eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Terri Choy
AECOM
1001 Bishop Street
Honolulu HI 96813

Generated 8/16/2023 3:35 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-130239-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

Eurofins Seattle

Job Notes

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

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

Authorization

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Authorized for release by
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M.Elaine.Walker@et.eurofinsus.com
253 248-4972

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Table of Contents

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
Q	One or more quality control criteria failed.
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: 580-130239-1

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.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs 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

Two samples were received on 8/7/2023 3:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8º 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

Samples AF-RHMW10-WGN01LF-2308 (580-130239-1) and AF-RHMW225401-WGN01B-2308 (580-130239-2) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 08/10/2023 and 08/14/2023.

The laboratory control sample duplicate (LCSD) for analytical batch 680-793374 recovered outside control limits for the following analyte: 2-(2-Butoxyethoxy)ethanol. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data has been reported.

The continuing calibration verification (CCV) associated with batch 680-793374 recovered above the upper control limit for 2-(2-Butoxyethoxy)ethanol. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

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

Detection Summary

Client: AECOM
Job ID: 580-130239-1
Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW10-WGN01LF-2308 — Lab Sample ID: 580-130239-1

No Detections.

Client Sample ID: AF-RHMW225401-WGN01B-2308 — Lab Sample ID: 580-130239-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: AF-RHMW10-WGN01LF-2308
Lab Sample ID: 580-130239-1

Date Collected: 08/01/23 10:40
Matrix: Water
Date Received: 08/07/23 15:00

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			08/10/23 18:10	1

Client Sample ID: AF-RHMW225401-WGN01B-2308
Lab Sample ID: 580-130239-2

Date Collected: 08/02/23 11:40
Matrix: Water
Date Received: 08/07/23 15:00

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 Q	5.0	1.1	mg/L			08/14/23 19:48	1

Default Detection Limits

Client: AECOM
Job ID: 580-130239-1
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

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

Lab Sample ID: MB 680-792737/9
Matrix: Water
Analysis Batch: 792737
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-(2-Butoxyethoxy)ethanol	3.0	U M	5.0	1.1	mg/L			08/10/23 14:20	1

Lab Sample ID: LCS 680-792737/5
Matrix: Water
Analysis Batch: 792737
Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	20.0	19.6		mg/L		98	50 - 150

Lab Sample ID: LCSD 680-792737/6
Matrix: Water
Analysis Batch: 792737
Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	20.0	21.2		mg/L		106	50 - 150	8	50

Lab Sample ID: MB 680-793374/10
Matrix: Water
Analysis Batch: 793374
Client Sample ID: Method Blank
Prep Type: Total/NA

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			08/14/23 18:15	1

Lab Sample ID: LCS 680-793374/6
Matrix: Water
Analysis Batch: 793374
Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	20.0	25.8		mg/L		129	50 - 150

Lab Sample ID: LCSD 680-793374/7
Matrix: Water
Analysis Batch: 793374
Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	20.0	32.2	Q	mg/L		161	50 - 150	22	50

Lab Sample ID: 580-130239-2 MS
Matrix: Water
Analysis Batch: 793374
Client Sample ID: AF-RHMW225401-WGN01B-2308
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-(2-Butoxyethoxy)ethanol	3.0	U Q	20.0	28.4		mg/L		142	50 - 150

Lab Sample ID: 580-130239-2 MSD
Matrix: Water
Analysis Batch: 793374
Client Sample ID: AF-RHMW225401-WGN01B-2308
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-(2-Butoxyethoxy)ethanol	3.0	U Q	20.0	29.6		mg/L		148	50 - 150	4	50

QC Association Summary

Client: AECOM
Job ID: 580-130239-1
Project/Site: Red Hill - AFFF Assessment Sampling

GC Semi VOA

Analysis Batch: 792737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-130239-1	AF-RHMW10-WGN01LF-2308	Total/NA	Water	8015C GLY	
MB 680-792737/9	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-792737/5	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-792737/6	Lab Control Sample Dup	Total/NA	Water	8015C GLY	

Analysis Batch: 793374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-130239-2	AF-RHMW225401-WGN01B-2308	Total/NA	Water	8015C GLY	
MB 680-793374/10	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-793374/6	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-793374/7	Lab Control Sample Dup	Total/NA	Water	8015C GLY	
580-130239-2 MS	AF-RHMW225401-WGN01B-2308	Total/NA	Water	8015C GLY	
580-130239-2 MSD	AF-RHMW225401-WGN01B-2308	Total/NA	Water	8015C GLY	

Lab Chronicle

Client: AECOM
Job ID: 580-130239-1
Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW10-WGN01LF-2308
Lab Sample ID: 580-130239-1

Date Collected: 08/01/23 10:40
Matrix: Water
Date Received: 08/07/23 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	792737	DBM	EET SAV	08/10/23 18:10

Client Sample ID: AF-RHMW225401-WGN01B-2308
Lab Sample ID: 580-130239-2

Date Collected: 08/02/23 11:40
Matrix: Water
Date Received: 08/07/23 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	793374	DBM	EET SAV	08/14/23 19:48

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM
Job ID: 580-130239-1
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: 580-130239-1
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: 580-130239-1
Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-130239-1	AF-RHMW10-WGN01LF-2308	Water	08/01/23 10:40	08/07/23 15:00
580-130239-2	AF-RHMW225401-WGN01B-2308	Water	08/02/23 11:40	08/07/23 15:00

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 788122

Lab Sample ID: IC 680-788122/4 Client Sample ID:

Date Analyzed: 07/13/23 12:19 Lab File ID: 1GG12004.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	9.59	Shouldering	AR8P	07/13/23 19:26

Lab Sample ID: IC 680-788122/5 Client Sample ID:

Date Analyzed: 07/13/23 12:42 Lab File ID: 1GG12005.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	9.59	Shouldering	AR8P	07/13/23 19:26

Lab Sample ID: IC 680-788122/6 Client Sample ID:

Date Analyzed: 07/13/23 13:05 Lab File ID: 1GG12006.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	9.59	Shouldering	AR8P	07/13/23 19:26

Lab Sample ID: ICIS 680-788122/7 Client Sample ID:

Date Analyzed: 07/13/23 13:29 Lab File ID: 1GG12007.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	9.59	Shouldering	AR8P	07/13/23 19:27

Lab Sample ID: IC 680-788122/8 Client Sample ID:

Date Analyzed: 07/13/23 13:52 Lab File ID: 1GG12008.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	9.59	Shouldering	AR8P	07/13/23 19:25

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 788122

Lab Sample ID: IC 680-788122/9 Client Sample ID:

Date Analyzed: 07/13/23 14:15 Lab File ID: 1GG12009.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	9.59	Shouldering	AR8P	07/13/23 19:25

Lab Sample ID: IC 680-788122/10 Client Sample ID:

Date Analyzed: 07/13/23 14:38 Lab File ID: 1GG12010.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	9.59	Shouldering	AR8P	07/13/23 19:24

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 792737

Lab Sample ID: MB 680-792737/9 Client Sample ID:

Date Analyzed: 08/10/23 14:20 Lab File ID: 1GH10009.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-(2-Butoxyethoxy)ethanol		Invalid Compound ID	AR8P	08/10/23 21:35

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 793374

Lab Sample ID: CCVIS 680-793374/5 Client Sample ID:

Date Analyzed: 08/14/23 16:13 Lab File ID: 1GH10005.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Hydroxy-4-methyl-2-pentanone	2.13	Shouldering	AR8P	08/14/23 16:36

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SG_Gly_CAL_00053	12/27/23		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_CAL_00055	02/02/24		o2si, Lot 500821		(Purchased Reagent)		2-(2-Butoxyethoxy)ethanol	2000 ug/mL
SG_GLY_ISTD_00124	01/12/24		Agilent, Lot 0006738806		(Purchased Reagent)		n-Heptyl Alcohol	5000 ug/mL
SG_GLY_ISTD_00127	02/10/24		Agilent, Lot 0006738806		(Purchased Reagent)		n-Heptyl Alcohol	5000 ug/mL
SG_GlyICV_00061	08/01/23		o2si, Lot 454407		(Purchased Reagent)		2-(2-Butoxyethoxy)ethanol	2000 ug/mL

Reagent

SG_Gly_CAL_00053

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

o2si
smart solutions®

ACCREDITED
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:

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	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

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	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_CAL_00055

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	500821	≤ -10 °C	P/T Methanol		13-Apr-2025

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	2006 ± 350	mg/L
diethylene glycol butyl ether	112-34-5	99.8	2323.7.2P	1990 ± 350	mg/L
propyl cellosolve	2807-30-9	99.9	1570.7.2P	2000 ± 350	mg/L
dipropylene glycol monomethyl ether	34590-94-8	99.7	2333.7.2P	1994 ± 350	mg/L
ethylene glycol	107-21-1	99.79	307.1.4P	2028 ± 360	mg/L
di(ethylene glycol)	111-46-6	99.5	309.7.2P	1984 ± 350	mg/L
tri(ethylene glycol)	112-27-6	99.9	310.7.3P	1982 ± 350	mg/L
4-Hydroxy-4-methyl-2-pentanone	123-42-2	98	2334.286.1P	1982 ± 350	mg/L
1,2-propanediol	57-55-6	99.9	306.9.4P	1984 ± 350	mg/L
tetraethylene glycol	112-60-7	98	3754.7.1P	4004 ± 700	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:

Catalog No. G34-120070-04 **Lot No.** 500821 **Expiration Date** 13 -Apr-2025

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

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 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:**
Sanquetta Coakley	Jared Ball	Susan Mathews
14 -Apr-2023	18 -Apr-2023	18 -Apr-2023
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

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 13-Apr-2025

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:

Sanquetta Coakley
14 -Apr-2023
Production Chemist I

Certified By:

Jared Ball
18 -Apr-2023
Quality Control Chemist I

Released By:

Susan Mathews
18 -Apr-2023
Quality Control Team Lead

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Reagent

SG_GLY_ISTD_00124

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-6046

Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006738806

Lot Issue Date: 05-Apr-2023

Expiration Date: 31-May-2025

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
n-heptanol	5008	±	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 (RM) standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above. Purity values are taken from approved vendor raw material certificates.

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

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

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

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

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

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

Agilent

Trusted Answers

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

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

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

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025

Reagent

SG_GLY_ISTD_00127

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-6046

Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006738806

Lot Issue Date: 05-Apr-2023

Expiration Date: 31-May-2025

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
n-heptanol	5008	±	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 (RM) standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above. Purity values are taken from approved vendor raw material certificates.

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

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

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

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

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

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

Agilent

Trusted Answers

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

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

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

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025

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.: 580-130239-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 1GH10005.D

Lab ID: LCS 680-792737/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	19.6	98	50-150	

Column to be used to flag recovery and RPD values

FORM III 8015C GLY

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 1GH10006.D

Lab ID: LCS 680-793374/6 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	25.8	129	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.: 580-130239-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 1GH10006.D

Lab ID: LCSD 680-792737/6 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	21.2	106	8	50	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.: 580-130239-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 1GH10007.D

Lab ID: LCSD 680-793374/7 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	32.2	161	22	50	50-150	Q

Column to be used to flag recovery and RPD values

FORM III 8015C GLY

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 1GH10022.D

Lab ID: 580-130239-2 MS Client ID: AF-RHMW225401-WGN01B-2308 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	3.0 U	28.4	142	50-150	

Column to be used to flag recovery and RPD values

FORM III 8015C GLY

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 1GH10023.D

Lab ID: 580-130239-2 MSD Client ID: AF-RHMW225401-WGN01B-2308 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	29.6	148	4	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.: 580-130239-1

SDG No.:

Lab Sample ID: MB 680-792737/9

Matrix: Water Date Extracted:

Lab File ID:(1) 1GH10009.D Lab File ID:(2)

Date Analyzed:(1) 08/10/2023 14:20 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 680-792737/5	08/10/2023 12:47	
	LCSD 680-792737/6	08/10/2023 13:10	
AF-RHMW10-WGN01LF-2308	580-130239-1	08/10/2023 18:10	

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Lab Sample ID: MB 680-793374/10

Matrix: Water Date Extracted:

Lab File ID:(1) 1GH10010.D Lab File ID:(2)

Date Analyzed:(1) 08/14/2023 18:15 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 680-793374/6	08/14/2023 16:43	
	LCSD 680-793374/7	08/14/2023 17:06	
AF-RHMW225401-WGN01B-2308	580-130239-2	08/14/2023 19:48	
AF-RHMW225401-WGN01B-2308 MS	580-130239-2 MS	08/14/2023 22:52	
AF-RHMW225401-WGN01B-2308 MSD	580-130239-2 MSD	08/14/2023 23:15	

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

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Sample No.: ICIS 680-788122/7 Date Analyzed: 07/13/2023 13:29

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

Lab File ID (Standard): 1GG12007.D Heated Purge: (Y/N) N

Calibration ID: 91431

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		4734661	2.44				
UPPER LIMIT		9469322	2.94				
LOWER LIMIT		2367331	1.94				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-788122/11 CCV		3971826	2.44				

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
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Sample No.: CCVIS 680-792737/4 Date Analyzed: 08/10/2023 12:24

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

Lab File ID (Standard): 1GH10004.D Heated Purge: (Y/N) N

Calibration ID: 91431

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		3519426	2.41				
UPPER LIMIT		7038852	2.91				
LOWER LIMIT		1759713	1.91				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 680-792737/5		3539575	2.40				
LCSD 680-792737/6		4128287	2.40				
MB 680-792737/9		4856997	2.39				
580-130239-1	AF-RHMW10-WGN01LF-2308	2088717	2.39				
CCV 680-792737/26		4216152	2.40				

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
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Sample No.: CCVIS 680-793374/5 Date Analyzed: 08/14/2023 16:13

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

Lab File ID (Standard): 1GH10005.D Heated Purge: (Y/N) N

Calibration ID: 91431

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		4645200	2.40				
UPPER LIMIT		9290400	2.90				
LOWER LIMIT		2322600	1.90				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 680-793374/6		4248486	2.41				
LCSD 680-793374/7		3910006	2.40				
MB 680-793374/10		3139760	2.39				
580-130239-2	AF-RHMW225401-WGN01 B-2308	3373224	2.39				
580-130239-2 MS	AF-RHMW225401-WGN01 B-2308 MS	4914486	2.39				
580-130239-2 MSD	AF-RHMW225401-WGN01 B-2308 MSD	4611123	2.39				
CCV 680-793374/25		5699700	2.39				

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 I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Client Sample ID: AF-RHMW10-WGN01LF-2308 Lab Sample ID: 580-130239-1

Matrix: Water Lab File ID: 1GH10013.D

Analysis Method: 8015C GLY Date Collected: 08/01/2023 10:40

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 08/10/2023 18:10

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.: 792737 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\20230810-88172.b\1GH10013.D				
Lims ID:	580-130239-B-1				
Client ID:	AF-RHMW10-WGN01LF-2308				
Sample Type:	Client				
Inject. Date:	10-Aug-2023 18:10:19	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	680-0088172-013				
Operator ID:		Instrument ID:	CVGG2		
Method:	\\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\8015_GLY_VGG.m				
Limit Group:	8015C_DAI				
Last Update:	10-Aug-2023 23:22:06	Calib Date:	13-Jul-2023 14:38:41		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D				
Column 1 :	J&W DB WAX (0.45 mm)		Det: GC FID2B		
Process Host:	CTX1650				

First Level Reviewer: AR8P Date: 10-Aug-2023 21:36:01

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
* 4 n-Heptyl Alcohol					
2.391	2.405	-0.014	2088717	50.0	

QC Flag Legend

Processing Flags

Reagents:

SG_GLY_ISTD_00127 Amount Added: 10.00 Units: uL Run Reagent

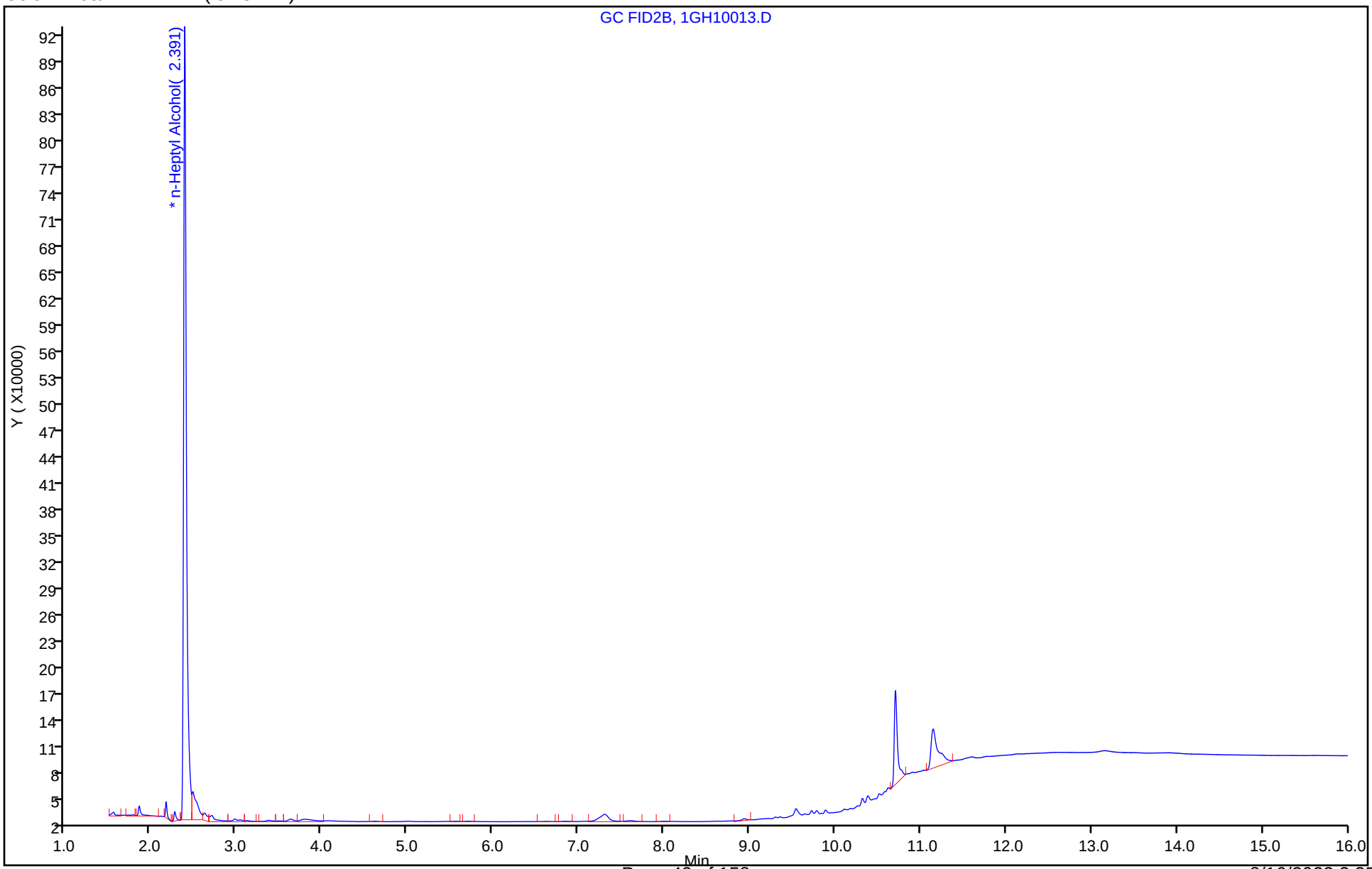
Report Date: 10-Aug-2023 23:22:10 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\1GH10013.D

Injection Date:	10-Aug-2023 18:10:19	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-130239-B-1	Lab Sample ID:	680-130239-1	Worklist Smp#:	13
Client ID:	AF-RHMW10-WGN01LF-2308				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Client Sample ID: AF-RHMW225401-WGN01B-2308 Lab Sample ID: 580-130239-2

Matrix: Water Lab File ID: 1GH10014.D

Analysis Method: 8015C GLY Date Collected: 08/02/2023 11:40

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 08/14/2023 19:48

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.: 793374 Units: mg/L

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

Eurofins Savannah
Target Compound Quantitation Report

Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10014.D				
Lims ID:	580-130239-B-2				
Client ID:	AF-RHMW225401-WGN01B-2308				
Sample Type:	Client				
Inject. Date:	14-Aug-2023 19:48:06	ALS Bottle#:	0	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	680-0088291-014				
Operator ID:		Instrument ID:	CVGG2		
Method:	\\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\8015_GLY_VGG.m				
Limit Group:	8015C_DAI				
Last Update:	15-Aug-2023 10:58:32	Calib Date:	13-Jul-2023 14:38:41		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D				
Column 1 :	J&W DB WAX (0.45 mm)		Det: GC FID2B		
Process Host:	CTX1649				
First Level Reviewer: AR8P		Date:	15-Aug-2023 10:56:33		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
* 4 n-Heptyl Alcohol					
2.390	2.398	-0.008	3373224	50.0	

Reagents:

SG_GLY_ISTD_00127 Amount Added: 10.00 Units: uL Run Reagent

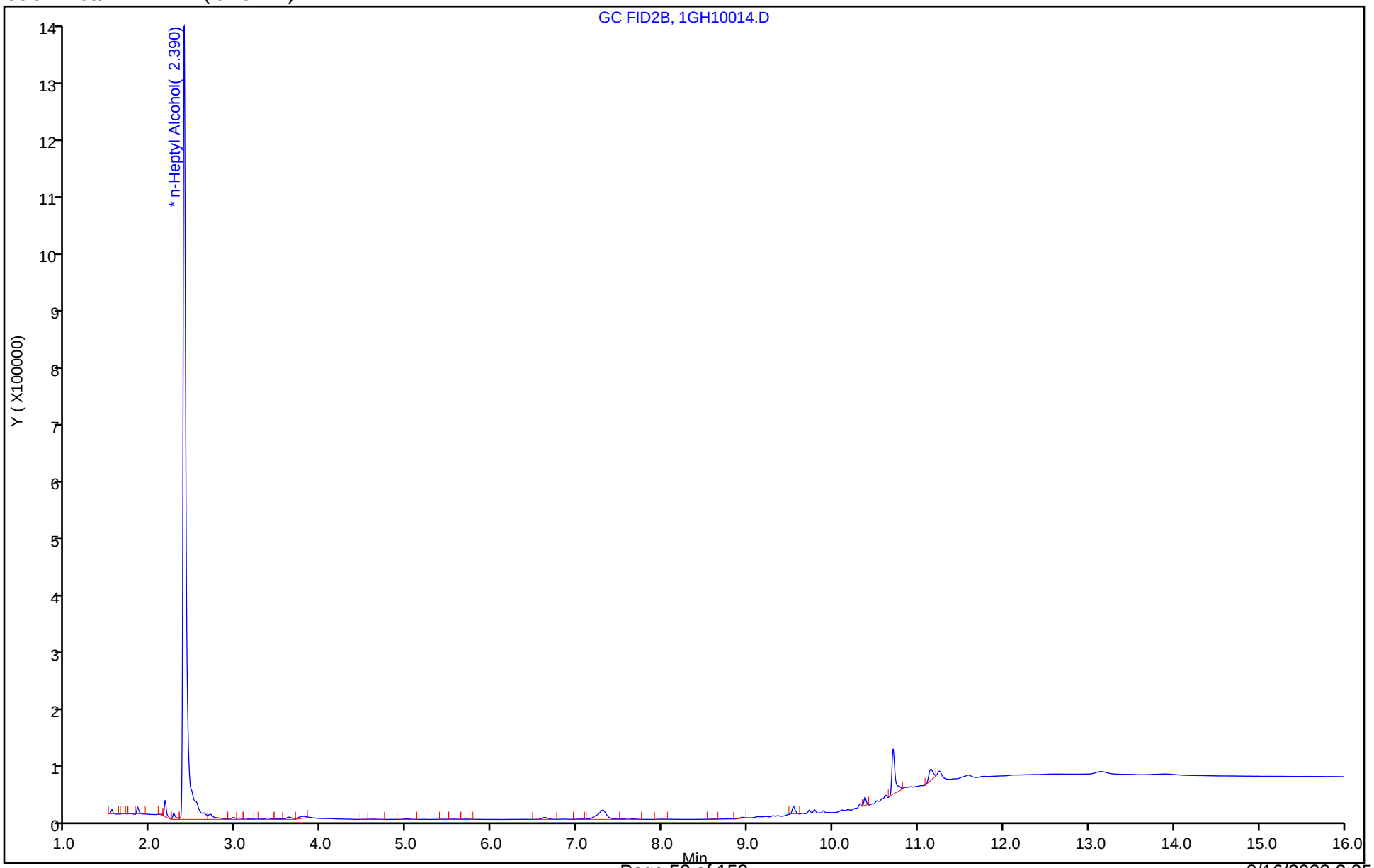
Report Date: 15-Aug-2023 10:58:34 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10014.D

Injection Date:	14-Aug-2023 19:48:06	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-130239-B-2	Lab Sample ID:	680-130239-2	Worklist Smp#:	28
Client ID:	AF-RHMW225401-WGN01B-2308				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

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

Lab Name: Eurofins Savannah Job No.: 580-130239-1 Analy Batch No.: 788122

SDG No.:

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

Calibration Start Date: 07/13/2023 12:19 Calibration End Date: 07/13/2023 14:38 Calibration ID: 91431

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-788122/10	1GG12010.D
Level 2	IC 680-788122/9	1GG12009.D
Level 3	IC 680-788122/8	1GG12008.D
Level 4	ICIS 680-788122/7	1GG12007.D
Level 5	IC 680-788122/6	1GG12006.D
Level 6	IC 680-788122/5	1GG12005.D
Level 7	IC 680-788122/4	1GG12004.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethanol, 2-propoxy	0.8965 0.5127	0.7463 0.4762	0.6557	0.6019	0.5002	Qua	1.0363	0.5362	-0.000651						0.9980		0.9900
4-Hydroxy-4-methyl-2-pentanone	1.2568 0.5141	0.8334 0.4583	0.7027	0.6148	0.4992	Lin2	1.5576	0.4985							0.9920		0.9900
2-Butoxyethanol	0.9977 0.5468	0.8089 0.5243	0.7045	0.6585	0.5482	Lin2	0.9318	0.5653							0.9900		0.9900
Dipropylene Glycol Methyl Ether	0.0721 0.0405	0.0661 0.0369	0.0526	0.0480	0.0415	Qua	0.0724	0.0460	-0.000095						0.9990		0.9900
Propylene glycol	0.2266 0.1641	0.2477 0.1545	0.2028	0.1723	0.1936	Qua	-0.058	0.2168	-0.000620						0.9970		0.9900
Ethylene glycol	0.4994 0.2976	0.4076 0.2684	0.3375	0.2758	0.3539	Qua	-0.428	0.4106	-0.001357						0.9940		0.9900
2-(2-Butoxyethoxy)ethanol	0.7690 0.4119	0.6338 0.3797	0.5219	0.4910	0.4310	Qua	0.6317	0.4772	-0.001009						0.9990		0.9900
2,2'-Oxybisethanol	0.4054 0.2009	0.3285 0.1850	0.2567	0.2159	0.2422	Qua	0.0245	0.2741	-0.000892						0.9960		0.9900
Triethylene Glycol	0.6015 0.2034	0.4298 0.1880	0.3033	0.2350	0.2488	Qua	0.5031	0.2692	-0.000865						0.9960		0.9900
Tetraethylene Glycol	0.5248 0.2099	0.3198 0.2008	0.2511	0.2478	0.2550	Lin1	1.2499	0.2073							0.9910		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.: 580-130239-1 Analy Batch No.: 788122

SDG No.:

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

Calibration Start Date: 07/13/2023 12:19 Calibration End Date: 07/13/2023 14:38 Calibration ID: 91431

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-788122/10	1GG12010.D
Level 2	IC 680-788122/9	1GG12009.D
Level 3	IC 680-788122/8	1GG12008.D
Level 4	ICIS 680-788122/7	1GG12007.D
Level 5	IC 680-788122/6	1GG12006.D
Level 6	IC 680-788122/5	1GG12005.D
Level 7	IC 680-788122/4	1GG12004.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Ethanol, 2-propoxy	nHPA	Qua	157725 3002619	328085 3927340	490796	1139895	2182101	2.00 80.0	5.00 100	10.0	20.0	50.0
4-Hydroxy-4-methyl-2-pentanone	nHPA	Lin2	221110 3010969	366403 3779963	525997	1164257	2177792	2.00 80.0	5.00 100	10.0	20.0	50.0
2-Butoxyethanol	nHPA	Lin2	175525 3202437	355617 4324063	527345	1247193	2391339	2.00 80.0	5.00 100	10.0	20.0	50.0
Dipropylene Glycol Methyl Ether	nHPA	Qua	12682 236978	29061 304364	39340	90818	181056	2.00 80.0	5.00 100	10.0	20.0	50.0
Propylene glycol	nHPA	Qua	39866 960893	108889 1274011	151790	326331	844531	2.00 80.0	5.00 100	10.0	20.0	50.0
Ethylene glycol	nHPA	Qua	87868 1742657	179176 2213314	252621	522300	1543746	2.00 80.0	5.00 100	10.0	20.0	50.0
2-(2-Butoxyethoxy)ethanol	nHPA	Qua	135291 2412415	278655 3131524	390667	929954	1879900	2.00 80.0	5.00 100	10.0	20.0	50.0
2,2'-Oxybisethanol	nHPA	Qua	71330 1176744	144443 1526008	192116	408926	1056556	2.00 80.0	5.00 100	10.0	20.0	50.0
Triethylene Glycol	nHPA	Qua	105822 1191038	188948 1550149	227057	445021	1085434	2.00 80.0	5.00 100	10.0	20.0	50.0
Tetraethylene Glycol	nHPA	Lin1	184657 2458534	281236 3311764	375887	938478	2224353	4.00 160	10.0 200	20.0	40.0	100

Curve Type Legend

Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

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

Lab Name: Eurofins Savannah Job No.: 580-130239-1 Analy Batch No.: 788122

SDG No.:

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

Calibration Start Date: 07/13/2023 12:19 Calibration End Date: 07/13/2023 14:38 Calibration ID: 91431

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-788122/10	1GG12010.D
Level 2	IC 680-788122/9	1GG12009.D
Level 3	IC 680-788122/8	1GG12008.D
Level 4	ICIS 680-788122/7	1GG12007.D
Level 5	IC 680-788122/6	1GG12006.D
Level 6	IC 680-788122/5	1GG12005.D
Level 7	IC 680-788122/4	1GG12004.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
4-Hydroxy-4-methyl-2-pentanone	-4.1 -11.2	4.7	9.7	7.7	-6.1	-0.8	20 20	20	20	20	20	20
2-Butoxyethanol	-5.9 -8.9	10.1	8.1	8.2	-6.3	-5.3	20 20	20	20	20	20	20
Tetraethylene Glycol	2.4 -6.2	-6.0	-9.0	4.4	16.9	-2.5	20 20	20	20	20	20	20

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12004.D
Lims ID: ic g7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 13-Jul-2023 12:19:47 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087436-004
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 13-Jul-2023 19:33:08 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1662

First Level Reviewer: AR8P Date: 13-Jul-2023 19:26:18

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.793	1.793	0.000	3927340	100.0	98.7	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.149	2.149	0.000	3779963	100.0	88.8	
	3 2-Butoxyethanol						
	2.254	2.254	0.000	4324063	100.0	91.1	
*	4 n-Heptyl Alcohol						
	2.451	2.451	0.000	4123510	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.979	2.979	0.000	304364	100.0	98.5	
	6 Propylene glycol						
	3.574	3.574	0.000	1274011	100.0	100.3	
	7 Ethylene glycol						
	3.848	3.848	0.000	2213314	100.0	98.4	
	8 2-(2-Butoxyethoxy)ethanol						
	5.315	5.315	0.000	3131524	100.0	99.0	
	9 2,2'-Oxybisethanol						
	7.374	7.374	0.000	1526008	100.0	99.9	
	10 Triethylene Glycol						M
	9.592	9.592	0.000	1550149	100.0	100.2	M
	11 Tetraethylene Glycol						
	10.428	10.428	0.000	3311764	200.0	187.7	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00053	Amount Added:	50.00	Units: uL	
SG_GLY_ISTD_00124	Amount Added:	10.00	Units: uL	Run Reagent

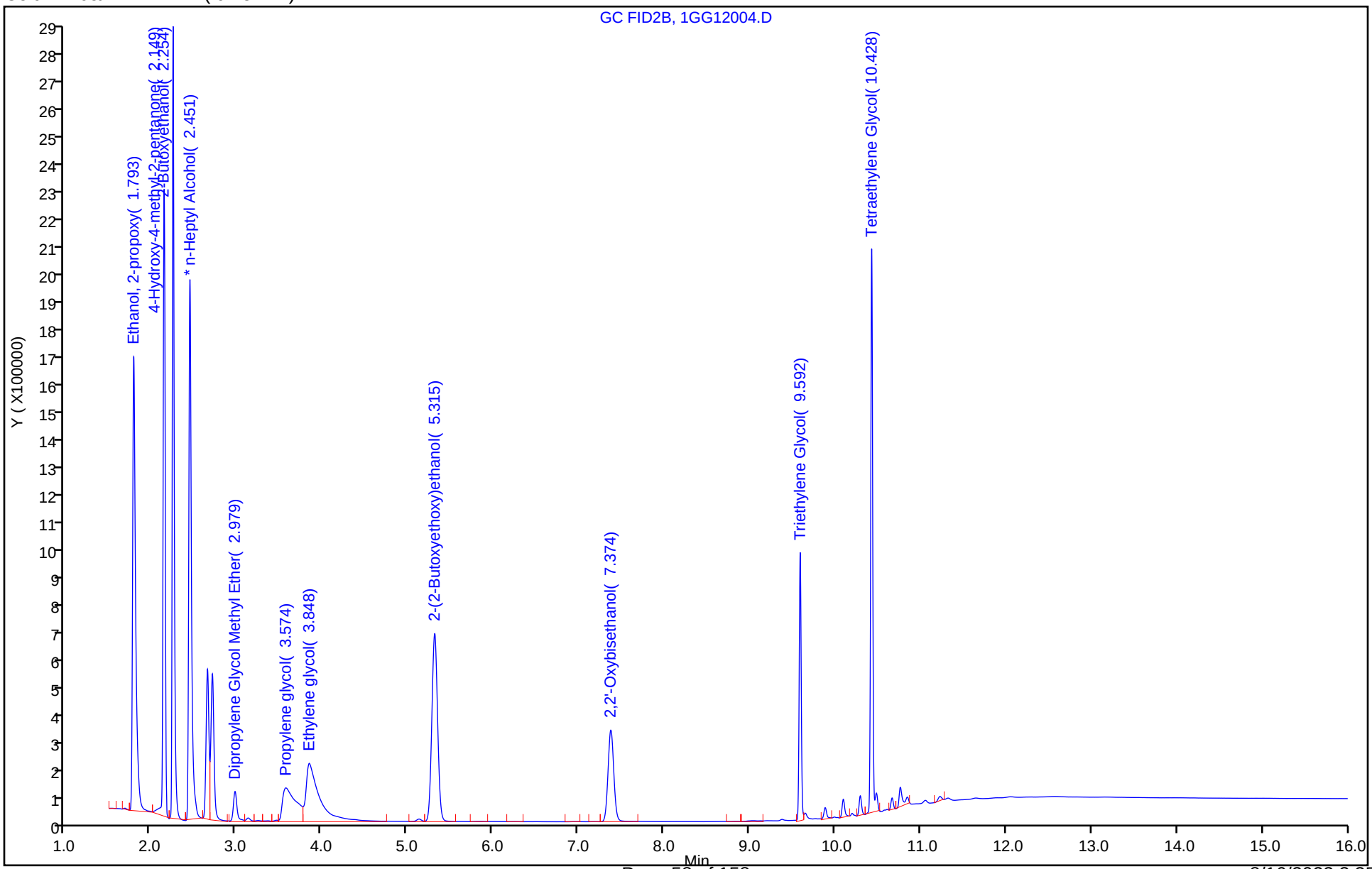
Report Date: 13-Jul-2023 19:33:08 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12004.D

Injection Date:	13-Jul-2023 12:19:47	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ic g7			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

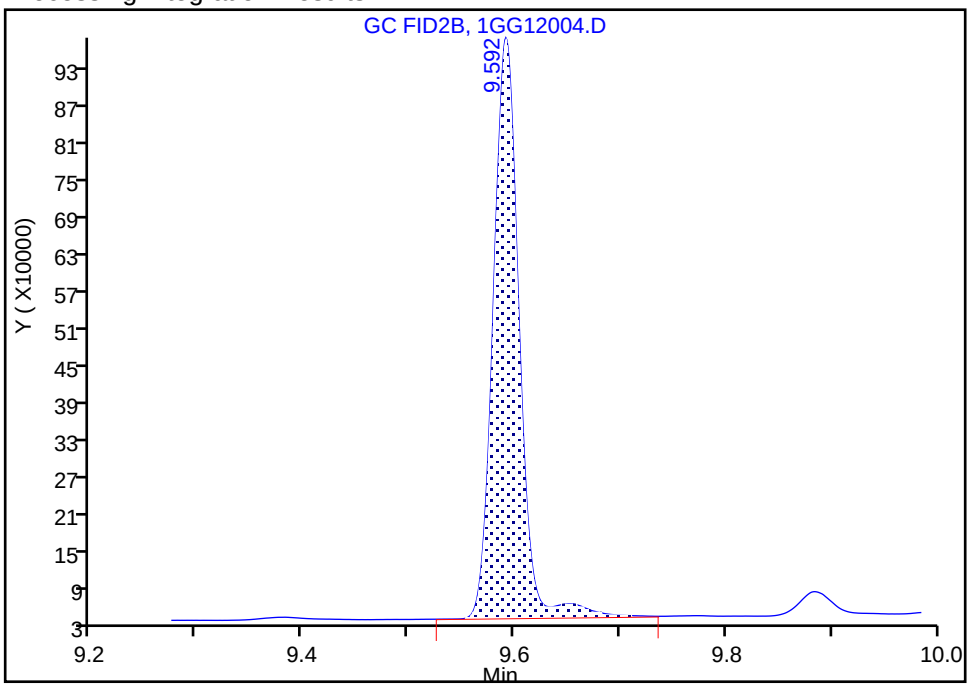
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12004.D
Injection Date: 13-Jul-2023 12:19:47 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

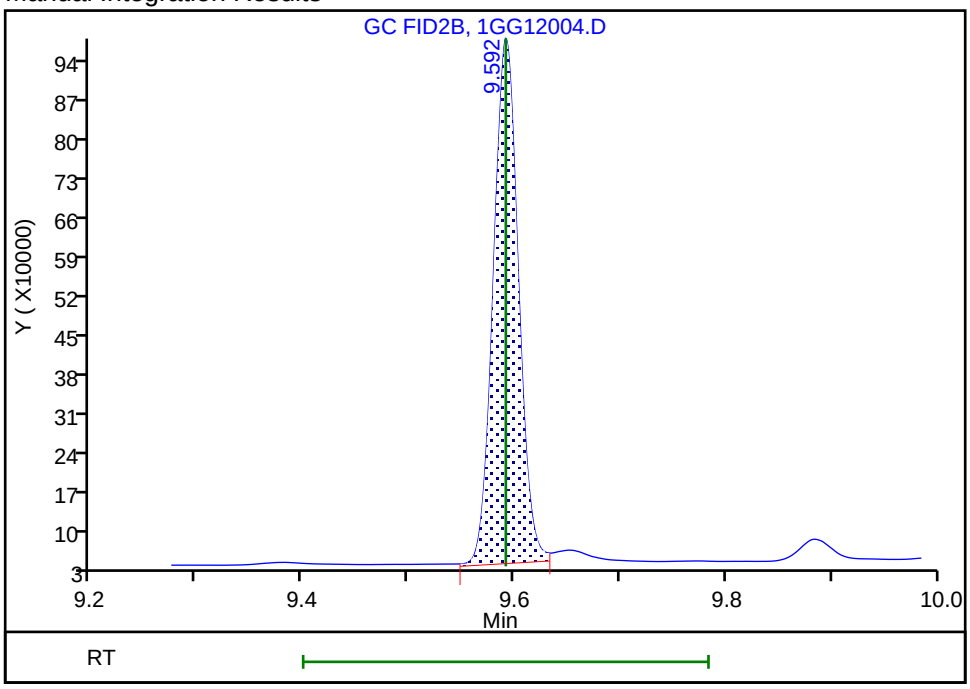
Processing Integration Results

RT: 9.59
Area: 1608110
Amount: 100.6846
Amount Units: ug/ml



Manual Integration Results

RT: 9.59
Area: 1550149
Amount: 100.2353
Amount Units: ug/ml



Reviewer: AR8P, 13-Jul-2023 19:26:14 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12005.D
Lims ID: ic g6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 13-Jul-2023 12:42:52 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087436-005
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 13-Jul-2023 19:33:09 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1662

First Level Reviewer: AR8P Date: 13-Jul-2023 19:22:40

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.793	1.793	0.000	3002619	80.0	82.9	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.150	2.149	0.001	3010969	80.0	79.4	
	3 2-Butoxyethanol						
	2.252	2.254	-0.002	3202437	80.0	75.7	
*	4 n-Heptyl Alcohol						
	2.445	2.451	-0.006	3660178	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.983	2.979	0.004	236978	80.0	82.8	
	6 Propylene glycol						
	3.576	3.574	0.002	960893	80.0	78.4	
	7 Ethylene glycol						
	3.849	3.848	0.001	1742657	80.0	80.4	
	8 2-(2-Butoxyethoxy)ethanol						
	5.315	5.315	0.000	2412415	80.0	81.9	
	9 2,2'-Oxybisethanol						
	7.376	7.374	0.002	1176744	80.0	78.7	
	10 Triethylene Glycol						M
	9.593	9.592	0.001	1191038	80.0	78.2	M
	11 Tetraethylene Glycol						
	10.429	10.428	0.001	2458534	160.0	156.0	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00053	Amount Added:	40.00	Units: uL	
SG_GLY_ISTD_00124	Amount Added:	10.00	Units: uL	Run Reagent

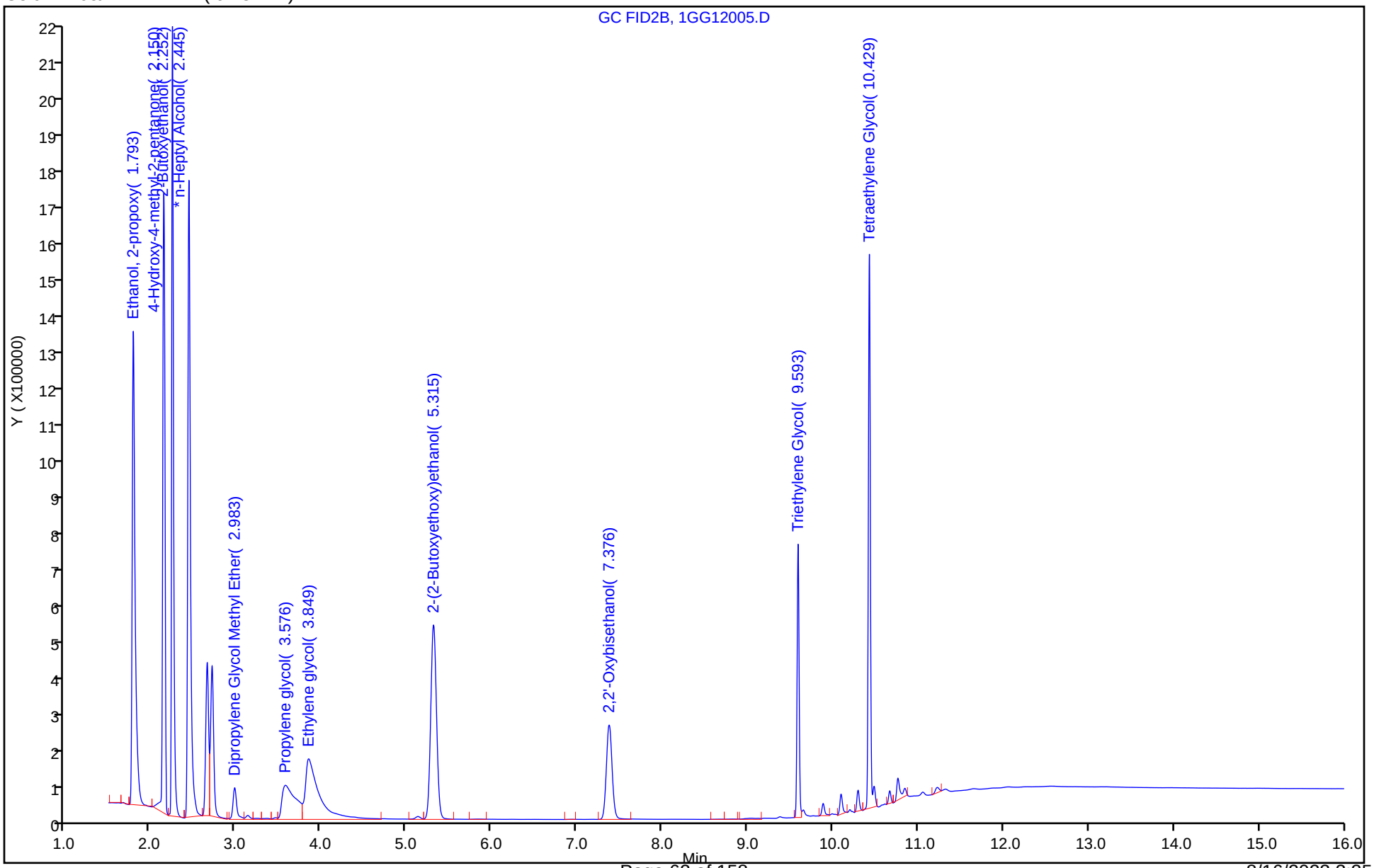
Report Date: 13-Jul-2023 19:33:09 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12005.D

Injection Date:	13-Jul-2023 12:42:52	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ic g6			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

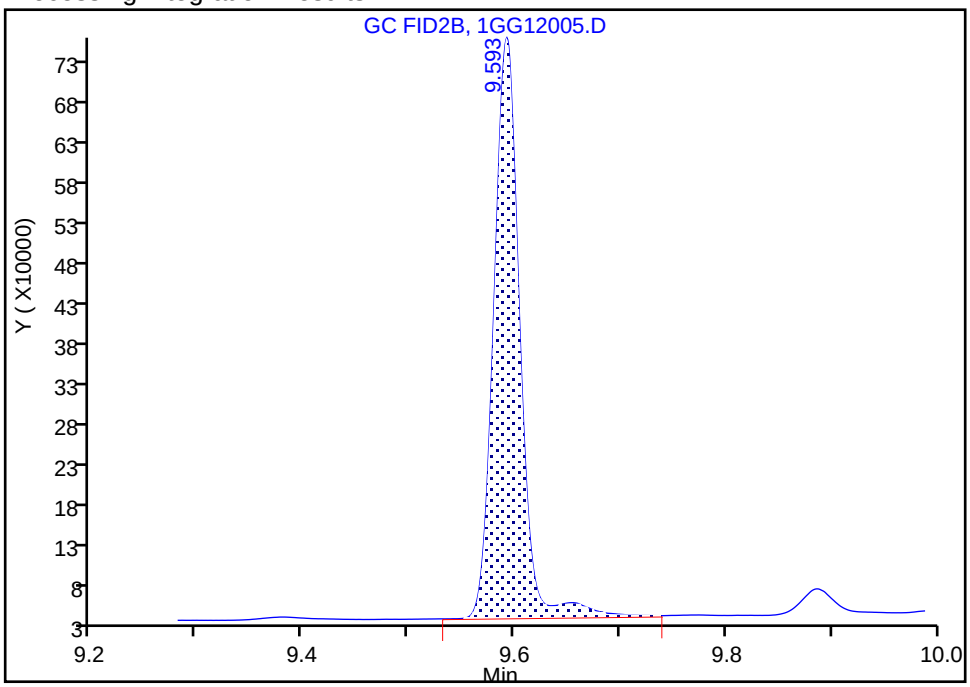
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12005.D
Injection Date: 13-Jul-2023 12:42:52 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

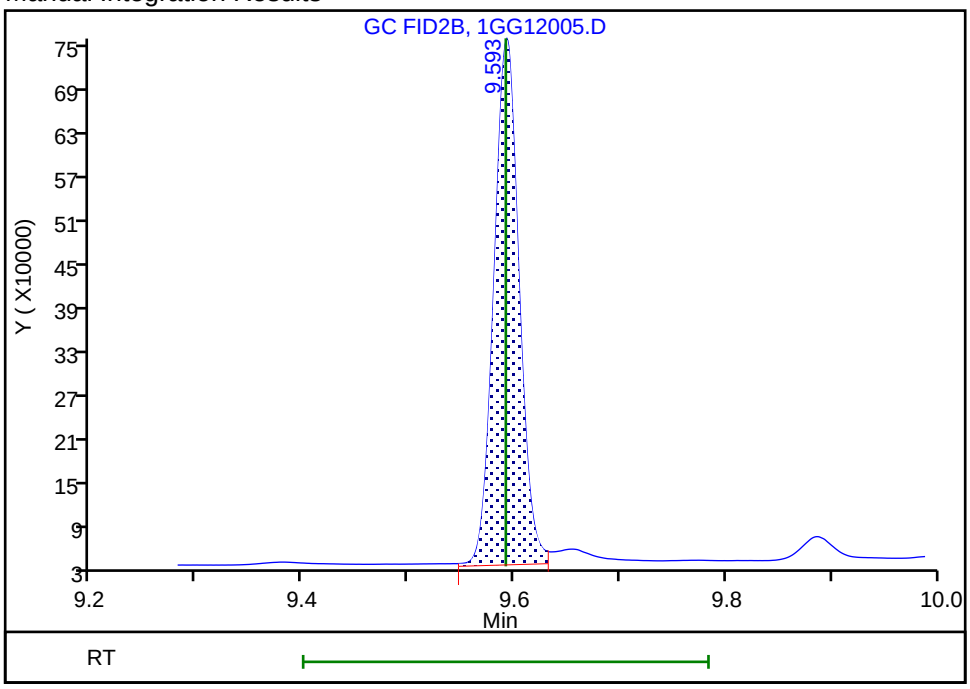
Processing Integration Results

RT: 9.59
Area: 1227216
Amount: 79.305625
Amount Units: ug/ml



Manual Integration Results

RT: 9.59
Area: 1191038
Amount: 78.237846
Amount Units: ug/ml



Reviewer: AR8P, 13-Jul-2023 19:26:28 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12006.D
Lims ID: ic g5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-Jul-2023 13:05:59 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087436-006
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 13-Jul-2023 19:33:09 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1662

First Level Reviewer: AR8P Date: 13-Jul-2023 19:22:58

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.790	1.793	-0.003	2182101	50.0	47.4	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.147	2.149	-0.002	2177792	50.0	47.0	
	3 2-Butoxyethanol						
	2.251	2.254	-0.003	2391339	50.0	46.8	
*	4 n-Heptyl Alcohol						
	2.447	2.451	-0.004	4362215	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.977	2.979	-0.002	181056	50.0	48.3	
	6 Propylene glycol						
	3.573	3.574	-0.001	844531	50.0	52.9	
	7 Ethylene glycol						
	3.849	3.848	0.001	1543746	50.0	53.7	
	8 2-(2-Butoxyethoxy)ethanol						
	5.314	5.315	-0.001	1879900	50.0	48.9	
	9 2,2'-Oxybisethanol						
	7.375	7.374	0.001	1056556	50.0	53.4	
	10 Triethylene Glycol						M
	9.592	9.592	0.000	1085434	50.0	53.6	M
	11 Tetraethylene Glycol						
	10.427	10.428	-0.001	2224353	100.0	116.9	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00053	Amount Added:	25.00	Units: uL	
SG_GLY_ISTD_00124	Amount Added:	10.00	Units: uL	Run Reagent

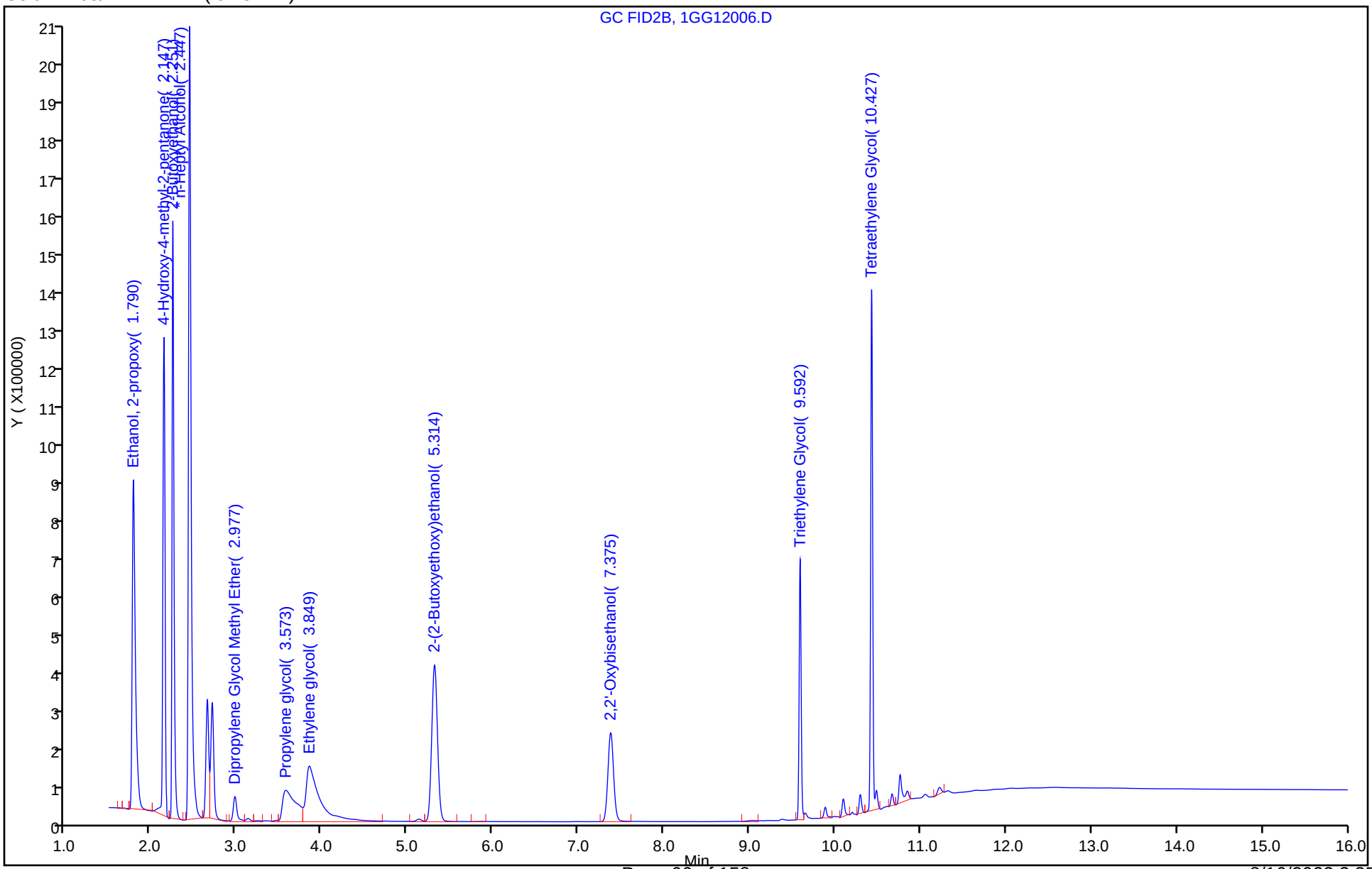
Report Date: 13-Jul-2023 19:33:09 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12006.D

Injection Date:	13-Jul-2023 13:05:59	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ic g5			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

Eurofins Savannah

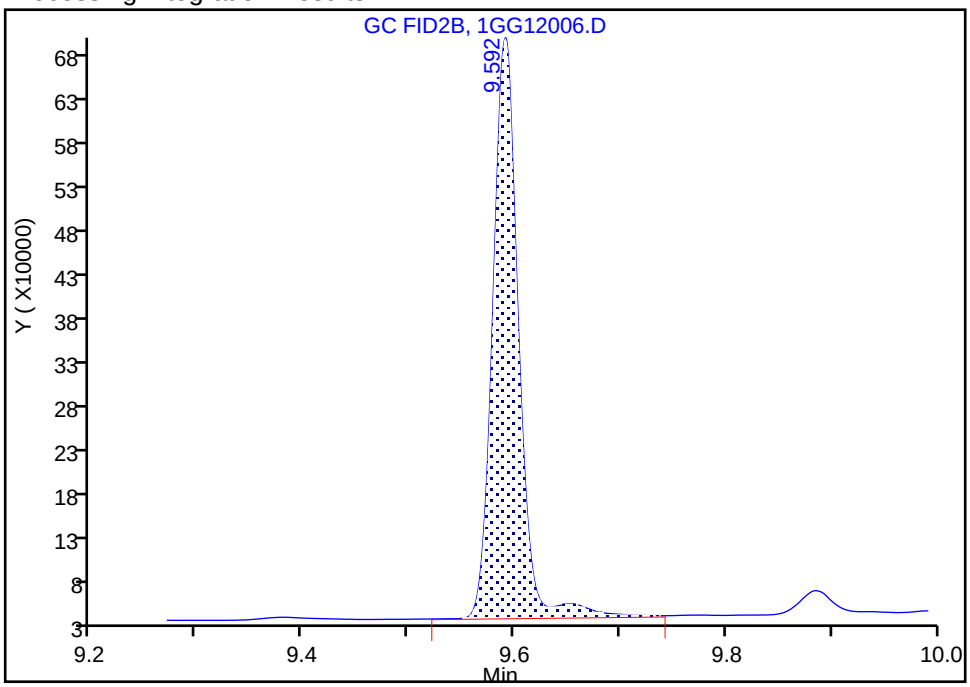
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12006.D
Injection Date: 13-Jul-2023 13:05:59 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

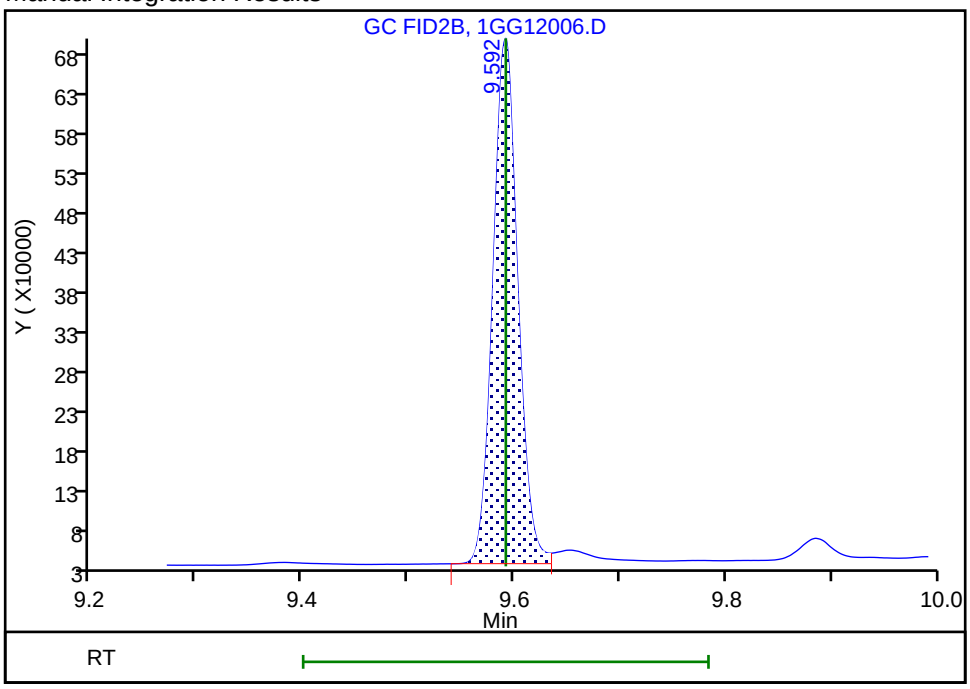
Processing Integration Results

RT: 9.59
Area: 1116090
Amount: 53.855645
Amount Units: ug/ml



Manual Integration Results

RT: 9.59
Area: 1085434
Amount: 53.567390
Amount Units: ug/ml



Reviewer: AR8P, 13-Jul-2023 19:26:52 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12007.D
Lims ID: icis g4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 13-Jul-2023 13:29:12 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087436-007
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 13-Jul-2023 19:33:10 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1662

First Level Reviewer: AR8P Date: 13-Jul-2023 19:23:14

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.790	1.790	0.000	1139895	20.0	21.1	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.148	2.148	0.000	1164257	20.0	21.5	
	3 2-Butoxyethanol						
	2.249	2.249	0.000	1247193	20.0	21.6	
*	4 n-Heptyl Alcohol						
	2.443	2.443	0.000	4734661	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.979	2.979	0.000	90818	20.0	20.1	
	6 Propylene glycol						
	3.579	3.579	0.000	326331	20.0	17.0	
	7 Ethylene glycol						
	3.849	3.849	0.000	522300	20.0	15.2	
	8 2-(2-Butoxyethoxy)ethanol						
	5.313	5.313	0.000	929954	20.0	20.1	
	9 2,2'-Oxybisethanol						
	7.374	7.374	0.000	408926	20.0	16.6	
	10 Triethylene Glycol						M
	9.591	9.591	0.000	445021	20.0	16.5	M
	11 Tetraethylene Glycol						
	10.428	10.428	0.000	938478	40.0	41.8	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00053	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00124	Amount Added:	10.00	Units: uL	Run Reagent

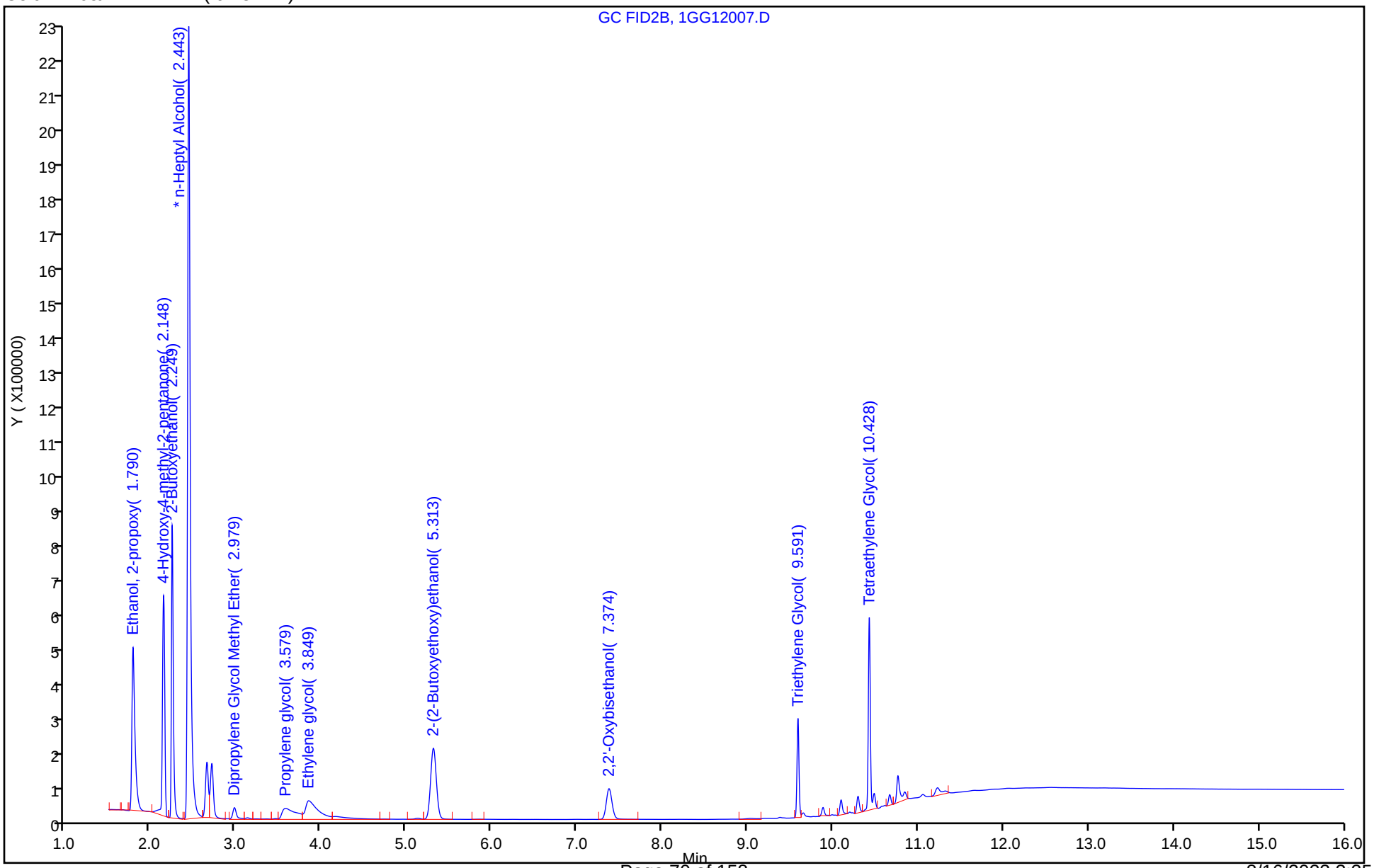
Report Date: 13-Jul-2023 19:33:10 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12007.D

Injection Date:	13-Jul-2023 13:29:12	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	icis g4			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

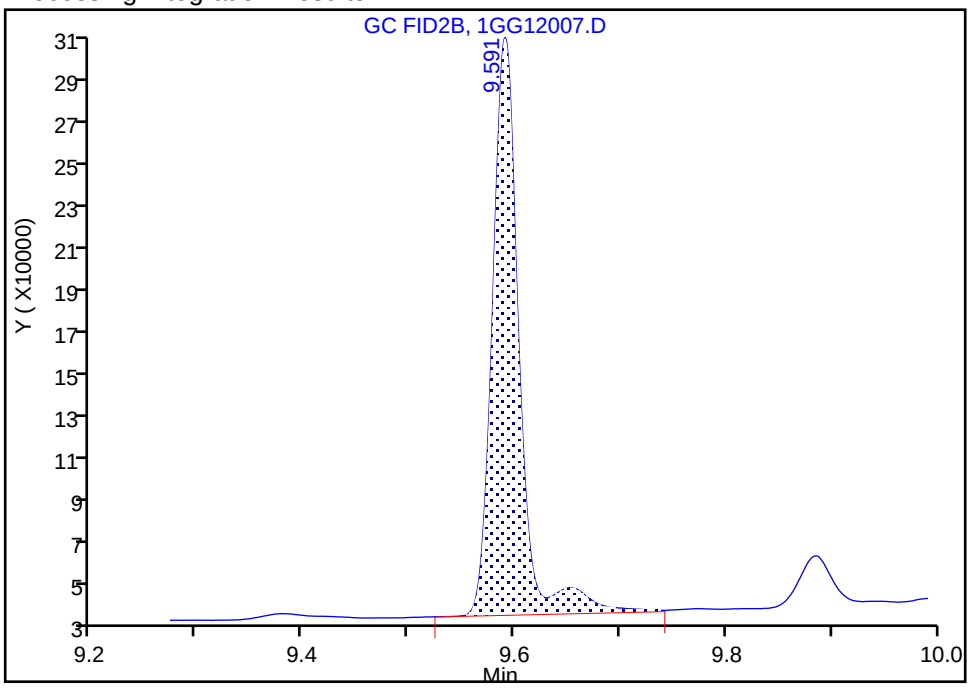
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12007.D
Injection Date: 13-Jul-2023 13:29:12 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

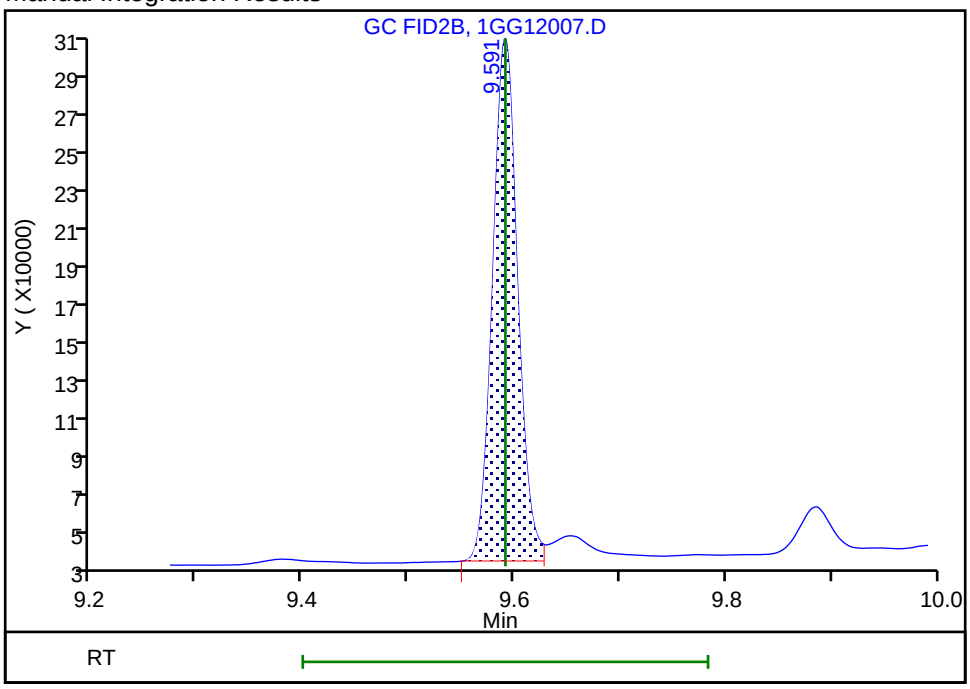
Processing Integration Results

RT: 9.59
Area: 476805
Amount: 17.525022
Amount Units: ug/ml



Manual Integration Results

RT: 9.59
Area: 445021
Amount: 16.459726
Amount Units: ug/ml



Reviewer: AR8P, 13-Jul-2023 19:27:10 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12008.D
Lims ID: ic g3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-Jul-2023 13:52:21 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087436-008
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 13-Jul-2023 19:33:10 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1662

First Level Reviewer: AR8P Date: 13-Jul-2023 19:23:29

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.788	1.790	-0.002	490796	10.0	10.4	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.147	2.148	-0.001	525997	10.0	11.0	
	3 2-Butoxyethanol						
	2.247	2.249	-0.002	527345	10.0	10.8	
*	4 n-Heptyl Alcohol						
	2.437	2.443	-0.006	3742624	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.982	2.979	0.003	39340	10.0	10.0	
	6 Propylene glycol						
	3.577	3.579	-0.002	151790	10.0	9.91	
	7 Ethylene glycol						
	3.853	3.849	0.004	252621	10.0	9.56	
	8 2-(2-Butoxyethoxy)ethanol						
	5.314	5.313	0.001	390667	10.0	9.82	
	9 2,2'-Oxybisethanol						
	7.377	7.374	0.003	192116	10.0	9.57	
	10 Triethylene Glycol						M
	9.590	9.591	-0.001	227057	10.0	9.70	M
	11 Tetraethylene Glycol						
	10.427	10.428	-0.001	375887	20.0	18.2	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00053	Amount Added:	5.00	Units: uL	
SG_GLY_ISTD_00124	Amount Added:	10.00	Units: uL	Run Reagent

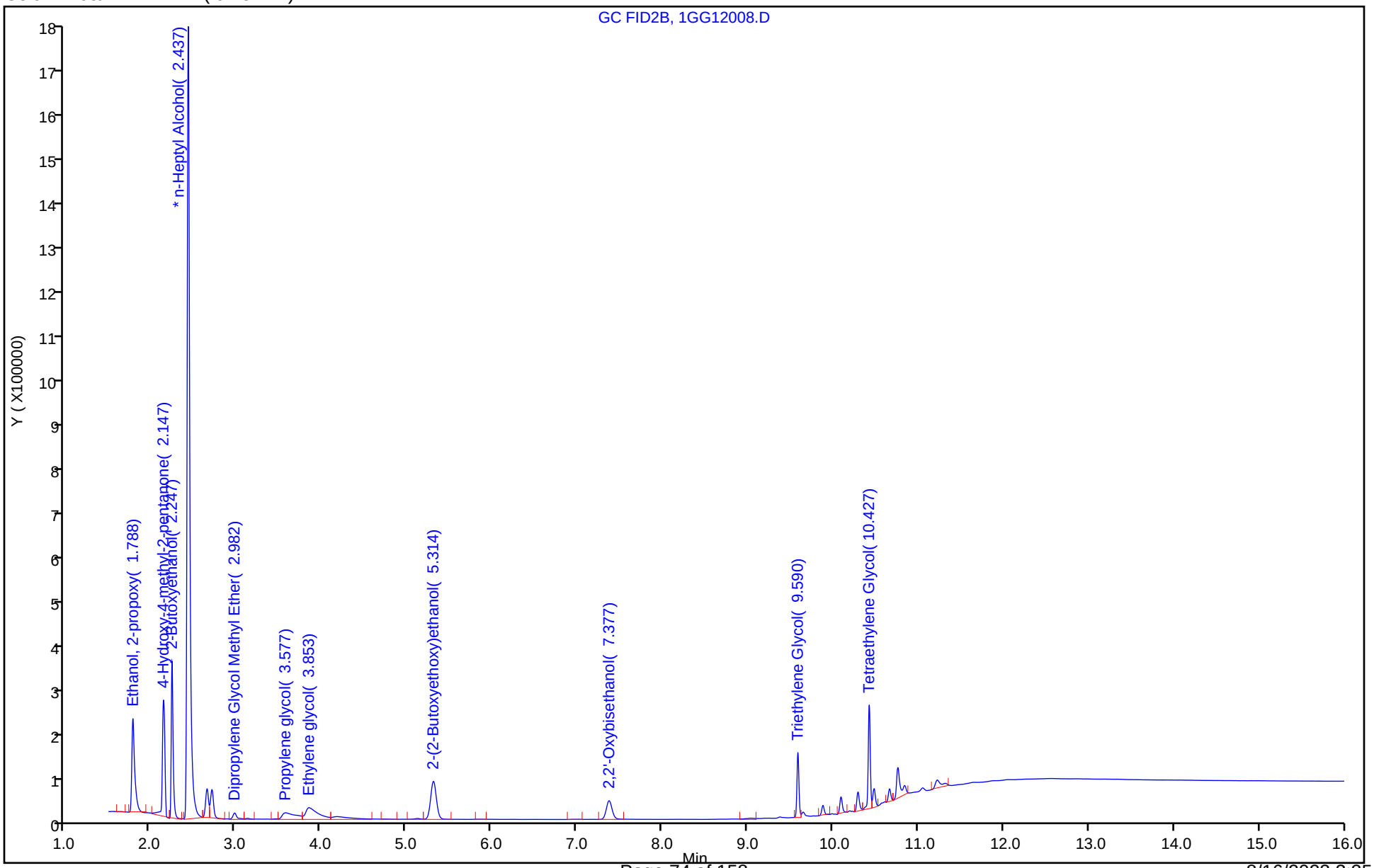
Report Date: 13-Jul-2023 19:33:10 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12008.D

Injection Date:	13-Jul-2023 13:52:21	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ic g3			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

Eurofins Savannah

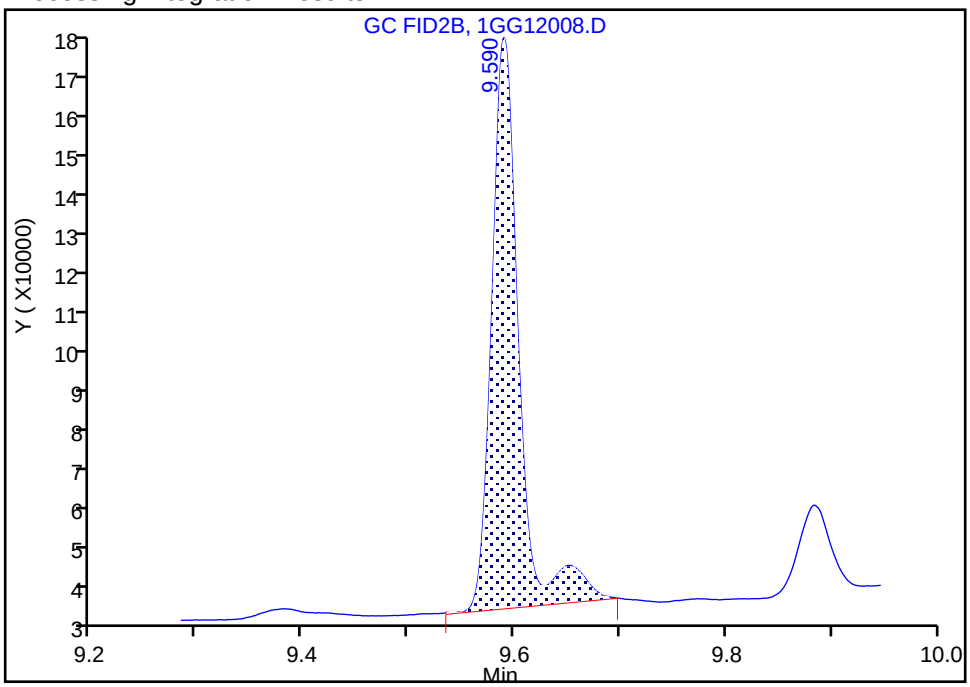
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12008.D
Injection Date: 13-Jul-2023 13:52:21 Instrument ID: CVGG2
Lims ID: ic g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

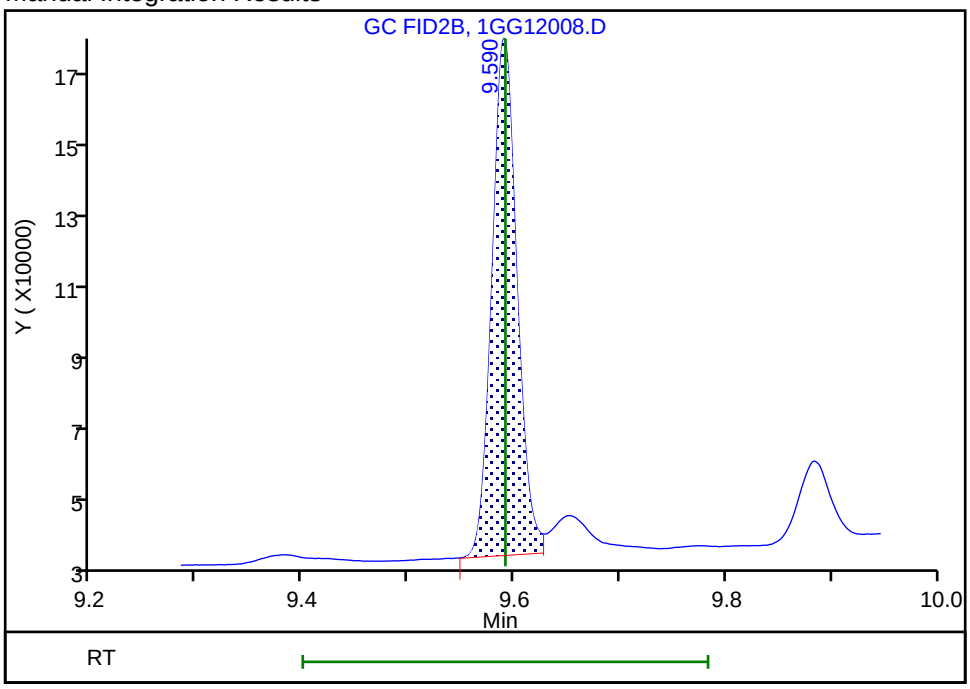
Processing Integration Results

RT: 9.59
Area: 246951
Amount: 10.199831
Amount Units: ug/ml



Manual Integration Results

RT: 9.59
Area: 227057
Amount: 9.701977
Amount Units: ug/ml



Reviewer: AR8P, 13-Jul-2023 19:25:29 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12009.D
Lims ID: ic g2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 13-Jul-2023 14:15:28 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087436-009
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 13-Jul-2023 19:33:11 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1662

First Level Reviewer: AR8P Date: 13-Jul-2023 19:23:41

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.784	1.790	-0.006	328085	5.00	5.06	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.147	2.148	-0.001	366403	5.00	5.24	
	3 2-Butoxyethanol						
	2.245	2.249	-0.004	355617	5.00	5.51	
*	4 n-Heptyl Alcohol						
	2.435	2.443	-0.008	4396400	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.980	2.979	0.001	29061	5.00	5.67	
	6 Propylene glycol						
	3.576	3.579	-0.003	108889	5.00	6.09	
	7 Ethylene glycol						
	3.854	3.849	0.005	179176	5.00	6.13	
	8 2-(2-Butoxyethoxy)ethanol						
	5.312	5.313	-0.001	278655	5.00	5.38	
	9 2,2'-Oxybisethanol						
	7.373	7.374	-0.001	144443	5.00	6.02	
	10 Triethylene Glycol						M
	9.591	9.591	0.000	188948	5.00	6.24	M
	11 Tetraethylene Glycol						
	10.427	10.428	-0.001	281236	10.0	9.40	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00053	Amount Added:	2.50	Units: uL	
SG_GLY_ISTD_00124	Amount Added:	10.00	Units: uL	Run Reagent

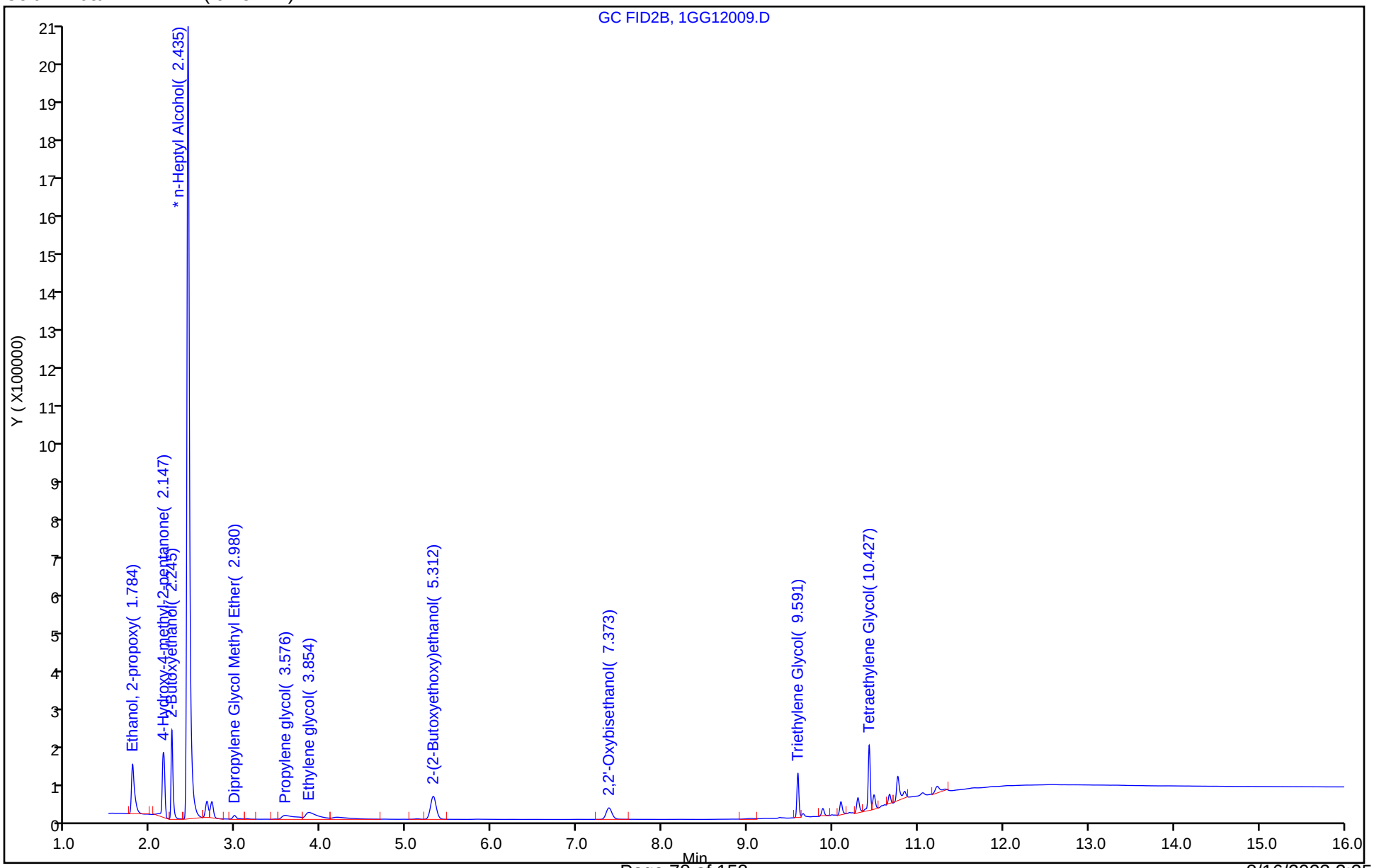
Report Date: 13-Jul-2023 19:33:11 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12009.D

Injection Date:	13-Jul-2023 14:15:28	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ic g2			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

Eurofins Savannah

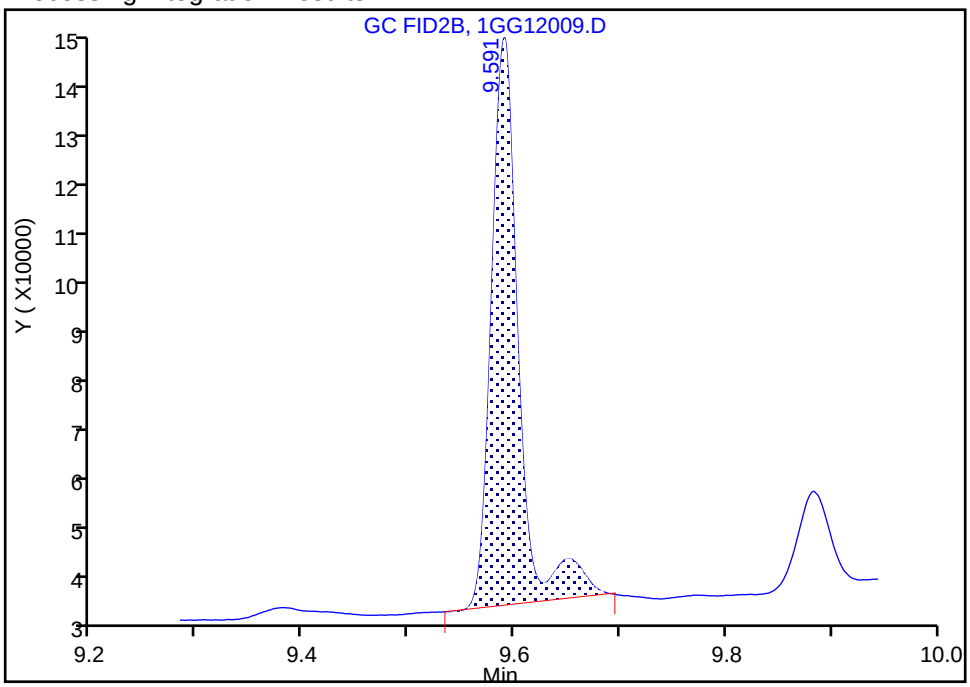
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12009.D
Injection Date: 13-Jul-2023 14:15:28 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

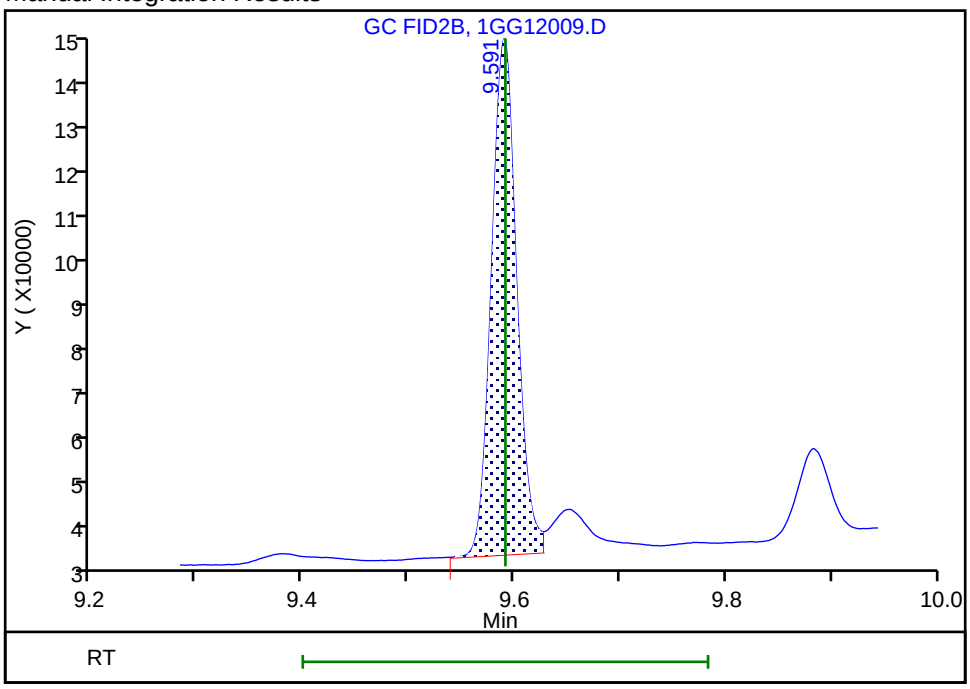
Processing Integration Results

RT: 9.59
Area: 202829
Amount: 6.241267
Amount Units: ug/ml



Manual Integration Results

RT: 9.59
Area: 188948
Amount: 6.238825
Amount Units: ug/ml



Reviewer: AR8P, 13-Jul-2023 19:25:08 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D
Lims ID: ic g1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 13-Jul-2023 14:38:41 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087436-010
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 13-Jul-2023 19:33:12 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1662

First Level Reviewer: AR8P Date: 13-Jul-2023 19:24:53

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.783	1.790	-0.007	157725	2.00	1.41	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.143	2.148	-0.005	221110	2.00	1.92	
	3 2-Butoxyethanol						
	2.246	2.249	-0.003	175525	2.00	1.88	
*	4 n-Heptyl Alcohol						
	2.441	2.443	-0.002	4398372	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.975	2.979	-0.004	12682	2.00	1.56	
	6 Propylene glycol						
	3.573	3.579	-0.006	39866	2.00	2.38	
	7 Ethylene glycol						
	3.852	3.849	0.003	87868	2.00	3.52	
	8 2-(2-Butoxyethoxy)ethanol						
	5.313	5.313	0.000	135291	2.00	1.91	
	9 2,2'-Oxybisethanol						
	7.373	7.374	-0.001	71330	2.00	2.90	
	10 Triethylene Glycol						M
	9.591	9.591	0.000	105822	2.00	2.62	M
	11 Tetraethylene Glycol						
	10.427	10.428	-0.001	184657	4.00	4.10	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00053	Amount Added:	1.00	Units: uL	
SG_GLY_ISTD_00124	Amount Added:	10.00	Units: uL	Run Reagent

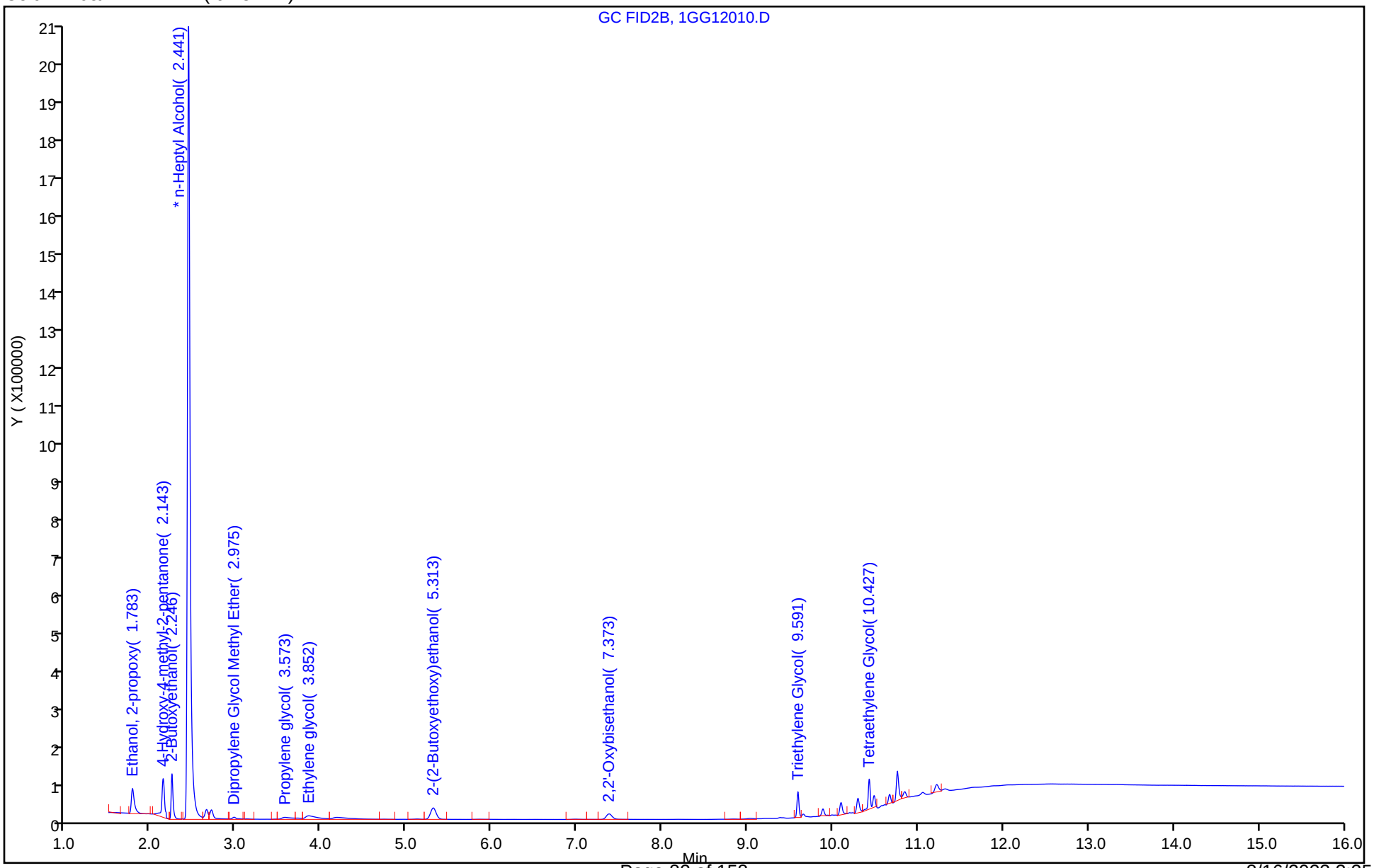
Report Date: 13-Jul-2023 19:33:12 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Injection Date:	13-Jul-2023 14:38:41	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ic g1			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

Eurofins Savannah

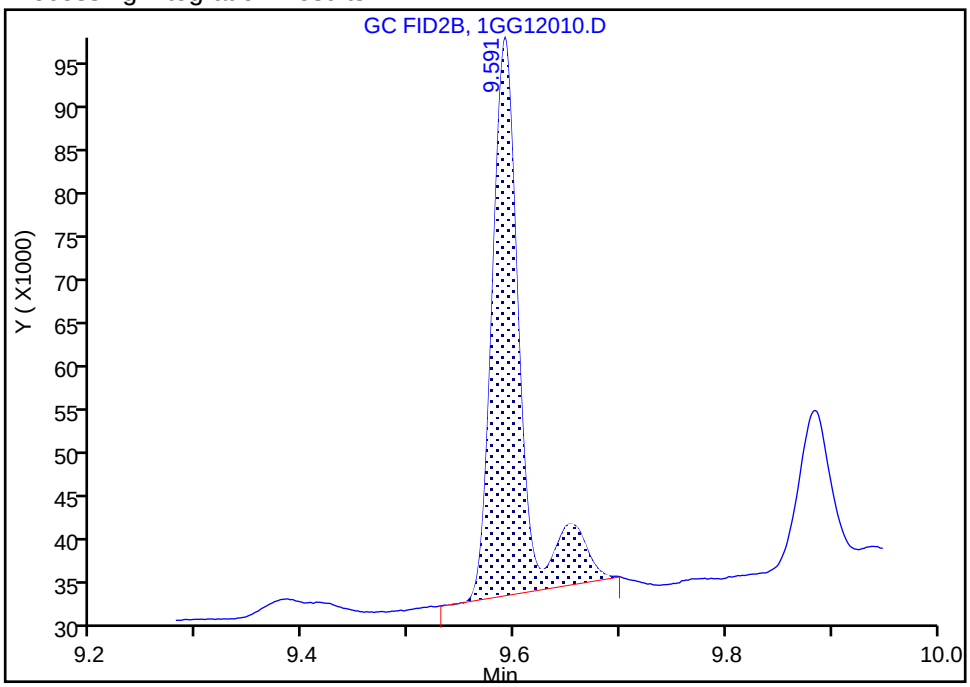
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D
Injection Date: 13-Jul-2023 14:38:41 Instrument ID: CVGG2
Lims ID: ic g1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

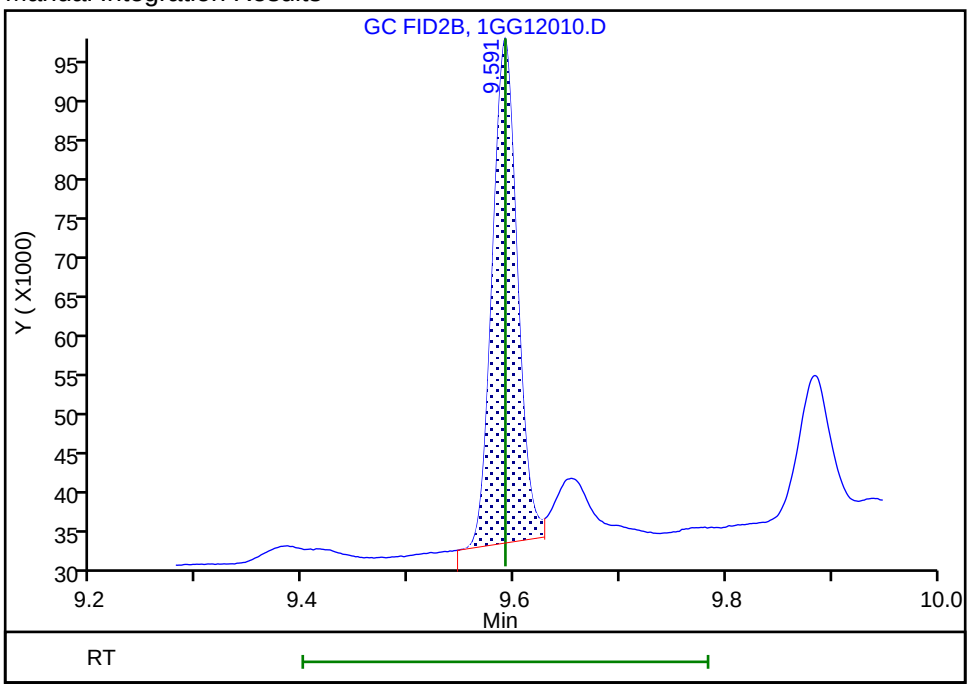
Processing Integration Results

RT: 9.59
Area: 120510
Amount: 2.489699
Amount Units: ug/ml



Manual Integration Results

RT: 9.59
Area: 105822
Amount: 2.621869
Amount Units: ug/ml



Reviewer: AR8P, 13-Jul-2023 19:24:38 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Shouldering

Calibration / Ethanol, 2-propoxy

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

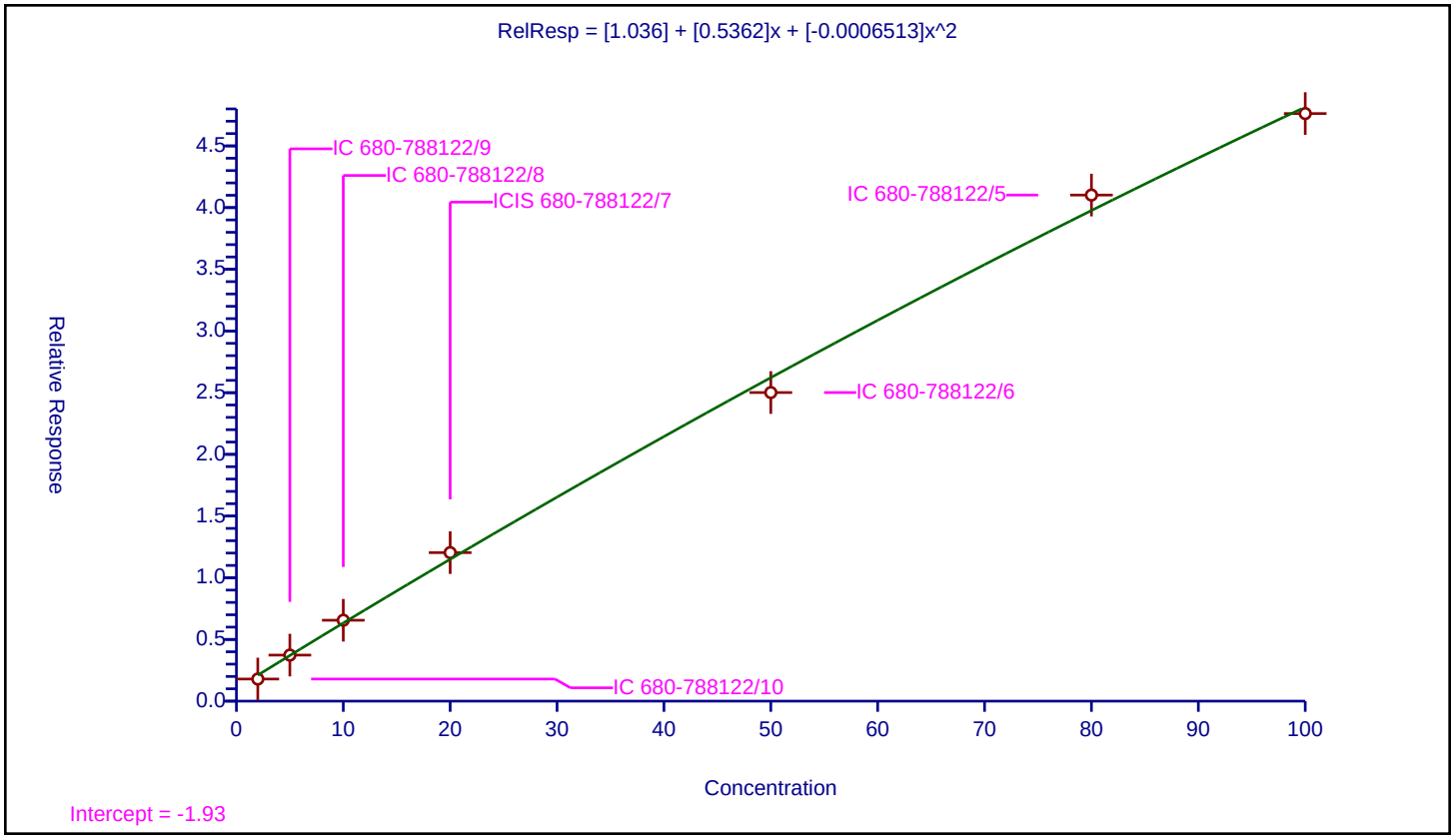
Curve Coefficients

Intercept:	1.036
Slope:	0.5362
Second Order:	-0.0006513

Error Coefficients

Standard Error:	2780000
Relative Standard Error:	15.4
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-788122/10	2.0	1.792993	50.0	4398372.0	0.896496	Y
2	IC 680-788122/9	5.0	3.731292	50.0	4396400.0	0.746258	Y
3	IC 680-788122/8	10.0	6.556844	50.0	3742624.0	0.655684	Y
4	ICIS 680-788122/7	20.0	12.037768	50.0	4734661.0	0.601888	Y
5	IC 680-788122/6	50.0	25.011388	50.0	4362215.0	0.500228	Y
6	IC 680-788122/5	80.0	41.01739	50.0	3660178.0	0.512717	Y
7	IC 680-788122/4	100.0	47.621323	50.0	4123510.0	0.476213	Y



Calibration / 4-Hydroxy-4-methyl-2-pentanone

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

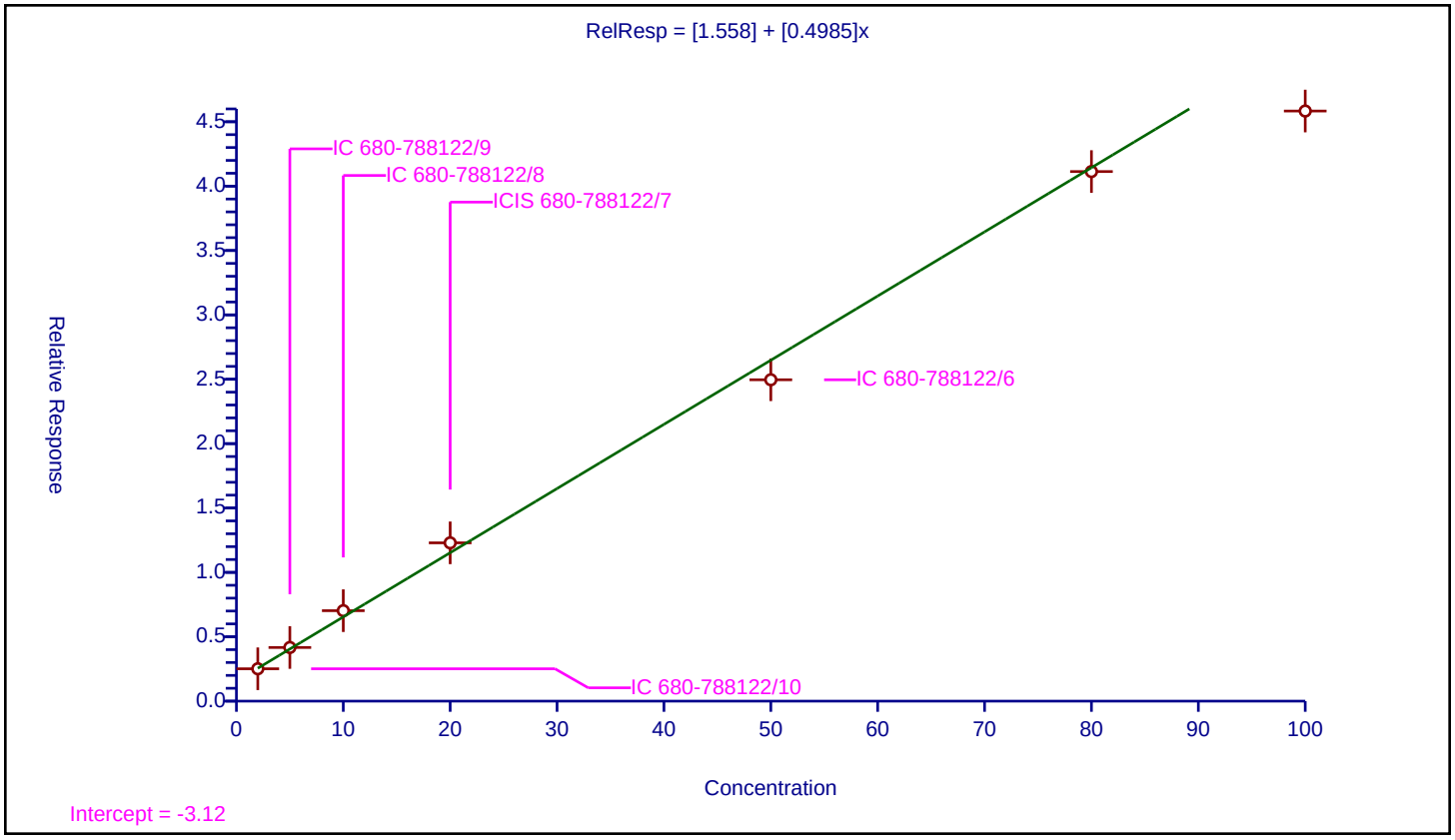
Curve Coefficients

Intercept:	1.558
Slope:	0.4985

Error Coefficients

Standard Error:	2450000
Relative Standard Error:	8.4
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-788122/10	2.0	2.513544	50.0	4398372.0	1.256772	Y
2	IC 680-788122/9	5.0	4.16708	50.0	4396400.0	0.833416	Y
3	IC 680-788122/8	10.0	7.027115	50.0	3742624.0	0.702712	Y
4	ICIS 680-788122/7	20.0	12.295041	50.0	4734661.0	0.614752	Y
5	IC 680-788122/6	50.0	24.961998	50.0	4362215.0	0.49924	Y
6	IC 680-788122/5	80.0	41.131456	50.0	3660178.0	0.514143	Y
7	IC 680-788122/4	100.0	45.834289	50.0	4123510.0	0.458343	Y



Calibration / 2-Butoxyethanol

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

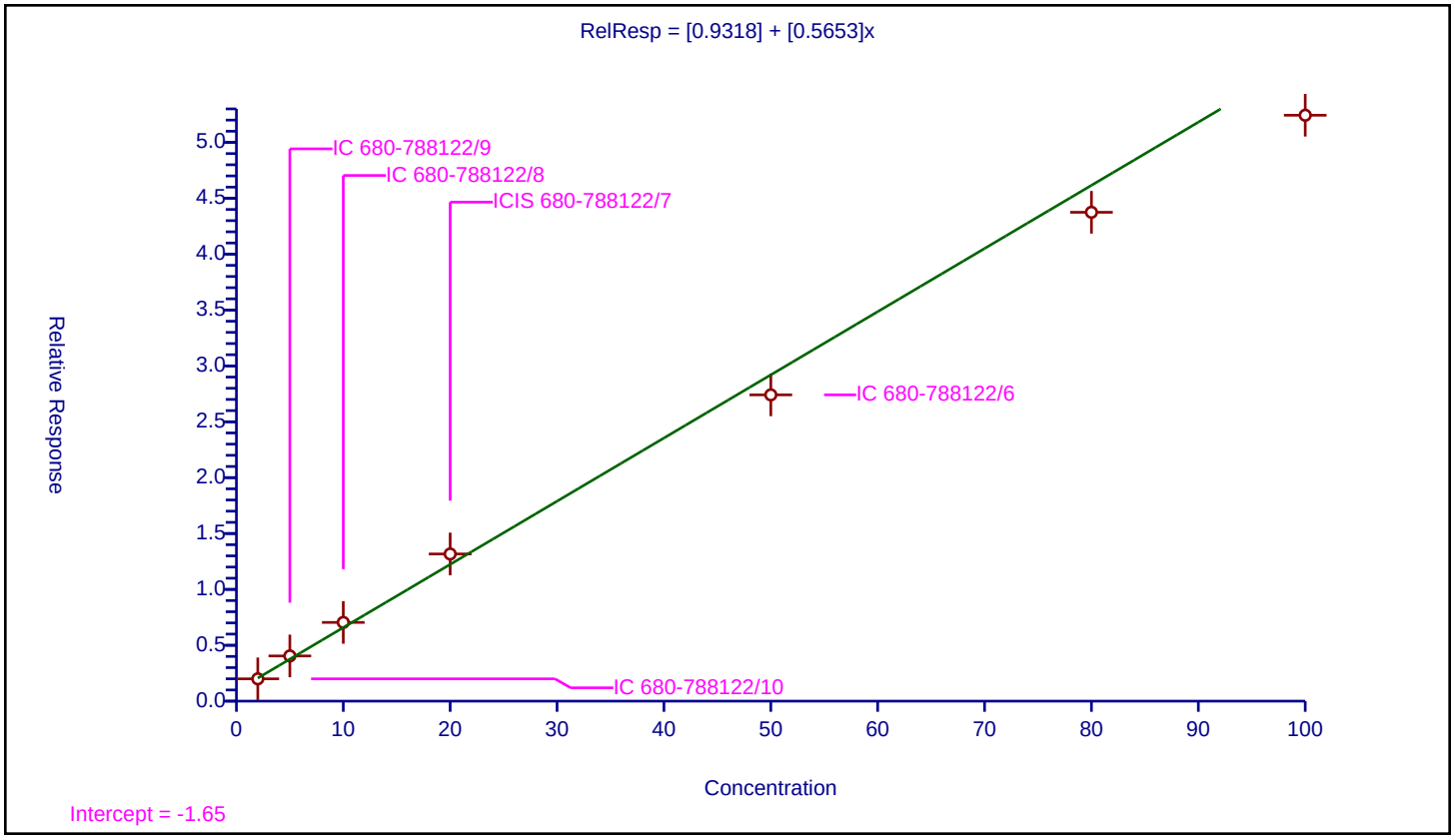
Curve Coefficients

Intercept:	0.9318
Slope:	0.5653

Error Coefficients

Standard Error:	2710000
Relative Standard Error:	9.2
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-788122/10	2.0	1.995341	50.0	4398372.0	0.99767	Y
2	IC 680-788122/9	5.0	4.044411	50.0	4396400.0	0.808882	Y
3	IC 680-788122/8	10.0	7.045124	50.0	3742624.0	0.704512	Y
4	ICIS 680-788122/7	20.0	13.17088	50.0	4734661.0	0.658544	Y
5	IC 680-788122/6	50.0	27.409688	50.0	4362215.0	0.548194	Y
6	IC 680-788122/5	80.0	43.747012	50.0	3660178.0	0.546838	Y
7	IC 680-788122/4	100.0	52.431824	50.0	4123510.0	0.524318	Y



Calibration / Dipropylene Glycol Methyl Ether

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

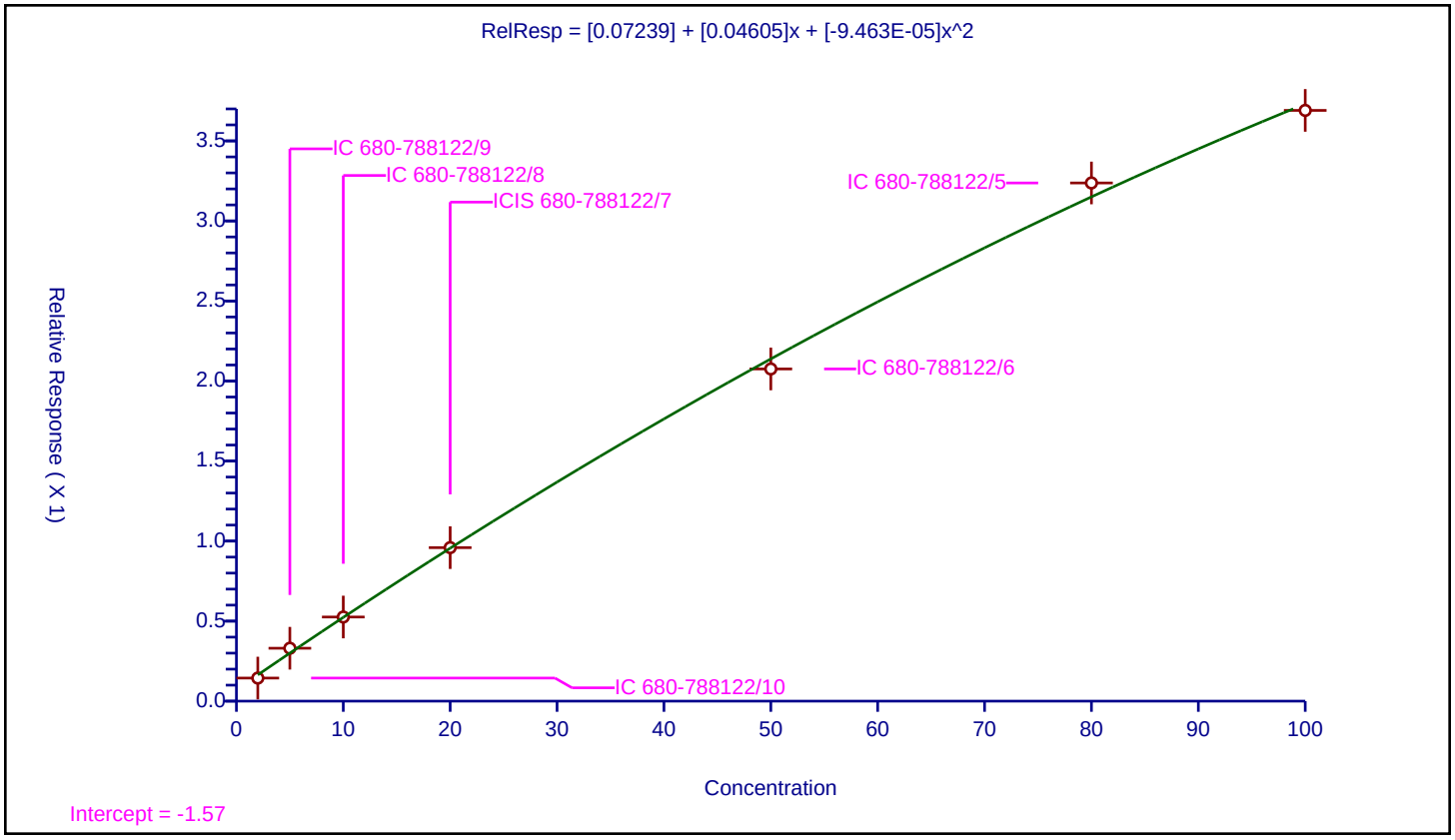
Curve Coefficients

Intercept:	0.07239
Slope:	0.04605
Second Order:	-9.463E-05

Error Coefficients

Standard Error:	219000
Relative Standard Error:	13.1
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-788122/10	2.0	0.144167	50.0	4398372.0	0.072083	Y
2	IC 680-788122/9	5.0	0.330509	50.0	4396400.0	0.066102	Y
3	IC 680-788122/8	10.0	0.525567	50.0	3742624.0	0.052557	Y
4	ICIS 680-788122/7	20.0	0.959076	50.0	4734661.0	0.047954	Y
5	IC 680-788122/6	50.0	2.075276	50.0	4362215.0	0.041506	Y
6	IC 680-788122/5	80.0	3.237247	50.0	3660178.0	0.040466	Y
7	IC 680-788122/4	100.0	3.690594	50.0	4123510.0	0.036906	Y



Calibration / Propylene glycol

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

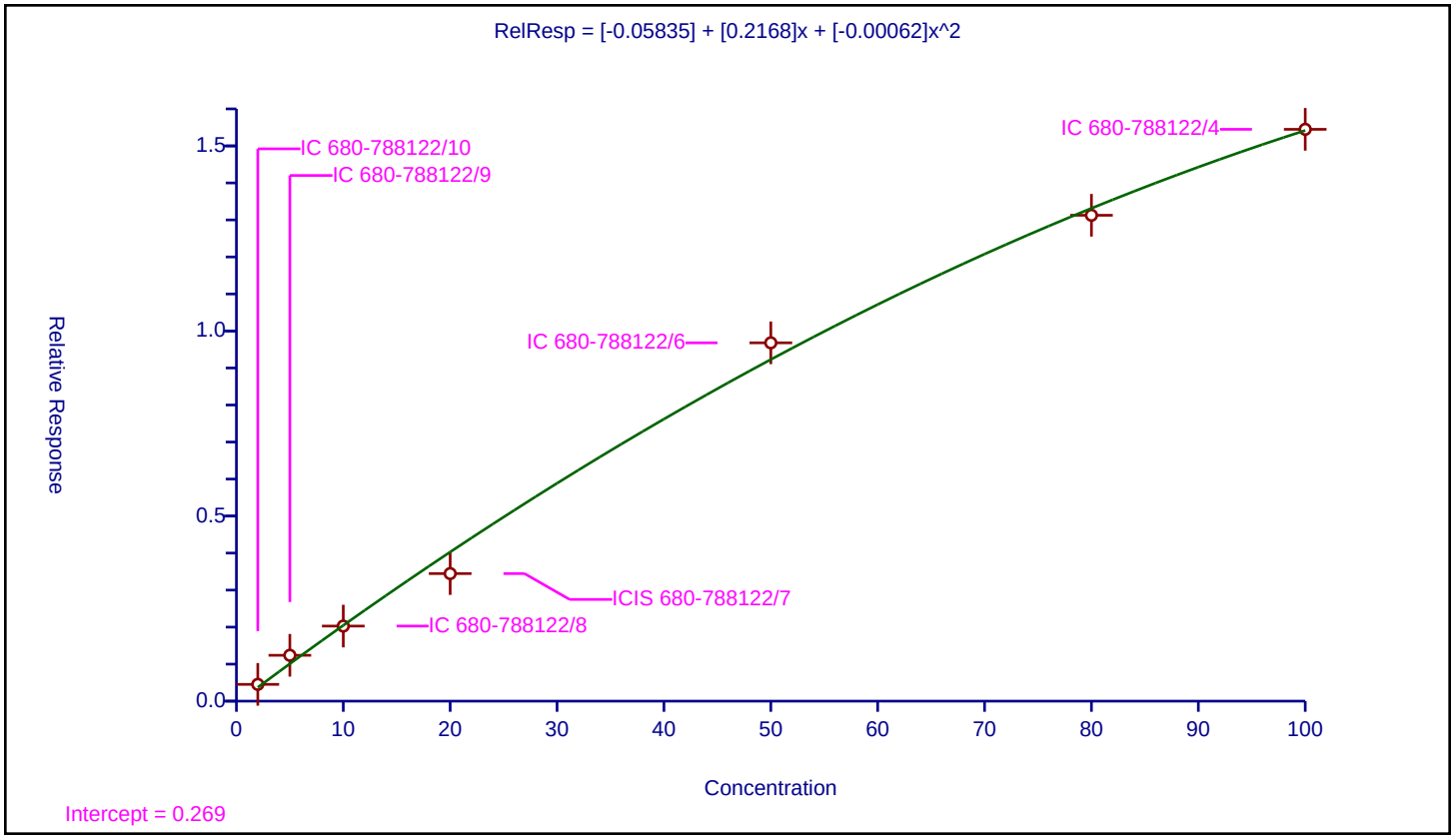
Curve Coefficients

Intercept:	-0.05835
Slope:	0.2168
Second Order:	-0.00062

Error Coefficients

Standard Error:	922000
Relative Standard Error:	16.5
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-788122/10	2.0	0.45319	50.0	4398372.0	0.226595	Y
2	IC 680-788122/9	5.0	1.238388	50.0	4396400.0	0.247678	Y
3	IC 680-788122/8	10.0	2.027855	50.0	3742624.0	0.202786	Y
4	ICIS 680-788122/7	20.0	3.446192	50.0	4734661.0	0.17231	Y
5	IC 680-788122/6	50.0	9.680071	50.0	4362215.0	0.193601	Y
6	IC 680-788122/5	80.0	13.126315	50.0	3660178.0	0.164079	Y
7	IC 680-788122/4	100.0	15.448138	50.0	4123510.0	0.154481	Y



Calibration / Ethylene glycol

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

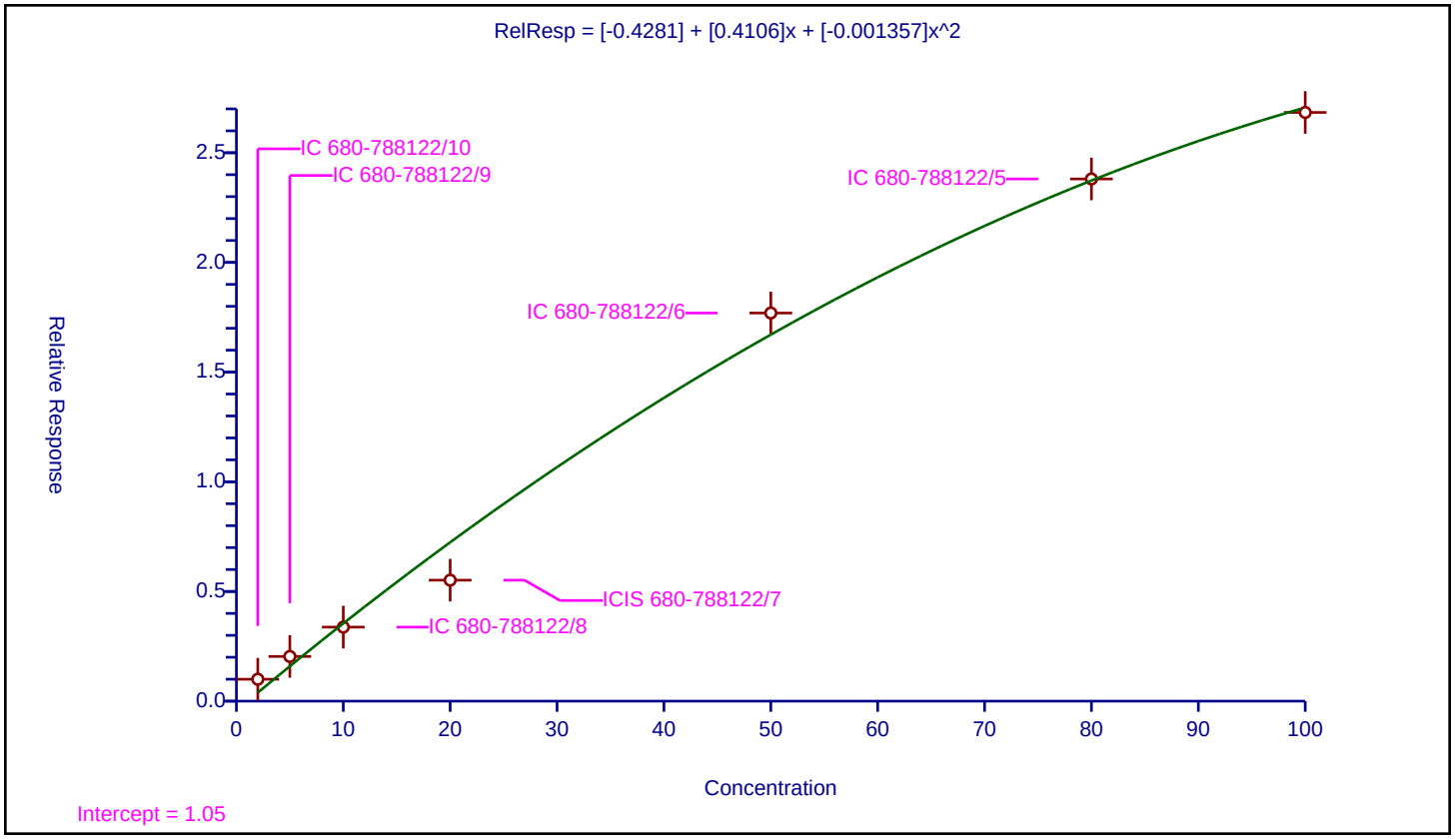
Curve Coefficients

Intercept:	-0.4281
Slope:	0.4106
Second Order:	-0.001357

Error Coefficients

Standard Error:	1640000
Relative Standard Error:	41.5
Correlation Coefficient:	0.983
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-788122/10	2.0	0.99887	50.0	4398372.0	0.499435	Y
2	IC 680-788122/9	5.0	2.037758	50.0	4396400.0	0.407552	Y
3	IC 680-788122/8	10.0	3.374918	50.0	3742624.0	0.337492	Y
4	ICIS 680-788122/7	20.0	5.515706	50.0	4734661.0	0.275785	Y
5	IC 680-788122/6	50.0	17.69452	50.0	4362215.0	0.35389	Y
6	IC 680-788122/5	80.0	23.805632	50.0	3660178.0	0.29757	Y
7	IC 680-788122/4	100.0	26.837743	50.0	4123510.0	0.268377	Y



Calibration / 2-(2-Butoxyethoxy)ethanol

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

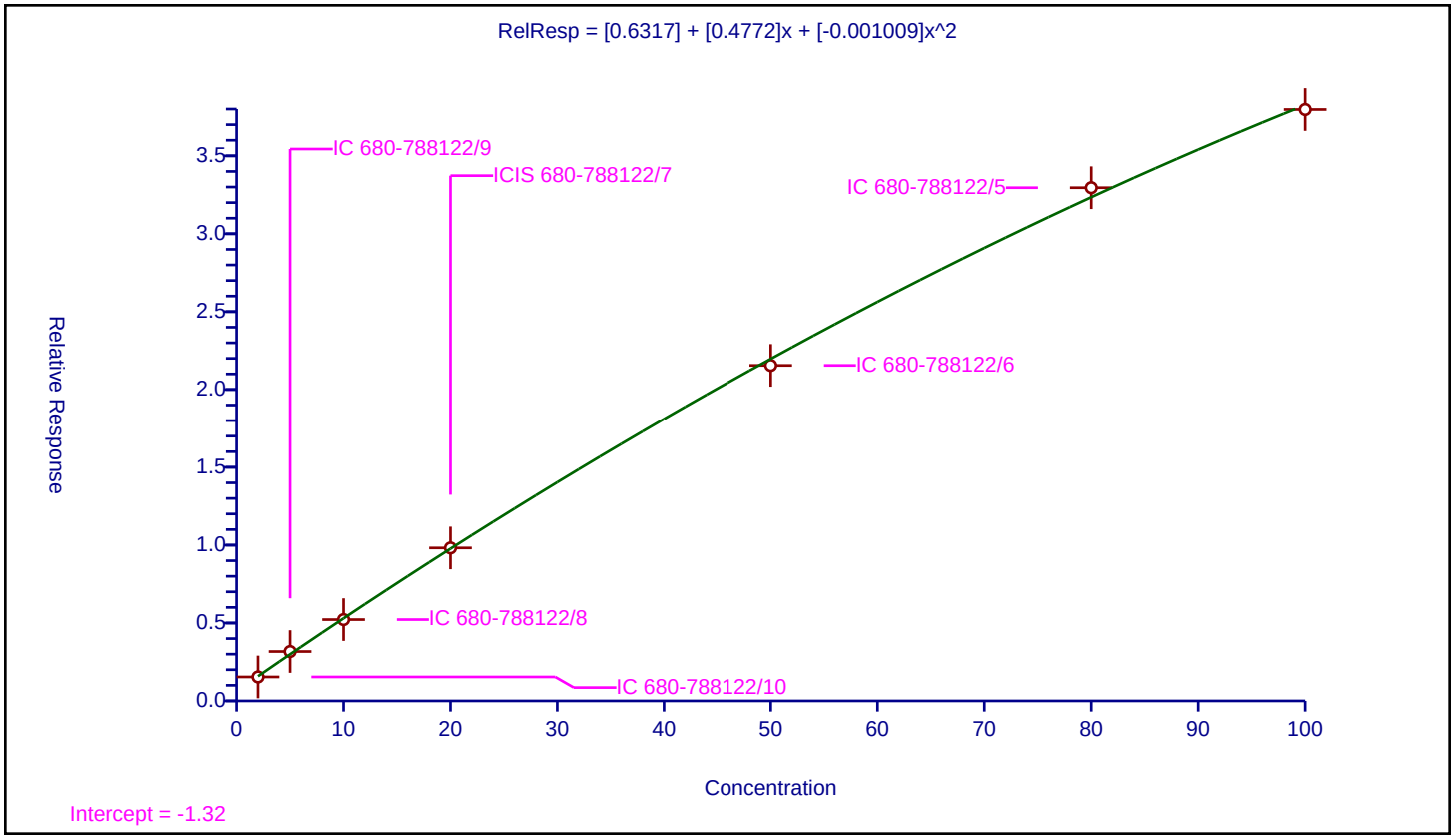
Curve Coefficients

Intercept:	0.6317
Slope:	0.4772
Second Order:	-0.001009

Error Coefficients

Standard Error:	2250000
Relative Standard Error:	4.9
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-788122/10	2.0	1.537967	50.0	4398372.0	0.768983	Y
2	IC 680-788122/9	5.0	3.169127	50.0	4396400.0	0.633825	Y
3	IC 680-788122/8	10.0	5.219159	50.0	3742624.0	0.521916	Y
4	ICIS 680-788122/7	20.0	9.820703	50.0	4734661.0	0.491035	Y
5	IC 680-788122/6	50.0	21.547539	50.0	4362215.0	0.430951	Y
6	IC 680-788122/5	80.0	32.954886	50.0	3660178.0	0.411936	Y
7	IC 680-788122/4	100.0	37.971582	50.0	4123510.0	0.379716	Y



Calibration / 2,2'-Oxybisethanol

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

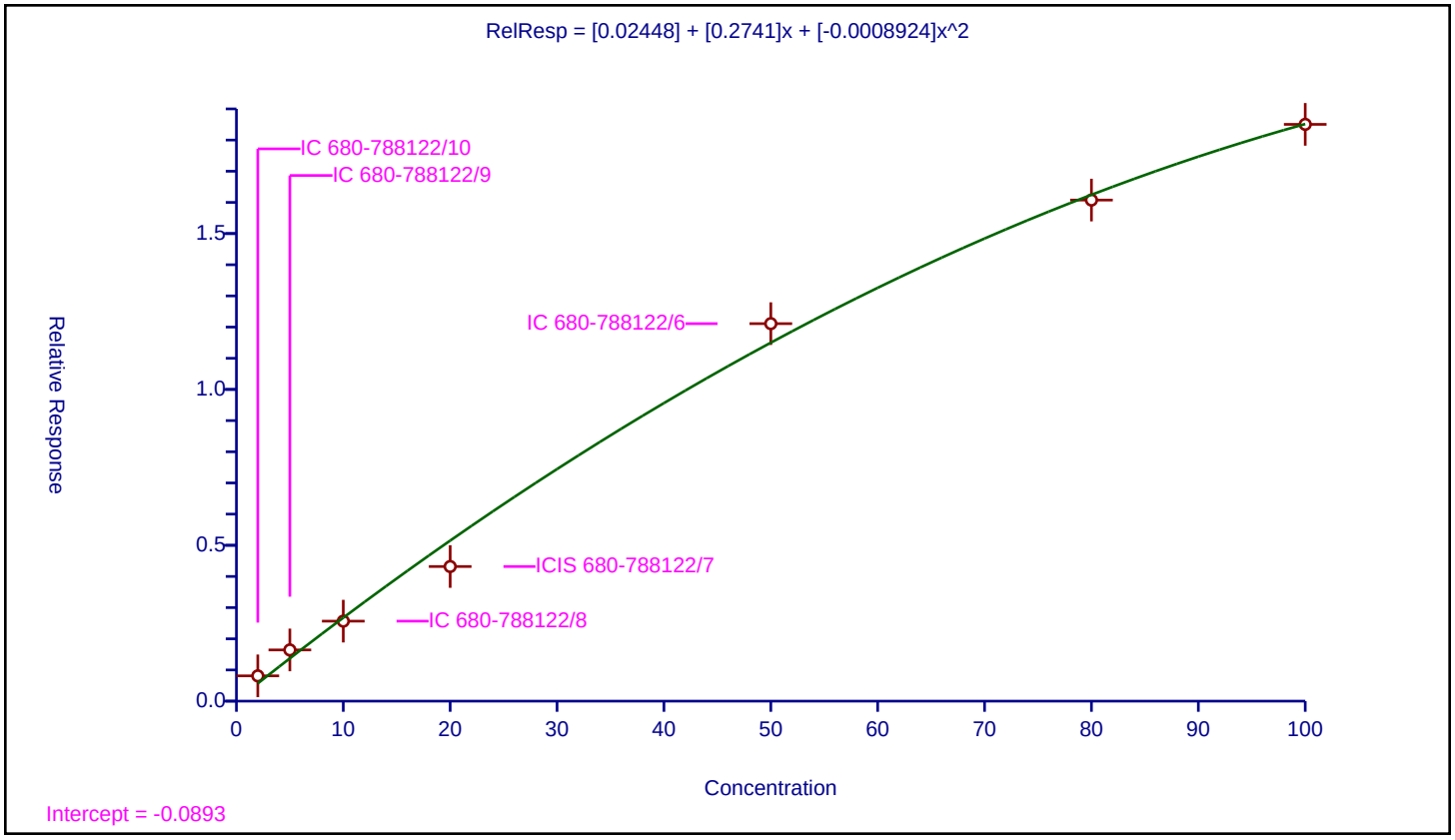
Curve Coefficients

Intercept:	0.02448
Slope:	0.2741
Second Order:	-0.0008924

Error Coefficients

Standard Error:	1120000
Relative Standard Error:	26.4
Correlation Coefficient:	0.982
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-788122/10	2.0	0.810868	50.0	4398372.0	0.405434	Y
2	IC 680-788122/9	5.0	1.642742	50.0	4396400.0	0.328548	Y
3	IC 680-788122/8	10.0	2.566595	50.0	3742624.0	0.256659	Y
4	ICIS 680-788122/7	20.0	4.31843	50.0	4734661.0	0.215921	Y
5	IC 680-788122/6	50.0	12.110316	50.0	4362215.0	0.242206	Y
6	IC 680-788122/5	80.0	16.074956	50.0	3660178.0	0.200937	Y
7	IC 680-788122/4	100.0	18.50375	50.0	4123510.0	0.185038	Y



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Calibration / Triethylene Glycol

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

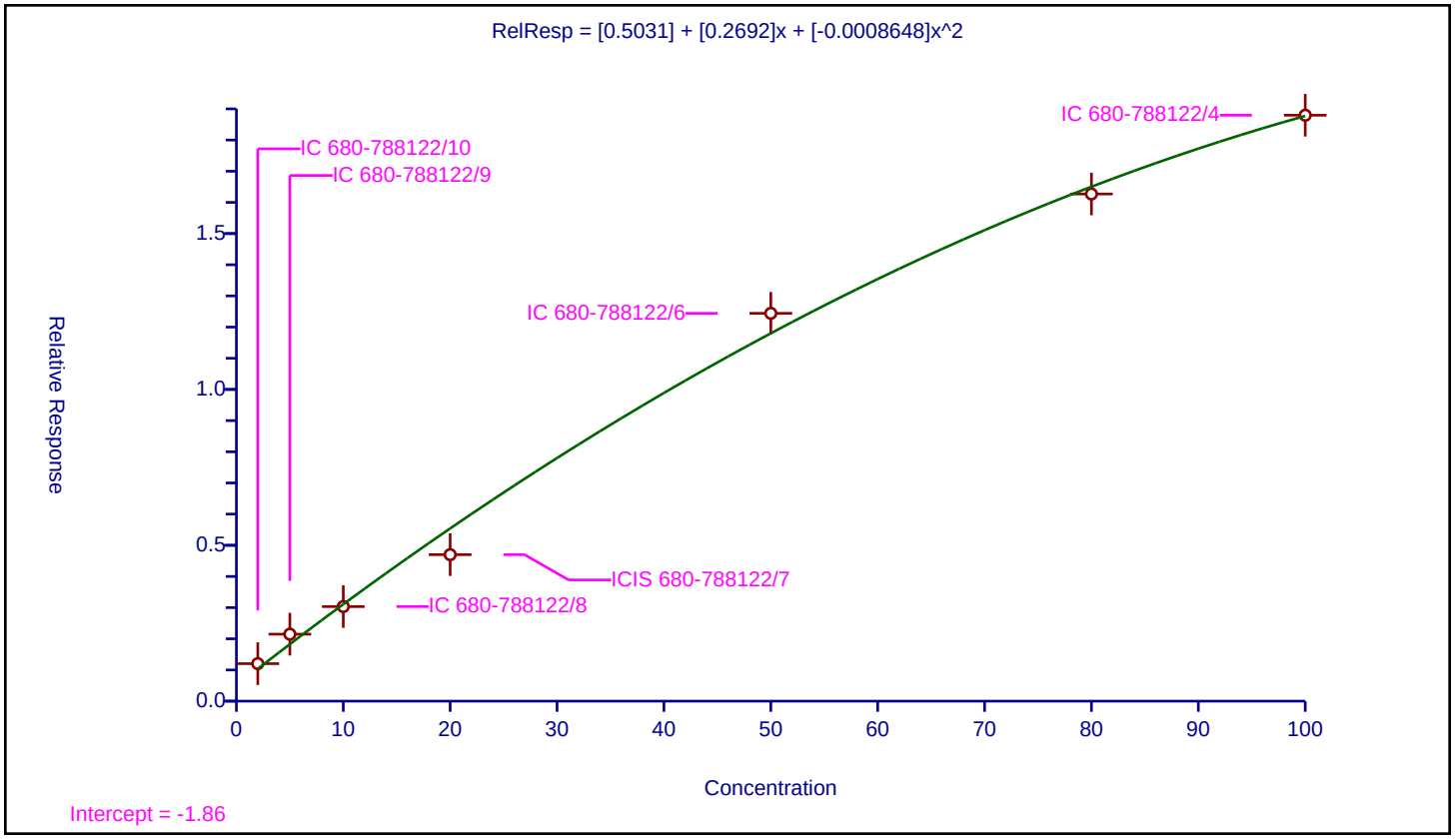
Curve Coefficients

Intercept:	0.5031
Slope:	0.2692
Second Order:	-0.0008648

Error Coefficients

Standard Error:	1150000
Relative Standard Error:	22.1
Correlation Coefficient:	0.980
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-788122/10	2.0	1.202968	50.0	4398372.0	0.601484	Y
2	IC 680-788122/9	5.0	2.148895	50.0	4396400.0	0.429779	Y
3	IC 680-788122/8	10.0	3.033393	50.0	3742624.0	0.303339	Y
4	ICIS 680-788122/7	20.0	4.699608	50.0	4734661.0	0.23498	Y
5	IC 680-788122/6	50.0	12.441317	50.0	4362215.0	0.248826	Y
6	IC 680-788122/5	80.0	16.27022	50.0	3660178.0	0.203378	Y
7	IC 680-788122/4	100.0	18.796474	50.0	4123510.0	0.187965	Y



Calibration / Tetraethylene Glycol

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

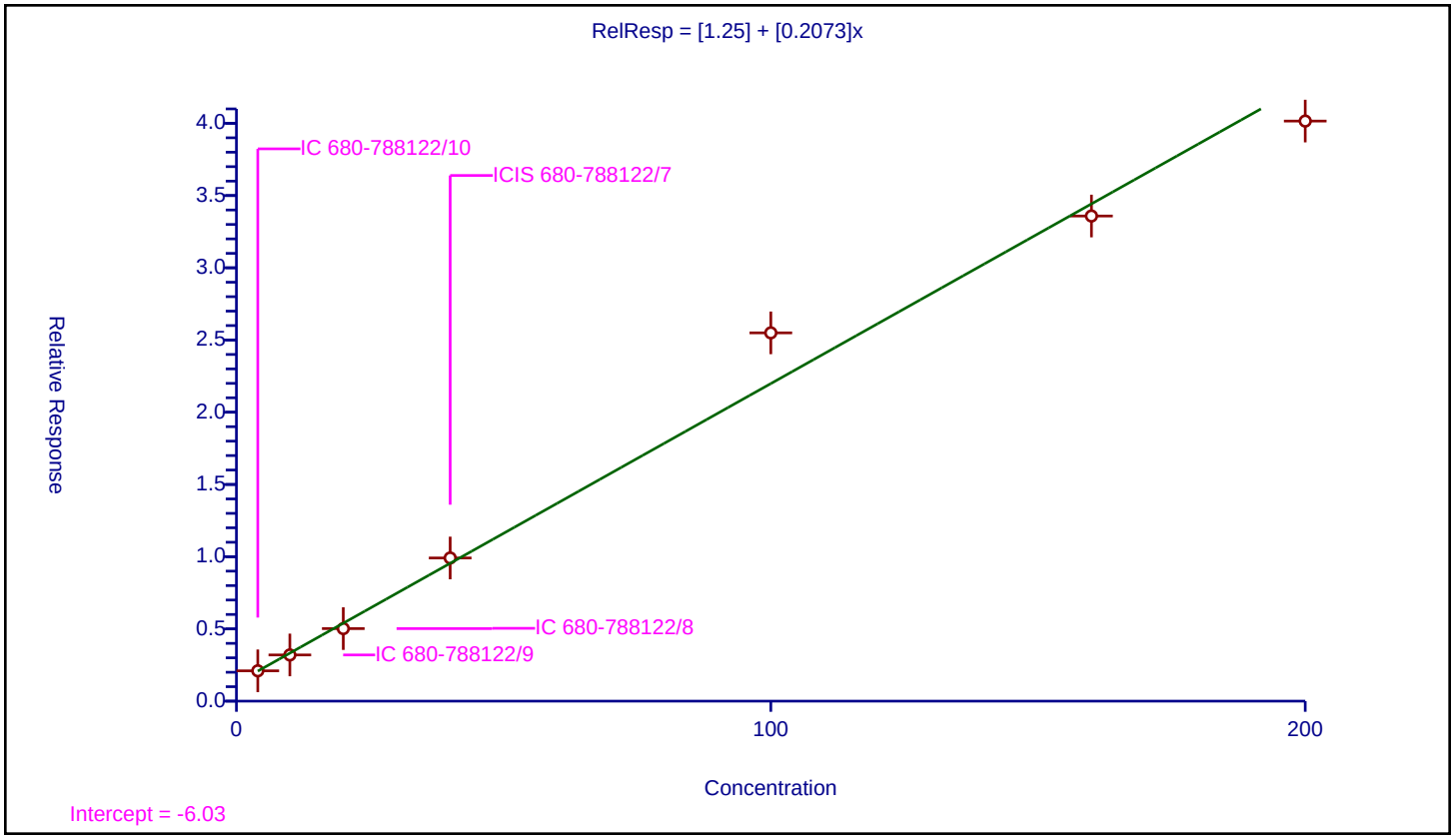
Curve Coefficients

Intercept:	1.25
Slope:	0.2073

Error Coefficients

Standard Error:	2150000
Relative Standard Error:	9.7
Correlation Coefficient:	0.967
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-788122/10	4.0	2.099152	50.0	4398372.0	0.524788	Y
2	IC 680-788122/9	10.0	3.198481	50.0	4396400.0	0.319848	Y
3	IC 680-788122/8	20.0	5.021704	50.0	3742624.0	0.251085	Y
4	ICIS 680-788122/7	40.0	9.91072	50.0	4734661.0	0.247768	Y
5	IC 680-788122/6	100.0	25.495683	50.0	4362215.0	0.254957	Y
6	IC 680-788122/5	160.0	33.584897	50.0	3660178.0	0.209906	Y
7	IC 680-788122/4	200.0	40.157099	50.0	4123510.0	0.200785	Y



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Lab Sample ID: ICV 680-788122/11 Calibration Date: 07/13/2023 15:01

Instrument ID: CVGG2 Calib Start Date: 07/13/2023 12:19

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 07/13/2023 14:38

Lab File ID: 1GG12011.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Qua		0.6315		22.2	20.0	11.1	20.0
4-Hydroxy-4-methyl-2-pentanone	Lin2		0.6505		23.0	20.0	14.9	20.0
2-Butoxyethanol	Lin2		0.7152		23.7	20.0	18.3	20.0
Dipropylene Glycol Methyl Ether	Qua		0.0489		20.5	20.0	2.6	20.0
Propylene glycol	Qua		0.1875		18.6	20.0	-7.2	20.0
Ethylene glycol	Qua		0.3140		17.3	20.0	-13.4	20.0
2-(2-Butoxyethoxy)ethanol	Qua		0.5165		21.3	20.0	6.4	20.0
2,2'-Oxybisethanol	Qua		0.2438		18.9	20.0	-5.7	20.0
Triethylene Glycol	Qua		0.3063		22.5	20.0	12.6	20.0
Tetraethylene Glycol	Lin1		0.2786		47.7	40.0	19.3	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Lab Sample ID: ICV 680-788122/11 Calibration Date: 07/13/2023 15:01

Instrument ID: CVGG2 Calib Start Date: 07/13/2023 12:19

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 07/13/2023 14:38

Lab File ID: 1GG12011.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	1.78	1.75	1.83
4-Hydroxy-4-methyl-2-pentanone	2.15	2.11	2.19
2-Butoxyethanol	2.24	2.20	2.29
Dipropylene Glycol Methyl Ether	2.98	2.92	3.04
Propylene glycol	3.57	3.51	3.65
Ethylene glycol	3.85	3.77	3.93
2-(2-Butoxyethoxy)ethanol	5.31	5.21	5.42
2,2'-Oxybisethanol	7.37	7.23	7.52
Triethylene Glycol	9.59	9.40	9.78
Tetraethylene Glycol	10.43	10.22	10.64

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12011.D
Lims ID: icv gly
Client ID:
Sample Type: CCV
Inject. Date: 13-Jul-2023 15:01:47 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087436-011
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Jul-2023 09:23:16 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1674

First Level Reviewer: AR8P Date: 13-Jul-2023 19:29:15

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.784	1.790	-0.006	1003277	20.0	22.2	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.146	2.148	-0.002	1033455	20.0	23.0	
	3 2-Butoxyethanol						
	2.244	2.249	-0.005	1136252	20.0	23.7	
*	4 n-Heptyl Alcohol						
	2.435	2.443	-0.008	3971826	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.979	2.979	0.000	77626	20.0	20.5	
	6 Propylene glycol						
	3.573	3.579	-0.006	297944	20.0	18.6	
	7 Ethylene glycol						
	3.849	3.849	0.000	498820	20.0	17.3	
	8 2-(2-Butoxyethoxy)ethanol						
	5.313	5.313	0.000	820506	20.0	21.3	
	9 2,2'-Oxybisethanol						
	7.373	7.374	-0.001	387362	20.0	18.9	
	10 Triethylene Glycol						
	9.590	9.591	-0.001	486673	20.0	22.5	
	11 Tetraethylene Glycol						
	10.428	10.428	0.000	885091	40.0	47.7	

QC Flag Legend
Processing Flags

Reagents:

SG_GlyICV_00061	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00124	Amount Added:	10.00	Units: uL	Run Reagent

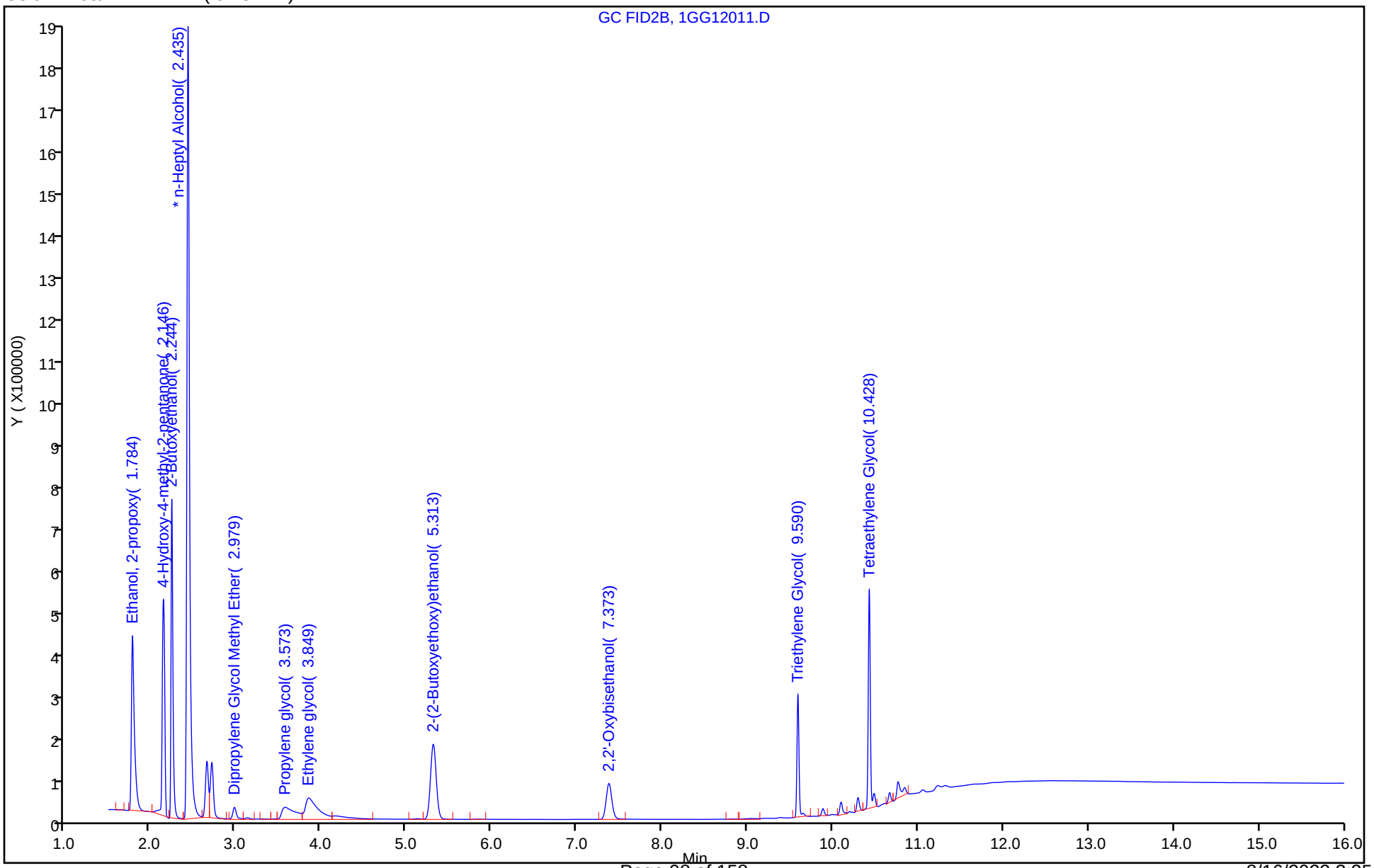
Report Date: 18-Jul-2023 09:23:16 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12011.D

Injection Date:	13-Jul-2023 15:01:47	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	icv gly			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Lab Sample ID: CCVIS 680-792737/4 Calibration Date: 08/10/2023 12:24

Instrument ID: CVGG2 Calib Start Date: 07/13/2023 12:19

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 07/13/2023 14:38

Lab File ID: 1GH10004.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Qua		0.5942		20.8	20.0	3.8	20.0
4-Hydroxy-4-methyl-2-pentanone	Lin2		0.5308		18.2	20.0	-9.1	20.0
2-Butoxyethanol	Lin2		0.5876		19.1	20.0	-4.3	20.0
Dipropylene Glycol Methyl Ether	Qua		0.0486		20.4	20.0	1.9	20.0
Propylene glycol	Qua		0.1656		16.3	20.0	-18.5	20.0
Ethylene glycol	Qua		0.2474		13.7	20.0	-31.4*	20.0
2-(2-Butoxyethoxy)ethanol	Qua		0.4944		20.3	20.0	1.3	20.0
2,2'-Oxybisethanol	Qua		0.1911		14.5	20.0	-27.3*	20.0
Triethylene Glycol	Qua		0.2014		13.7	20.0	-31.5*	20.0
Tetraethylene Glycol	Lin1		0.1670		26.2	40.0	-34.5*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Lab Sample ID: CCVIS 680-792737/4 Calibration Date: 08/10/2023 12:24

Instrument ID: CVGG2 Calib Start Date: 07/13/2023 12:19

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 07/13/2023 14:38

Lab File ID: 1GH10004.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	1.76	1.72	1.79
4-Hydroxy-4-methyl-2-pentanone	2.13	2.08	2.17
2-Butoxyethanol	2.23	2.18	2.27
Dipropylene Glycol Methyl Ether	2.92	2.86	2.98
Propylene glycol	3.52	3.45	3.59
Ethylene glycol	3.79	3.71	3.86
2-(2-Butoxyethoxy)ethanol	5.19	5.09	5.30
2,2'-Oxybisethanol	7.24	7.10	7.39
Triethylene Glycol	9.55	9.36	9.74
Tetraethylene Glycol	10.39	10.18	10.60

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\1GH10004.D
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 10-Aug-2023 12:24:48 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088172-004
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 10-Aug-2023 23:22:06 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1650

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.756	1.756	0.000	836434	20.0	20.8	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.125	2.125	0.000	747203	20.0	18.2	
	3 2-Butoxyethanol						
	2.225	2.225	0.000	827193	20.0	19.1	
*	4 n-Heptyl Alcohol						
	2.405	2.405	0.000	3519426	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.920	2.920	0.000	68368	20.0	20.4	
	6 Propylene glycol						
	3.522	3.522	0.000	233064	20.0	16.3	
	7 Ethylene glycol						
	3.788	3.788	0.000	348240	20.0	13.7	
	8 2-(2-Butoxyethoxy)ethanol						
	5.193	5.193	0.000	696048	20.0	20.3	
	9 2,2'-Oxybisethanol						
	7.243	7.243	0.000	268963	20.0	14.5	
	10 Triethylene Glycol						
	9.548	9.548	0.000	283455	20.0	13.7	
	11 Tetraethylene Glycol						
	10.387	10.387	0.000	470109	40.0	26.2	

Reagents:

SG_Gly_CAL_00053 Amount Added: 10.00 Units: uL
SG_GLY_ISTD_00127 Amount Added: 10.00 Units: uL Run Reagent

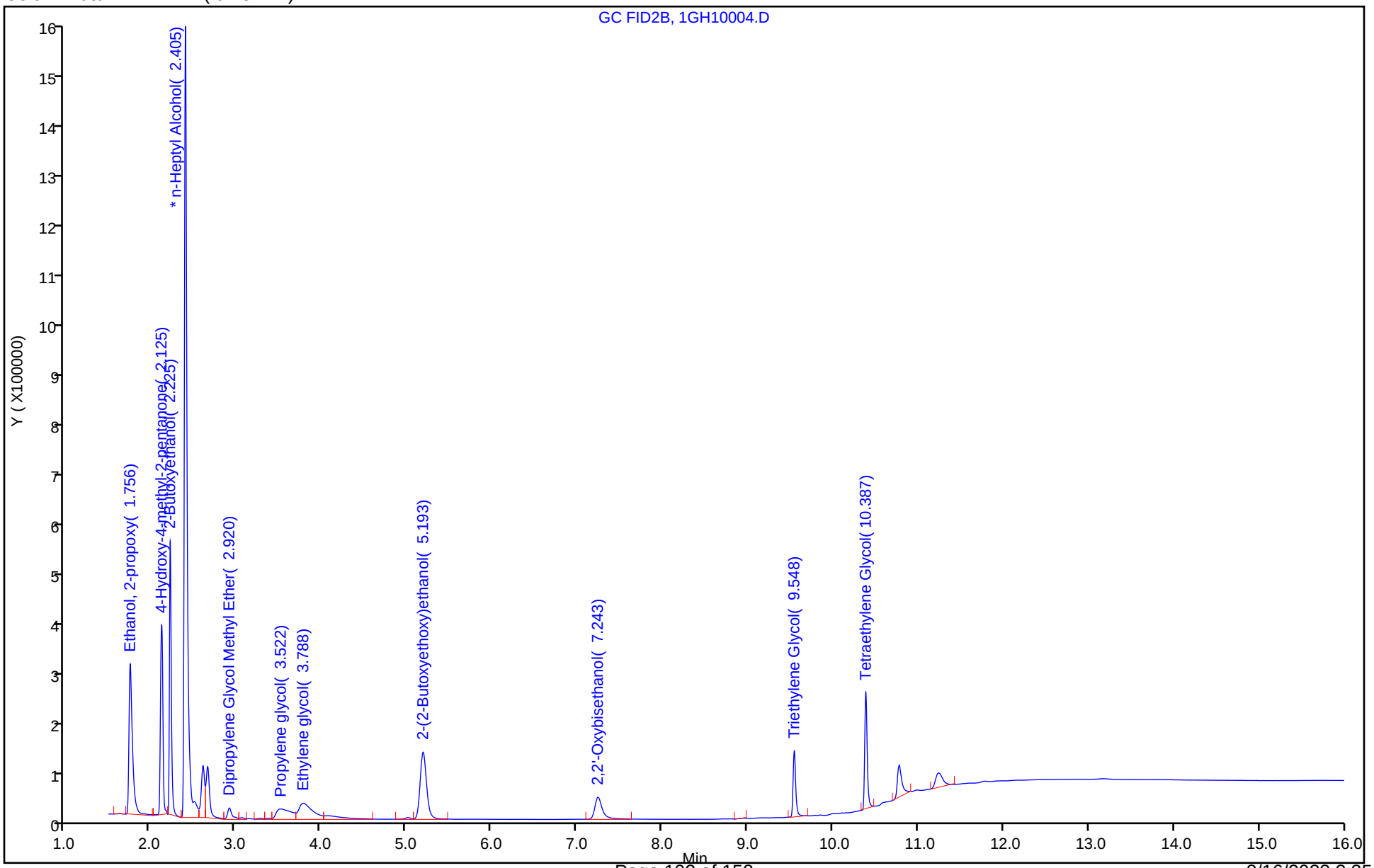
Report Date: 10-Aug-2023 23:22:06 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\1GH10004.D

Injection Date:	10-Aug-2023 12:24:48	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ccvis			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Lab Sample ID: CCV 680-792737/26 Calibration Date: 08/10/2023 23:09

Instrument ID: CVGG2 Calib Start Date: 07/13/2023 12:19

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 07/13/2023 14:38

Lab File ID: 1GH10026.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Qua		0.7145		25.5	20.0	27.5*	20.0
4-Hydroxy-4-methyl-2-pentanone	Lin2		0.6169		21.6	20.0	8.1	20.0
2-Butoxyethanol	Lin2		0.7113		23.5	20.0	17.6	20.0
Dipropylene Glycol Methyl Ether	Qua		0.0562		24.0	20.0	20.2*	20.0
Propylene glycol	Qua		0.1830		18.1	20.0	-9.6	20.0
Ethylene glycol	Qua		0.2830		15.6	20.0	-21.8*	20.0
2-(2-Butoxyethoxy)ethanol	Qua		0.5454		22.6	20.0	13.1	20.0
2,2'-Oxybisethanol	Qua		0.1924		14.6	20.0	-26.8*	20.0
Triethylene Glycol	Qua		0.1499		9.56	20.0	-52.2*	20.0
Tetraethylene Glycol	Lin1		0.0907		11.5	40.0	-71.3*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Lab Sample ID: CCV 680-792737/26 Calibration Date: 08/10/2023 23:09

Instrument ID: CVGG2 Calib Start Date: 07/13/2023 12:19

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 07/13/2023 14:38

Lab File ID: 1GH10026.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	1.74	1.71	1.78
4-Hydroxy-4-methyl-2-pentanone	2.12	2.08	2.16
2-Butoxyethanol	2.22	2.17	2.26
Dipropylene Glycol Methyl Ether	2.91	2.86	2.97
Propylene glycol	3.53	3.46	3.60
Ethylene glycol	3.78	3.71	3.86
2-(2-Butoxyethoxy)ethanol	5.19	5.08	5.29
2,2'-Oxybisethanol	7.25	7.10	7.39
Triethylene Glycol	9.55	9.36	9.74
Tetraethylene Glycol	10.39	10.18	10.59

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\1GH10026.D
Lims ID: ccv l4
Client ID:
Sample Type: CCV
Inject. Date: 10-Aug-2023 23:09:52 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088172-004
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 10-Aug-2023 23:30:52 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1650

First Level Reviewer: AR8P Date: 10-Aug-2023 23:30:49

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.744	1.744	0.000	1204973	20.0	25.5	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.117	2.117	0.000	1040434	20.0	21.6	
	3 2-Butoxyethanol						
	2.218	2.218	0.000	1199607	20.0	23.5	
*	4 n-Heptyl Alcohol						
	2.395	2.395	0.000	4216152	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.914	2.914	0.000	94829	20.0	24.0	
	6 Propylene glycol						
	3.531	3.531	0.000	308557	20.0	18.1	
	7 Ethylene glycol						
	3.783	3.783	0.000	477245	20.0	15.6	
	8 2-(2-Butoxyethoxy)ethanol						
	5.188	5.188	0.000	919838	20.0	22.6	
	9 2,2'-Oxybisethanol						
	7.245	7.245	0.000	324437	20.0	14.6	
	10 Triethylene Glycol						
	9.546	9.546	0.000	252814	20.0	9.56	
	11 Tetraethylene Glycol						
	10.385	10.385	0.000	306005	40.0	11.5	

QC Flag Legend
Processing Flags

Reagents:

SG_Gly_CAL_00053	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00127	Amount Added:	10.00	Units: uL	Run Reagent

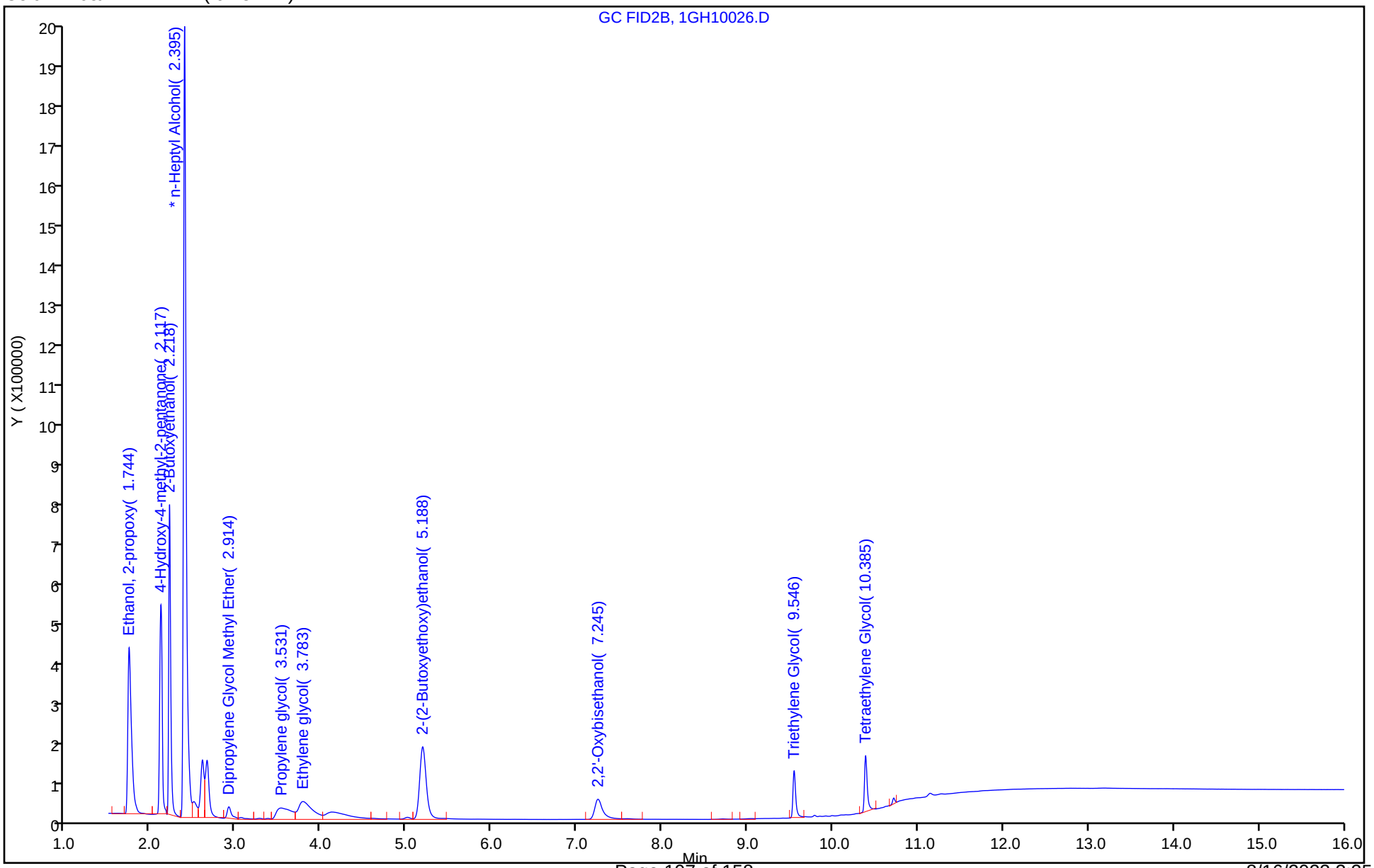
Report Date: 10-Aug-2023 23:30:52 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\1GH10026.D

Injection Date:	10-Aug-2023 23:09:52	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ccv l4			Worklist Smp#:	26
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Lab Sample ID: CCVIS 680-793374/5 Calibration Date: 08/14/2023 16:13

Instrument ID: CVGG2 Calib Start Date: 07/13/2023 12:19

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 07/13/2023 14:38

Lab File ID: 1GH10005.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Qua		0.7415		26.6	20.0	32.9*	20.0
4-Hydroxy-4-methyl-2-pentanone	Lin2		0.7167		25.6	20.0	28.2*	20.0
2-Butoxyethanol	Lin2		0.7215		23.9	20.0	19.4	20.0
Dipropylene Glycol Methyl Ether	Qua		0.0596		25.7	20.0	28.3*	20.0
Propylene glycol	Qua		0.1652		16.3	20.0	-18.6	20.0
Ethylene glycol	Qua		0.2202		12.3	20.0	-38.7*	20.0
2-(2-Butoxyethoxy)ethanol	Qua		0.6330		26.7	20.0	33.6*	20.0
2,2'-Oxybisethanol	Qua		0.2016		15.4	20.0	-23.0*	20.0
Triethylene Glycol	Qua		0.1976		13.4	20.0	-33.0*	20.0
Tetraethylene Glycol	Lin1		0.2364		39.6	40.0	-1.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Lab Sample ID: CCVIS 680-793374/5 Calibration Date: 08/14/2023 16:13

Instrument ID: CVGG2 Calib Start Date: 07/13/2023 12:19

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 07/13/2023 14:38

Lab File ID: 1GH10005.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	1.77	1.73	1.80
4-Hydroxy-4-methyl-2-pentanone	2.13	2.09	2.17
2-Butoxyethanol	2.23	2.18	2.27
Dipropylene Glycol Methyl Ether	2.92	2.86	2.98
Propylene glycol	3.51	3.44	3.58
Ethylene glycol	3.78	3.71	3.86
2-(2-Butoxyethoxy)ethanol	5.19	5.09	5.29
2,2'-Oxybisethanol	7.24	7.09	7.38
Triethylene Glycol	9.55	9.36	9.74
Tetraethylene Glycol	10.40	10.19	10.61

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10005.D
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 14-Aug-2023 16:13:13 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088291-005
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-Aug-2023 10:58:30 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1649

First Level Reviewer: AR8P Date: 14-Aug-2023 18:53:21

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.765	1.765	0.000	1377703	20.0	26.6	
	2 4-Hydroxy-4-methyl-2-pentanone						a
	2.131	2.131	0.000	1331638	20.0	25.6	a
	3 2-Butoxyethanol						
	2.227	2.227	0.000	1340636	20.0	23.9	
*	4 n-Heptyl Alcohol						
	2.404	2.404	0.000	4645200	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.921	2.921	0.000	110688	20.0	25.7	
	6 Propylene glycol						
	3.511	3.511	0.000	307010	20.0	16.3	
	7 Ethylene glycol						
	3.783	3.783	0.000	409063	20.0	12.3	
	8 2-(2-Butoxyethoxy)ethanol						
	5.189	5.189	0.000	1176104	20.0	26.7	
	9 2,2'-Oxybisethanol						
	7.237	7.237	0.000	374649	20.0	15.4	
	10 Triethylene Glycol						
	9.547	9.547	0.000	367207	20.0	13.4	
	11 Tetraethylene Glycol						
	10.397	10.397	0.000	878386	40.0	39.6	

QC Flag Legend
Processing Flags

Review Flags
a - User Assigned ID

Reagents:

SG_Gly_CAL_00053	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00127	Amount Added:	10.00	Units: uL	Run Reagent

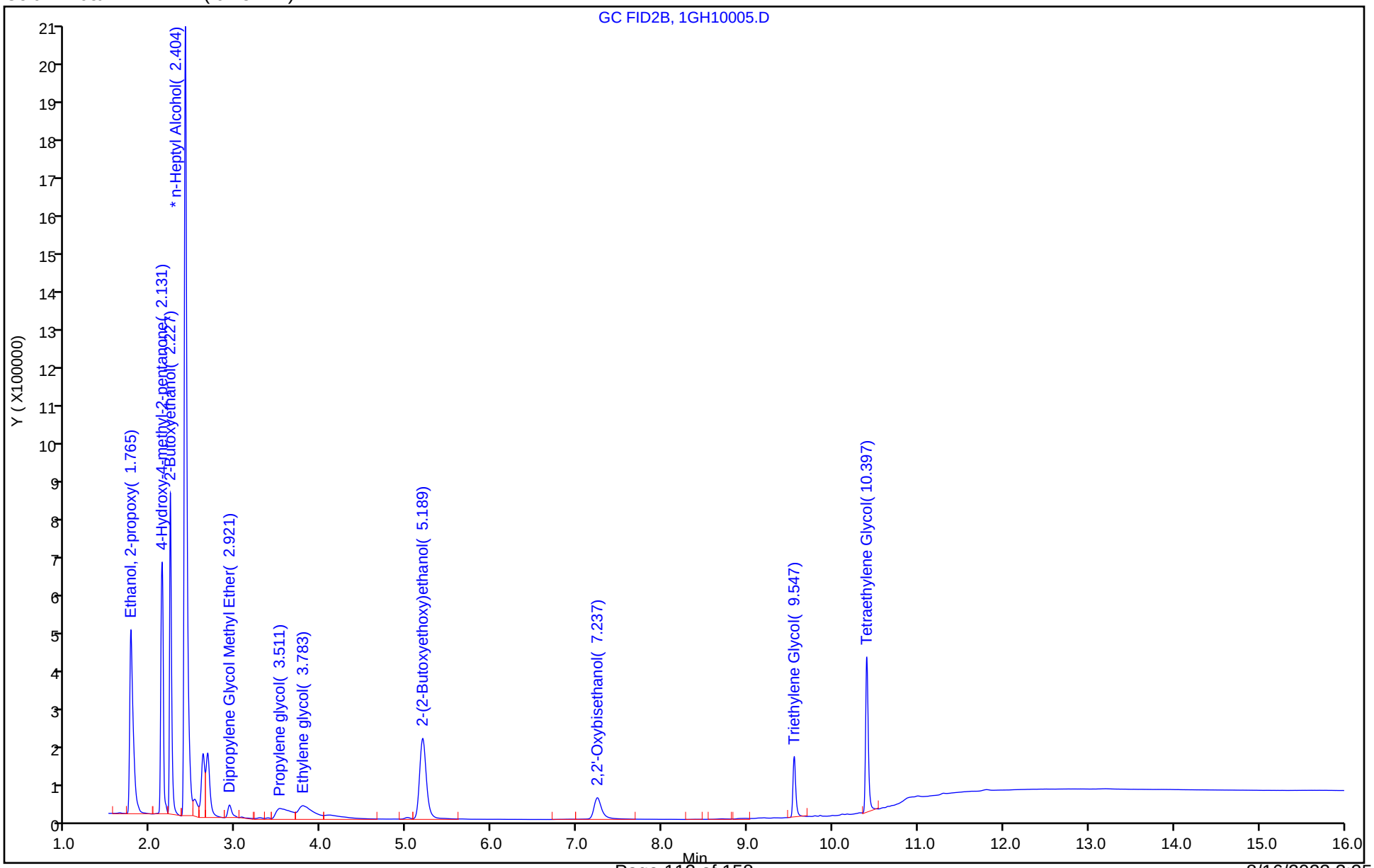
Report Date: 15-Aug-2023 10:58:31 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10005.D

Injection Date:	14-Aug-2023 16:13:13	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ccvis			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

Eurofins Savannah

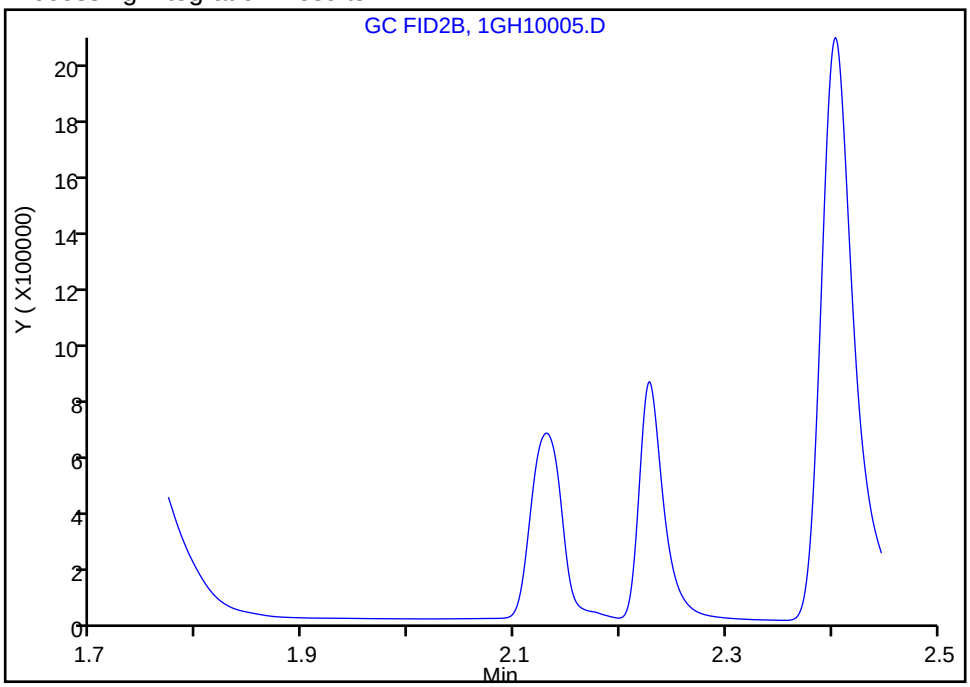
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10005.D
Injection Date: 14-Aug-2023 16:13:13 Instrument ID: CVGG2
Lims ID: ccvis
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

2 4-Hydroxy-4-methyl-2-pentanone, CAS: 123-42-2

Signal: 1

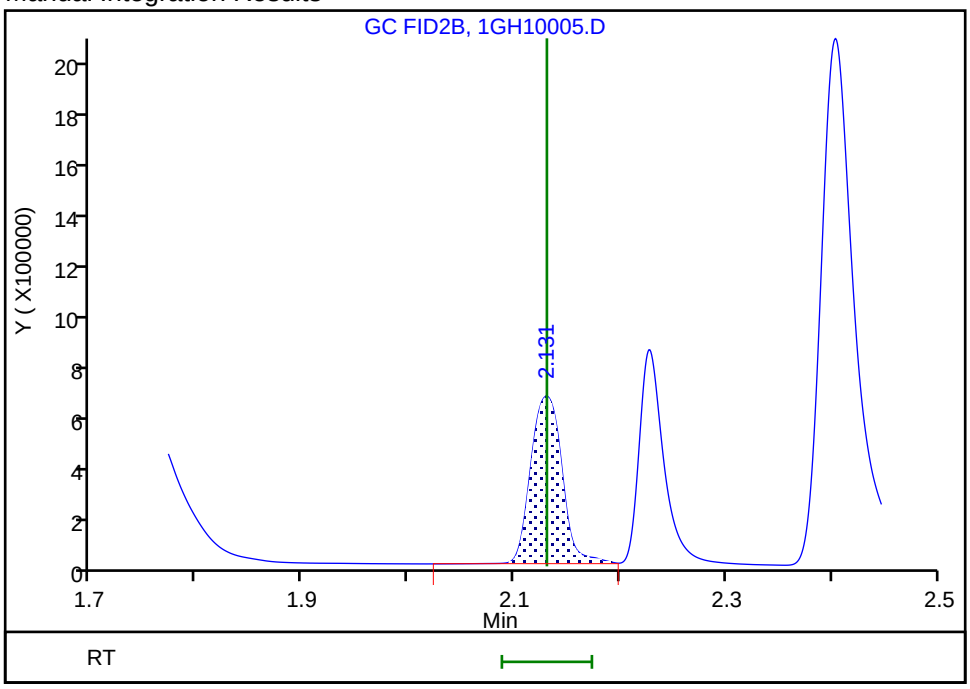
Not Detected
Expected RT: 2.13

Processing Integration Results



Manual Integration Results

RT: 2.13
Area: 1331638
Amount: 25.630745
Amount Units: ug/ml



Reviewer: AR8P, 14-Aug-2023 16:36:57 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Shouldering

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Lab Sample ID: CCV 680-793374/25 Calibration Date: 08/15/2023 00:47

Instrument ID: CVGG2 Calib Start Date: 07/13/2023 12:19

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 07/13/2023 14:38

Lab File ID: 1GH10027.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Qua		0.7600		27.3	20.0	36.6*	20.0
4-Hydroxy-4-methyl-2-pentanone	Lin2		0.7227		25.9	20.0	29.4*	20.0
2-Butoxyethanol	Lin2		0.7433		24.6	20.0	23.2*	20.0
Dipropylene Glycol Methyl Ether	Qua		0.0626		27.1	20.0	35.7*	20.0
Propylene glycol	Qua		0.1873		18.5	20.0	-7.4	20.0
Ethylene glycol	Qua		0.2892		16.0	20.0	-20.1*	20.0
2-(2-Butoxyethoxy)ethanol	Qua		0.6486		27.5	20.0	37.3*	20.0
2,2'-Oxybisethanol	Qua		0.2377		18.3	20.0	-8.3	20.0
Triethylene Glycol	Qua		0.2117		14.5	20.0	-27.3*	20.0
Tetraethylene Glycol	Lin1		0.1826		29.2	40.0	-27.0*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Lab Sample ID: CCV 680-793374/25 Calibration Date: 08/15/2023 00:47

Instrument ID: CVGG2 Calib Start Date: 07/13/2023 12:19

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 07/13/2023 14:38

Lab File ID: 1GH10027.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	1.75	1.71	1.78
4-Hydroxy-4-methyl-2-pentanone	2.13	2.08	2.17
2-Butoxyethanol	2.22	2.18	2.26
Dipropylene Glycol Methyl Ether	2.92	2.86	2.98
Propylene glycol	3.54	3.47	3.61
Ethylene glycol	3.79	3.71	3.86
2-(2-Butoxyethoxy)ethanol	5.18	5.08	5.29
2,2'-Oxybisethanol	7.23	7.09	7.38
Triethylene Glycol	9.54	9.35	9.74
Tetraethylene Glycol	10.38	10.18	10.59

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10027.D
Lims ID: ccvis l4
Client ID:
Sample Type: CCVIS
Inject. Date: 15-Aug-2023 00:47:25 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088291-025
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-Aug-2023 10:58:35 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1649

First Level Reviewer: AR8P Date: 15-Aug-2023 10:56:17

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.747	1.747	0.000	1732764	20.0	27.3	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.125	2.125	0.000	1647579	20.0	25.9	
	3 2-Butoxyethanol						
	2.219	2.219	0.000	1694620	20.0	24.6	
*	4 n-Heptyl Alcohol						
	2.391	2.391	0.000	5699700	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.917	2.917	0.000	142746	20.0	27.1	
	6 Propylene glycol						
	3.537	3.537	0.000	426917	20.0	18.5	
	7 Ethylene glycol						
	3.787	3.787	0.000	659267	20.0	16.0	
	8 2-(2-Butoxyethoxy)ethanol						
	5.184	5.184	0.000	1478704	20.0	27.5	
	9 2,2'-Oxybisethanol						
	7.234	7.234	0.000	541894	20.0	18.3	
	10 Triethylene Glycol						
	9.544	9.544	0.000	482738	20.0	14.5	
	11 Tetraethylene Glycol						
	10.383	10.383	0.000	832658	40.0	29.2	

QC Flag Legend
Processing Flags

Reagents:

SG_Gly_CAL_00053	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00127	Amount Added:	10.00	Units: uL	Run Reagent

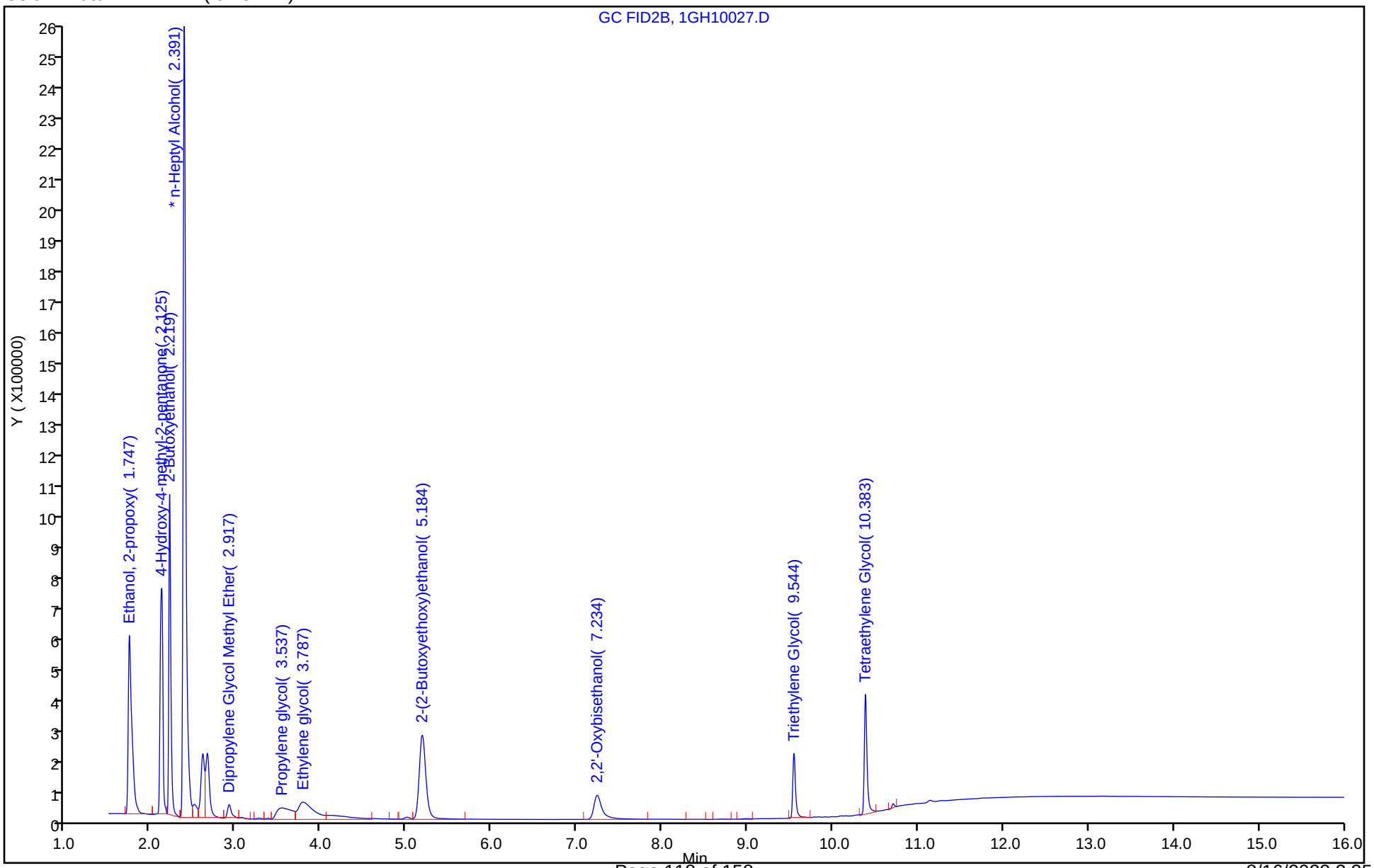
Report Date: 15-Aug-2023 10:58:35 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10027.D

Injection Date:	15-Aug-2023 00:47:25	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ccvis l4			Worklist Smp#:	25
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 680-792737/9

Matrix: Water Lab File ID: 1GH10009.D

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 08/10/2023 14:20

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.: 792737 Units: mg/L

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

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\1GH10009.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 10-Aug-2023 14:20:07 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088172-009
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 10-Aug-2023 23:22:06 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1650

First Level Reviewer: AR8P Date: 10-Aug-2023 21:35:47

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 4 n-Heptyl Alcohol						
2.389	2.405	-0.016	4856997	50.0	50.0	
7 Ethylene glycol						
3.782	3.788	-0.006	7568		1.24	
9 2,2'-Oxybisethanol						7
7.255	7.243	0.012	10064		0.2889	7
LOD =	1.60					

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00127 Amount Added: 10.00 Units: uL Run Reagent

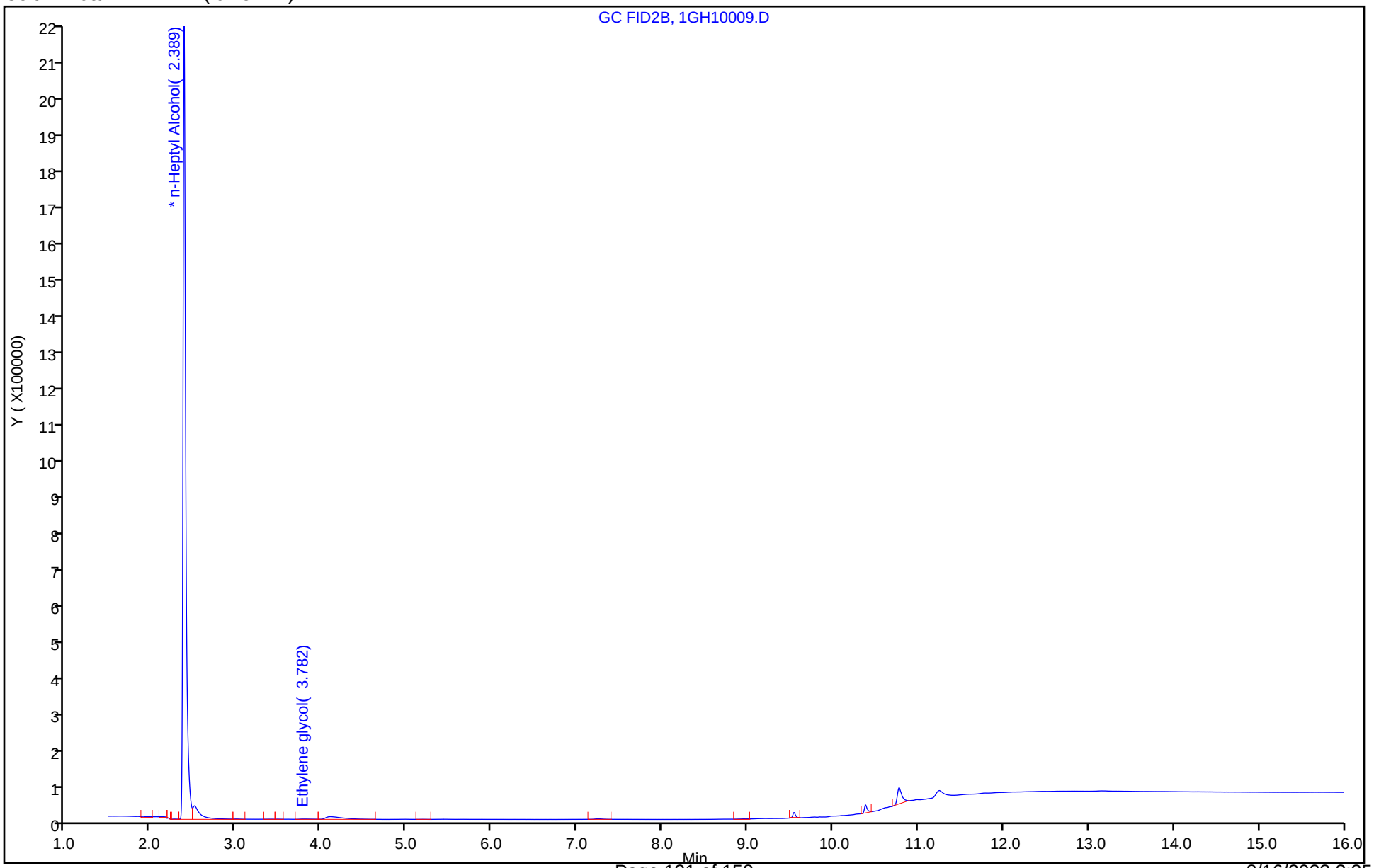
Report Date: 10-Aug-2023 23:22:11 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\1GH10009.D

Injection Date:	10-Aug-2023 14:20:07	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	mb			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 680-793374/10

Matrix: Water Lab File ID: 1GH10010.D

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 08/14/2023 18:15

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.: 793374 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\20230814-88291.b\1GH10010.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 14-Aug-2023 18:15:50 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088291-010
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-Aug-2023 10:58:32 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1649

First Level Reviewer: AR8P Date: 15-Aug-2023 10:57:02

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 4 n-Heptyl Alcohol						
2.392	2.398	-0.006	3139760	50.0	50.0	
7 Ethylene glycol						
3.803	3.780	0.023	8637		1.38	
9 2,2'-Oxybisethanol						7
7.249	7.234	0.015	8909		0.4288	7
LOD =	1.60					

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00127 Amount Added: 10.00 Units: uL Run Reagent

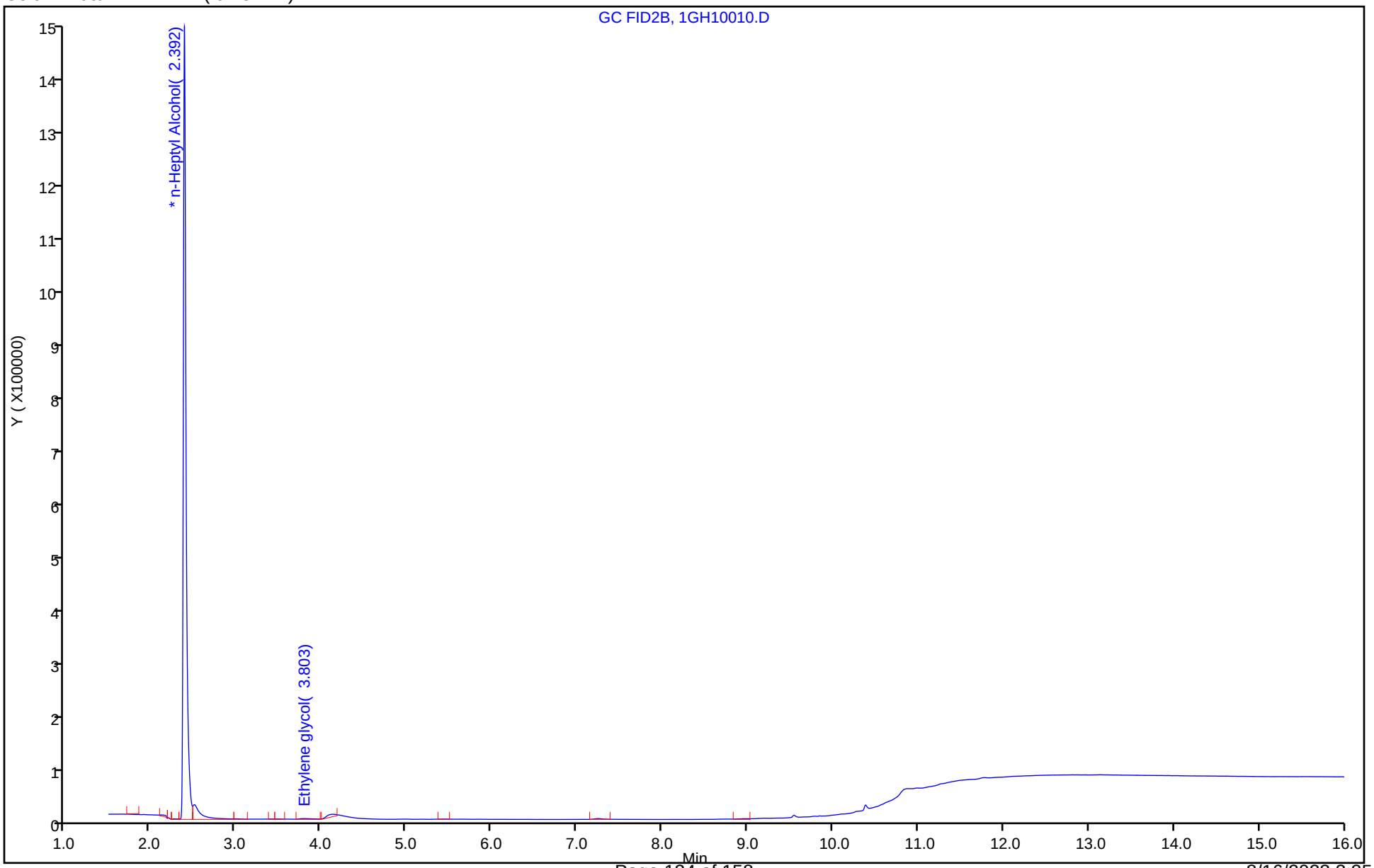
Report Date: 15-Aug-2023 10:58:33 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10010.D

Injection Date:	14-Aug-2023 18:15:50	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	mb			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 680-792737/5

Matrix: Water Lab File ID: 1GH10005.D

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 08/10/2023 12:47

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.: 792737 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	19.6		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\1GH10005.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 10-Aug-2023 12:47:52 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088172-005
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 10-Aug-2023 23:22:05 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1650

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.755	1.755	0.000	885198	20.0	22.0	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.122	2.122	0.000	786193	20.0	19.2	
	3 2-Butoxyethanol						
	2.224	2.224	0.000	871618	20.0	20.1	
*	4 n-Heptyl Alcohol						
	2.404	2.404	0.000	3539575	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.918	2.918	0.000	68906	20.0	20.4	
	6 Propylene glycol						
	3.516	3.516	0.000	232080	20.0	16.1	
	7 Ethylene glycol						
	3.782	3.782	0.000	391968	20.0	15.3	
	8 2-(2-Butoxyethoxy)ethanol						
	5.193	5.193	0.000	679281	20.0	19.6	
	9 2,2'-Oxybisethanol						
	7.242	7.242	0.000	267596	20.0	14.4	
	10 Triethylene Glycol						
	9.546	9.546	0.000	277812	20.0	13.3	
	11 Tetraethylene Glycol						
	10.390	10.390	0.000	543949	40.0	31.0	

Reagents:

SG_Gly_CAL_00053 Amount Added: 10.00 Units: uL
SG_GLY_ISTD_00127 Amount Added: 10.00 Units: uL Run Reagent

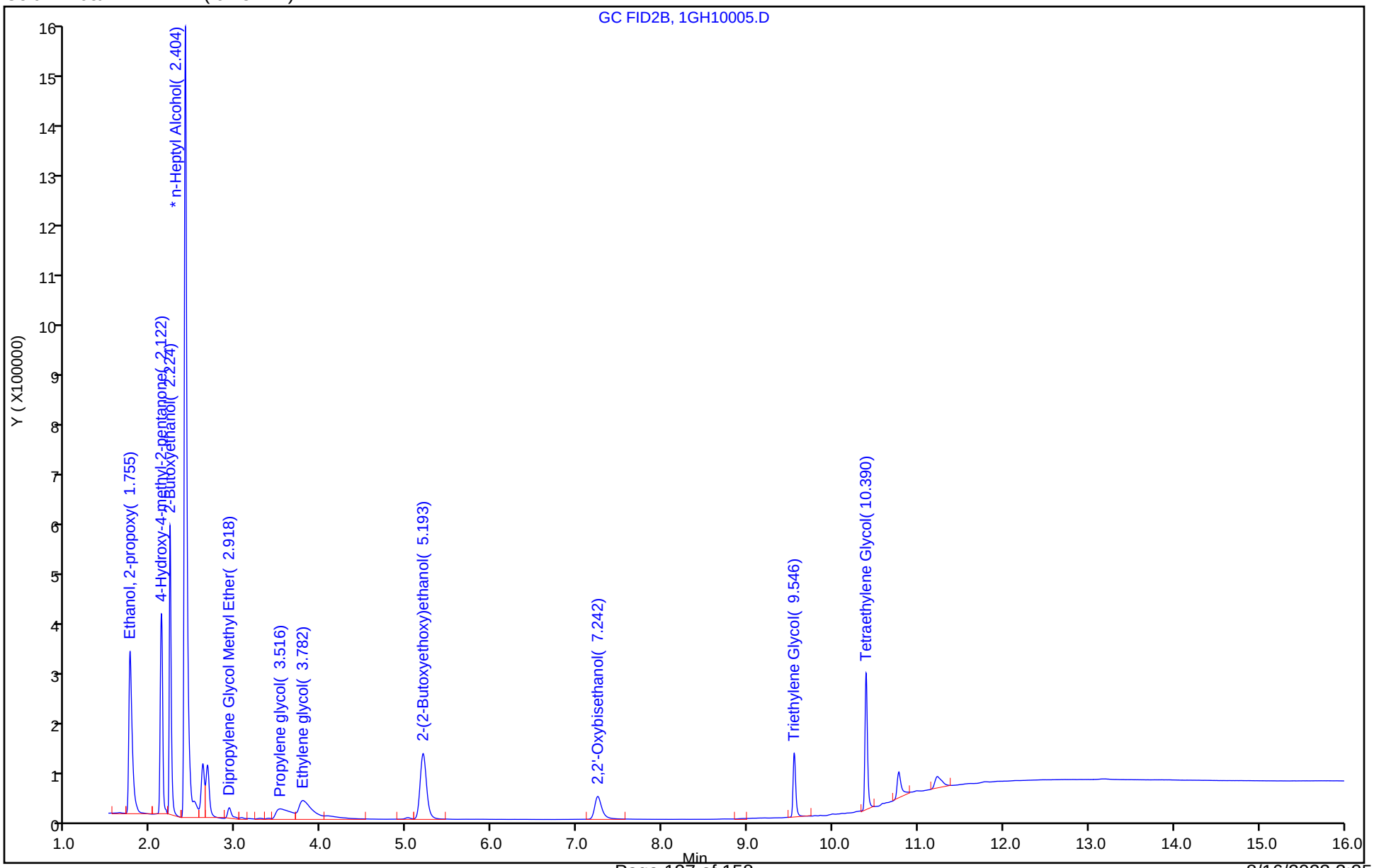
Report Date: 10-Aug-2023 23:22:05 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\1GH10005.D

Injection Date:	10-Aug-2023 12:47:52	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 680-793374/6

Matrix: Water Lab File ID: 1GH10006.D

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 08/14/2023 16:43

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.: 793374 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	25.8		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10006.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 14-Aug-2023 16:43:42 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088291-006
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-Aug-2023 10:58:31 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1649

First Level Reviewer: AR8P Date: 15-Aug-2023 10:57:19

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.767	1.767	0.000	1260597	20.0	26.6	
	2 4-Hydroxy-4-methyl-2-pentanone						a
	2.131	2.131	0.000	1167848	20.0	24.4	a
	3 2-Butoxyethanol						
	2.229	2.229	0.000	1235638	20.0	24.1	
*	4 n-Heptyl Alcohol						
	2.408	2.408	0.000	4248486	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.921	2.921	0.000	103172	20.0	26.2	
	6 Propylene glycol						
	3.514	3.514	0.000	314349	20.0	18.3	
	7 Ethylene glycol						
	3.782	3.782	0.000	521803	20.0	16.9	
	8 2-(2-Butoxyethoxy)ethanol						
	5.189	5.189	0.000	1043660	20.0	25.8	
	9 2,2'-Oxybisethanol						
	7.237	7.237	0.000	406159	20.0	18.5	
	10 Triethylene Glycol						
	9.544	9.544	0.000	363577	20.0	14.7	
	11 Tetraethylene Glycol						
	10.383	10.383	0.000	885493	40.0	44.2	

QC Flag Legend
Processing Flags

Review Flags
a - User Assigned ID

Reagents:

SG_Gly_CAL_00053	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00127	Amount Added:	10.00	Units: uL	Run Reagent

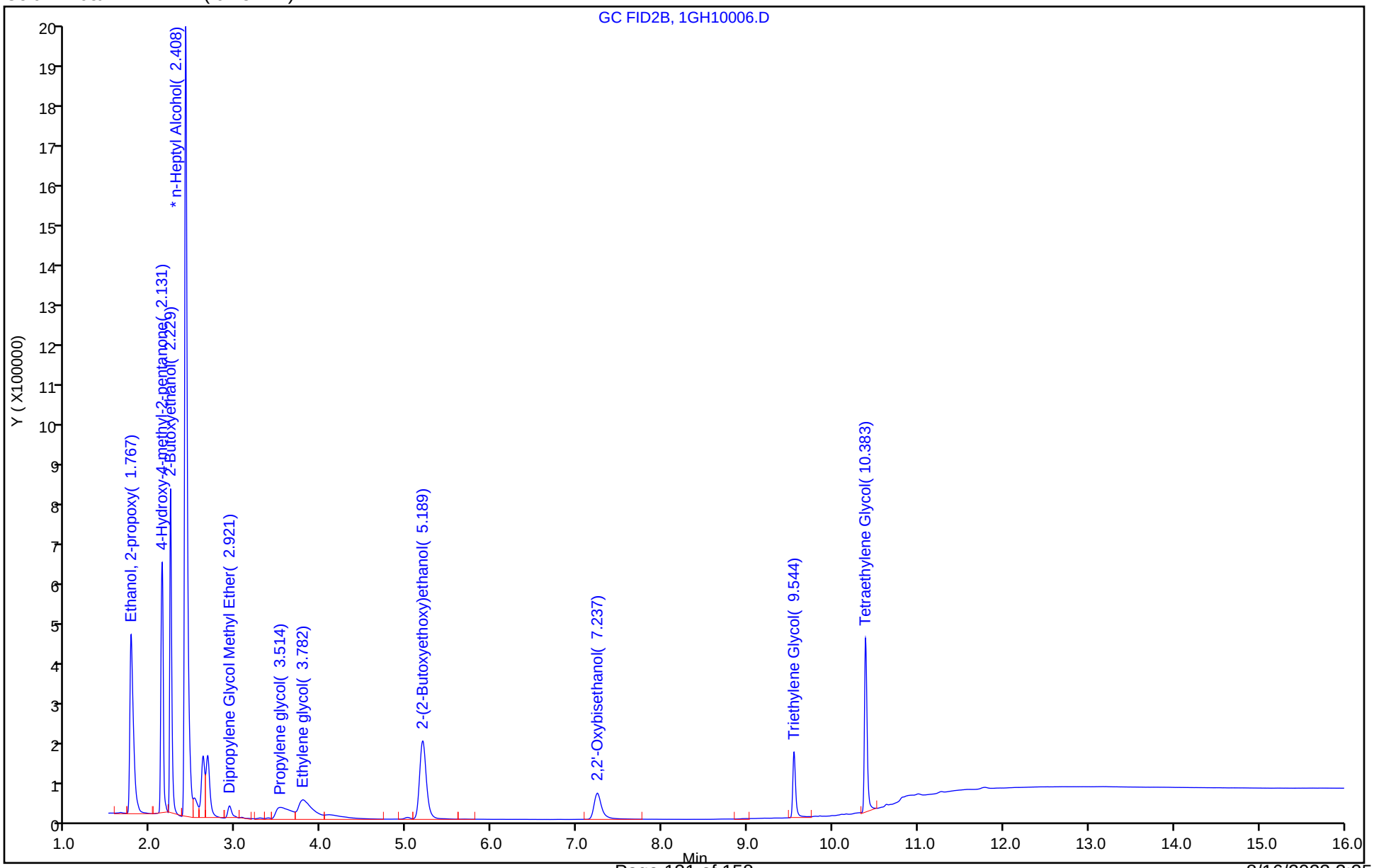
Report Date: 15-Aug-2023 10:58:31 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10006.D

Injection Date:	14-Aug-2023 16:43:42	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 680-792737/6

Matrix: Water Lab File ID: 1GH10006.D

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 08/10/2023 13:10

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.: 792737 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	21.2		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\1GH10006.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 10-Aug-2023 13:10:56 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088172-006
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 10-Aug-2023 23:22:05 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1650

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.751	1.751	0.000	1052214	20.0	22.4	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.120	2.120	0.000	931984	20.0	19.5	
	3 2-Butoxyethanol						
	2.221	2.221	0.000	1044838	20.0	20.7	
*	4 n-Heptyl Alcohol						
	2.400	2.400	0.000	4128287	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.916	2.916	0.000	84227	20.0	21.5	
	6 Propylene glycol						
	3.507	3.507	0.000	298820	20.0	17.9	
	7 Ethylene glycol						
	3.778	3.778	0.000	608557	20.0	20.4	
	8 2-(2-Butoxyethoxy)ethanol						
	5.192	5.192	0.000	848956	20.0	21.2	
	9 2,2'-Oxybisethanol						
	7.242	7.242	0.000	367974	20.0	17.1	
	10 Triethylene Glycol						
	9.546	9.546	0.000	339811	20.0	14.1	
	11 Tetraethylene Glycol						
	10.386	10.386	0.000	754297	40.0	38.0	

Reagents:

SG_Gly_CAL_00053 Amount Added: 10.00 Units: uL
SG_GLY_ISTD_00127 Amount Added: 10.00 Units: uL Run Reagent

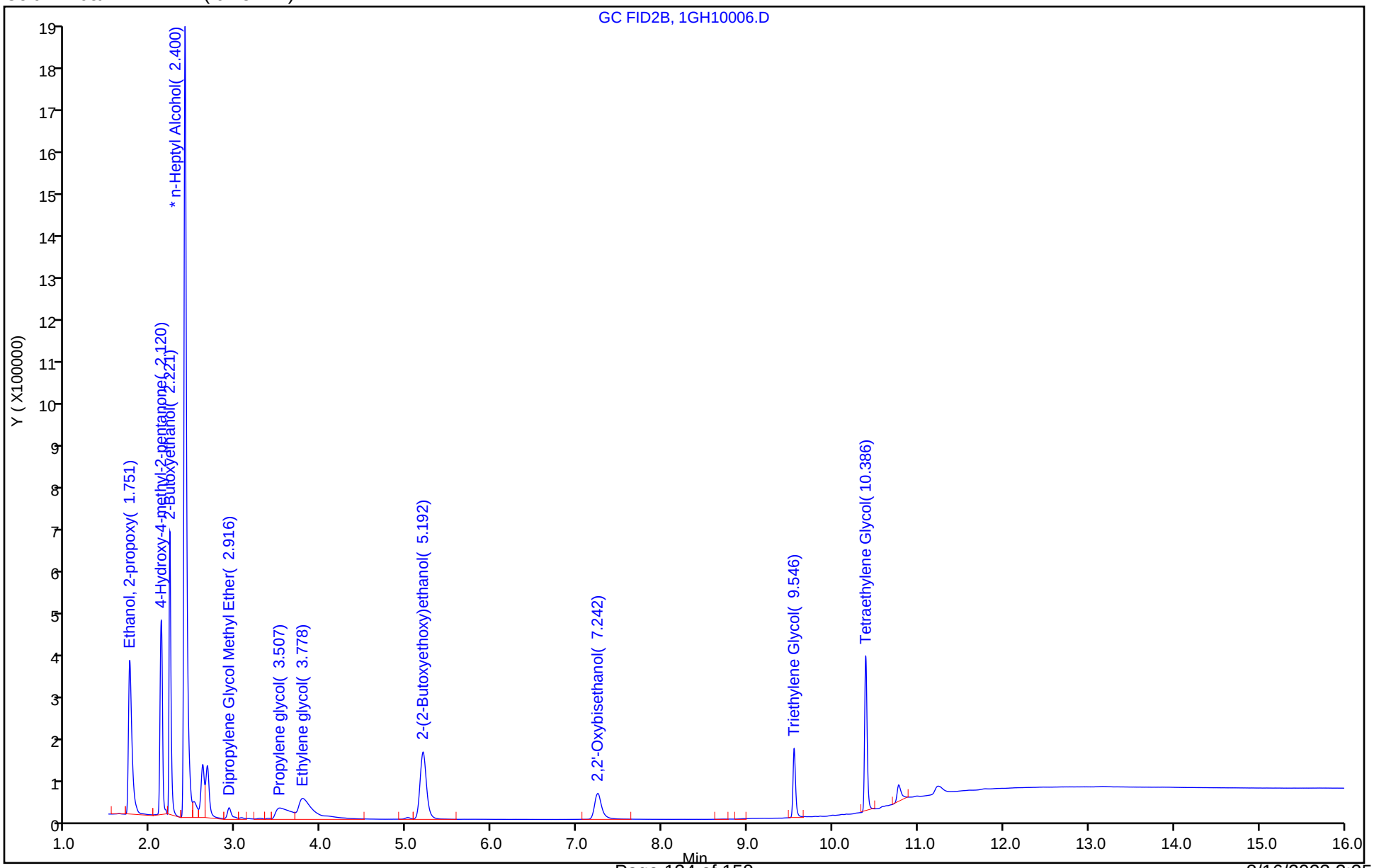
Report Date: 10-Aug-2023 23:22:05 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230810-88172.b\1GH10006.D

Injection Date:	10-Aug-2023 13:10:56	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	lcsd			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 680-793374/7

Matrix: Water Lab File ID: 1GH10007.D

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 08/14/2023 17:06

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.: 793374 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	32.2	Q	5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10007.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 14-Aug-2023 17:06:41 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088291-007
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-Aug-2023 10:58:32 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1649

First Level Reviewer: AR8P Date: 15-Aug-2023 10:57:13

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.754	1.754	0.000	1324300	20.0	30.8	
	2 4-Hydroxy-4-methyl-2-pentanone						a
	2.129	2.129	0.000	1299993	20.0	30.2	a
	3 2-Butoxyethanol						
	2.224	2.224	0.000	1270400	20.0	27.1	
*	4 n-Heptyl Alcohol						
	2.398	2.398	0.000	3910006	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.920	2.920	0.000	116765	20.0	33.1	
	6 Propylene glycol						
	3.517	3.517	0.000	364144	20.0	23.3	
	7 Ethylene glycol						
	3.780	3.780	0.000	572595	20.0	20.2	
	8 2-(2-Butoxyethoxy)ethanol						
	5.187	5.187	0.000	1170134	20.0	32.2	
	9 2,2'-Oxybisethanol						
	7.234	7.234	0.000	462231	20.0	23.2	
	10 Triethylene Glycol						
	9.544	9.544	0.000	414858	20.0	19.0	
	11 Tetraethylene Glycol						
	10.382	10.382	0.000	995072	40.0	55.3	

QC Flag Legend

Processing Flags

Review Flags
a - User Assigned ID

Reagents:

SG_Gly_CAL_00053	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00127	Amount Added:	10.00	Units: uL	Run Reagent

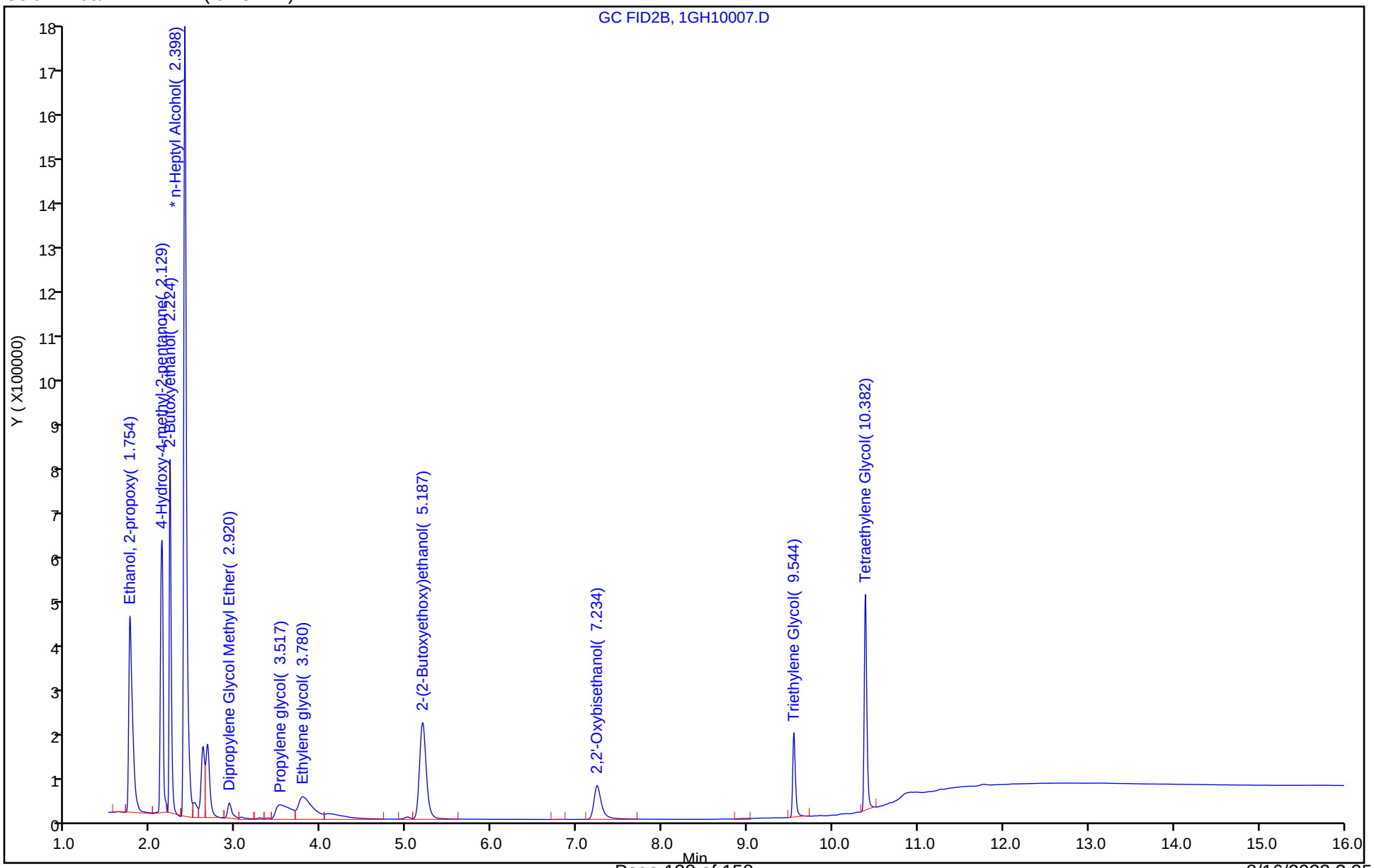
Report Date: 15-Aug-2023 10:58:33 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10007.D

Injection Date:	14-Aug-2023 17:06:41	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	lcsd			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah | Job No.: 580-130239-1

SDG No.:

Client Sample ID: AF-RHMW225401-WGN01B-2308 MS | Lab Sample ID: 580-130239-2 MS

Matrix: Water | Lab File ID: 1GH10022.D

Analysis Method: 8015C GLY | Date Collected: 08/02/2023 11:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 08/14/2023 22:52

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.: 793374 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	28.4		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10022.D
Lims ID: 580-130239-B-2 MS
Client ID:
Sample Type: MS
Inject. Date: 14-Aug-2023 22:52:16 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088291-020
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-Aug-2023 10:57:19 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1649

First Level Reviewer: AR8P Date: 15-Aug-2023 10:55:17

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Ethanol, 2-propoxy						
	1.743	1.767	-0.024	1462956	20.0	26.7	
2	4-Hydroxy-4-methyl-2-pentanone						
	2.120	2.131	-0.011	1479289	20.0	27.1	
3	2-Butoxyethanol						
	2.217	2.229	-0.012	1396526	20.0	23.5	
*	4 n-Heptyl Alcohol						
	2.390	2.408	-0.018	4914486	50.0	50.0	
5	Dipropylene Glycol Methyl Ether						
	2.913	2.921	-0.008	110968	20.0	24.1	
6	Propylene glycol						a
	3.568	3.514	0.054	413242	20.0	20.9	a
7	Ethylene glycol						
	3.791	3.782	0.009	915601	20.0	26.0	
8	2-(2-Butoxyethoxy)ethanol						
	5.183	5.189	-0.006	1312093	20.0	28.4	
9	2,2'-Oxybisethanol						
	7.263	7.237	0.026	391706	20.0	15.2	
10	Triethylene Glycol						
	9.557	9.544	0.013	134115	20.0	3.23	
11	Tetraethylene Glycol						7
	10.412	10.383	0.029	54497	40.0	-3.35	7
	LOD =	4.50					

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
a - User Assigned ID

Reagents:

SG_Gly_CAL_00055	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00127	Amount Added:	10.00	Units: uL	Run Reagent

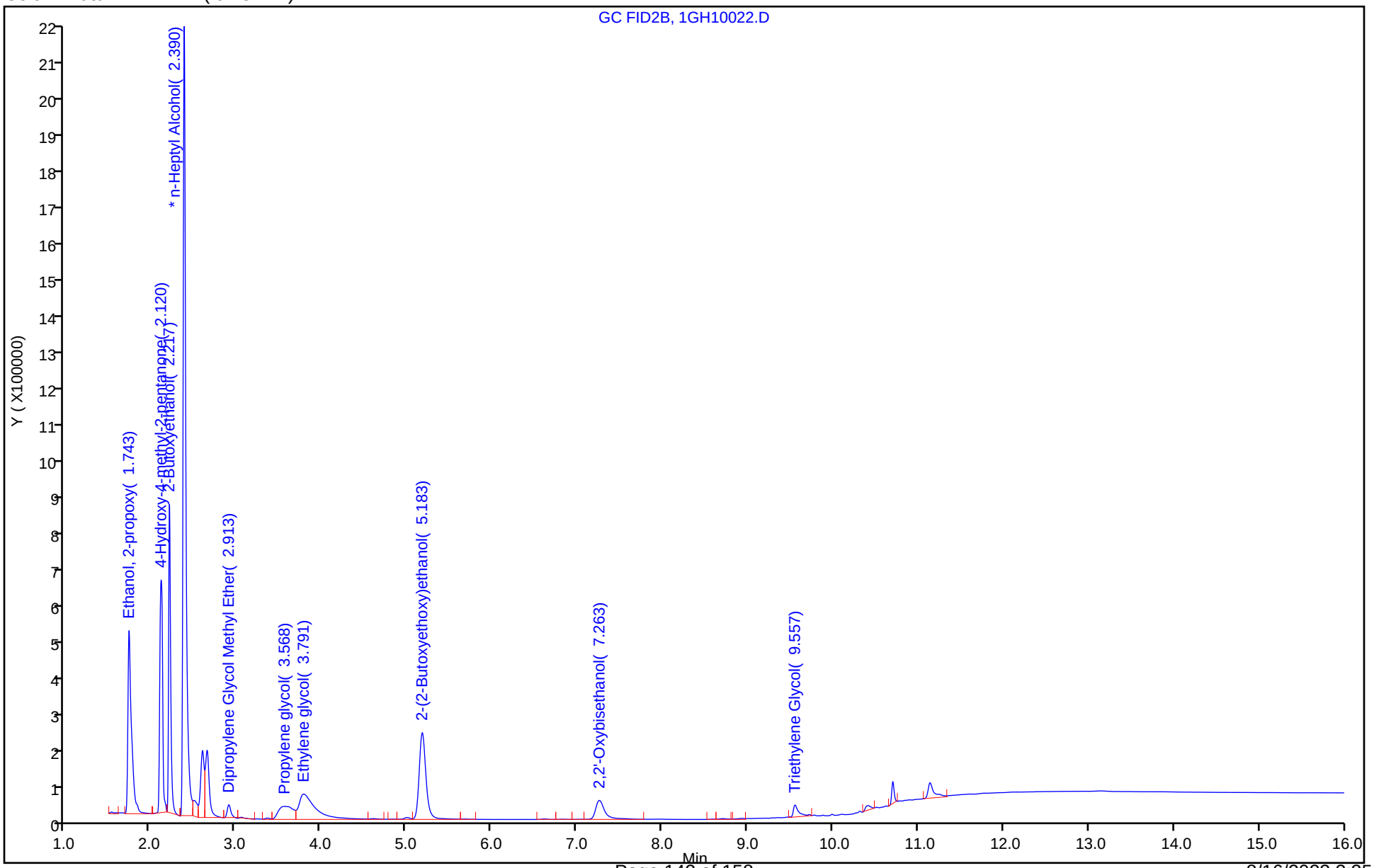
Report Date: 15-Aug-2023 10:58:27 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10022.D

Injection Date:	14-Aug-2023 22:52:16	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-130239-B-2 MS			Worklist Smp#:	20
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah | Job No.: 580-130239-1

SDG No.:

Client Sample ID: AF-RHMW225401-WGN01B-2308 MSD | Lab Sample ID: 580-130239-2 MSD

Matrix: Water | Lab File ID: 1GH10023.D

Analysis Method: 8015C GLY | Date Collected: 08/02/2023 11:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 08/14/2023 23:15

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.: 793374 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	29.6		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10023.D
Lims ID: 580-130239-B-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 14-Aug-2023 23:15:21 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0088291-021
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 15-Aug-2023 10:57:19 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1649

First Level Reviewer: AR8P Date: 15-Aug-2023 10:55:38

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	1.743	1.767	-0.024	1428524	20.0	27.9	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.121	2.131	-0.010	1443863	20.0	28.3	
	3 2-Butoxyethanol						
	2.217	2.229	-0.012	1358005	20.0	24.4	
*	4 n-Heptyl Alcohol						
	2.391	2.408	-0.017	4611123	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	2.913	2.921	-0.008	108256	20.0	25.2	
	6 Propylene glycol						Ma
	3.611	3.514	0.097	382836	20.0	20.6	M
	7 Ethylene glycol						
	3.798	3.782	0.016	933361	20.0	28.3	
	8 2-(2-Butoxyethoxy)ethanol						
	5.183	5.189	-0.006	1279323	20.0	29.6	
	9 2,2'-Oxybisethanol						
	7.259	7.237	0.022	467798	20.0	19.7	
	10 Triethylene Glycol						
	9.558	9.544	0.014	307898	20.0	10.9	
	11 Tetraethylene Glycol						
	10.402	10.383	0.019	256829	40.0	7.40	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

SG_Gly_CAL_00055	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00127	Amount Added:	10.00	Units: uL	Run Reagent

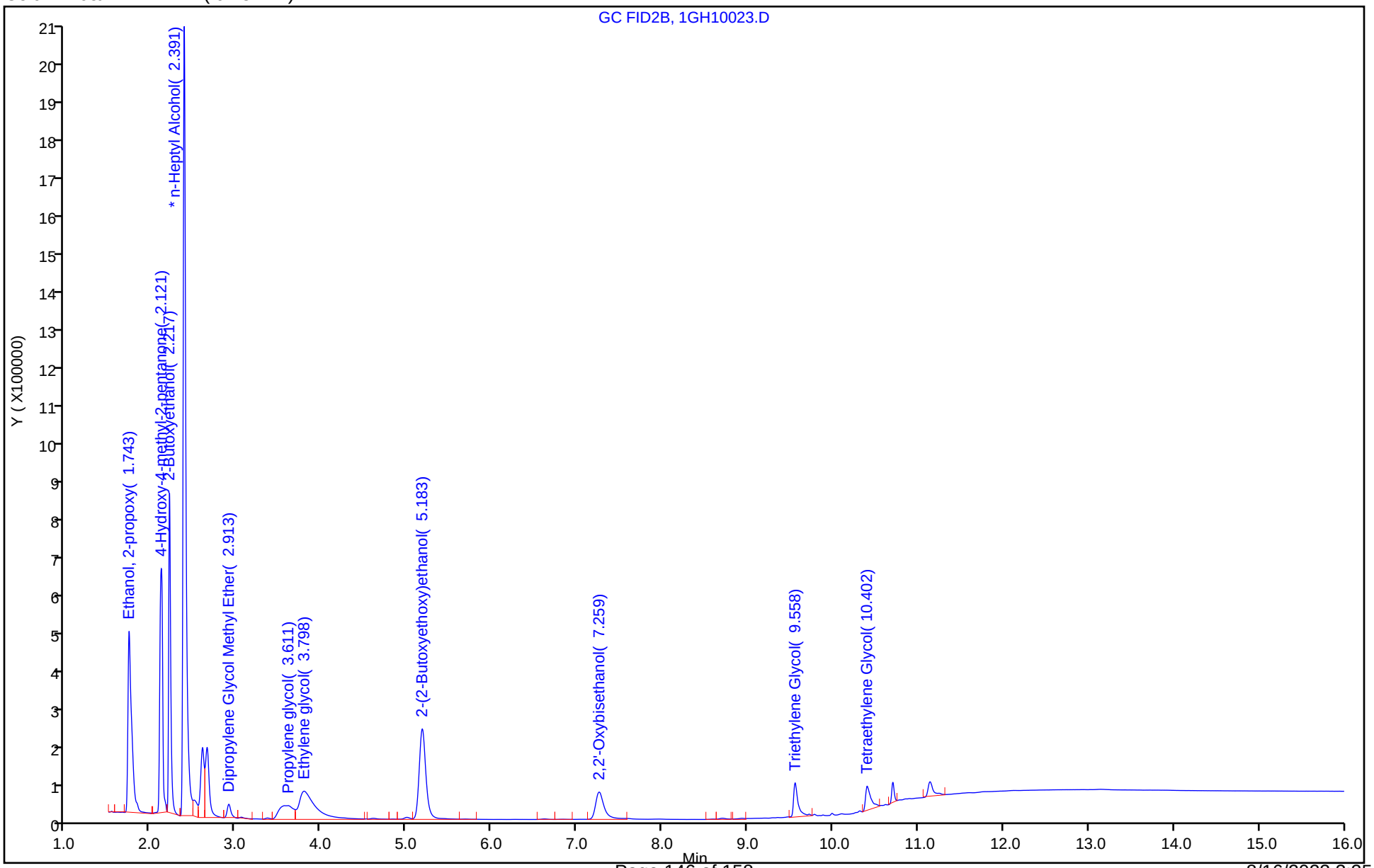
Report Date: 15-Aug-2023 10:58:28 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230814-88291.b\1GH10023.D

Injection Date:	14-Aug-2023 23:15:21	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-130239-B-2 MSD			Worklist Smp#:	21
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		

Column: J&W DB WAX (0.45 mm)



8/16/2023 3:35 PM

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Instrument ID: CVGG2 Start Date: 07/13/2023 12:19

Analysis Batch Number: 788122 End Date: 07/13/2023 15:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 680-788122/4		07/13/2023 12:19	1	1GG12004.D	J&W DB WAX 0.45(mm)
IC 680-788122/5		07/13/2023 12:42	1	1GG12005.D	J&W DB WAX 0.45(mm)
IC 680-788122/6		07/13/2023 13:05	1	1GG12006.D	J&W DB WAX 0.45(mm)
ICIS 680-788122/7		07/13/2023 13:29	1	1GG12007.D	J&W DB WAX 0.45(mm)
IC 680-788122/8		07/13/2023 13:52	1	1GG12008.D	J&W DB WAX 0.45(mm)
IC 680-788122/9		07/13/2023 14:15	1	1GG12009.D	J&W DB WAX 0.45(mm)
IC 680-788122/10		07/13/2023 14:38	1	1GG12010.D	J&W DB WAX 0.45(mm)
ICV 680-788122/11 CCV		07/13/2023 15:01	1	1GG12011.D	J&W DB WAX 0.45(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Instrument ID: CVGG2 Start Date: 08/10/2023 12:24

Analysis Batch Number: 792737 End Date: 08/10/2023 23:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-792737/4		08/10/2023 12:24	1	1GH10004.D	J&W DB WAX 0.45(mm)
LCS 680-792737/5		08/10/2023 12:47	1	1GH10005.D	J&W DB WAX 0.45(mm)
LCSD 680-792737/6		08/10/2023 13:10	1	1GH10006.D	J&W DB WAX 0.45(mm)
MB 680-792737/9		08/10/2023 14:20	1	1GH10009.D	J&W DB WAX 0.45(mm)
580-130239-1	AF-RHMW10-WGN01LF-2308	08/10/2023 18:10	1	1GH10013.D	J&W DB WAX 0.45(mm)
ZZZZZ		08/10/2023 18:56	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/10/2023 19:19	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/10/2023 19:42	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/10/2023 20:05	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/10/2023 20:28	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/10/2023 20:51	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/10/2023 22:00	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/10/2023 22:23	1		J&W DB WAX 0.45(mm)
CCV 680-792737/26		08/10/2023 23:09	1	1GH10026.D	J&W DB WAX 0.45(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Instrument ID: CVGG2 Start Date: 08/14/2023 16:13

Analysis Batch Number: 793374 End Date: 08/15/2023 00:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 680-793374/5		08/14/2023 16:13	1	1GH10005.D	J&W DB WAX 0.45(mm)
LCS 680-793374/6		08/14/2023 16:43	1	1GH10006.D	J&W DB WAX 0.45(mm)
LCSD 680-793374/7		08/14/2023 17:06	1	1GH10007.D	J&W DB WAX 0.45(mm)
MB 680-793374/10		08/14/2023 18:15	1	1GH10010.D	J&W DB WAX 0.45(mm)
580-130239-2	AF-RHMW225401-WGN01B-2308	08/14/2023 19:48	1	1GH10014.D	J&W DB WAX 0.45(mm)
ZZZZZ		08/14/2023 20:57	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/14/2023 21:20	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/14/2023 21:43	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/14/2023 22:06	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/14/2023 22:29	1		J&W DB WAX 0.45(mm)
580-130239-2 MS	AF-RHMW225401-WGN01B-2308 MS	08/14/2023 22:52	1	1GH10022.D	J&W DB WAX 0.45(mm)
580-130239-2 MSD	AF-RHMW225401-WGN01B-2308 MSD	08/14/2023 23:15	1	1GH10023.D	J&W DB WAX 0.45(mm)
ZZZZZ		08/14/2023 23:38	1		J&W DB WAX 0.45(mm)
ZZZZZ		08/15/2023 00:01	1		J&W DB WAX 0.45(mm)
CCV 680-793374/25		08/15/2023 00:47	1	1GH10027.D	J&W DB WAX 0.45(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Batch Number: 788122 Batch Start Date: 07/13/23 12:19 Batch Analyst: Mullis, David B

Batch Method: 8015C GLY Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00053	SG_GLY_ISTD 00124	SG_GlyICV 00061		
IC 680-788122/4		8015C GLY		1 mL	50 uL	10 uL			
IC 680-788122/5		8015C GLY		1 mL	40 uL	10 uL			
IC 680-788122/6		8015C GLY		1 mL	25 uL	10 uL			
ICIS 680-788122/7		8015C GLY		1 mL	10 uL	10 uL			
IC 680-788122/8		8015C GLY		1 mL	5 uL	10 uL			
IC 680-788122/9		8015C GLY		1 mL	2.5 uL	10 uL			
IC 680-788122/10		8015C GLY		1 mL	1 uL	10 uL			
ICV 680-788122/11 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.: 580-130239-1

SDG No.:

Batch Number: 792737 Batch Start Date: 08/10/23 12:24 Batch Analyst: Mullis, David B

Batch Method: 8015C GLY Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00053	SG_GLY_ISTD 00127			
CCVIS 680-792737/4		8015C GLY		1 mL	10 uL	10 uL			
LCS 680-792737/5		8015C GLY		1 mL	10 uL	10 uL			
LCSD 680-792737/6		8015C GLY		1 mL	10 uL	10 uL			
MB 680-792737/9		8015C GLY		1 mL		10 uL			
580-130239-B-1	AF-RHMW10-WGN01L F-2308	8015C GLY	T	1 mL		10 uL			
CCV 680-792737/26		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.

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-130239-1

SDG No.:

Batch Number: 793374 Batch Start Date: 08/14/23 16:13 Batch Analyst: Mullis, David B

Batch Method: 8015C GLY Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00053	SG_Gly_CAL 00055	SG_GLY_ISTD 00127		
CCVIS 680-793374/5		8015C GLY		1 mL	10 uL		10 uL		
LCS 680-793374/6		8015C GLY		1 mL	10 uL		10 uL		
LCSD 680-793374/7		8015C GLY		1 mL	10 uL		10 uL		
MB 680-793374/10		8015C GLY		1 mL			10 uL		
580-130239-B-2 MS	AF-RHMW225401-WG N01B-2308	8015C GLY	T	1 mL		10 uL	10 uL		
580-130239-B-2 MSD	AF-RHMW225401-WG N01B-2308	8015C GLY	T	1 mL		10 uL	10 uL		
CCV 680-793374/25		8015C GLY		1 mL	10 uL		10 uL		
580-130239-B-2	AF-RHMW225401-WG N01B-2308	8015C GLY	T	1 mL			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: Cristian Perez	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2308AFEA03
Client Contact:	Phone: 808-521-3051	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 - 5 Day			
State, Zip: Hawaii 96813	Compliance Project: Δ Yes Δ No			
Phone: 808-954-4512 / 770-331-0794	PO #:			
Email: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	WO #:			
Project Name: CTO N6274223F0104	Project #: 60697810			
Site: RHSF	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	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_DS/ 2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
AF-RHMW10-WGN01LF-2308	8/1/23	1040	G	W	N	N	X	3	

580-130239 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
■ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ 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: AWB: 016-94110391

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Andy Young	8/1/23 1330	AECOM	Brittany Tominez	08/01/23 1330	AECOM
2	Brittany Tominez	08/02/23 1332	AECOM		8/4/23 1500	
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.8/4.7

Ver: 01/16/2019

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Cristian Perez	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2308AFEA07
Client Contact:	Phone: 808-521-3051	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 - 5 Day			
State, Zip: Hawaii 96813	Compliance Project: Δ Yes Δ No			
Phone: 808-954-4512 / 770-331-0794	PO #:			
Email: Watson Tanji (watson.tanji@aecom.com)/ Mark Kromis (mark.kromis@aecom.com)	WO #:			
Project Name: CTO N6274223F0104	Project #: 60697810			
Site: RHSF	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	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-RHMW225401-WGN01B-2308	8/2/23	1140	G	W	N	N	X	3	

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: Airbill 016-94112 0391

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Andy Young	8/2/23 1335	AECOM	Eli Martin	8/2/23 1335	AECOM
Eli Martin	8/2/23 1340	AECOM	8/4/23	1500	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 4.8/4.7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-130239-1

Login Number: 130239
List Number: 1
Creator: Johnson, Corey M

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.	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	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-130239-1

Login Number: 130239
List Number: 2
Creator: Johnson, Corey M

List Source: Eurofins Savannah
List Creation: 08/10/23 03:07 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	
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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	