2,2'-Oxybisethanol							
	10.176	10.176	0.000	824970	20.0	20.1	
10 Triethylene Glycol							M
	11.159	11.159	0.000	858022	20.0	20.5	M
11 Tetraethylene Glycol							
	12.821	12.821	0.000	1633146	40.0	40.3	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00047	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00099	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 15-Dec-2022 18:35:05 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15010.D

Injection Date: 15-Dec-2022 14:48:56 Instrument ID: CVGG2 Operator ID:

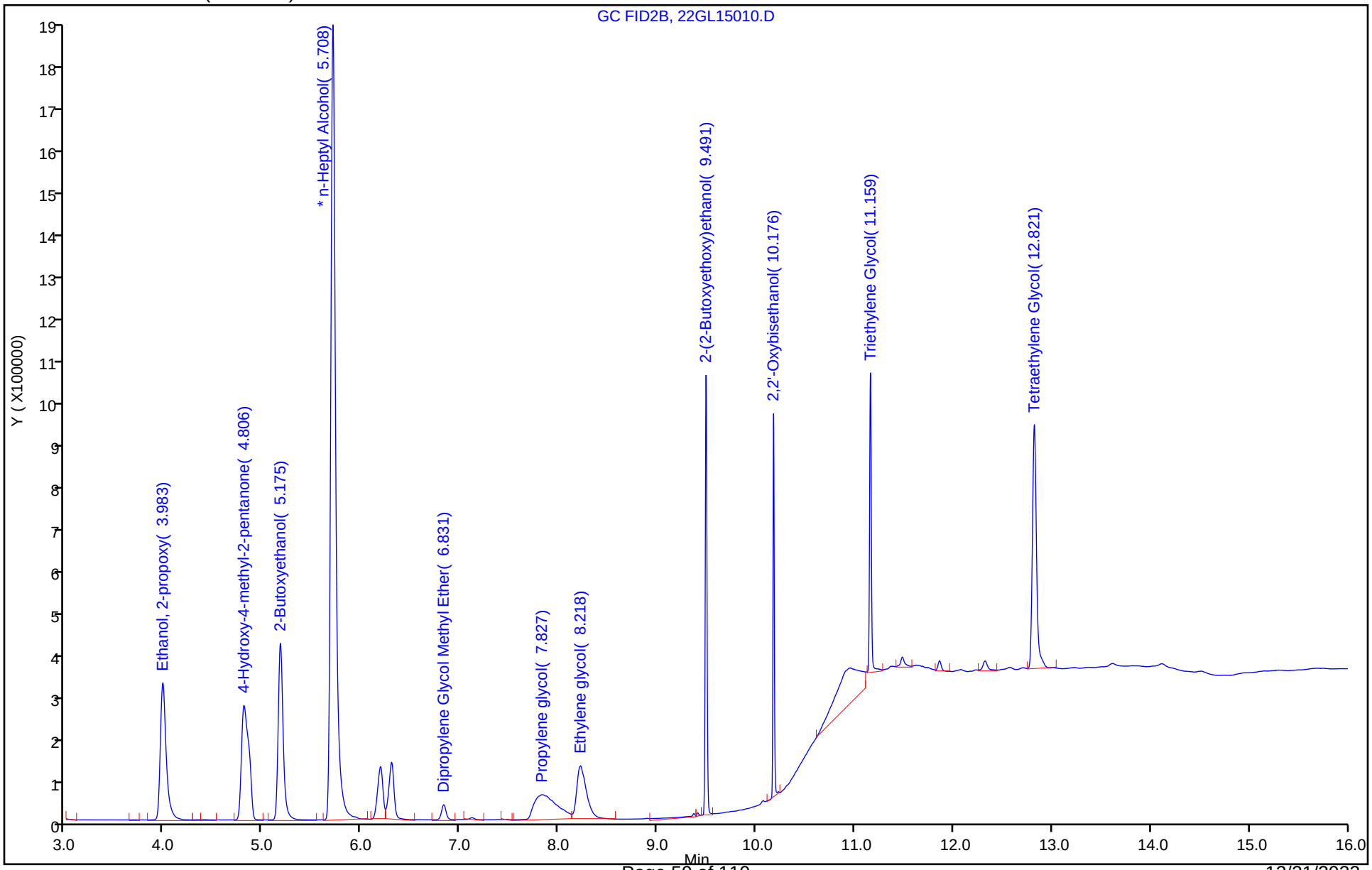
Lims ID: icis g3 Worklist Smp#: 10

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 10

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



12/21/2022
6:24 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

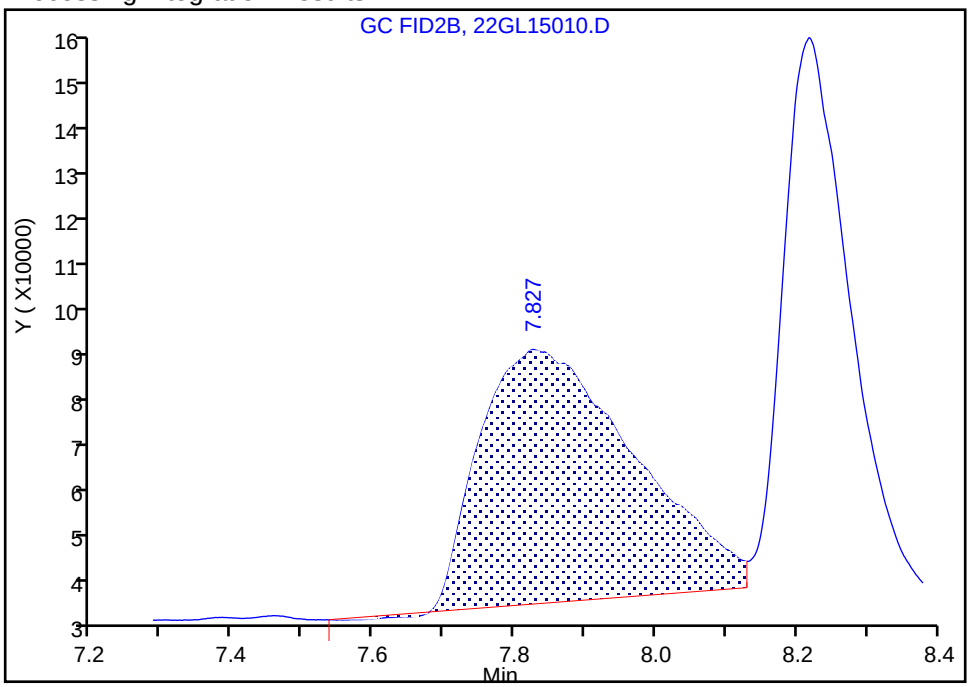
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15010.D				
Injection Date:	15-Dec-2022 14:48:56	Instrument ID:	CVGG2		
Lims ID:	icis g3				
Client ID:					
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

6 Propylene glycol, CAS: 57-55-6

Signal: 1

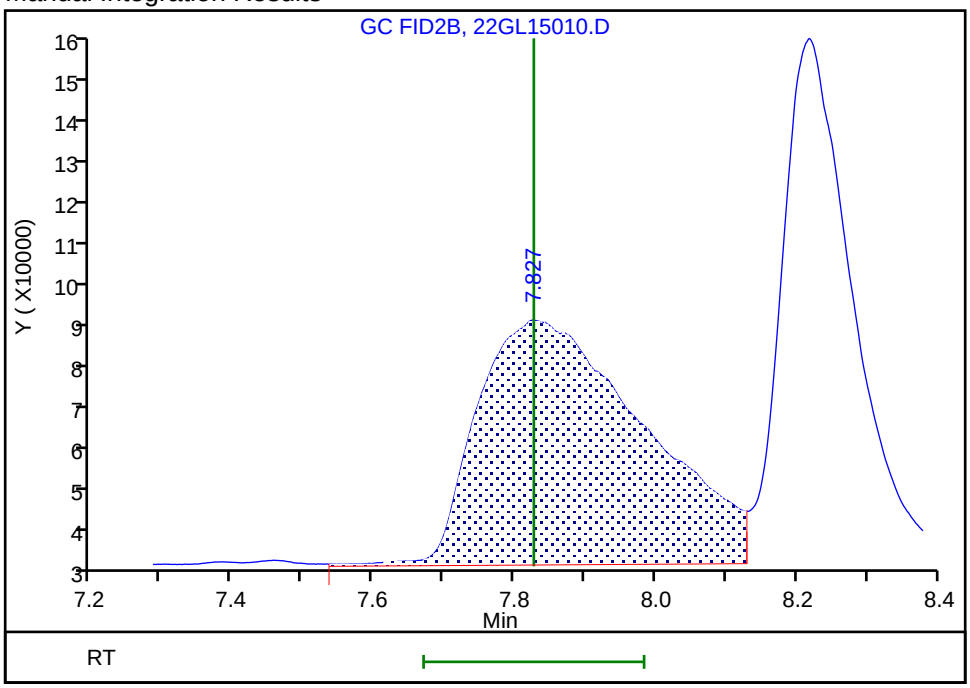
Processing Integration Results

RT: 7.83
Area: 829696
Amount: 20.319088
Amount Units: ug/ml



Manual Integration Results

RT: 7.83
Area: 943990
Amount: 21.503992
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:31:33
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah

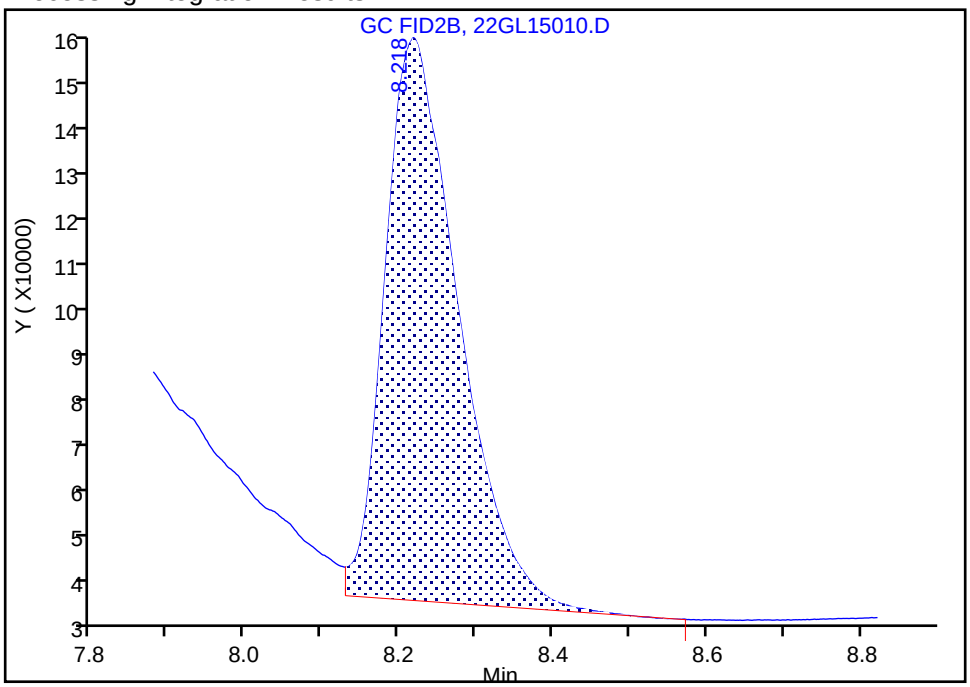
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15010.D				
Injection Date:	15-Dec-2022 14:48:56	Instrument ID:	CVGG2		
Lims ID:	icis g3				
Client ID:					
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

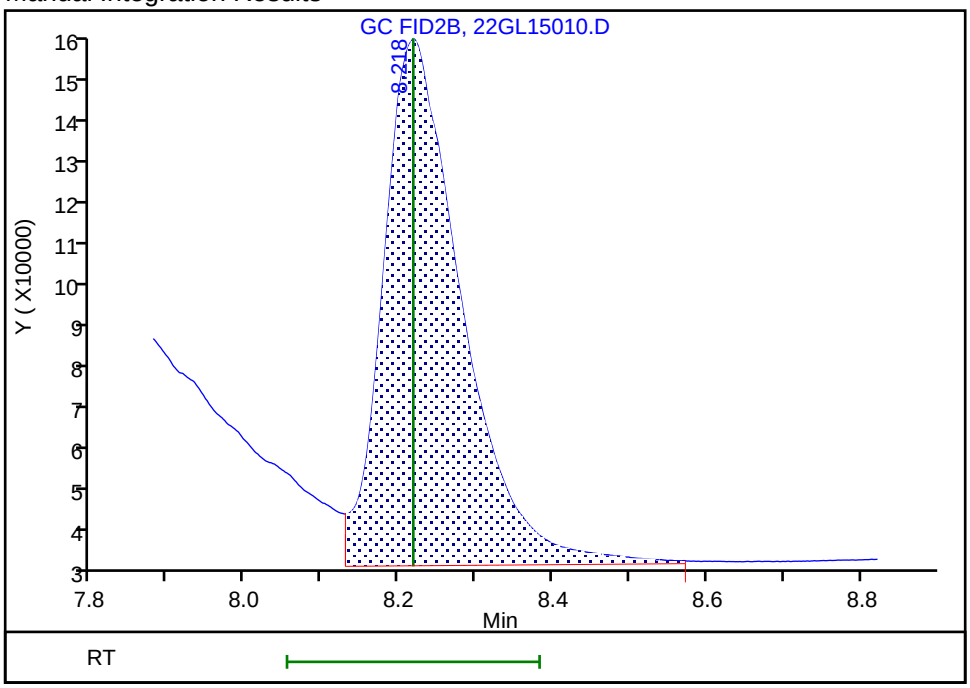
Processing Integration Results

RT: 8.22
Area: 793578
Amount: 20.218674
Amount Units: ug/ml



Manual Integration Results

RT: 8.22
Area: 879839
Amount: 20.593794
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:31:33
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah

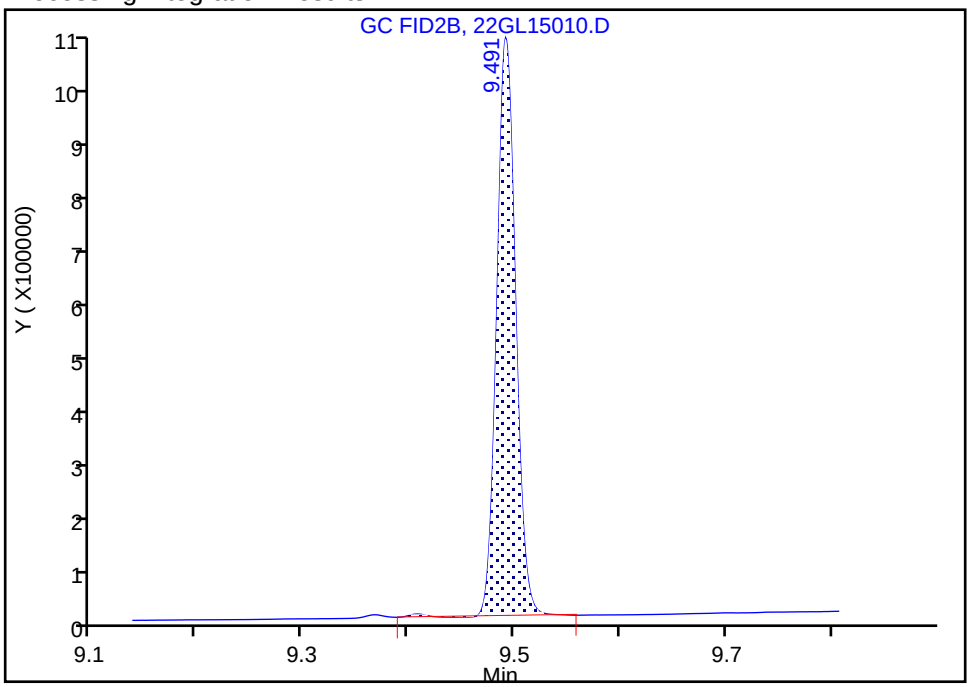
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15010.D				
Injection Date:	15-Dec-2022 14:48:56	Instrument ID:	CVGG2		
Lims ID:	icis g3				
Client ID:					
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

8 2-(2-Butoxyethoxy)ethanol, CAS: 112-34-5

Signal: 1

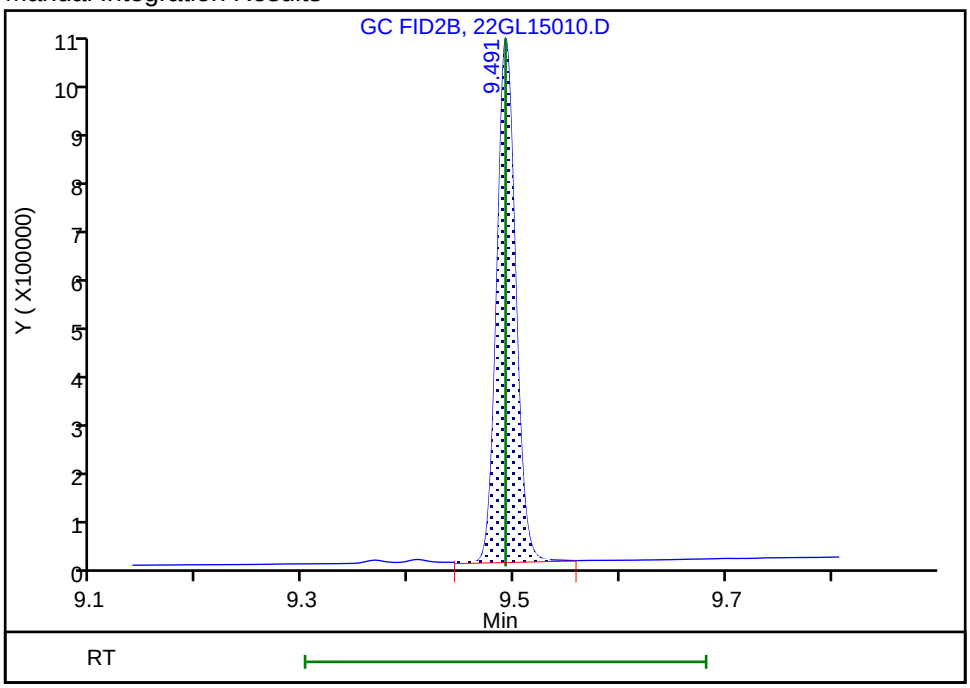
Processing Integration Results

RT: 9.49
Area: 1255008
Amount: 19.623557
Amount Units: ug/ml



Manual Integration Results

RT: 9.49
Area: 1256158
Amount: 19.638596
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:31:41
Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Eurofins Savannah

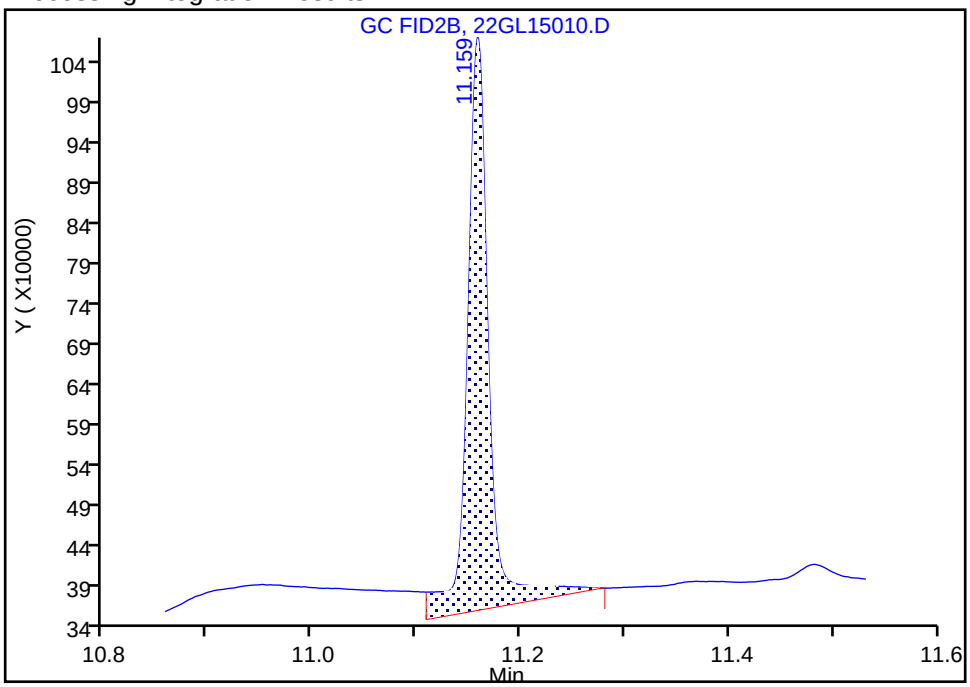
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15010.D				
Injection Date:	15-Dec-2022 14:48:56	Instrument ID:	CVGG2		
Lims ID:	icis g3				
Client ID:					
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

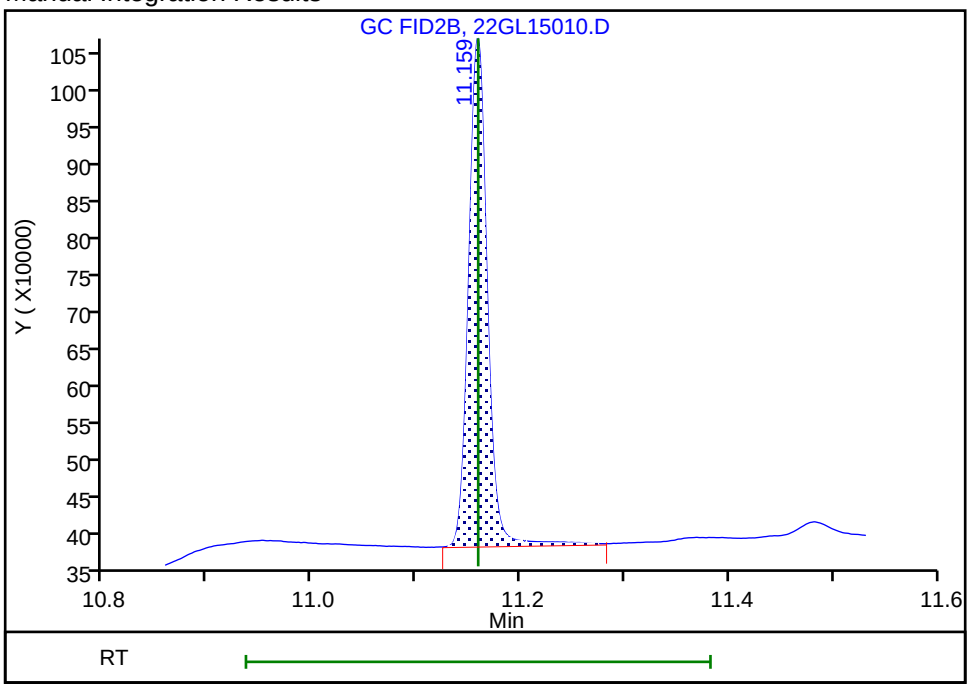
Processing Integration Results

RT: 11.16
Area: 1034865
Amount: 21.453305
Amount Units: ug/ml



Manual Integration Results

RT: 11.16
Area: 858022
Amount: 20.466776
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:28:33
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15011.D				
Lims ID:	ic g2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	15-Dec-2022 15:11:35	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	680-0082752-011				
Operator ID:		Instrument ID:	CVGG2		
Sublist:	chrom-8015_GLY_VGG*sub2				
Method:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\8015_GLY_VGG.m				
Limit Group:	8015C_DAI				
Last Update:	15-Dec-2022 18:35:05	Calib Date:	15-Dec-2022 15:34:13		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D				
Column 1 :	J&W DB WAX (0.45 mm)		Det: GC FID2B		
Process Host:	CTX1659				

First Level Reviewer: SWK1 Date: 15-Dec-2022 18:29:00

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy							
	3.983	3.983	0.000	791260	10.0	10.7	
2 4-Hydroxy-4-methyl-2-pentanone							
	4.806	4.806	0.000	827949	10.0	10.7	
3 2-Butoxyethanol							
	5.175	5.175	0.000	858121	10.0	10.8	
* 4 n-Heptyl Alcohol							
	5.708	5.708	0.000	7105611	50.0	50.0	
5 Dipropylene Glycol Methyl Ether							
	6.830	6.831	-0.001	56303	10.0	9.92	
6 Propylene glycol							M
	7.837	7.827	0.010	434131	10.0	8.97	M
7 Ethylene glycol							M
	8.220	8.218	0.002	450038	10.0	9.55	M
8 2-(2-Butoxyethoxy)ethanol							
	9.492	9.491	0.001	750029	10.0	10.6	
9 2,2'-Oxybisethanol							
	10.177	10.176	0.001	475084	10.0	10.5	
10 Triethylene Glycol							M
	11.159	11.159	0.000	529150	10.0	10.6	M
11 Tetraethylene Glycol							
	12.822	12.821	0.001	989281	20.0	20.5	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00047	Amount Added: 5.00	Units: uL	
SG_GLY_ISTD_00099	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 15-Dec-2022 18:35:05 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15011.D

Injection Date: 15-Dec-2022 15:11:35 Instrument ID: CVGG2 Operator ID:

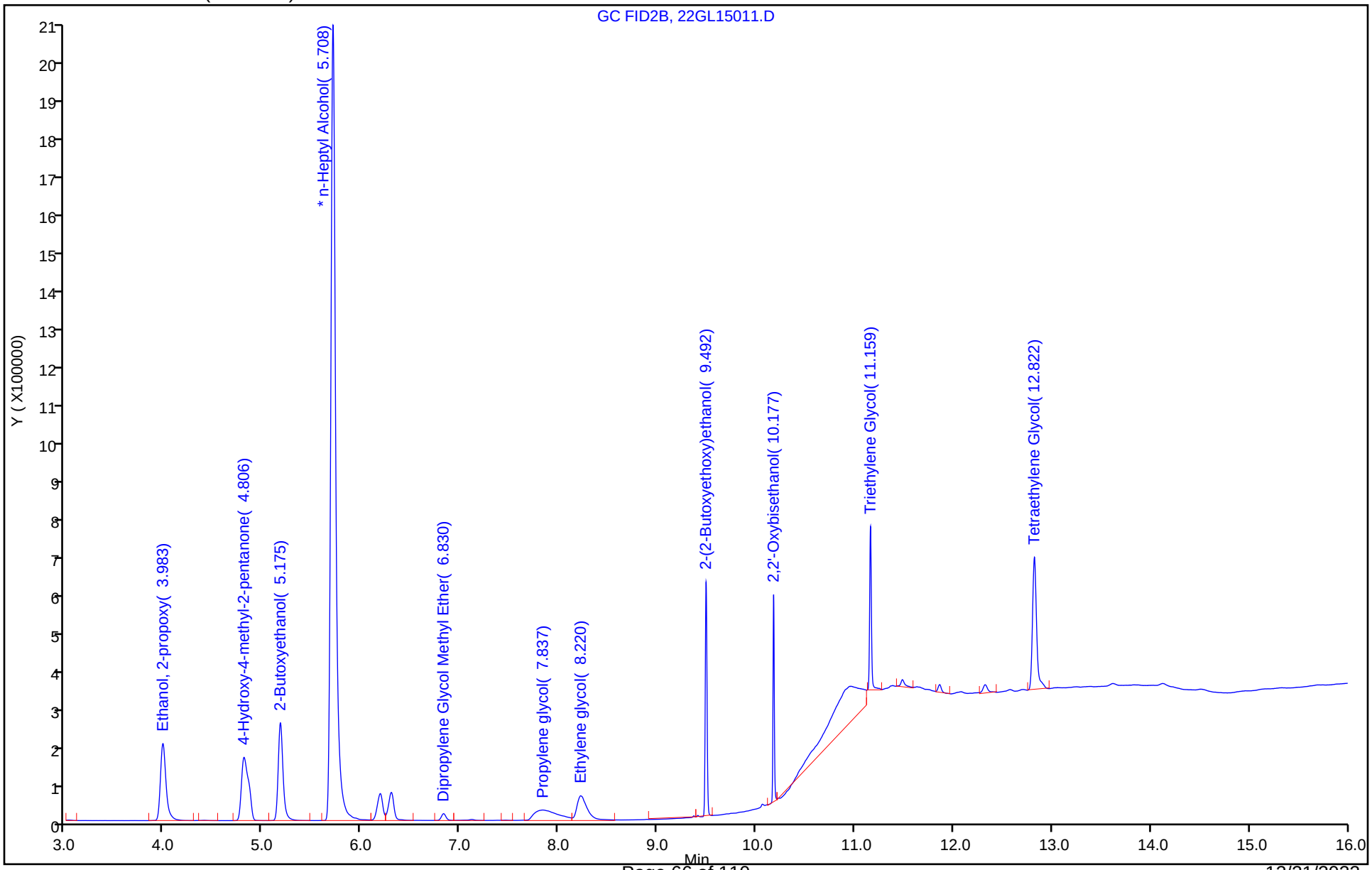
Lims ID: ic g2 Worklist Smp#: 11

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 11

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



12/21/2022
6:24 PM

Eurofins Savannah

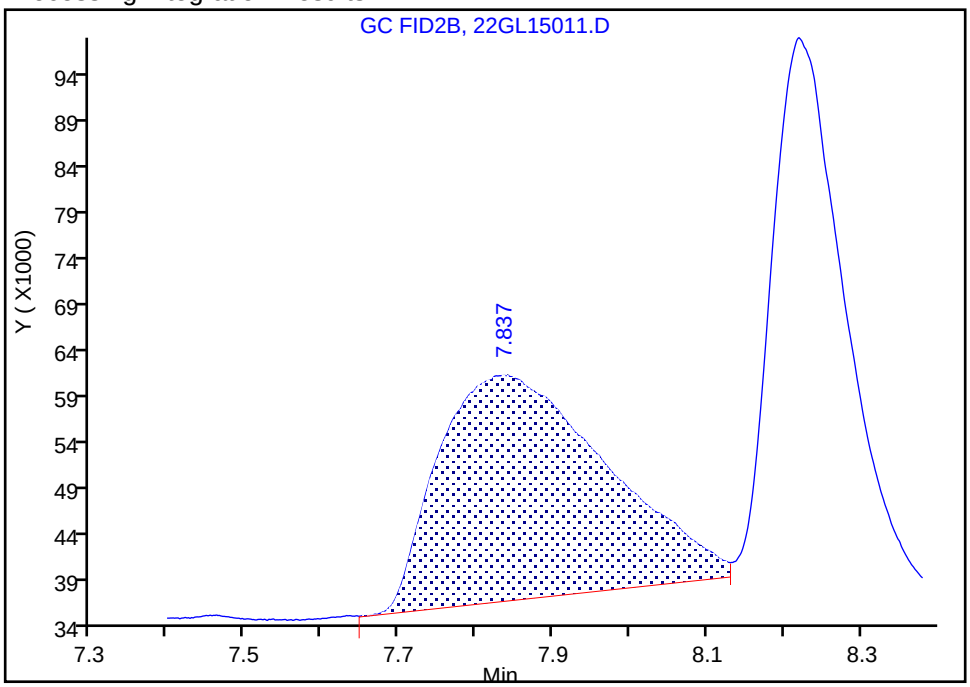
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15011.D				
Injection Date:	15-Dec-2022 15:11:35	Instrument ID:	CVGG2		
Lims ID:	ic g2				
Client ID:					
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

6 Propylene glycol, CAS: 57-55-6

Signal: 1

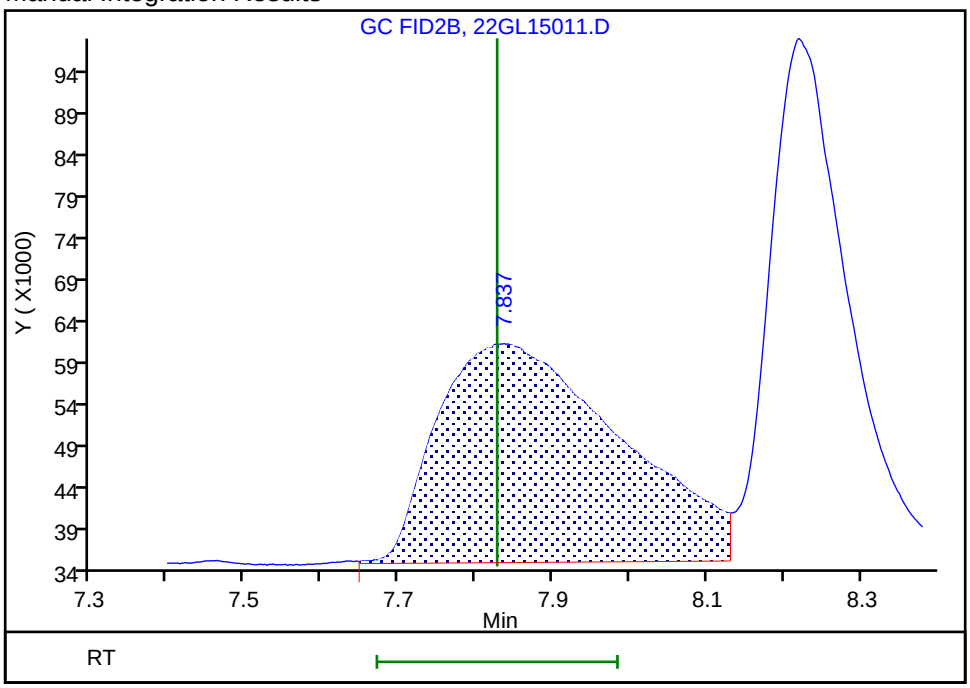
Processing Integration Results

RT: 7.84
Area: 368185
Amount: 8.381609
Amount Units: ug/ml



Manual Integration Results

RT: 7.84
Area: 434131
Amount: 8.968420
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:31:12
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah

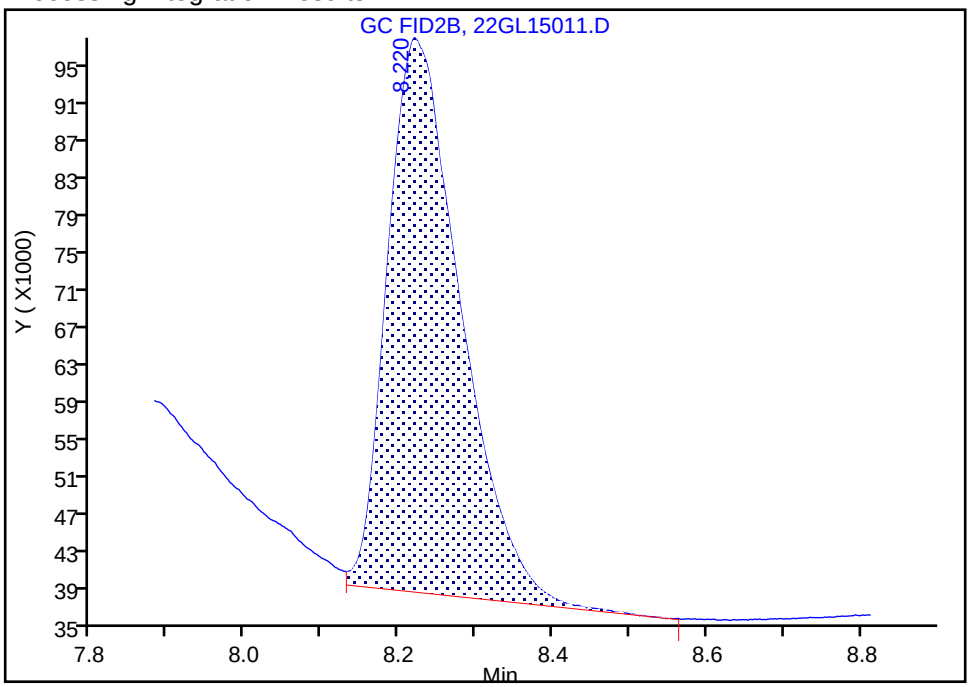
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15011.D				
Injection Date:	15-Dec-2022 15:11:35	Instrument ID:	CVGG2		
Lims ID:	ic g2				
Client ID:					
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

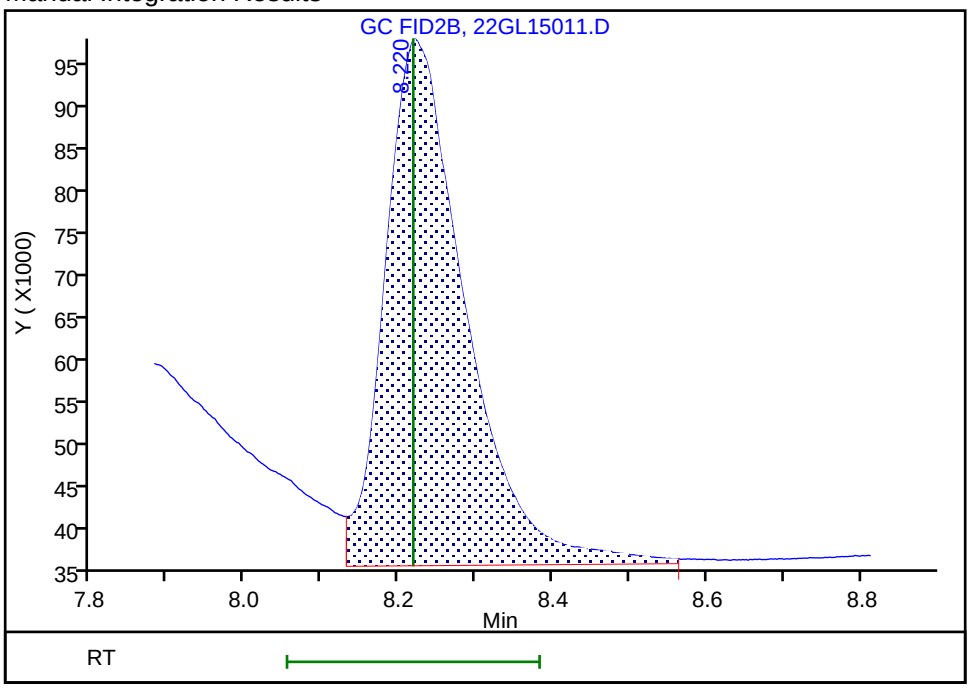
Processing Integration Results

RT: 8.22
Area: 392105
Amount: 9.266320
Amount Units: ug/ml



Manual Integration Results

RT: 8.22
Area: 450038
Amount: 9.552692
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:31:12
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah

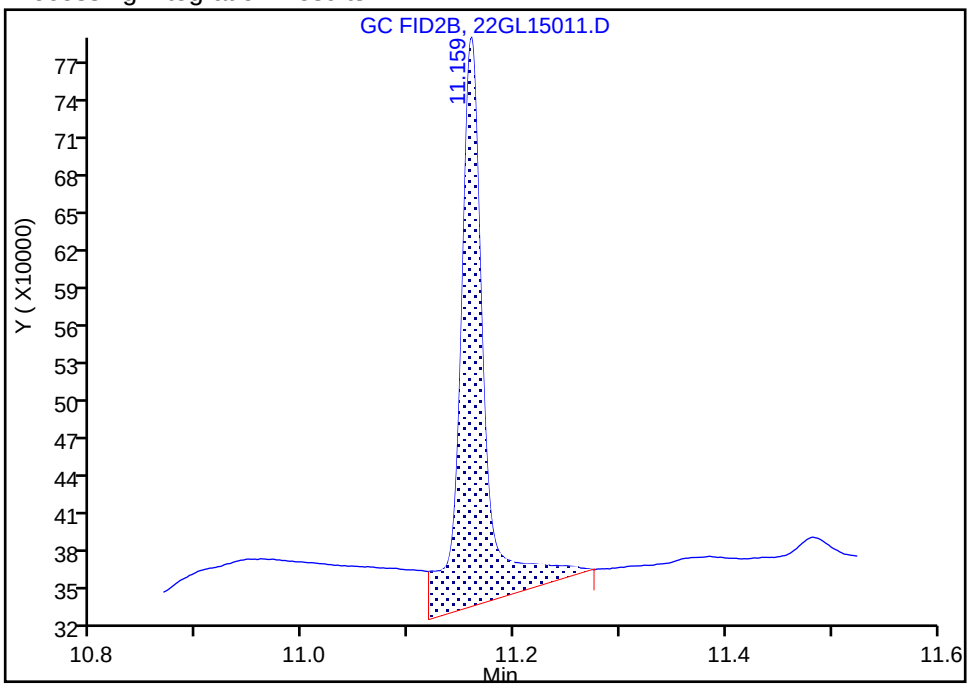
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15011.D				
Injection Date:	15-Dec-2022 15:11:35	Instrument ID:	CVGG2		
Lims ID:	ic g2				
Client ID:					
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

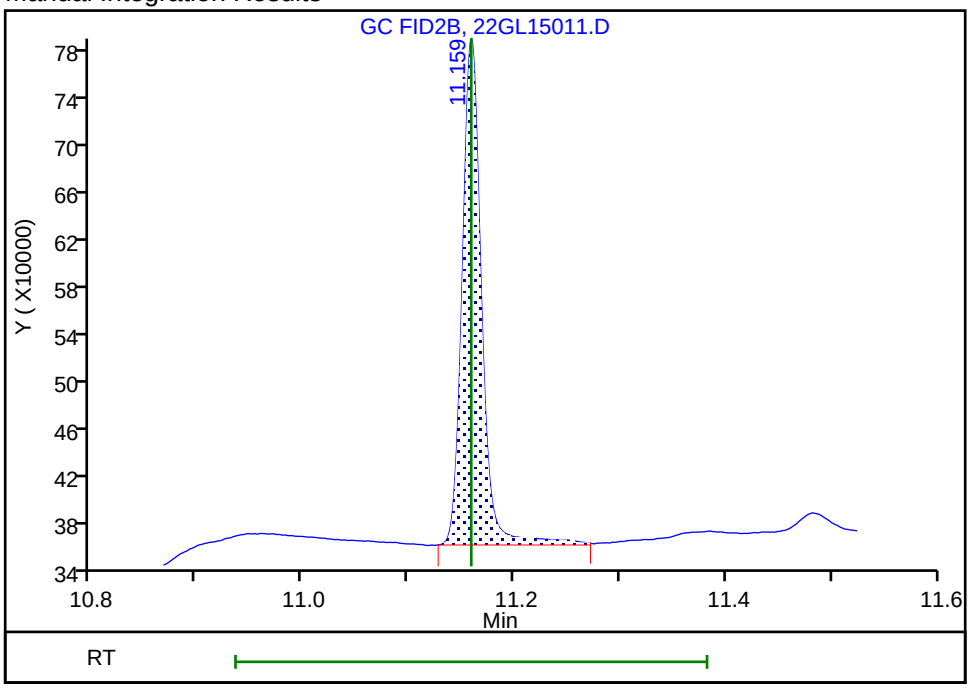
Processing Integration Results

RT: 11.16
Area: 706873
Amount: 10.907512
Amount Units: ug/ml



Manual Integration Results

RT: 11.16
Area: 529150
Amount: 10.564312
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:28:58
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D				
Lims ID:	ic g1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	15-Dec-2022 15:34:13	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	680-0082752-012				
Operator ID:		Instrument ID:	CVGG2		
Sublist:	chrom-8015_GLY_VGG*sub2				
Method:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\8015_GLY_VGG.m				
Limit Group:	8015C_DAI				
Last Update:	15-Dec-2022 18:35:06	Calib Date:	15-Dec-2022 15:34:13		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D				
Column 1 :	J&W DB WAX (0.45 mm)		Det: GC FID2B		
Process Host:	CTX1659				

First Level Reviewer: SWK1 Date: 15-Dec-2022 18:29:27

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy							
	3.982	3.983	-0.001	416727	5.00	5.61	
2 4-Hydroxy-4-methyl-2-pentanone							
	4.808	4.806	0.002	434849	5.00	5.59	
3 2-Butoxyethanol							
	5.175	5.175	0.000	456743	5.00	5.69	
* 4 n-Heptyl Alcohol							
	5.708	5.708	0.000	7165368	50.0	50.0	
5 Dipropylene Glycol Methyl Ether							
	6.830	6.831	-0.001	30872	5.00	5.39	
6 Propylene glycol							M
	7.822	7.827	-0.005	270235	5.00	5.54	M
7 Ethylene glycol							M
	8.221	8.218	0.003	280066	5.00	5.90	M
8 2-(2-Butoxyethoxy)ethanol							
	9.492	9.491	0.001	405977	5.00	5.71	
9 2,2'-Oxybisethanol							
	10.177	10.176	0.001	256938	5.00	5.63	
10 Triethylene Glycol							M
	11.157	11.159	-0.002	291568	5.00	4.86	M
11 Tetraethylene Glycol							
	12.819	12.821	-0.002	557362	10.0	9.92	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00047	Amount Added: 2.50	Units: uL	
SG_GLY_ISTD_00099	Amount Added: 10.00	Units: uL	Run Reagent

Report Date: 15-Dec-2022 18:35:06 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D

Injection Date: 15-Dec-2022 15:34:13 Instrument ID: CVGG2 Operator ID:

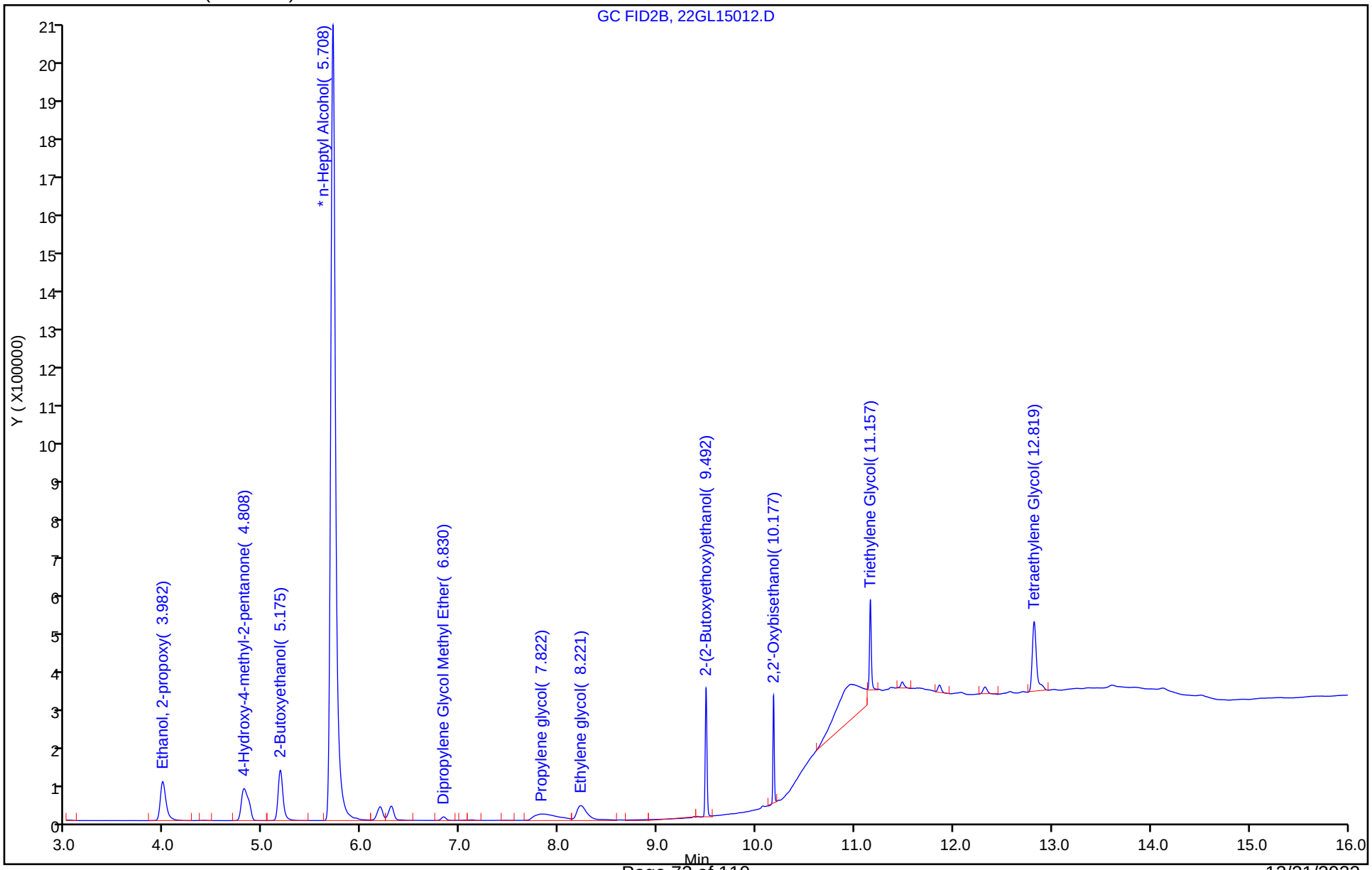
Lims ID: ic g1 Worklist Smp#: 12

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 12

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



12/21/2022
6:24 PM

Eurofins Savannah

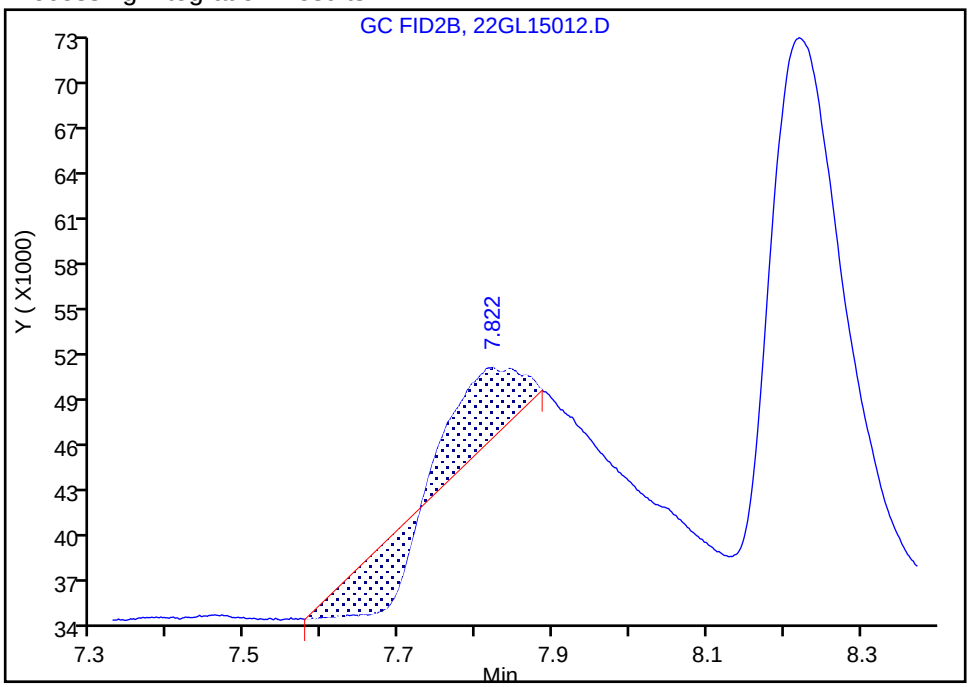
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D				
Injection Date:	15-Dec-2022 15:34:13	Instrument ID:	CVGG2		
Lims ID:	ic g1				
Client ID:					
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

6 Propylene glycol, CAS: 57-55-6

Signal: 1

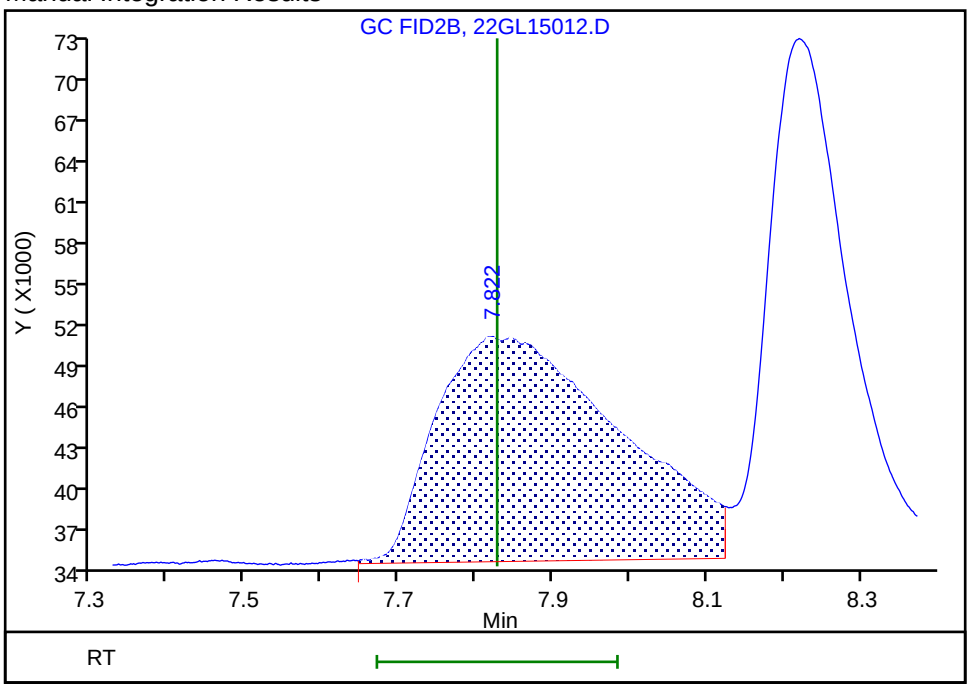
Processing Integration Results

RT: 7.82
Area: 7878
Amount: 0.221591
Amount Units: ug/ml



Manual Integration Results

RT: 7.82
Area: 270235
Amount: 5.536046
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:29:24
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah

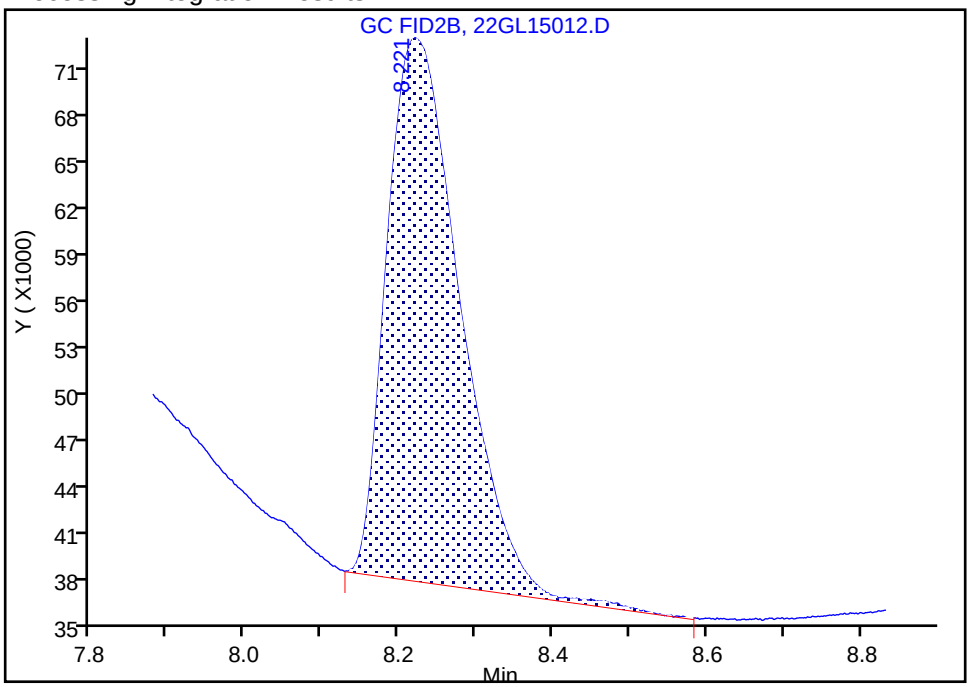
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D				
Injection Date:	15-Dec-2022 15:34:13	Instrument ID:	CVGG2		
Lims ID:	ic g1				
Client ID:					
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

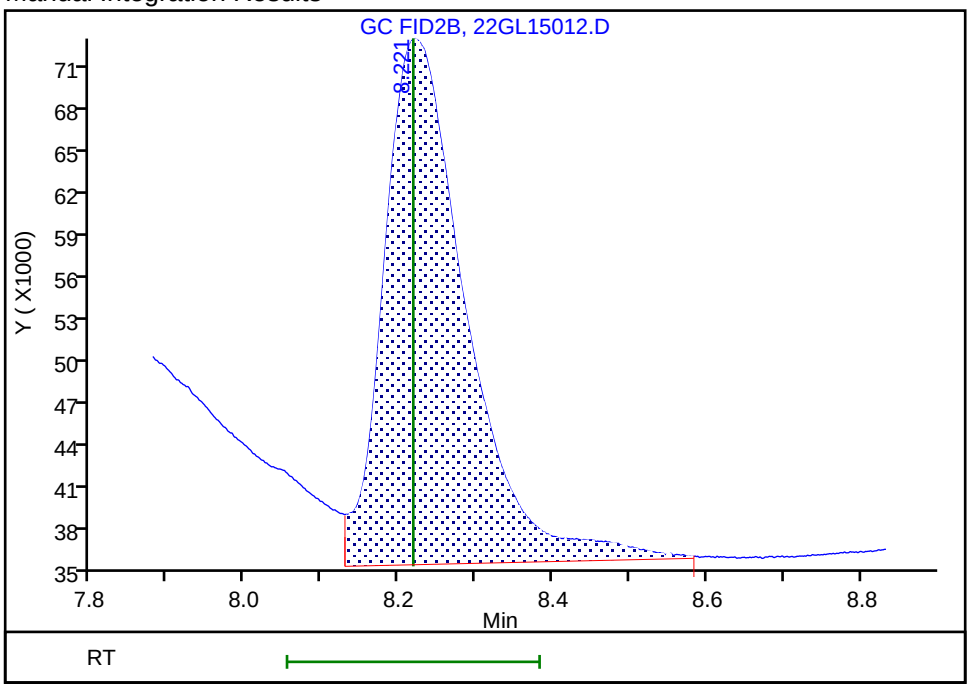
Processing Integration Results

RT: 8.22
Area: 230185
Amount: 5.613141
Amount Units: ug/ml



Manual Integration Results

RT: 8.22
Area: 280066
Amount: 5.895219
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:29:24
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah

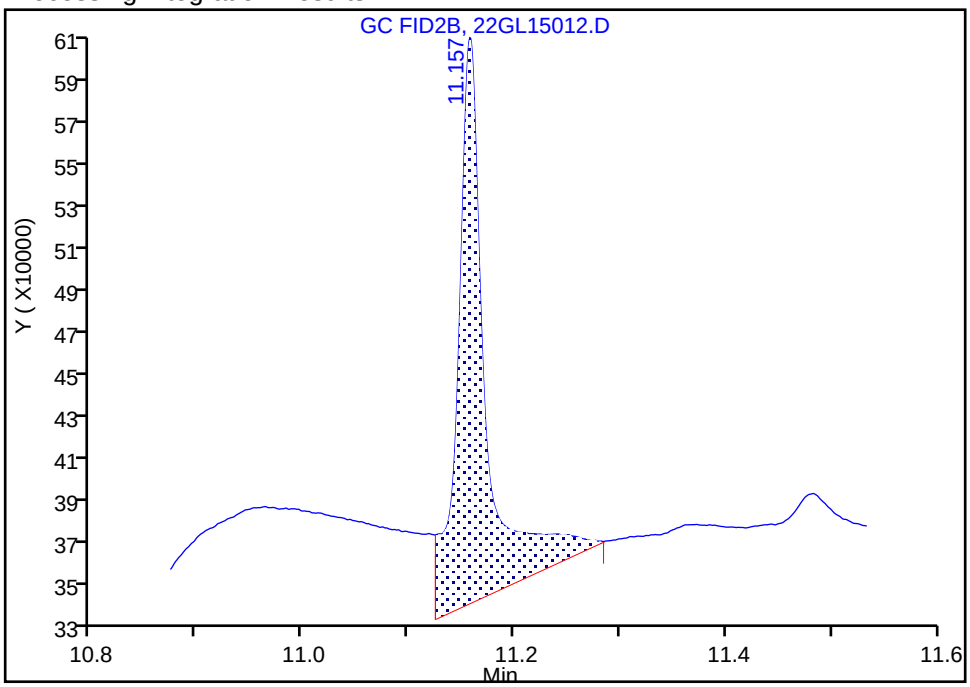
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D				
Injection Date:	15-Dec-2022 15:34:13	Instrument ID:	CVGG2		
Lims ID:	ic g1				
Client ID:					
Operator ID:		ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

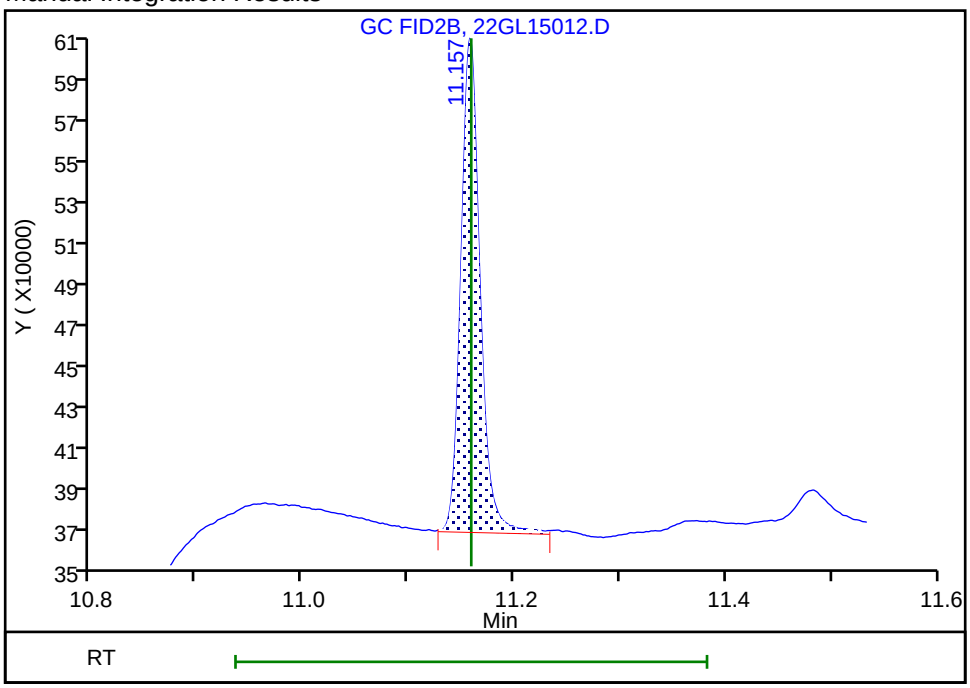
Processing Integration Results

RT: 11.16
Area: 486550
Amount: 5.773755
Amount Units: ug/ml



Manual Integration Results

RT: 11.16
Area: 291568
Amount: 4.864580
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:29:18
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Lab Sample ID: ICV 680-755296/13 Calibration Date: 12/15/2022 15:56

Instrument ID: CVGG2 Calib Start Date: 12/15/2022 13:40

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 12/15/2022 15:34

Lab File ID: 22GL15013.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.5186	0.5767		22.2	20.0	11.2	20.0
4-Hydroxy-4-methyl-2-pentanone	Ave	0.5430	0.6080		22.4	20.0	12.0	20.0
2-Butoxyethanol	Ave	0.5604	0.6527		23.3	20.0	16.5	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0399	0.0509		25.5	20.0	27.3*	20.0
Propylene glycol	Ave	0.3406	0.3726		21.9	20.0	9.4	20.0
Ethylene glycol	Ave	0.3315	0.3700		22.3	20.0	11.6	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.4963	0.5582		22.5	20.0	12.5	20.0
2,2'-Oxybisethanol	Ave	0.3183	0.3394		21.3	20.0	6.6	20.0
Triethylene Glycol	Lin2		0.3720		23.1	20.0	15.5	20.0
Tetraethylene Glycol	Lin2		0.3468		44.4	40.0	11.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Lab Sample ID: ICV 680-755296/13 Calibration Date: 12/15/2022 15:56

Instrument ID: CVGG2 Calib Start Date: 12/15/2022 13:40

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 12/15/2022 15:34

Lab File ID: 22GL15013.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	3.98	3.90	4.06
4-Hydroxy-4-methyl-2-pentanone	4.81	4.71	4.90
2-Butoxyethanol	5.18	5.07	5.28
Dipropylene Glycol Methyl Ether	6.83	6.70	6.97
Propylene glycol	7.82	7.67	7.98
Ethylene glycol	8.21	8.05	8.38
2-(2-Butoxyethoxy)ethanol	9.49	9.30	9.68
2,2'-Oxybisethanol	10.18	9.97	10.38
Triethylene Glycol	11.16	10.94	11.38
Tetraethylene Glycol	12.82	12.57	13.08

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15013.D
Lims ID: icv gly
Client ID:
Sample Type: CCV
Inject. Date: 15-Dec-2022 15:56:59 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0082752-013
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-Dec-2022 18:45:54 Calib Date: 15-Dec-2022 15:34:13
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1659

First Level Reviewer: SWK1 Date: 15-Dec-2022 18:29:52

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy							
	3.981	3.983	-0.002	1804032	20.0	22.2	
2 4-Hydroxy-4-methyl-2-pentanone							
	4.808	4.806	0.002	1902097	20.0	22.4	
3 2-Butoxyethanol							
	5.175	5.175	0.000	2041849	20.0	23.3	
* 4 n-Heptyl Alcohol							
	5.709	5.708	0.001	7820966	50.0	50.0	
5 Dipropylene Glycol Methyl Ether							
	6.831	6.831	0.000	159083	20.0	25.5	
6 Propylene glycol							
	7.820	7.827	-0.007	1165778	20.0	21.9	
7 Ethylene glycol							
	8.214	8.218	-0.004	1157642	20.0	22.3	
8 2-(2-Butoxyethoxy)ethanol							
	9.492	9.491	0.001	1746317	20.0	22.5	
9 2,2'-Oxybisethanol							
	10.176	10.176	0.000	1061785	20.0	21.3	
10 Triethylene Glycol							M
	11.158	11.159	-0.001	1163679	20.0	23.1	M
11 Tetraethylene Glycol							
	12.819	12.821	-0.002	2170110	40.0	44.4	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_GlyICV_00056	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00099	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 15-Dec-2022 18:45:55 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15013.D

Injection Date: 15-Dec-2022 15:56:59 Instrument ID: CVGG2 Operator ID:

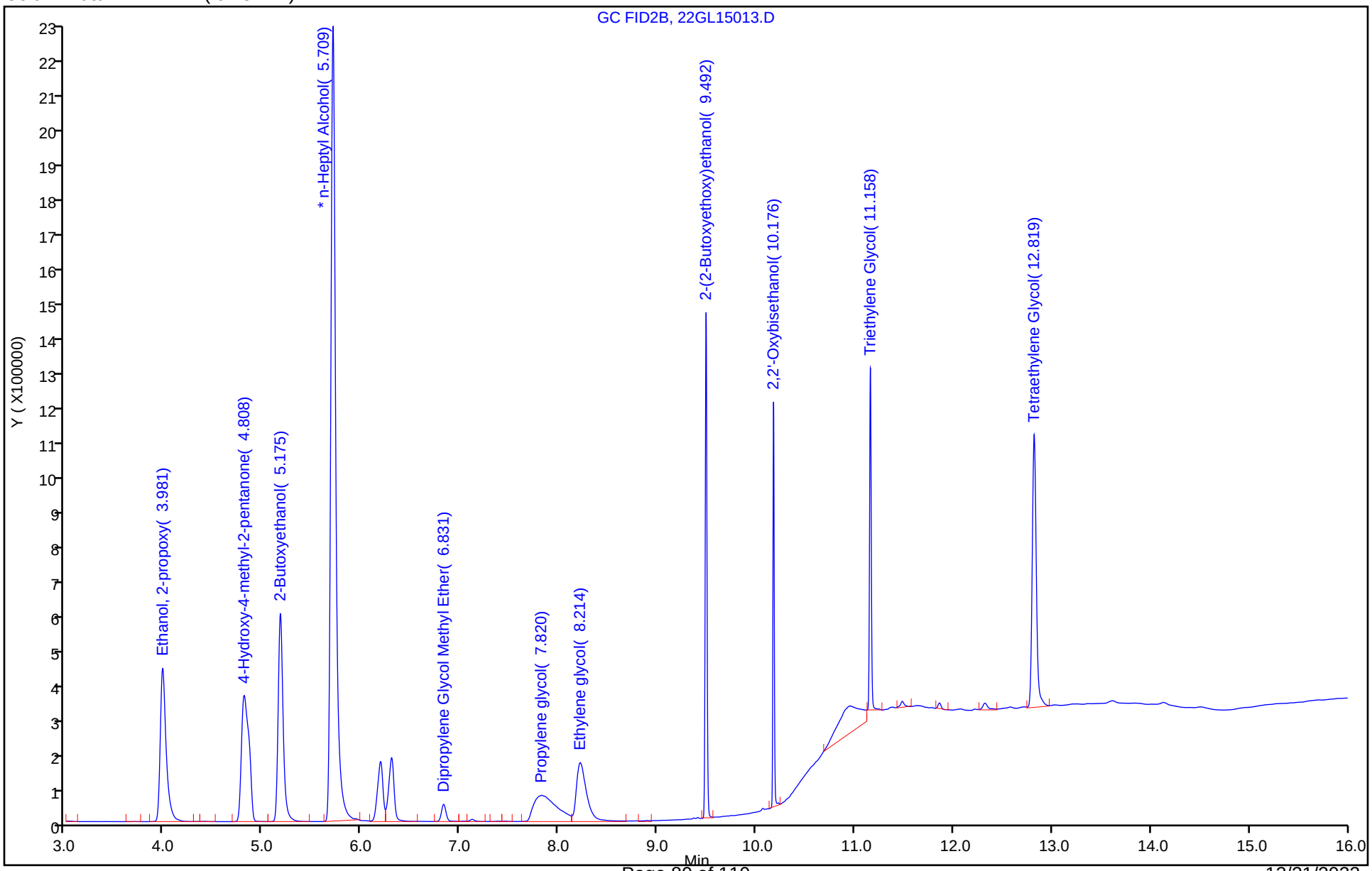
Lims ID: icv gly Worklist Smp#: 13

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 13

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



12/21/2022
6:24 PM

Eurofins Savannah

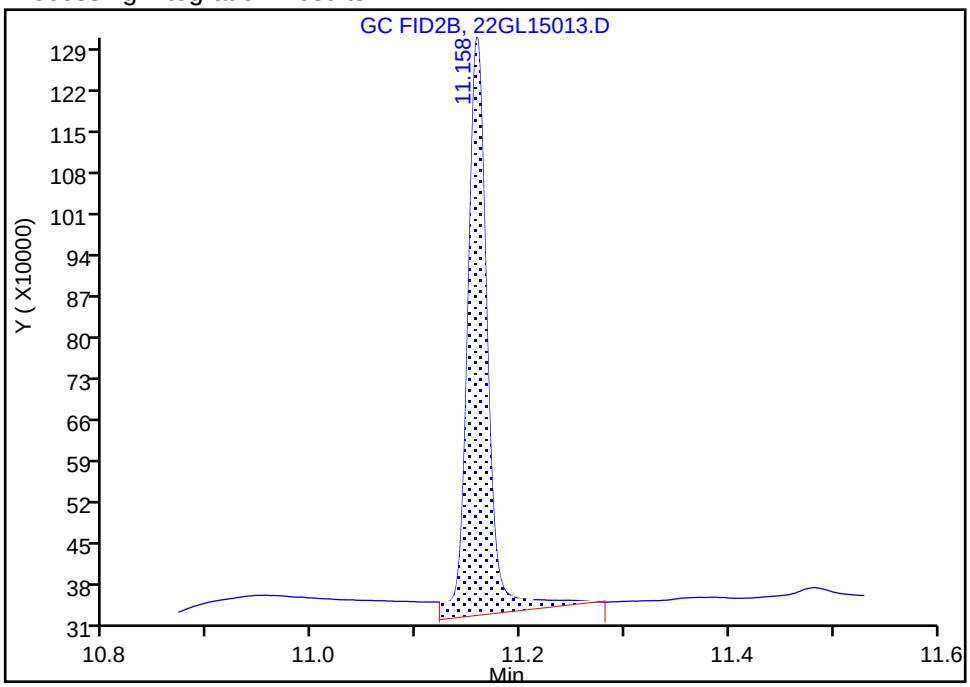
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15013.D				
Injection Date:	15-Dec-2022 15:56:59	Instrument ID:	CVGG2		
Lims ID:	icv gly				
Client ID:					
Operator ID:		ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

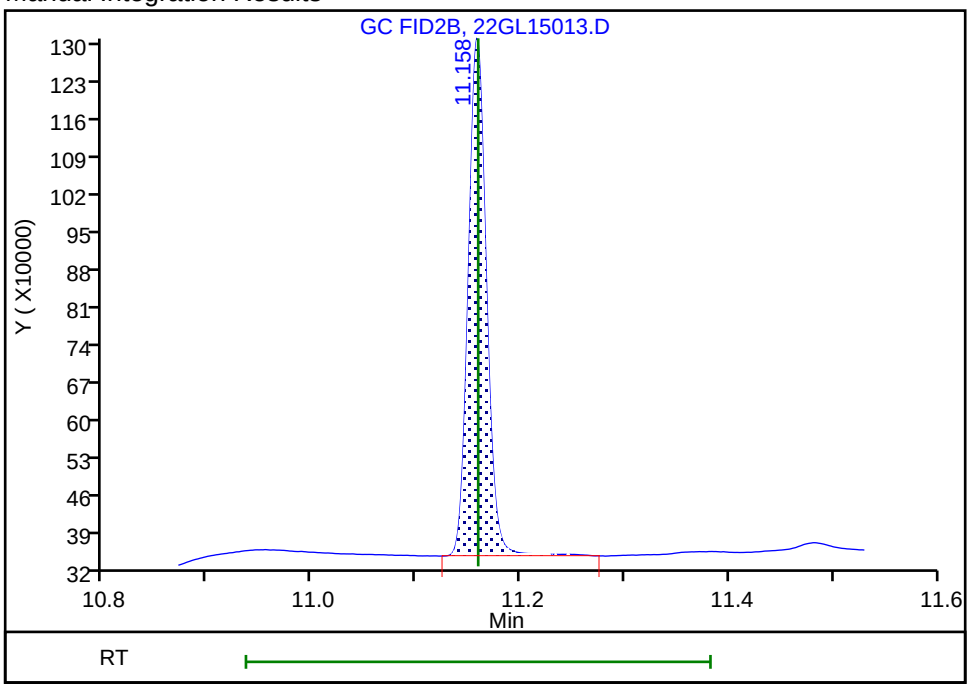
Processing Integration Results

RT: 11.16
Area: 1308485
Amount: 26.229441
Amount Units: ug/ml



Manual Integration Results

RT: 11.16
Area: 1163679
Amount: 23.105187
Amount Units: ug/ml



Reviewer: SWK1, 15-Dec-2022 18:29:42
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Lab Sample ID: CCVIS 680-755698/6 Calibration Date: 12/17/2022 18:28

Instrument ID: CVGG2 Calib Start Date: 12/15/2022 13:40

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 12/15/2022 15:34

Lab File ID: 22GL17006.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.5186	0.5707		22.0	20.0	10.0	20.0
4-Hydroxy-4-methyl-2-pentanone	Ave	0.5430	0.6036		22.2	20.0	11.2	20.0
2-Butoxyethanol	Ave	0.5604	0.6140		21.9	20.0	9.6	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0399	0.0509		25.5	20.0	27.5*	20.0
Propylene glycol	Ave	0.3406	0.4207		24.7	20.0	23.5*	20.0
Ethylene glycol	Ave	0.3315	0.3745		22.6	20.0	13.0	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.4963	0.5651		22.8	20.0	13.9	20.0
2,2'-Oxybisethanol	Ave	0.3183	0.3584		22.5	20.0	12.6	20.0
Triethylene Glycol	Lin2		0.3380		20.8	20.0	4.1	20.0
Tetraethylene Glycol	Lin2		0.3329		42.5	40.0	6.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Lab Sample ID: CCVIS 680-755698/6 Calibration Date: 12/17/2022 18:28

Instrument ID: CVGG2 Calib Start Date: 12/15/2022 13:40

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 12/15/2022 15:34

Lab File ID: 22GL17006.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	4.02	3.94	4.10
4-Hydroxy-4-methyl-2-pentanone	4.84	4.74	4.94
2-Butoxyethanol	5.21	5.10	5.31
Dipropylene Glycol Methyl Ether	6.86	6.73	7.00
Propylene glycol	7.81	7.65	7.97
Ethylene glycol	8.24	8.07	8.40
2-(2-Butoxyethoxy)ethanol	9.50	9.31	9.69
2,2'-Oxybisethanol	10.19	9.98	10.39
Triethylene Glycol	11.17	10.94	11.39
Tetraethylene Glycol	12.84	12.58	13.09

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\22GL17006.D
Lims ID: ccvis g3
Client ID:
Sample Type: CCVIS
Inject. Date: 17-Dec-2022 18:28:59 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0082806-006
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Dec-2022 10:32:37 Calib Date: 15-Dec-2022 15:34:13
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1606

First Level Reviewer: SK9U Date: 17-Dec-2022 19:57:50

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy							
	4.018	4.018	0.000	1387563	20.0	22.0	
2 4-Hydroxy-4-methyl-2-pentanone							
	4.839	4.839	0.000	1467608	20.0	22.2	
3 2-Butoxyethanol							
	5.208	5.208	0.000	1492941	20.0	21.9	
* 4 n-Heptyl Alcohol							
	5.738	5.738	0.000	6078535	50.0	50.0	
5 Dipropylene Glycol Methyl Ether							
	6.863	6.863	0.000	123838	20.0	25.5	
6 Propylene glycol							
	7.809	7.809	0.000	1022964	20.0	24.7	
7 Ethylene glycol							
	8.235	8.235	0.000	910478	20.0	22.6	
8 2-(2-Butoxyethoxy)ethanol							
	9.503	9.503	0.000	1373894	20.0	22.8	
9 2,2'-Oxybisethanol							
	10.186	10.186	0.000	871421	20.0	22.5	
10 Triethylene Glycol							
	11.167	11.167	0.000	821769	20.0	20.8	
11 Tetraethylene Glycol							
	12.835	12.835	0.000	1619024	40.0	42.5	

QC Flag Legend
Processing Flags

Reagents:

SG_GlyICV_00056	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00099	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 18-Dec-2022 10:32:37 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\22GL17006.D

Injection Date: 17-Dec-2022 18:28:59 Instrument ID: CVGG2 Operator ID:

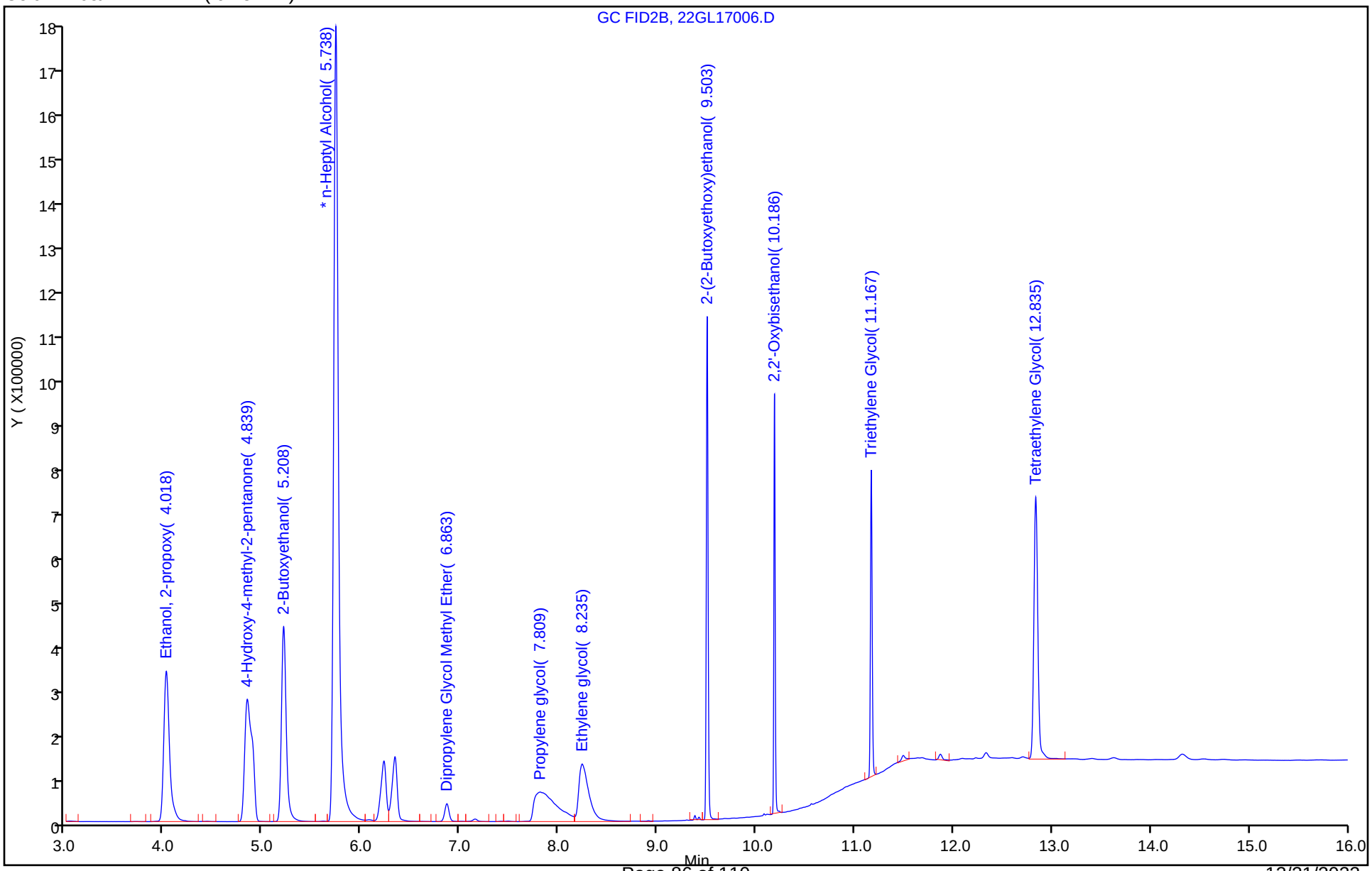
Lims ID: ccvis g3 Worklist Smp#: 6

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 6

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



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FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Lab Sample ID: CCV 680-755698/24 Calibration Date: 12/18/2022 01:21

Instrument ID: CVGG2 Calib Start Date: 12/15/2022 13:40

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 12/15/2022 15:34

Lab File ID: 22GL17024.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Ave	0.5186	0.5577		21.5	20.0	7.5	20.0
4-Hydroxy-4-methyl-2-pentanone	Ave	0.5430	0.5730		21.1	20.0	5.5	20.0
2-Butoxyethanol	Ave	0.5604	0.5971		21.3	20.0	6.6	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0399	0.0460		23.0	20.0	15.2	20.0
Propylene glycol	Ave	0.3406	0.3476		20.4	20.0	2.1	20.0
Ethylene glycol	Ave	0.3315	0.3217		19.4	20.0	-3.0	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.4963	0.5229		21.1	20.0	5.4	20.0
2,2'-Oxybisethanol	Ave	0.3183	0.3300		20.7	20.0	3.7	20.0
Triethylene Glycol	Lin2		0.2987		18.2	20.0	-9.2	20.0
Tetraethylene Glycol	Lin2		0.2256		27.7	40.0	-30.9*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Lab Sample ID: CCV 680-755698/24 Calibration Date: 12/18/2022 01:21

Instrument ID: CVGG2 Calib Start Date: 12/15/2022 13:40

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 12/15/2022 15:34

Lab File ID: 22GL17024.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	4.02	3.94	4.10
4-Hydroxy-4-methyl-2-pentanone	4.85	4.75	4.94
2-Butoxyethanol	5.21	5.11	5.32
Dipropylene Glycol Methyl Ether	6.87	6.73	7.01
Propylene glycol	7.81	7.65	7.97
Ethylene glycol	8.25	8.08	8.41
2-(2-Butoxyethoxy)ethanol	9.51	9.32	9.70
2,2'-Oxybisethanol	10.19	9.98	10.39
Triethylene Glycol	11.17	10.95	11.39
Tetraethylene Glycol	12.84	12.58	13.10

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\22GL17024.D
Lims ID: ccv g3
Client ID:
Sample Type: CCV
Inject. Date: 18-Dec-2022 01:21:24 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0082806-024
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Dec-2022 10:32:39 Calib Date: 15-Dec-2022 15:34:13
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1606

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy							
	4.020	4.020	0.000	1500917	20.0	21.5	
2 4-Hydroxy-4-methyl-2-pentanone							
	4.847	4.847	0.000	1542294	20.0	21.1	
3 2-Butoxyethanol							
	5.213	5.213	0.000	1607037	20.0	21.3	
* 4 n-Heptyl Alcohol							
	5.743	5.743	0.000	6728487	50.0	50.0	
5 Dipropylene Glycol Methyl Ether							
	6.870	6.870	0.000	123784	20.0	23.0	
6 Propylene glycol							
	7.810	7.810	0.000	935588	20.0	20.4	
7 Ethylene glycol							
	8.245	8.245	0.000	865717	20.0	19.4	
8 2-(2-Butoxyethoxy)ethanol							
	9.505	9.505	0.000	1407368	20.0	21.1	
9 2,2'-Oxybisethanol							
	10.187	10.187	0.000	888220	20.0	20.7	
10 Triethylene Glycol							
	11.169	11.169	0.000	803911	20.0	18.2	
11 Tetraethylene Glycol							
	12.839	12.839	0.000	1214374	40.0	27.7	

Reagents:

SG_Gly_CAL_00047 Amount Added: 10.00 Units: uL
SG_GLY_ISTD_00099 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 18-Dec-2022 10:32:39 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\22GL17024.D

Injection Date: 18-Dec-2022 01:21:24 Instrument ID: CVGG2 Operator ID:

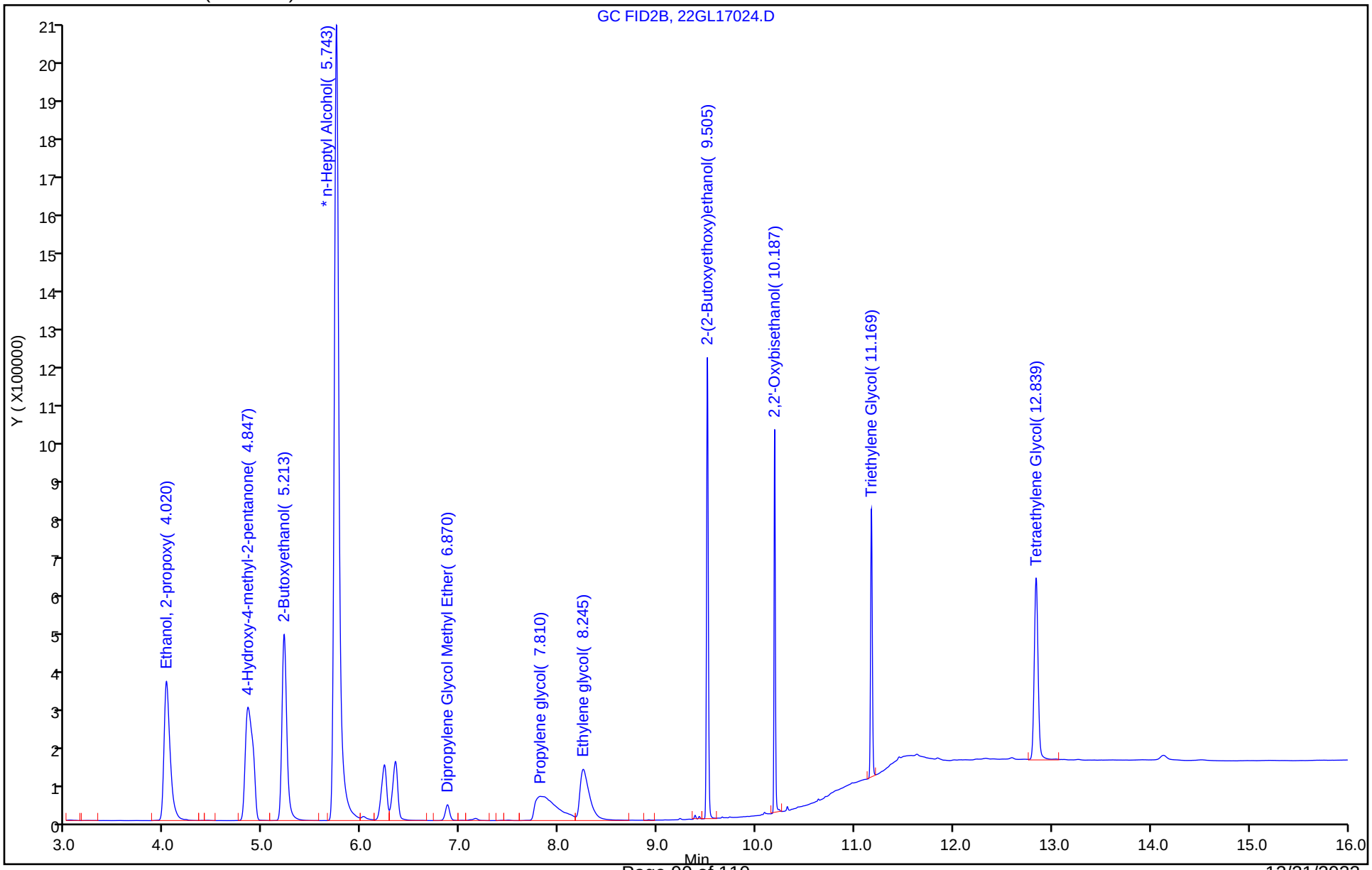
Lims ID: ccv g3 Worklist Smp#: 24

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 24

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



12/21/2022
6:24 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah
Job No.: 580-121295-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 680-755698/10
Matrix: Water
Lab File ID: 22GL17010.D
Analysis Method: 8015C GLY
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 1(mL)
Date Analyzed: 12/17/2022 19:59
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: J&W DB WAX ID: 0.45(mm)
% Moisture: % Solids:
GPC Cleanup:(Y/N) N
Cleanup Factor:
Analysis Batch No.: 755698
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	3.0	U	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File:	\\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\22GL17010.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	17-Dec-2022 19:59:17	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	680-0082806-010				
Operator ID:		Instrument ID:	CVGG2		
Method:	\\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\8015_GLY_VGG.m				
Limit Group:	8015C_DAI				
Last Update:	18-Dec-2022 10:32:37	Calib Date:	15-Dec-2022 15:34:13		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D				
Column 1 :	J&W DB WAX (0.45 mm)		Det: GC FID2B		
Process Host:	CTX1606				

First Level Reviewer: SWK1 Date: 18-Dec-2022 10:31:30

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 2-Butoxyethanol						7
5.202	5.208	-0.006	9306		0.1102	7
LOD =	0.5000					
* 4 n-Heptyl Alcohol						
5.741	5.738	0.003	7536137	50.0	50.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00099 Amount Added: 10.00 Units: uL Run Reagent

Report Date: 18-Dec-2022 10:32:39 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\22GL17010.D

Injection Date: 17-Dec-2022 19:59:17 Instrument ID: CVGG2 Operator ID:

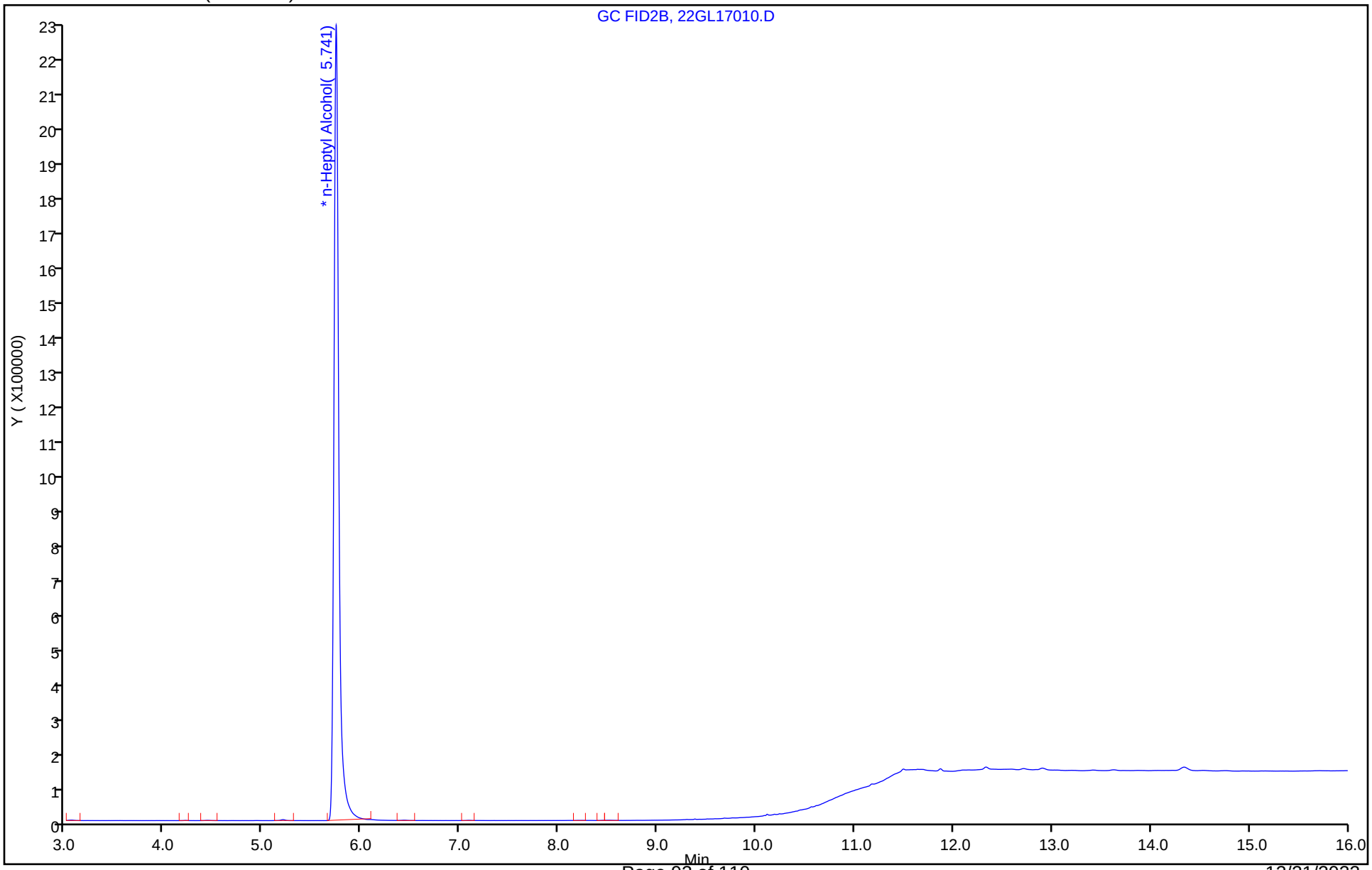
Lims ID: mb Worklist Smp#: 10

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 10

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



12/21/2022
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FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah
Job No.: 580-121295-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 680-755698/1006
Matrix: Water
Lab File ID: -22GL17006-LCS.d
Analysis Method: 8015C GLY
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 1(mL)
Date Analyzed: 12/17/2022 18:28
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: J&W DB WAX ID: 0.45(mm)
% Moisture: % Solids:
GPC Cleanup:(Y/N) N
Cleanup Factor:
Analysis Batch No.: 755698
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	22.8		5.0	3.0	1.1

Eurofins Environment Testing America
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\-22GL17006-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 17-Dec-2022 18:28:59 ALS Bottle#: 6 Worklist Smp#: 1006
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0082806-006
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Dec-2022 10:32:37 Calib Date: 15-Dec-2022 15:34:13
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1606

First Level Reviewer: SK9U Date: 17-Dec-2022 19:57:50

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy							
	4.018	4.018	0.000	1387563	20.0	22.0	
2 4-Hydroxy-4-methyl-2-pentanone							
	4.839	4.839	0.000	1467608	20.0	22.2	
3 2-Butoxyethanol							
	5.208	5.208	0.000	1492941	20.0	21.9	
* 4 n-Heptyl Alcohol							
	5.738	5.738	0.000	6078535	50.0	50.0	
5 Dipropylene Glycol Methyl Ether							
	6.863	6.863	0.000	123838	20.0	25.5	
6 Propylene glycol							
	7.809	7.809	0.000	1022964	20.0	24.7	
7 Ethylene glycol							
	8.235	8.235	0.000	910478	20.0	22.6	
8 2-(2-Butoxyethoxy)ethanol							
	9.503	9.503	0.000	1373894	20.0	22.8	
9 2,2'-Oxybisethanol							
	10.186	10.186	0.000	871421	20.0	22.5	
10 Triethylene Glycol							
	11.167	11.167	0.000	821769	20.0	20.8	
11 Tetraethylene Glycol							
	12.835	12.835	0.000	1619024	40.0	42.5	

QC Flag Legend

Processing Flags

Reagents:

SG_GlyICV_00056	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00099	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 18-Dec-2022 10:32:38 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Environment Testing America

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\-22GL17006-LCS.d

Injection Date: 17-Dec-2022 18:28:59 Instrument ID: CVGG2 Operator ID:

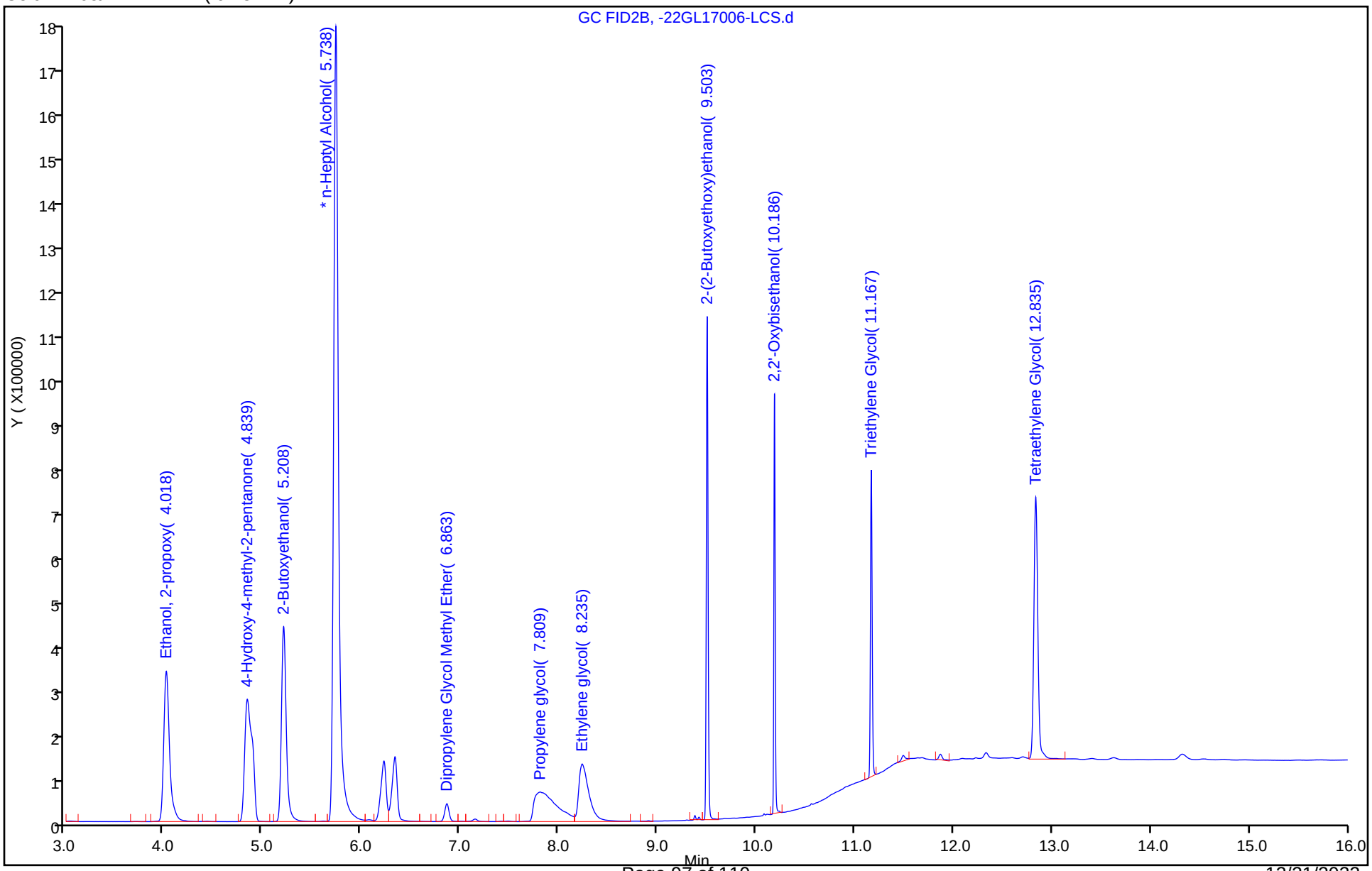
Lims ID: LCS Worklist Smp#: 1006

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 6

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



12/21/2022
6:24 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah
Job No.: 580-121295-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 680-755698/7
Matrix: Water
Lab File ID: 22GL17007.D
Analysis Method: 8015C GLY
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 1(mL)
Date Analyzed: 12/17/2022 18:51
Con. Extract Vol.: 1(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: J&W DB WAX ID: 0.45(mm)
% Moisture: % Solids:
GPC Cleanup:(Y/N) N
Cleanup Factor:
Analysis Batch No.: 755698
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	20.7		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\22GL17007.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 17-Dec-2022 18:51:36 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0082806-007
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Dec-2022 10:32:37 Calib Date: 15-Dec-2022 15:34:13
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20221215-82752.b\22GL15012.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1606

First Level Reviewer: SWK1 Date: 18-Dec-2022 10:31:02

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Ethanol, 2-propoxy							
	4.022	4.018	0.004	1200021	20.0	20.9	
2 4-Hydroxy-4-methyl-2-pentanone							
	4.844	4.839	0.005	1265816	20.0	21.1	
3 2-Butoxyethanol							
	5.212	5.208	0.004	1276762	20.0	20.6	
* 4 n-Heptyl Alcohol							
	5.739	5.738	0.001	5536898	50.0	50.0	
5 Dipropylene Glycol Methyl Ether							
	6.865	6.863	0.002	102884	20.0	23.3	
6 Propylene glycol							M
	7.802	7.809	-0.007	914828	20.0	24.3	M
7 Ethylene glycol							M
	8.241	8.235	0.006	837779	20.0	22.8	M
8 2-(2-Butoxyethoxy)ethanol							
	9.504	9.503	0.001	1137004	20.0	20.7	
9 2,2'-Oxybisethanol							
	10.187	10.186	0.001	757095	20.0	21.5	
10 Triethylene Glycol							
	11.167	11.167	0.000	685730	20.0	18.9	
11 Tetraethylene Glycol							
	12.835	12.835	0.000	1317757	40.0	37.6	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_GlyICV_00056	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00099	Amount Added:	10.00	Units: uL	Run Reagent

Report Date: 18-Dec-2022 10:32:38 Chrom Revision: 2.3 01-Dec-2022 08:01:02

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20221217-82806.b\22GL17007.D

Injection Date: 17-Dec-2022 18:51:36 Instrument ID: CVGG2 Operator ID:

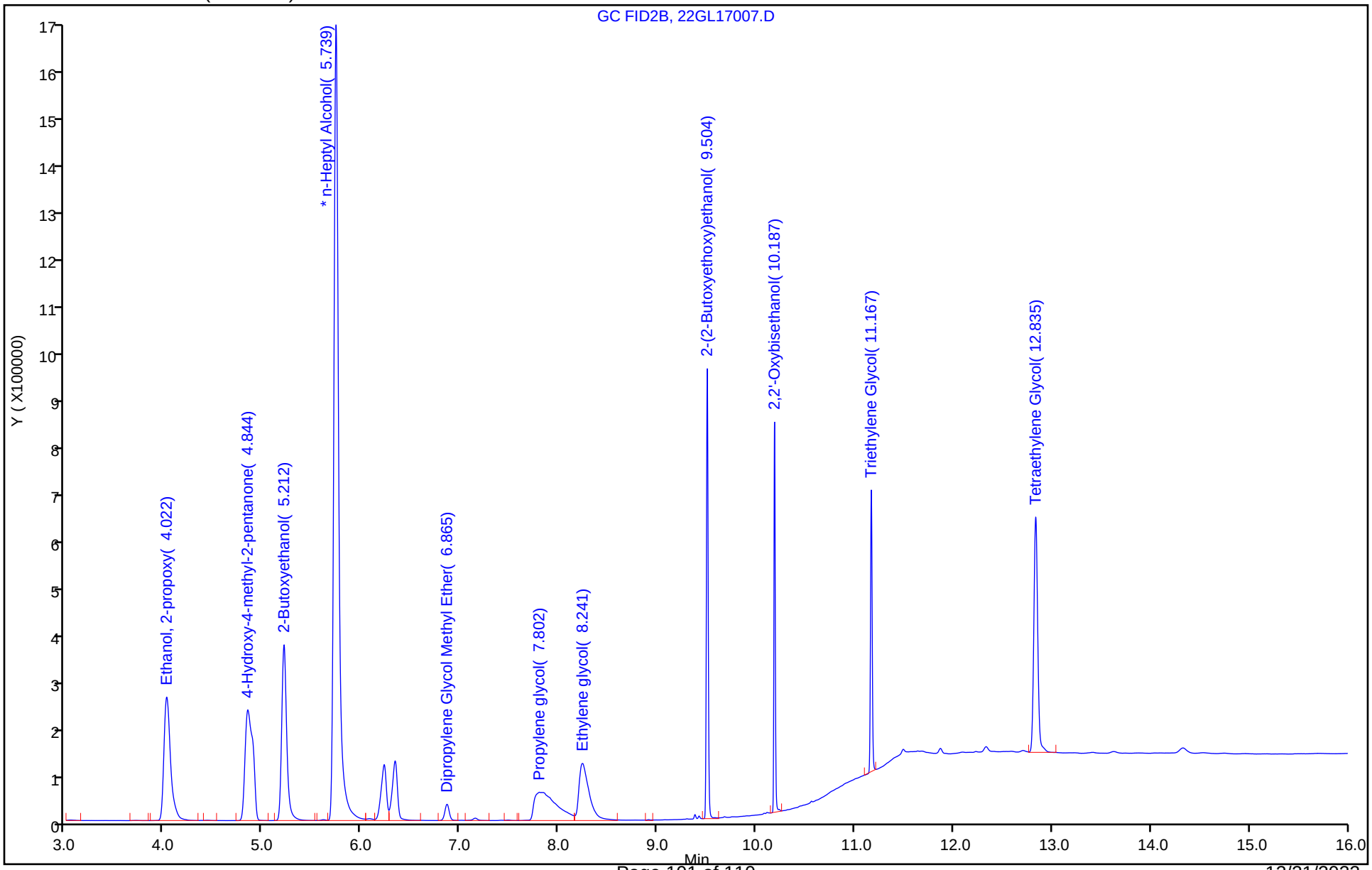
Lims ID: lcsd Worklist Smp#: 7

Client ID:

Injection Vol: 1.0 ul Dil. Factor: 1.0000 ALS Bottle#: 7

Method: 8015_GLY_VGG Limit Group: 8015C_DAI

Column: J&W DB WAX (0.45 mm)



12/21/2022
6:24 PM

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Instrument ID: CVGG2 Start Date: 12/15/2022 13:40

Analysis Batch Number: 755296 End Date: 12/16/2022 01:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 680-755296/7		12/15/2022 13:40	1	22GL15007.D	J&W DB WAX 0.45(mm)
IC 680-755296/8		12/15/2022 14:03	1	22GL15008.D	J&W DB WAX 0.45(mm)
IC 680-755296/9		12/15/2022 14:26	1	22GL15009.D	J&W DB WAX 0.45(mm)
ICIS 680-755296/10		12/15/2022 14:48	1	22GL15010.D	J&W DB WAX 0.45(mm)
IC 680-755296/11		12/15/2022 15:11	1	22GL15011.D	J&W DB WAX 0.45(mm)
IC 680-755296/12		12/15/2022 15:34	1	22GL15012.D	J&W DB WAX 0.45(mm)
ICV 680-755296/13 CCV		12/15/2022 15:56	1	22GL15013.D	J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 16:19	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 16:42	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 18:00	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 18:23	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 19:31	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 19:53	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 20:16	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 20:39	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 21:01	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 21:24	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 21:46	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 22:09	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 22:31	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 22:54	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 23:17	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/15/2022 23:39	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/16/2022 00:02	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/16/2022 00:25	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/16/2022 00:47	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/16/2022 01:10	1		J&W DB WAX 0.45(mm)
CCV 680-755296/39		12/16/2022 01:55	1		J&W DB WAX 0.45(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Instrument ID: CVGG2 Start Date: 12/17/2022 18:28

Analysis Batch Number: 755698 End Date: 12/18/2022 01:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-755698/6		12/17/2022 18:28	1	22GL17006.D	J&W DB WAX 0.45(mm)
LCS 680-755698/1006		12/17/2022 18:28	1	-22GL17006-LCS.d	J&W DB WAX 0.45(mm)
LCSD 680-755698/7		12/17/2022 18:51	1	22GL17007.D	J&W DB WAX 0.45(mm)
MB 680-755698/10		12/17/2022 19:59	1	22GL17010.D	J&W DB WAX 0.45(mm)
ZZZZZ		12/17/2022 20:45	1		J&W DB WAX 0.45(mm)
580-121295-1	AF-RHMW17-WGN01B-2212 WK2	12/17/2022 21:07	1	22GL17013.D	J&W DB WAX 0.45(mm)
ZZZZZ		12/17/2022 21:36	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/17/2022 21:58	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/17/2022 22:21	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/17/2022 22:43	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/17/2022 23:06	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/17/2022 23:28	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/17/2022 23:51	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/18/2022 00:13	1		J&W DB WAX 0.45(mm)
ZZZZZ		12/18/2022 00:36	1		J&W DB WAX 0.45(mm)
CCV 680-755698/24		12/18/2022 01:21	1	22GL17024.D	J&W DB WAX 0.45(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Batch Number: 755296 Batch Start Date: 12/15/22 13:40 Batch Analyst: Kellar, Joshua C

Batch Method: 8015C GLY Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00047	SG_GLY_ISTD 00099	SG_GlyICV 00056		
IC 680-755296/7		8015C GLY		1 mL	50 uL	10 uL			
IC 680-755296/8		8015C GLY		1 mL	40 uL	10 uL			
IC 680-755296/9		8015C GLY		1 mL	25 uL	10 uL			
ICIS 680-755296/10		8015C GLY		1 mL	10 uL	10 uL			
IC 680-755296/11		8015C GLY		1 mL	5 uL	10 uL			
IC 680-755296/12		8015C GLY		1 mL	2.5 uL	10 uL			
ICV 680-755296/13 CCV		8015C GLY		1 mL		10 uL	10 uL		

Batch Notes	

Basis	Basis Description

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

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-121295-1

SDG No.:

Batch Number: 755698 Batch Start Date: 12/17/22 18:28 Batch Analyst: Kellar, Joshua C

Batch Method: 8015C GLY Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00047	SG_GLY_ISTD 00099	SG_GlyICV 00056		
CCVIS 680-755698/6		8015C GLY		1 mL		10 uL	10 uL		
LCSD 680-755698/7		8015C GLY		1 mL		10 uL	10 uL		
MB 680-755698/10		8015C GLY		1 mL		10 uL			
580-121295-A-1	AF-RHMW17-WGN01B -2212WK2	8015C GLY	T	1 mL		10 uL			
CCV 680-755698/24		8015C GLY		1 mL	10 uL	10 uL			
LCS 680-755698/1006		8015C GLY		1 mL		10 uL	10 uL		

Batch Notes	

Basis	Basis Description
T	Total/NA

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

Subcontract Data

Shipping and Receiving Documents

Eurofins FGS, Seattle
5755 8th Street East
Tacoma, WA 98424

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Aaron Oliver	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2212W2EU-11
Client Contact:	Phone: 314-585-7610	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 1001 Bishop St. Suite 1600	Due Date Requested: see subcontract			
City: Honolulu	TAT Requested (days): Rush - ASAP			
State, Zip: Hawaii 96813	Compliance Project: Δ Yes Δ No			
Phone: 808-954-4512 / 808-356-5311	PO #:			
Email: Watson Tanji (watson.tanji@aecom.com)/ Brant Landers (brant.landers@aecom.com)	WO #:			
Project Name: CTO N6274223F0104	Project #: 60697810			
Site: RHSF	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAI_GL_D5/ 2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
AF-RHMW17-WGN01B-2212W2	12-13-22	1350	G	W	N	N	X	3	Store **ALL** samples until notified by client to dispose

12-13-22

12-13-22

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQuIS EDD.

Special Instructions/QC Requirements: DOD QSM project.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	12-13-22 1610	AECOM	GABRIEL ALLEN	12-13-22 1610	AECOM
GABRIEL ALLEN	12/14/22 1355	~~AECOM~~	[signature]	12/15/22 0935	FETN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: IR10 2.4/2.6

580-121295 Chain of Custody

12/21/2022
6:24 PM

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-121295-1

Login Number: 121295
List Number: 1
Creator: Presley, Kim A

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-121295-1

Login Number: 121295
List Number: 2
Creator: Harley, Tynisha

List Source: Eurofins Savannah
List Creation: 12/16/22 06:44 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	