eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Terri Choy
AECOM
1001 Bishop Street
Honolulu HI 96813

Generated 5/9/2023 10:27 AM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-126724-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

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

Generated
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Authorized for release by
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253 248-4972

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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: 580-126724-1

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 5/2/2023 10:30 AM. 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 3.5º 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-RHMW03-WGN01LF-2304W4 (580-126724-1) and AF-RHMW02-WGN01LF-2304W4 (580-126724-2) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 05/05/2023.

The continuing calibration verification (CCV) associated with batch 680-777037 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: 580-126724-1
Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW03-WGN01LF-2304W4 — Lab Sample ID: 580-126724-1

No Detections.

Client Sample ID: AF-RHMW02-WGN01LF-2304W4 — Lab Sample ID: 580-126724-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: AF-RHMW03-WGN01LF-2304W4
Lab Sample ID: 580-126724-1

Date Collected: 04/27/23 11:25
Matrix: Water
Date Received: 05/02/23 10:30

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 M Q	5.0	1.1	mg/L			05/05/23 00:56	1

Client Sample ID: AF-RHMW02-WGN01LF-2304W4
Lab Sample ID: 580-126724-2

Date Collected: 04/27/23 09:55
Matrix: Water
Date Received: 05/02/23 10:30

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			05/05/23 01:20	1

Default Detection Limits

Client: AECOM
Job ID: 580-126724-1
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 680-777037/16
Matrix: Water
Analysis Batch: 777037

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			05/04/23 23:24	1

Lab Sample ID: LCS 680-777037/12
Matrix: Water
Analysis Batch: 777037

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	23.3		mg/L		116	50 - 150		

Lab Sample ID: LCSD 680-777037/13
Matrix: Water
Analysis Batch: 777037

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	21.8		mg/L		109	50 - 150	6	50

Lab Sample ID: 580-126724-2 MS
Matrix: Water
Analysis Batch: 777037

Client Sample ID: AF-RHMW02-WGN01LF-2304W4
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	21.7		mg/L		109	50 - 150		

Lab Sample ID: 580-126724-2 MSD
Matrix: Water
Analysis Batch: 777037

Client Sample ID: AF-RHMW02-WGN01LF-2304W4
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	25.4		mg/L		127	50 - 150	16	50

QC Association Summary

Client: AECOM
Job ID: 580-126724-1
Project/Site: Red Hill - AFFF Assessment Sampling

GC Semi VOA

Analysis Batch: 777037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-126724-1	AF-RHMW03-WGN01LF-2304W4	Total/NA	Water	8015C GLY	
580-126724-2	AF-RHMW02-WGN01LF-2304W4	Total/NA	Water	8015C GLY	
MB 680-777037/16	Method Blank	Total/NA	Water	8015C GLY	
LCS 680-777037/12	Lab Control Sample	Total/NA	Water	8015C GLY	
LCSD 680-777037/13	Lab Control Sample Dup	Total/NA	Water	8015C GLY	
580-126724-2 MS	AF-RHMW02-WGN01LF-2304W4	Total/NA	Water	8015C GLY	
580-126724-2 MSD	AF-RHMW02-WGN01LF-2304W4	Total/NA	Water	8015C GLY	

Lab Chronicle

Client: AECOM
Job ID: 580-126724-1
Project/Site: Red Hill - AFFF Assessment Sampling

Client Sample ID: AF-RHMW03-WGN01LF-2304W4
Lab Sample ID: 580-126724-1

Date Collected: 04/27/23 11:25
Matrix: Water
Date Received: 05/02/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	777037	GEM	EET SAV	05/05/23 00:56

Client Sample ID: AF-RHMW02-WGN01LF-2304W4
Lab Sample ID: 580-126724-2

Date Collected: 04/27/23 09:55
Matrix: Water
Date Received: 05/02/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015C GLY		1	777037	GEM	EET SAV	05/05/23 01:20

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM
Job ID: 580-126724-1
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: 580-126724-1
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: 580-126724-1
Project/Site: Red Hill - AFFF Assessment Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-126724-1	AF-RHMW03-WGN01LF-2304W4	Water	04/27/23 11:25	05/02/23 10:30
580-126724-2	AF-RHMW02-WGN01LF-2304W4	Water	04/27/23 09:55	05/02/23 10:30

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 777037

Lab Sample ID: IC 680-777037/4 Client Sample ID:

Date Analyzed: 05/04/23 18:45 Lab File ID: GE04013.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2'-Oxybisethanol	8.81	Baseline Smoothing	SK9U	05/05/23 11:26
Triethylene Glycol	10.06	Baseline Smoothing	SK9U	05/05/23 12:12

Lab Sample ID: IC 680-777037/5 Client Sample ID:

Date Analyzed: 05/04/23 19:08 Lab File ID: GE04014.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Triethylene Glycol	10.06	Baseline Smoothing	SK9U	05/05/23 12:12

Lab Sample ID: IC 680-777037/6 Client Sample ID:

Date Analyzed: 05/04/23 19:31 Lab File ID: GE04015.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	2.58	Baseline Smoothing	SK9U	05/05/23 11:57
2-Butoxyethanol	2.77	Baseline Smoothing	SK9U	05/05/23 11:57
n-Heptyl Alcohol	3.08	Baseline Smoothing	SK9U	05/05/23 11:57
2,2'-Oxybisethanol	8.81	Baseline Smoothing	SK9U	05/05/23 11:26
Triethylene Glycol	10.06	Baseline Smoothing	SK9U	05/05/23 12:11

Lab Sample ID: ICIS 680-777037/7 Client Sample ID:

Date Analyzed: 05/04/23 19:54 Lab File ID: GE04016.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2'-Oxybisethanol	8.81	Baseline Smoothing	SK9U	05/05/23 11:26
Triethylene Glycol	10.06	Baseline Smoothing	SK9U	05/05/23 12:11

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 777037

Lab Sample ID: IC 680-777037/8 Client Sample ID:

Date Analyzed: 05/04/23 20:18 Lab File ID: GE04017.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Heptyl Alcohol	3.07	Baseline Smoothing	SK9U	05/05/23 11:29
Propylene glycol	4.76	Baseline Smoothing	SK9U	05/05/23 11:28
Ethylene glycol	4.99	Baseline Smoothing	SK9U	05/05/23 11:28
2-(2-Butoxyethoxy)ethanol	6.67	Baseline Smoothing	SK9U	05/05/23 11:28
2,2'-Oxybisethanol	8.81	Baseline Smoothing	SK9U	05/05/23 11:29
Triethylene Glycol	10.06	Baseline Smoothing	SK9U	05/05/23 12:11

Lab Sample ID: IC 680-777037/9 Client Sample ID:

Date Analyzed: 05/04/23 20:41 Lab File ID: GE04018.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	4.76	Baseline Smoothing	SK9U	05/05/23 11:29
Ethylene glycol	4.99	Baseline Smoothing	SK9U	05/05/23 11:29
Triethylene Glycol	10.06	Baseline Smoothing	SK9U	05/05/23 12:11

Lab Sample ID: IC 680-777037/10 Client Sample ID:

Date Analyzed: 05/04/23 21:04 Lab File ID: GE04019.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Propylene glycol	4.77	Baseline Smoothing	SK9U	05/05/23 11:29
Ethylene glycol	5.00	Baseline Smoothing	SK9U	05/05/23 11:29
Triethylene Glycol	10.06	Baseline Smoothing	SK9U	05/05/23 12:10

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 777037

Lab Sample ID: ICV 680-777037/11 CCV Client Sample ID:

Date Analyzed: 05/04/23 21:27 Lab File ID: GE04020.D GC Column: J&W DB WAX ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Butoxyethanol	2.77	Baseline Smoothing	SK9U	05/05/23 11:46
Dipropylene Glycol Methyl Ether	3.83	Baseline Smoothing	SK9U	05/05/23 11:46
Propylene glycol	4.74	Baseline Smoothing	SK9U	05/05/23 11:46
Ethylene glycol	4.99	Baseline Smoothing	SK9U	05/05/23 11:46
Triethylene Glycol	10.06	Baseline Smoothing	SK9U	05/05/23 12:12

Lab Sample ID: MB 680-777037/16 Client Sample ID:

Date Analyzed: 05/04/23 23:24 Lab File ID: GE04025.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	SK9U	05/05/23 12:08

Lab Sample ID: 580-126724-1 Client Sample ID: AF-RHMW03-WGN01LF-2304W4

Date Analyzed: 05/05/23 00:56 Lab File ID: GE04029.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	SK9U	05/05/23 12:22

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
SG_Gly_CAL_00049	10/11/23	o2si, Lot 480919			(Purchased Reagent)		2,2'-Oxybisethanol	2000 ug/mL
							2-(2-Butoxyethoxy)ethanol	2000 ug/mL
							2-Butoxyethanol	2000 ug/mL
							4-Hydroxy-4-methyl-2-pentanone	2000 ug/mL
							Dipropylene Glycol Methyl Ether	2000 ug/mL
							Ethanol, 2-propoxy	2000 ug/mL
							Ethylene glycol	2000 ug/mL
							Propylene glycol	2000 ug/mL
							Tetraethylene Glycol	4000 ug/mL
							Triethylene Glycol	2000 ug/mL
SG_GLY_ISTD_00116	11/04/23	Agilent, Lot 0006738806			(Purchased Reagent)		n-Heptyl Alcohol	5000 ug/mL
SG_GlyICV_00057	07/01/23	o2si, Lot 454407			(Purchased Reagent)		2-(2-Butoxyethoxy)ethanol	2000 ug/mL

Reagent

SG_Gly_CAL_00049

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_ISTD_00116

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: 0000738806

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_GlyICV_00057

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

o2si smart solutions®

ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Certificate of Analysis

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

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

Container:
1 ml Ampule, Amber Glass

Certified Values:

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

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

Intended Uses:

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

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

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

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

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

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

Method of Preparation:

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

Packaging and Storage:

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

Glassware Calibration:

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

Weights and Balance Calibration:

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

Homogeneity:

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

Hazardous Information:

Refer to MSDS.

Calculation of Uncertainty:

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

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

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

Expiration Information:

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

Quality Standard Documentation:

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

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

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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.: 580-126724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GE04021.D

Lab ID: LCS 680-777037/12 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
2-(2-Butoxyethoxy)ethanol	20.0	23.3	116	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.: 580-126724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GE04022.D

Lab ID: LCSD 680-777037/13 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	21.8	109	6	50	50-150	

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.: 580-126724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GE04031.D

Lab ID: 580-126724-2 MS Client ID: AF-RHMW02-WGN01LF-2304W4 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	21.7	109	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.: 580-126724-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GE04032.D

Lab ID: 580-126724-2 MSD Client ID: AF-RHMW02-WGN01LF-2304W4 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	25.4	127	16	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.: 580-126724-1

SDG No.:

Lab Sample ID: MB 680-777037/16

Matrix: Water Date Extracted:

Lab File ID:(1) GE04025.D Lab File ID:(2)

Date Analyzed:(1) 05/04/2023 23:24 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 680-777037/12	05/04/2023 21:51	
	LCSD 680-777037/13	05/04/2023 22:14	
AF-RHMW03-WGN01LF-2304W4	580-126724-1	05/05/2023 00:56	
AF-RHMW02-WGN01LF-2304W4	580-126724-2	05/05/2023 01:20	
AF-RHMW02-WGN01LF-2304W4 MS	580-126724-2 MS	05/05/2023 01:43	
AF-RHMW02-WGN01LF-2304W4 MSD	580-126724-2 MSD	05/05/2023 02:06	

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

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Sample No.: ICIS 680-777037/7 Date Analyzed: 05/04/2023 19:54

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

Lab File ID (Standard): GE04016.D Heated Purge: (Y/N) N

Calibration ID: 90920

		nHPA					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		5680103	3.08				
UPPER LIMIT		11360206	3.58				
LOWER LIMIT		2840052	2.58				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-777037/11 CCV		5457015	3.07				
LCS 680-777037/12		5634454	3.08				
LCSD 680-777037/13		5575091	3.08				
MB 680-777037/16		6356297	3.08				
580-126724-1	AF-RHMW03-WGN01LF-2 304W4	5397479	3.08				
580-126724-2	AF-RHMW02-WGN01LF-2 304W4	5931807	3.08				
580-126724-2 MS	AF-RHMW02-WGN01LF-2 304W4 MS	5740358	3.08				
580-126724-2 MSD	AF-RHMW02-WGN01LF-2 304W4 MSD	5141179	3.07				
CCV 680-777037/27		5496144	3.07				

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.: 580-126724-1

SDG No.:

Client Sample ID: AF-RHMW03-WGN01LF-2304W4 Lab Sample ID: 580-126724-1

Matrix: Water Lab File ID: GE04029.D

Analysis Method: 8015C GLY Date Collected: 04/27/2023 11:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/05/2023 00:56

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.: 777037 Units: mg/L

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

Eurofins Savannah
Target Compound Quantitation Report

Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04029.D				
Lims ID:	580-126724-A-1				
Client ID:	AF-RHMW03-WGN01LF-2304W4				
Sample Type:	Client				
Inject. Date:	05-May-2023 00:56:56	ALS Bottle#:	0	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	680-0085751-020				
Operator ID:		Instrument ID:	CVGG2		
Method:	\\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m				
Limit Group:	8015C_DAI				
Last Update:	05-May-2023 12:22:55	Calib Date:	04-May-2023 21:04:38		
Integrator:	Falcon				
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D				
Column 1 :	J&W DB WAX (0.45 mm)		Det: GC FID2B		
Process Host:	CTX1676				

First Level Reviewer: SK9U Date: 05-May-2023 12:22:20

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
* 4 n-Heptyl Alcohol					
3.080	3.082	-0.002	5397479	50.0	

QC Flag Legend

Processing Flags

Reagents:

SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

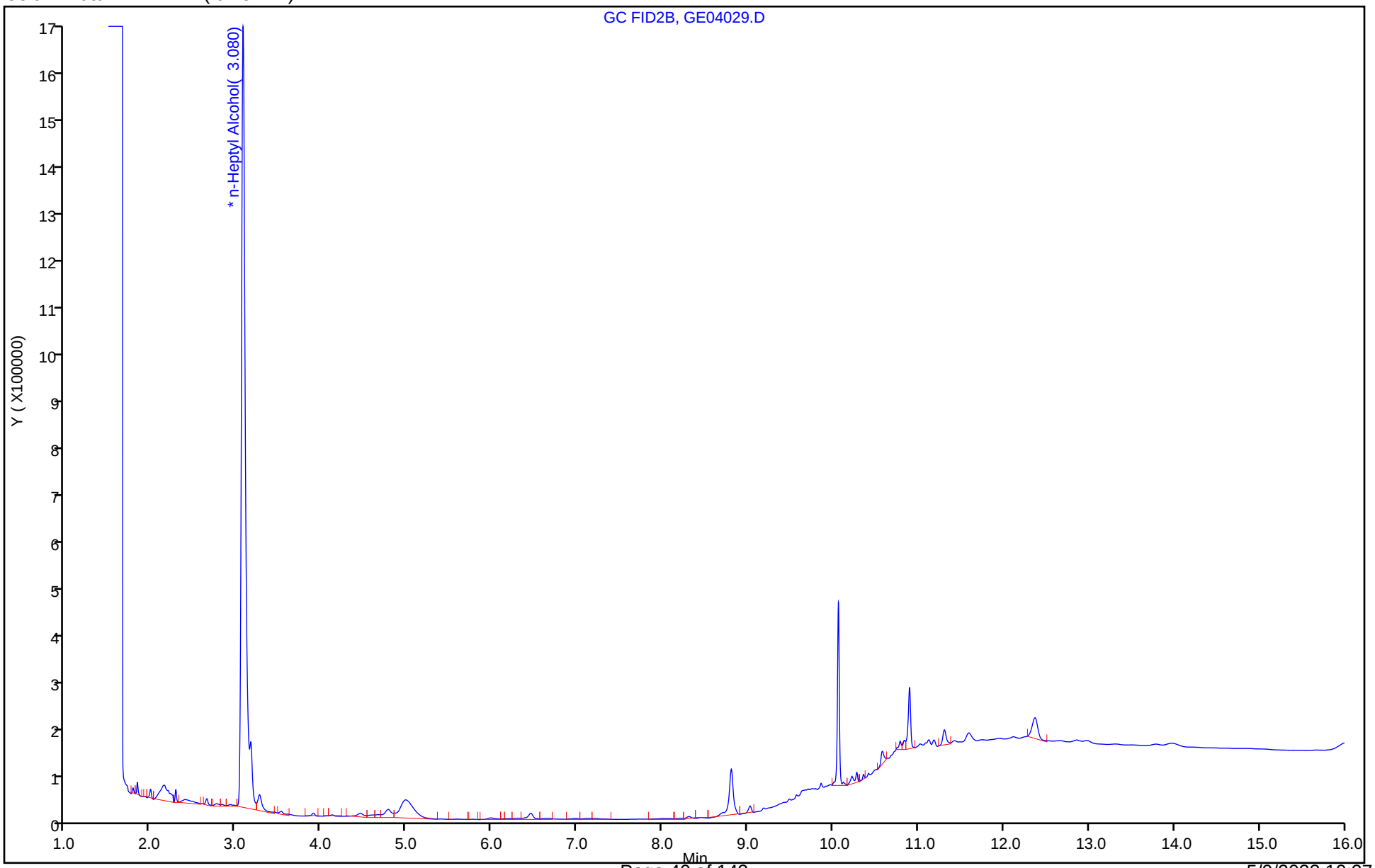
Report Date: 05-May-2023 12:26:47 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04029.D

Injection Date:	05-May-2023 00:56:56	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-126724-A-1	Lab Sample ID:	680-126724-1	Worklist Smp#:	20
Client ID:	AF-RHMW03-WGN01LF-2304W4				
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)



5/9/2023 10:27 AM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Client Sample ID: AF-RHMW02-WGN01LF-2304W4 Lab Sample ID: 580-126724-2

Matrix: Water Lab File ID: GE04030.D

Analysis Method: 8015C GLY Date Collected: 04/27/2023 09:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/05/2023 01:20

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.: 777037 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\20230504-85751.b\GE04030.D
Lims ID: 580-126724-C-2
Client ID: AF-RHMW02-WGN01LF-2304W4
Sample Type: Client
Inject. Date: 05-May-2023 01:20:06 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-021
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:22:55 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 12:22:55

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1	Ethanol, 2-propoxy					7
	2.231	2.225	0.006	37909	-0.7746	7
	LOD =	0.5000				
3	2-Butoxyethanol					7
	2.771	2.768	0.003	5342	-0.5598	7
	LOD =	0.5000				
* 4	n-Heptyl Alcohol					
	3.084	3.082	0.002	5931807	50.0	
6	Propylene glycol					
	4.791	4.739	0.052	55043	4.48	
7	Ethylene glycol					
	4.984	4.988	-0.004	139354	3.07	
8	2-(2-Butoxyethoxy)ethanol					7
	6.609	6.670	-0.061	7979	0.1357	7
	LOD =	0.5000				
9	2,2'-Oxybisethanol					
	8.812	8.808	0.004	131545	4.79	
10	Triethylene Glycol					
	10.064	10.063	0.001	142960	2.20	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

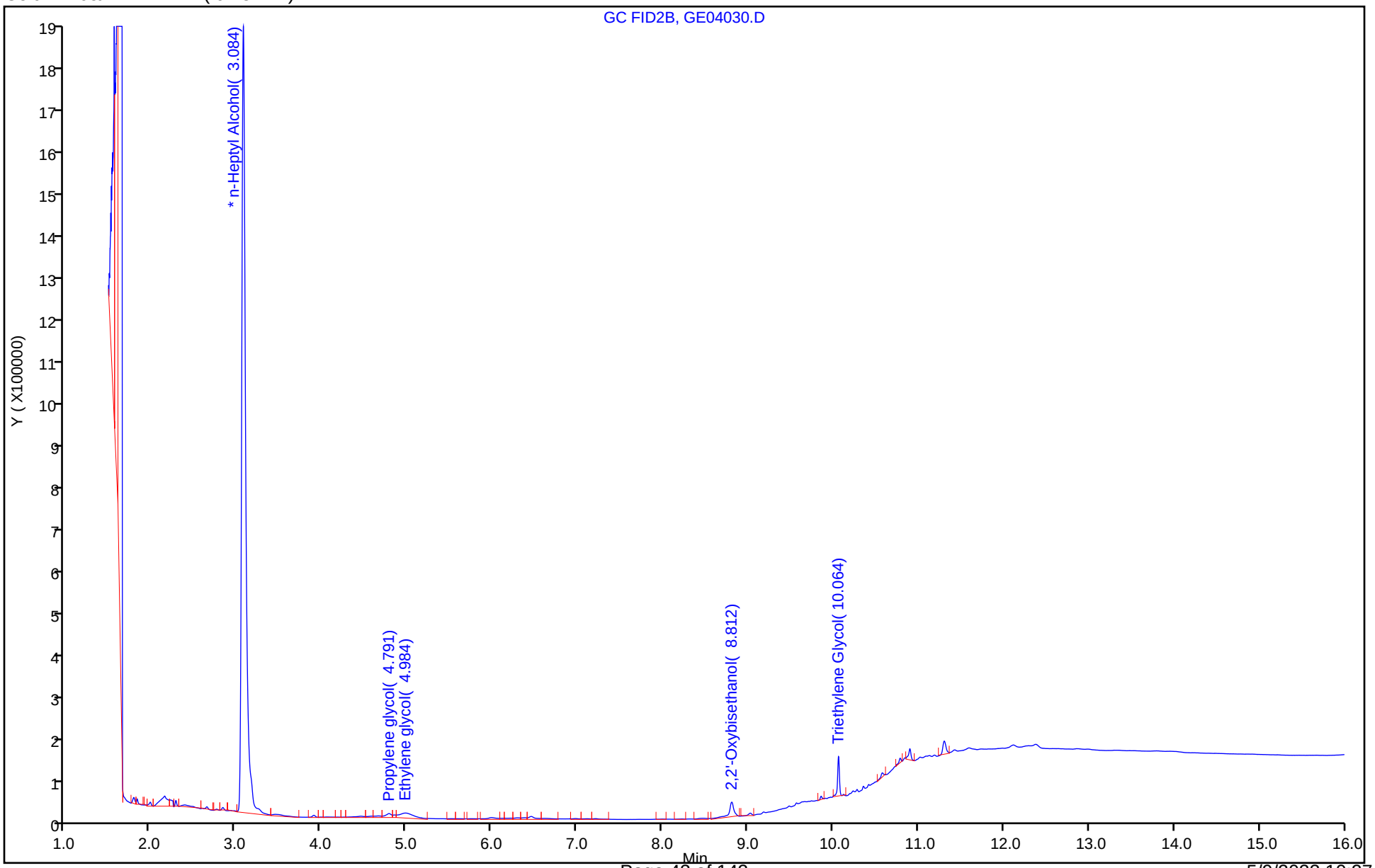
Report Date: 05-May-2023 12:26:48 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04030.D

Injection Date:	05-May-2023 01:20:06	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-126724-C-2	Lab Sample ID:	680-126724-2	Worklist Smp#:	21
Client ID:	AF-RHMW02-WGN01LF-2304W4				
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)



5/9/2023 10:27 AM

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

Lab Name: Eurofins Savannah Job No.: 580-126724-1 Analy Batch No.: 777037

SDG No.:

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

Calibration Start Date: 05/04/2023 18:45 Calibration End Date: 05/04/2023 21:04 Calibration ID: 90920

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-777037/10	GE04019.D
Level 2	IC 680-777037/9	GE04018.D
Level 3	IC 680-777037/8	GE04017.D
Level 4	ICIS 680-777037/7	GE04016.D
Level 5	IC 680-777037/6	GE04015.D
Level 6	IC 680-777037/5	GE04014.D
Level 7	IC 680-777037/4	GE04013.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	0.9785 0.6183	0.7037 0.6338	0.6933	0.6480	0.5059	Lin2	0.7724	0.5846							0.9910		0.9900
4-Hydroxy-4-methyl-2-pentanone	0.6522 0.5430	0.5442 0.5473	0.5903	0.5419	0.4553	Ave		0.5535				10.7		20.0			
2-Butoxyethanol	0.8236 0.6527	0.6783 0.6617	0.6954	0.6708	0.5341	Lin2	0.3941	0.6235							0.9920		0.9900
Dipropylene Glycol Methyl Ether	0.0502 0.0484	0.0456 0.0466	0.0495	0.0461	0.0401	Ave		0.0466				7.2		20.0			
Propylene glycol	0.0554 0.2139	0.0941 0.2068	0.1554	0.1817	0.1856	Qua	-0.407	0.1936	0.0002063						0.9980		0.9900
Ethylene glycol	0.3545 0.3765	0.4031 +++++	0.2867	0.3295	0.3391	Qua	0.3190	0.2747	0.0012170						1.0000		0.9900
2-(2-Butoxyethoxy)ethanol	0.5489 0.5070	0.5030 0.4843	0.5161	0.4871	0.4228	Ave		0.4956				7.8		20.0			
2,2'-Oxybisethanol	0.2828 0.2632	0.2813 0.2586	0.1963	0.2385	0.2376	Qua	0.0072	0.2284	0.0003334						0.9990		0.9900
Triethylene Glycol	0.4605 0.2686	0.3870 0.2578	0.2748	0.3272	0.2392	Qua	0.6789	0.2384	0.0001535						0.9950		0.9900
Tetraethylene Glycol	0.2561 0.2668	0.2654 0.2565	0.2056	0.2473	0.2390	Ave		0.2481				8.5		20.0			

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

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

Lab Name: Eurofins Savannah Job No.: 580-126724-1 Analy Batch No.: 777037

SDG No.:

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

Calibration Start Date: 05/04/2023 18:45 Calibration End Date: 05/04/2023 21:04 Calibration ID: 90920

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-777037/10	GE04019.D
Level 2	IC 680-777037/9	GE04018.D
Level 3	IC 680-777037/8	GE04017.D
Level 4	ICIS 680-777037/7	GE04016.D
Level 5	IC 680-777037/6	GE04015.D
Level 6	IC 680-777037/5	GE04014.D
Level 7	IC 680-777037/4	GE04013.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	Lin2	219781 4947508	348962 4592890	741209	1472288	2422595	2.00 80.0	5.00 100	10.0	20.0	50.0
4-Hydroxy-4-methyl-2-pentanone	nHPA	Ave	146502 4345538	269856 3965788	631103	1231256	2180486	2.00 80.0	5.00 100	10.0	20.0	50.0
2-Butoxyethanol	nHPA	Lin2	184986 5222938	336372 4795155	743452	1524064	2557714	2.00 80.0	5.00 100	10.0	20.0	50.0
Dipropylene Glycol Methyl Ether	nHPA	Ave	11270 387428	22596 338031	52872	104755	191987	2.00 80.0	5.00 100	10.0	20.0	50.0
Propylene glycol	nHPA	Qua	12451 1712034	46664 1498454	166185	412910	888748	2.00 80.0	5.00 100	10.0	20.0	50.0
Ethylene glycol	nHPA	Qua	79618 3012839	199874 +++++	306483	748659	1623885	2.00 80.0	5.00 +++++	10.0	20.0	50.0
2-(2-Butoxyethoxy)ethanol	nHPA	Ave	123292 4056948	249421 3509402	551776	1106769	2025020	2.00 80.0	5.00 100	10.0	20.0	50.0
2,2'-Oxybisethanol	nHPA	Qua	63516 2106213	139477 1873829	209902	541948	1137805	2.00 80.0	5.00 100	10.0	20.0	50.0
Triethylene Glycol	nHPA	Qua	103427 2149203	191920 1868379	293830	743449	1145441	2.00 80.0	5.00 100	10.0	20.0	50.0
Tetraethylene Glycol	nHPA	Ave	115048 4270780	263229 3717174	439677	1123689	2288803	4.00 160	10.0 200	20.0	40.0	100

Curve Type Legend

Ave = Average 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.: 580-126724-1 Analy Batch No.: 777037

SDG No.:

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

Calibration Start Date: 05/04/2023 18:45 Calibration End Date: 05/04/2023 21:04 Calibration ID: 90920

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-777037/10	GE04019.D
Level 2	IC 680-777037/9	GE04018.D
Level 3	IC 680-777037/8	GE04017.D
Level 4	ICIS 680-777037/7	GE04016.D
Level 5	IC 680-777037/6	GE04015.D
Level 6	IC 680-777037/5	GE04014.D
Level 7	IC 680-777037/4	GE04013.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
Ethanol, 2-propoxy	1.3 7.1	-6.0	5.4	4.2	-16.1	4.1	20 20	20	20	20	20	20
4-Hydroxy-4-methyl-2-pentanone	17.8 -1.1	-1.7	6.7	-2.1	-17.7	-1.9	20 20	20	20	20	20	20
2-Butoxyethanol	0.5 5.5	-3.9	5.2	4.4	-15.6	3.9	20 20	20	20	20	20	20
Dipropylene Glycol Methyl Ether	7.6 0.0	-2.3	6.0	-1.1	-14.0	3.8	20 20	20	20	20	20	20
2-(2-Butoxyethoxy)ethanol	10.8 -2.3	1.5	4.1	-1.7	-14.7	2.3	20 20	20	20	20	20	20
Tetraethylene Glycol	3.2 3.4	7.0	-17.1	-0.3	-3.7	7.6	20 20	20	20	20	20	20

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04013.D
Lims ID: ic g7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 04-May-2023 18:45:01 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-004
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:21:06 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 11:27:00

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.222	2.225	-0.003	4592890	100.0	107.1	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.576	2.579	-0.003	3965788	100.0	98.9	
	3 2-Butoxyethanol						
	2.765	2.768	-0.003	4795155	100.0	105.5	
*	4 n-Heptyl Alcohol						
	3.080	3.082	-0.002	3623228	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	3.826	3.826	0.000	338031	100.0	100.0	
	6 Propylene glycol						
	4.702	4.739	-0.037	1498454	100.0	98.6	
	7 Ethylene glycol						
	4.987	4.988	-0.001	2653477	100.0	93.5	
	8 2-(2-Butoxyethoxy)ethanol						
	6.670	6.670	0.000	3509402	100.0	97.7	
	9 2,2'-Oxybisethanol						M
	8.808	8.808	0.000	1873829	100.0	98.9	M
	10 Triethylene Glycol						M
	10.063	10.063	0.000	1868379	100.0	99.0	M
	11 Tetraethylene Glycol						
	10.901	10.901	0.000	3717174	200.0	206.8	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00049	Amount Added:	50.00	Units: uL	
SG_GLY_ISTD_00116	Amount Added:	10.00	Units: uL	Run Reagent

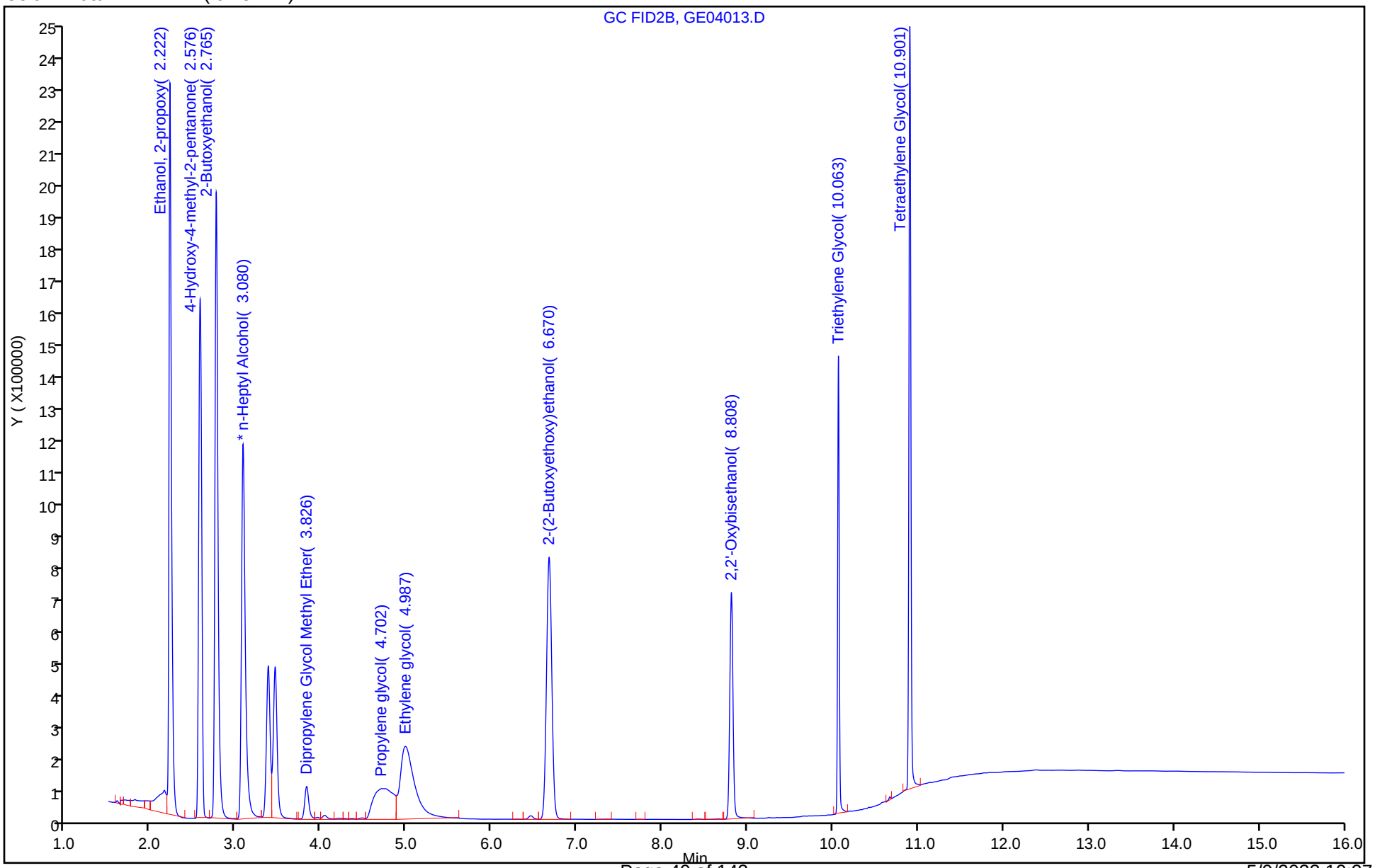
Report Date: 05-May-2023 12:21:06 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04013.D

Injection Date:	04-May-2023 18:45:01	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)



5/9/2023 10:27 AM

Manual Integration/User Assign Peak Report

Eurofins Savannah

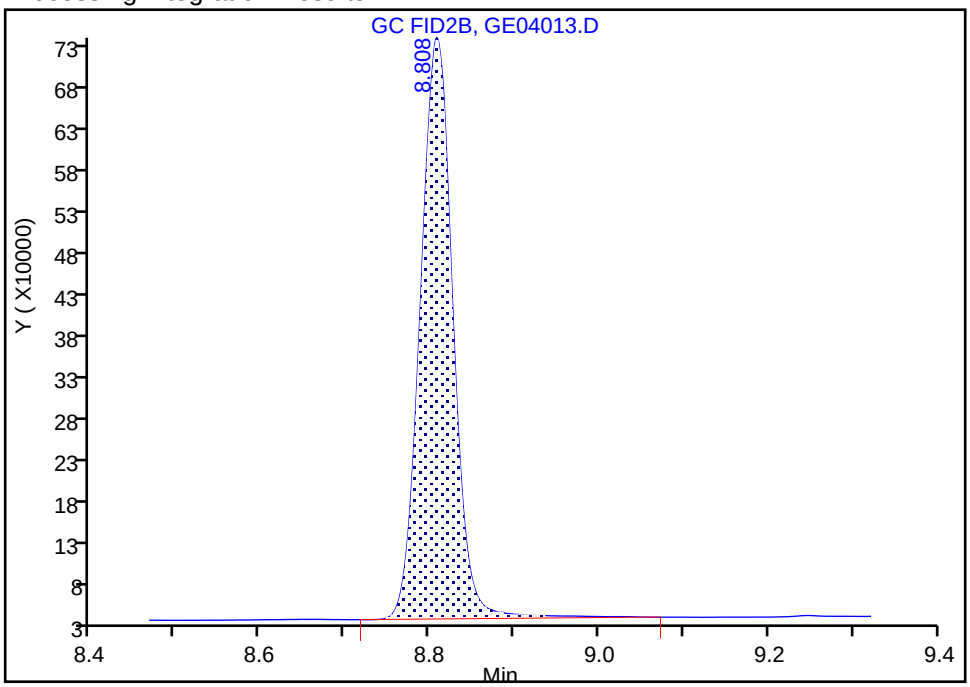
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04013.D
Injection Date: 04-May-2023 18:45:01 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

9 2,2'-Oxybisethanol, CAS: 111-46-6

Signal: 1

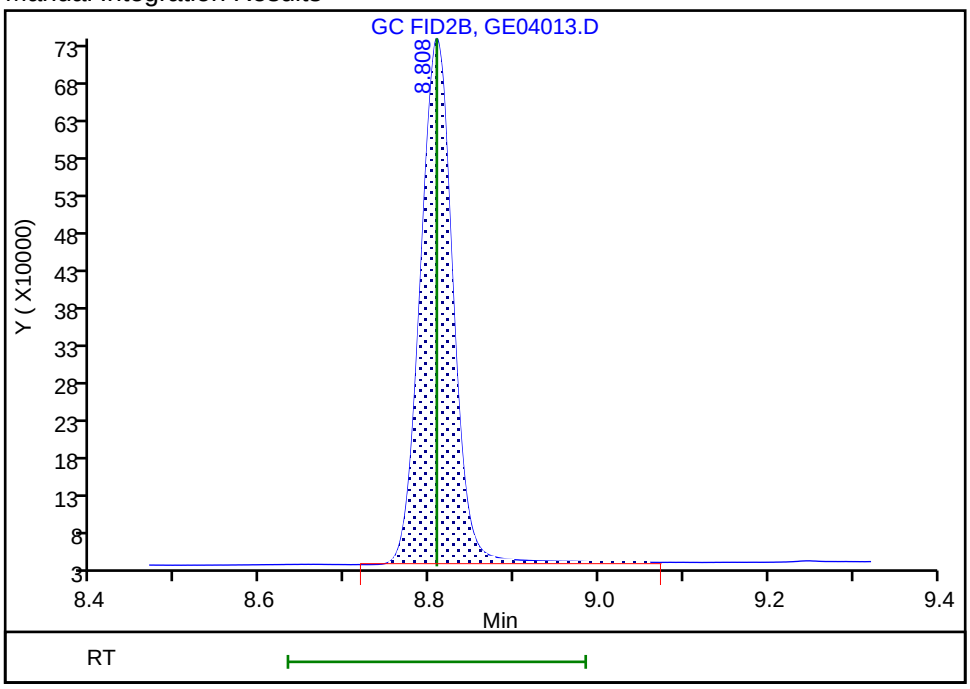
Processing Integration Results

RT: 8.81
Area: 1867971
Amount: 98.887353
Amount Units: ug/ml



Manual Integration Results

RT: 8.81
Area: 1873829
Amount: 98.919105
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:26:56
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

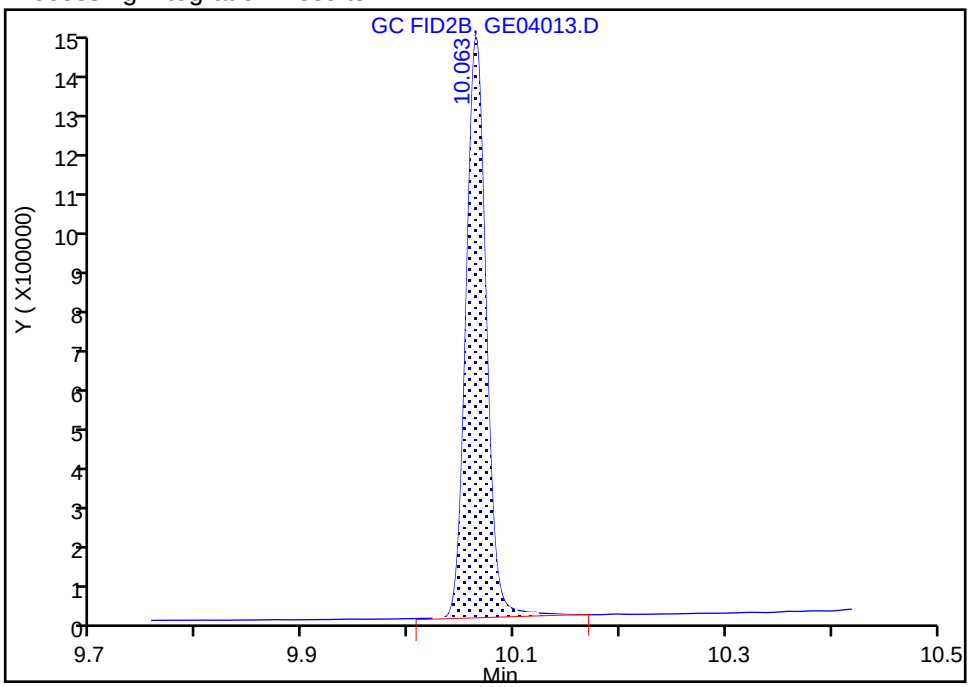
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04013.D
Injection Date: 04-May-2023 18:45:01 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

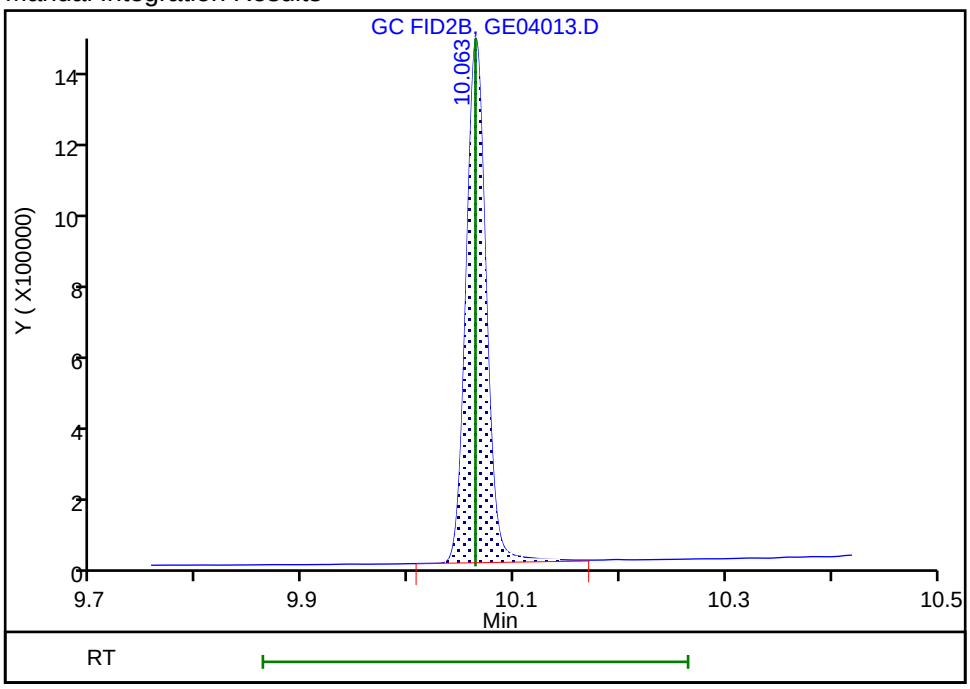
Processing Integration Results

RT: 10.06
Area: 1861137
Amount: 99.126849
Amount Units: ug/ml



Manual Integration Results

RT: 10.06
Area: 1868379
Amount: 99.008835
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 12:12:19
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04014.D
Lims ID: ic g6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 04-May-2023 19:08:16 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-005
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:21:08 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 12:12:09

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.224	2.225	-0.001	4947508	80.0	83.3	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.579	2.579	0.000	4345538	80.0	78.5	
	3 2-Butoxyethanol						
	2.768	2.768	0.000	5222938	80.0	83.1	
*	4 n-Heptyl Alcohol						
	3.083	3.082	0.001	5001427	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	3.826	3.826	0.000	387428	80.0	83.1	
	6 Propylene glycol						
	4.731	4.739	-0.008	1712034	80.0	83.2	
	7 Ethylene glycol						
	4.982	4.988	-0.006	3012839	80.0	80.1	
	8 2-(2-Butoxyethoxy)ethanol						
	6.671	6.670	0.001	4056948	80.0	81.8	
	9 2,2'-Oxybisethanol						
	8.808	8.808	0.000	2106213	80.0	82.3	
	10 Triethylene Glycol						M
	10.064	10.063	0.001	2149203	80.0	82.9	M
	11 Tetraethylene Glycol						
	10.904	10.901	0.003	4270780	160.0	172.1	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00049	Amount Added:	40.00	Units: uL	
SG_GLY_ISTD_00116	Amount Added:	10.00	Units: uL	Run Reagent

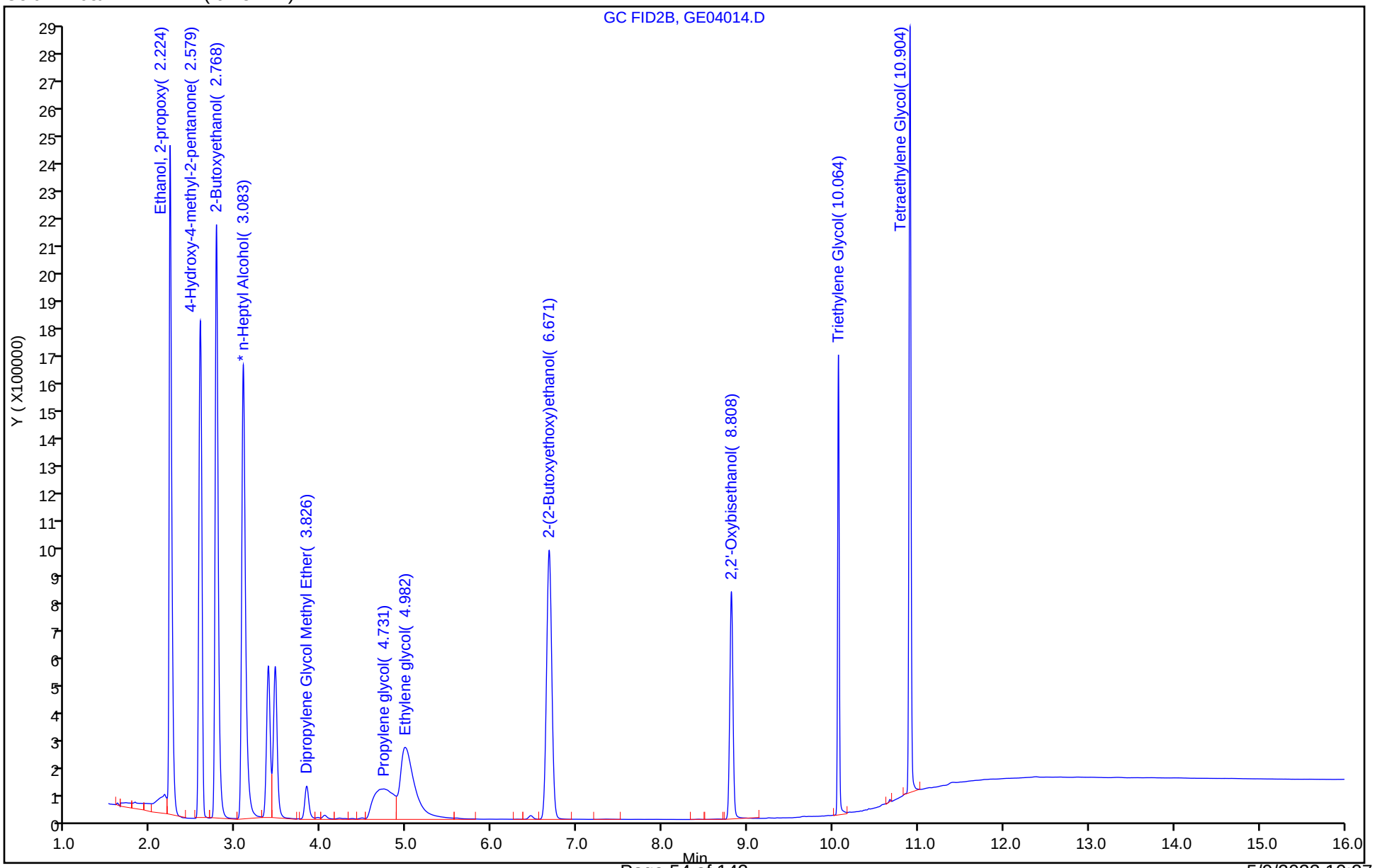
Report Date: 05-May-2023 12:21:08 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04014.D

Injection Date:	04-May-2023 19:08:16	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)



5/9/2023 10:27 AM

Manual Integration/User Assign Peak Report

Eurofins Savannah

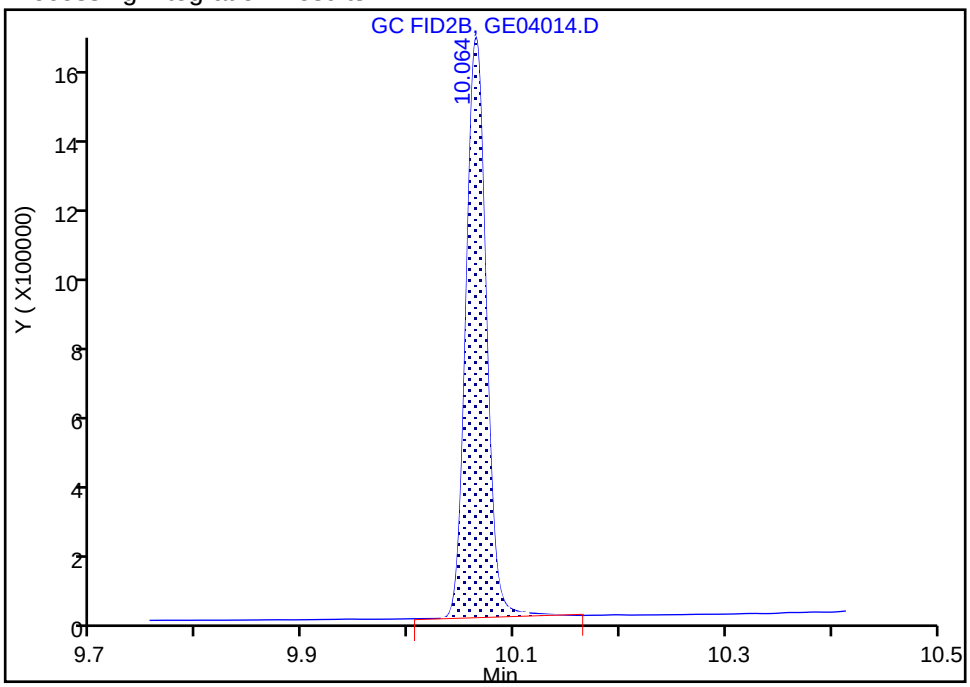
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04014.D
Injection Date: 04-May-2023 19:08:16 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

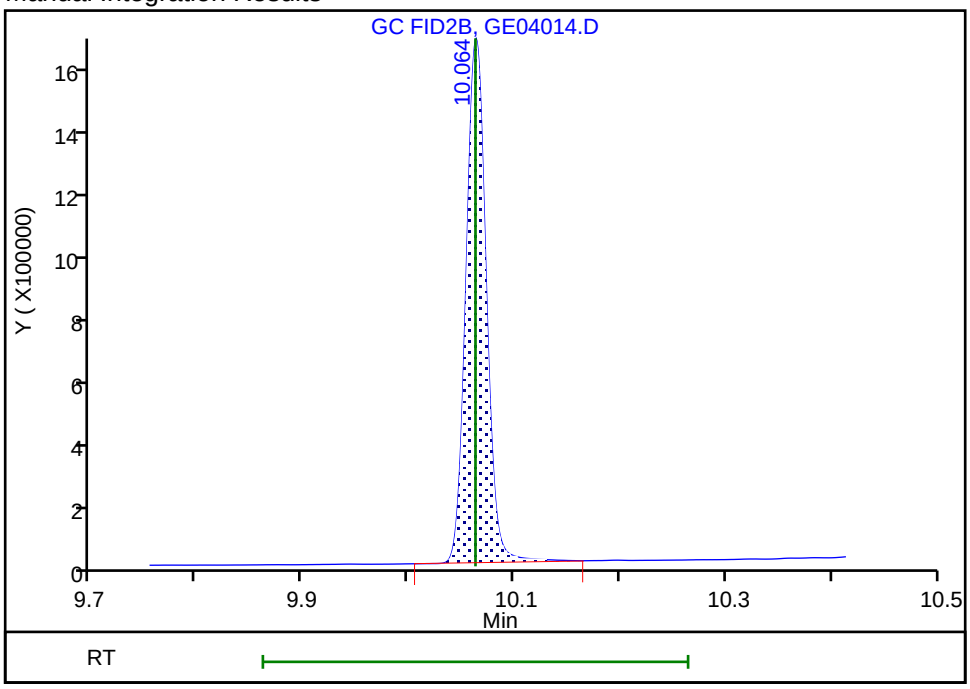
Processing Integration Results

RT: 10.06
Area: 2138827
Amount: 82.339907
Amount Units: ug/ml



Manual Integration Results

RT: 10.06
Area: 2149203
Amount: 82.869852
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 12:12:05
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04015.D
Lims ID: ic g5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 04-May-2023 19:31:31 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-006
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:21:09 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 11:26:30

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.224	2.225	-0.001	2422595	50.0	41.9	
	2 4-Hydroxy-4-methyl-2-pentanone						M
	2.578	2.579	-0.001	2180486	50.0	41.1	M
	3 2-Butoxyethanol						M
	2.767	2.768	-0.001	2557714	50.0	42.2	M
*	4 n-Heptyl Alcohol						M
	3.081	3.082	-0.001	4789036	50.0	50.0	M
	5 Dipropylene Glycol Methyl Ether						
	3.826	3.826	0.000	191987	50.0	43.0	
	6 Propylene glycol						
	4.718	4.739	-0.021	888748	50.0	47.6	
	7 Ethylene glycol						
	4.982	4.988	-0.006	1623885	50.0	49.6	
	8 2-(2-Butoxyethoxy)ethanol						
	6.671	6.670	0.001	2025020	50.0	42.7	
	9 2,2'-Oxybisethanol						M
	8.807	8.808	-0.001	1137805	50.0	48.5	M
	10 Triethylene Glycol						M
	10.063	10.063	0.000	1145441	50.0	46.0	M
	11 Tetraethylene Glycol						
	10.901	10.901	0.000	2288803	100.0	96.3	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00049	Amount Added:	25.00	Units: uL	
SG_GLY_ISTD_00116	Amount Added:	10.00	Units: uL	Run Reagent

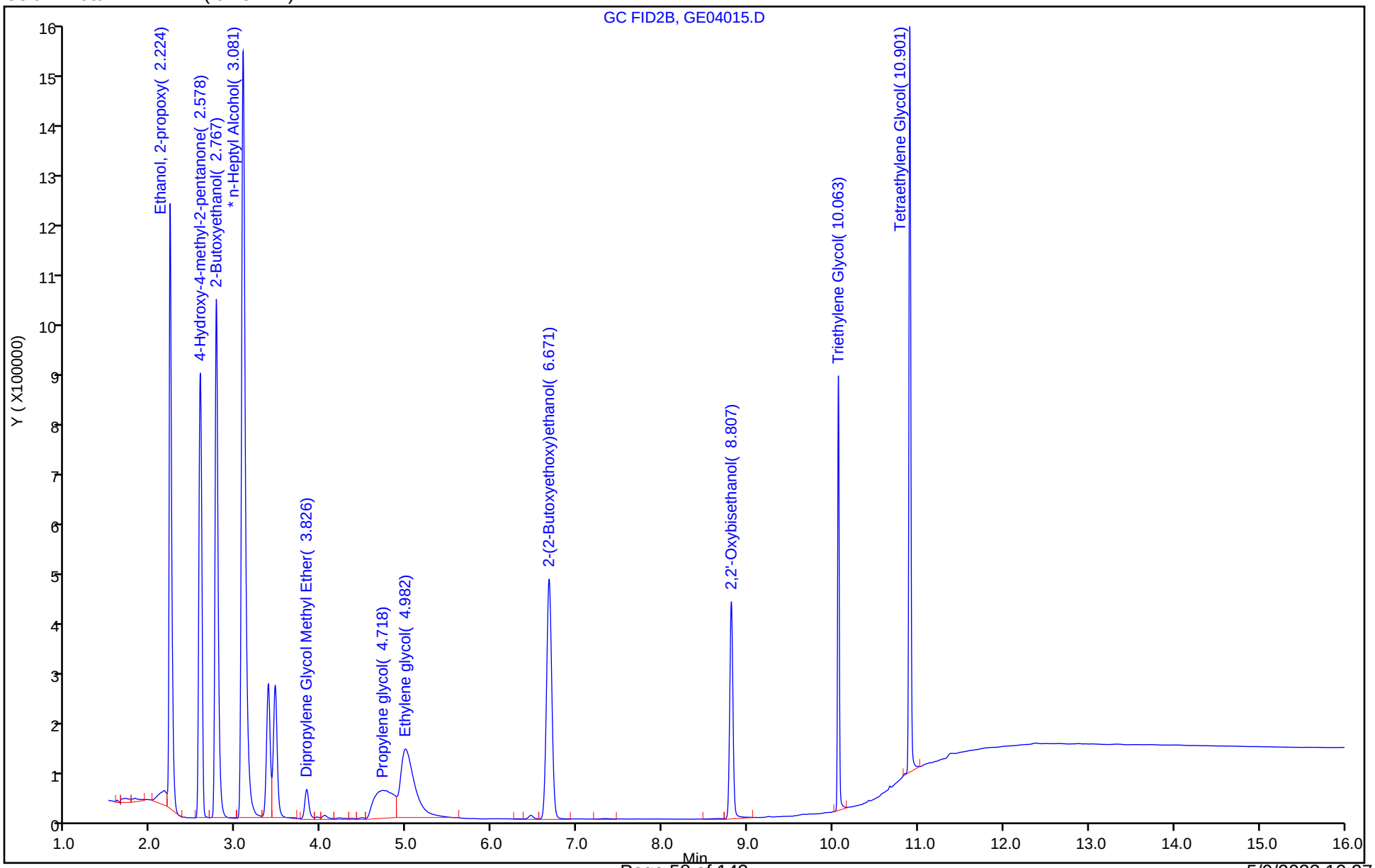
Report Date: 05-May-2023 12:21:09 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04015.D

Injection Date:	04-May-2023 19:31:31	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)



5/9/2023 10:27 AM

Manual Integration/User Assign Peak Report

Eurofins Savannah

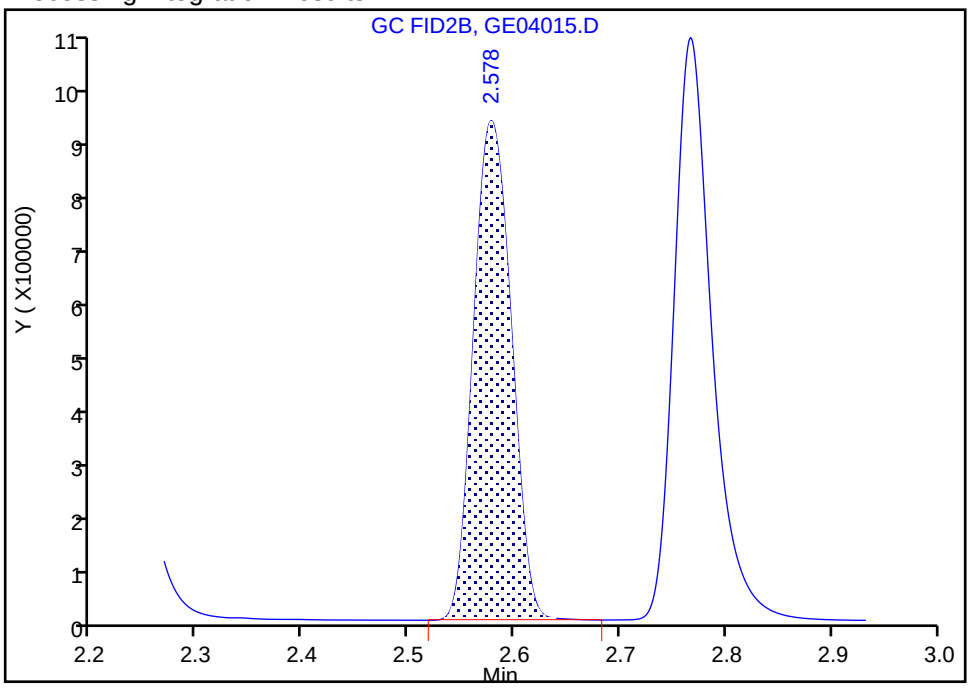
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04015.D
Injection Date: 04-May-2023 19:31:31 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

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

Signal: 1

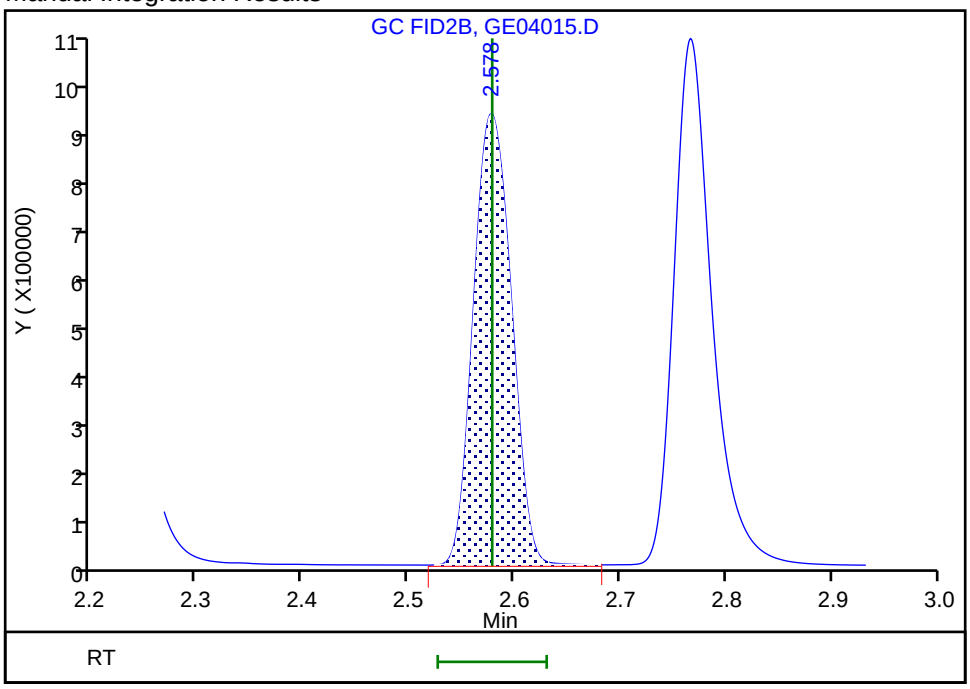
Processing Integration Results

RT: 2.58
Area: 2177349
Amount: 41.312402
Amount Units: ug/ml



Manual Integration Results

RT: 2.58
Area: 2180486
Amount: 41.132720
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:57:11
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

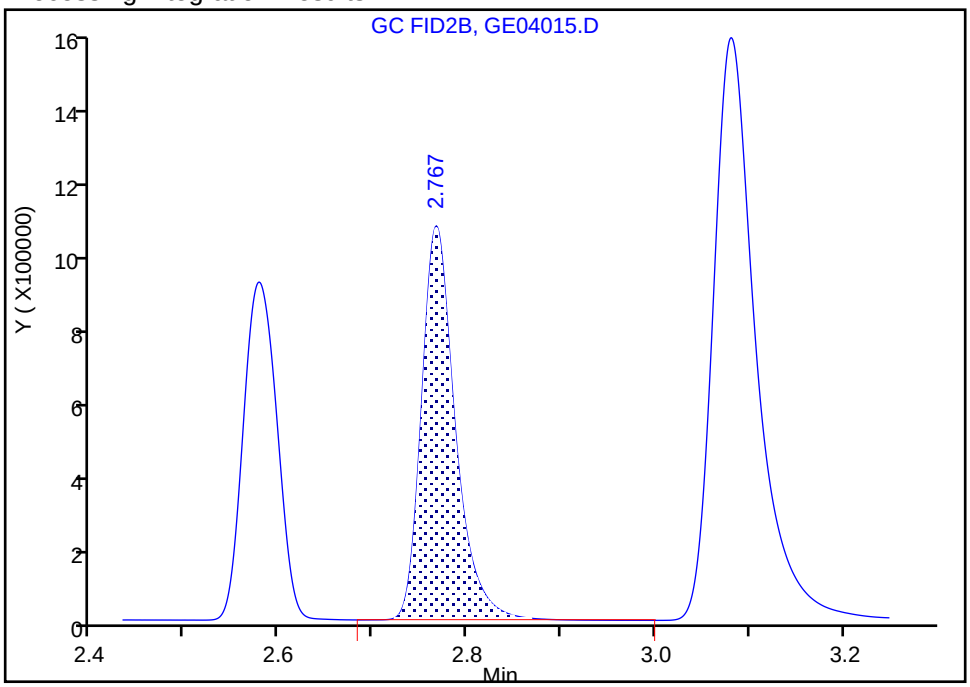
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04015.D
Injection Date: 04-May-2023 19:31:31 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

3 2-Butoxyethanol, CAS: 111-76-2

Signal: 1

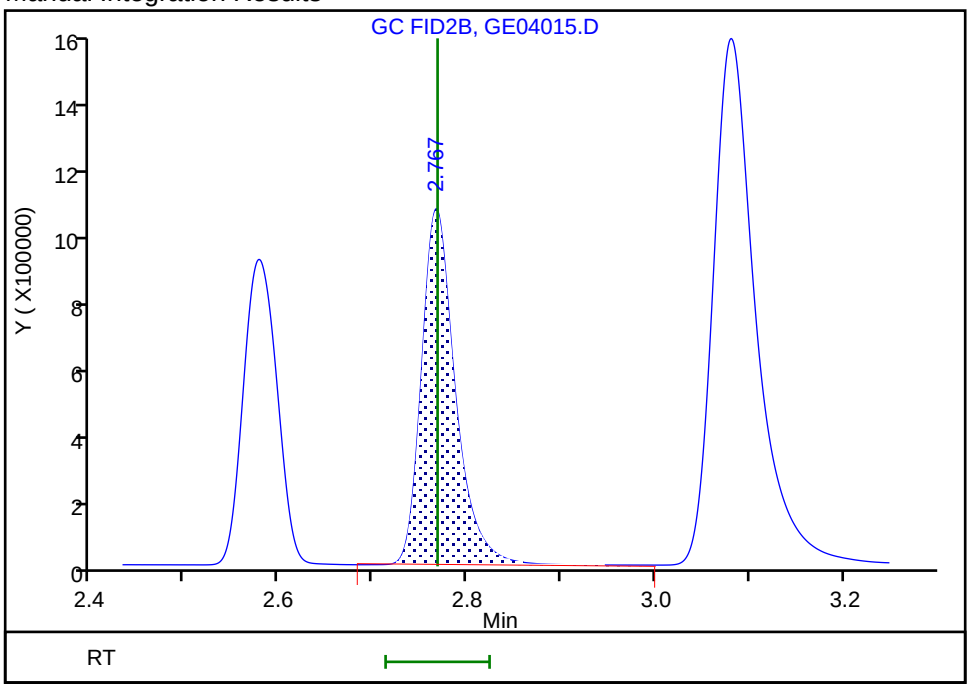
Processing Integration Results

RT: 2.77
Area: 2547159
Amount: 42.273691
Amount Units: ug/ml



Manual Integration Results

RT: 2.77
Area: 2557714
Amount: 42.193855
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:57:11
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

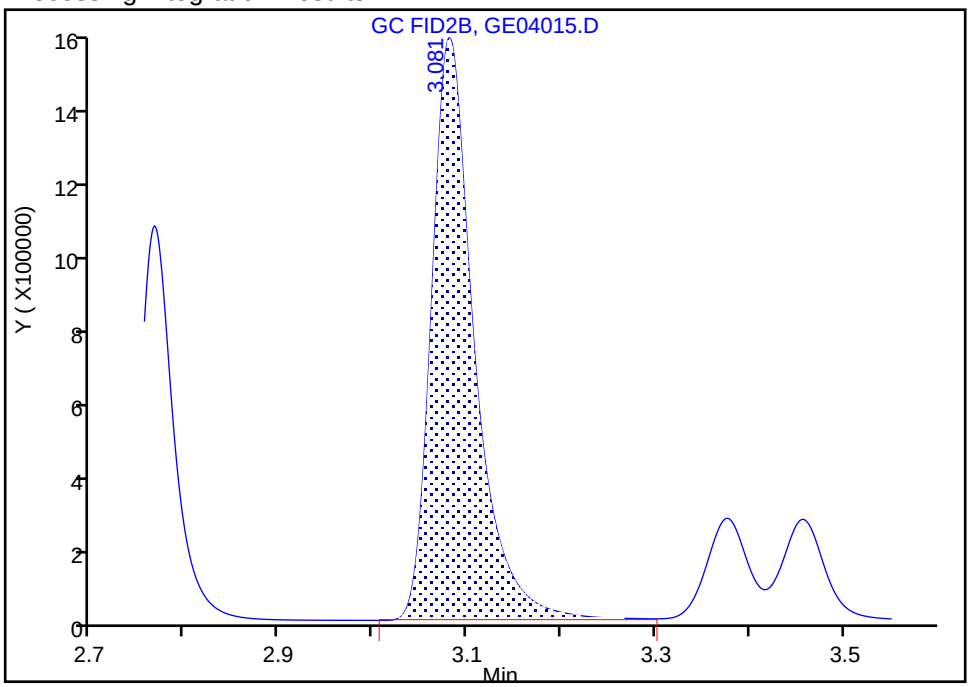
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04015.D
Injection Date: 04-May-2023 19:31:31 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

* 4 n-Heptyl Alcohol, CAS: 111-70-6

Signal: 1

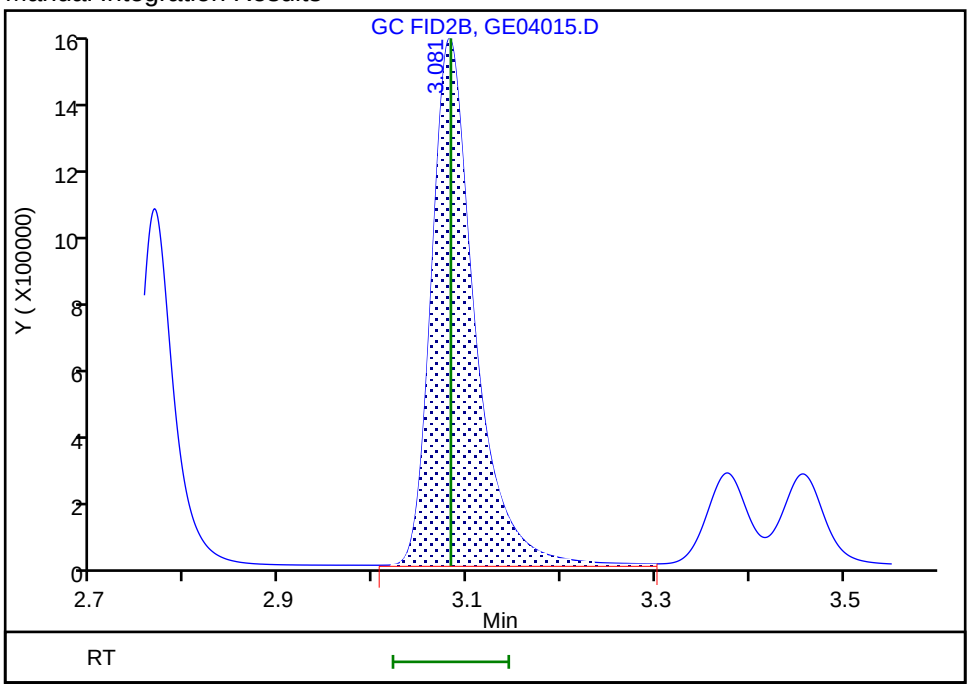
Processing Integration Results

RT: 3.08
Area: 4758577
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 3.08
Area: 4789036
Amount: 50.000000
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:57:07
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

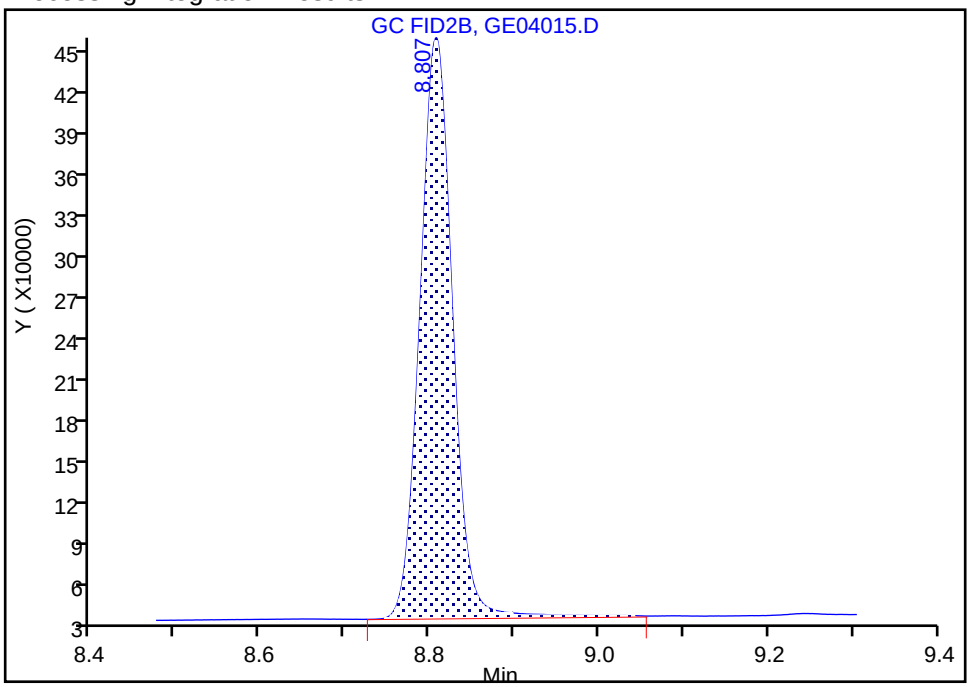
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04015.D
Injection Date: 04-May-2023 19:31:31 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

9 2,2'-Oxybisethanol, CAS: 111-46-6

Signal: 1

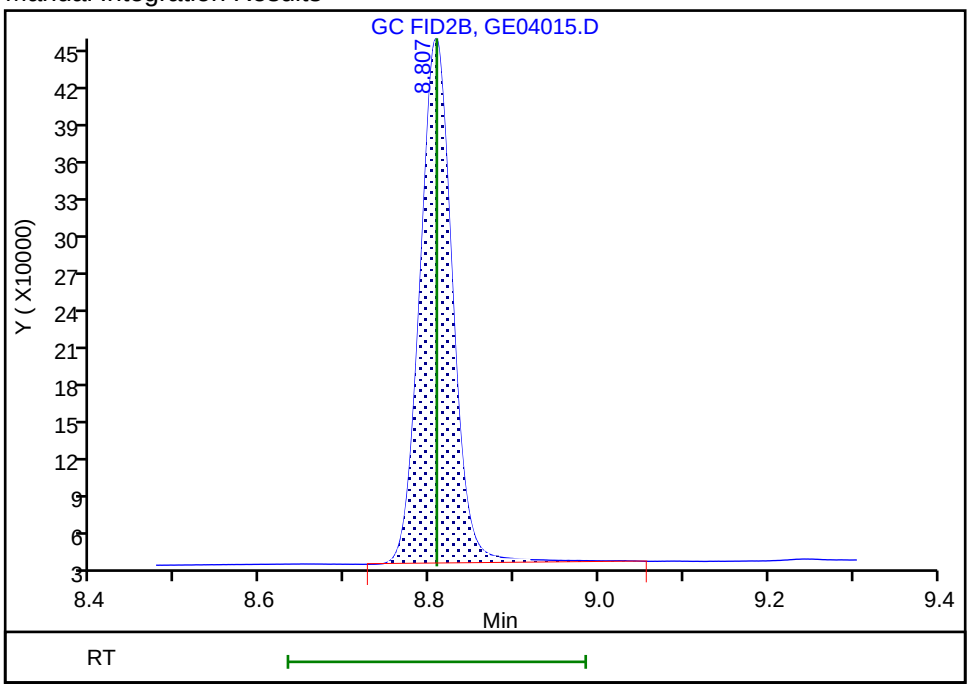
Processing Integration Results

RT: 8.81
Area: 1134498
Amount: 48.579353
Amount Units: ug/ml



Manual Integration Results

RT: 8.81
Area: 1137805
Amount: 48.548004
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:26:20
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

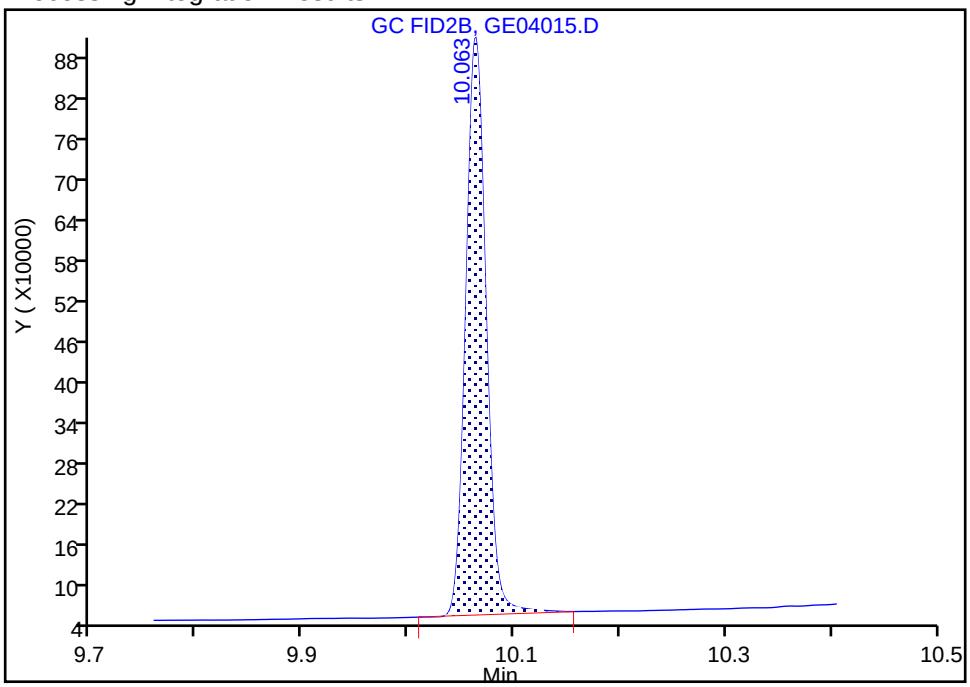
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04015.D
Injection Date: 04-May-2023 19:31:31 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

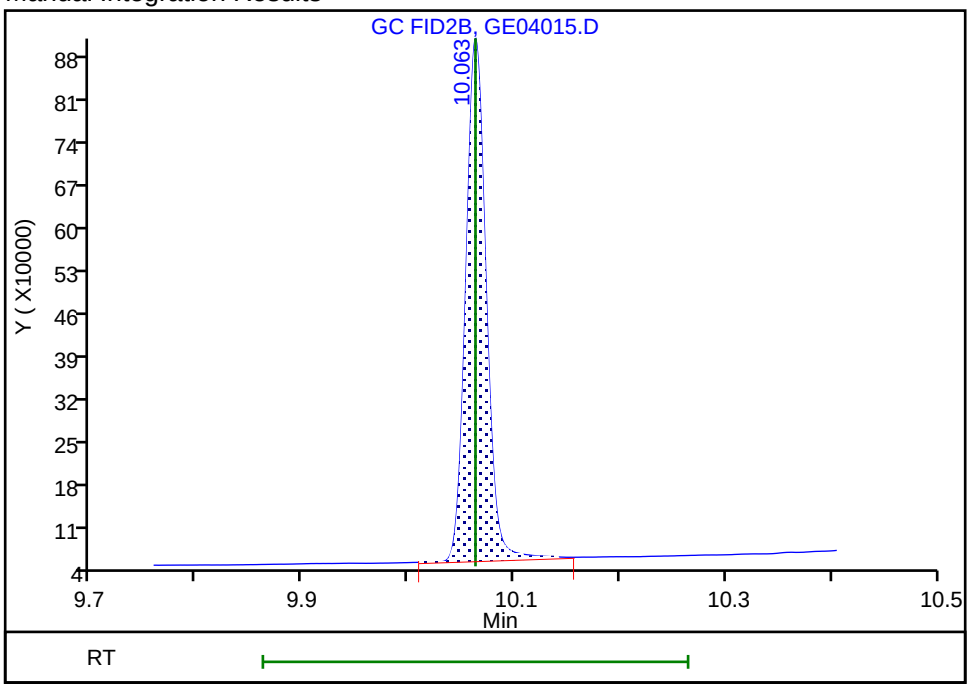
Processing Integration Results

RT: 10.06
Area: 1137737
Amount: 44.939672
Amount Units: ug/ml



Manual Integration Results

RT: 10.06
Area: 1145441
Amount: 45.963223
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 12:11:52
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04016.D
Lims ID: icis g4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 04-May-2023 19:54:50 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-007
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:21:10 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 11:26:05

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.225	2.225	0.000	1472288	20.0	20.8	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.579	2.579	0.000	1231256	20.0	19.6	
	3 2-Butoxyethanol						
	2.768	2.768	0.000	1524064	20.0	20.9	
*	4 n-Heptyl Alcohol						
	3.082	3.082	0.000	5680103	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	3.826	3.826	0.000	104755	20.0	19.8	
	6 Propylene glycol						
	4.739	4.739	0.000	412910	20.0	20.4	
	7 Ethylene glycol						
	4.988	4.988	0.000	748659	20.0	20.9	
	8 2-(2-Butoxyethoxy)ethanol						
	6.670	6.670	0.000	1106769	20.0	19.7	
	9 2,2'-Oxybisethanol						M
	8.808	8.808	0.000	541948	20.0	20.3	M
	10 Triethylene Glycol						M
	10.063	10.063	0.000	743449	20.0	24.2	M
	11 Tetraethylene Glycol						
	10.901	10.901	0.000	1123689	40.0	39.9	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00049	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00116	Amount Added:	10.00	Units: uL	Run Reagent

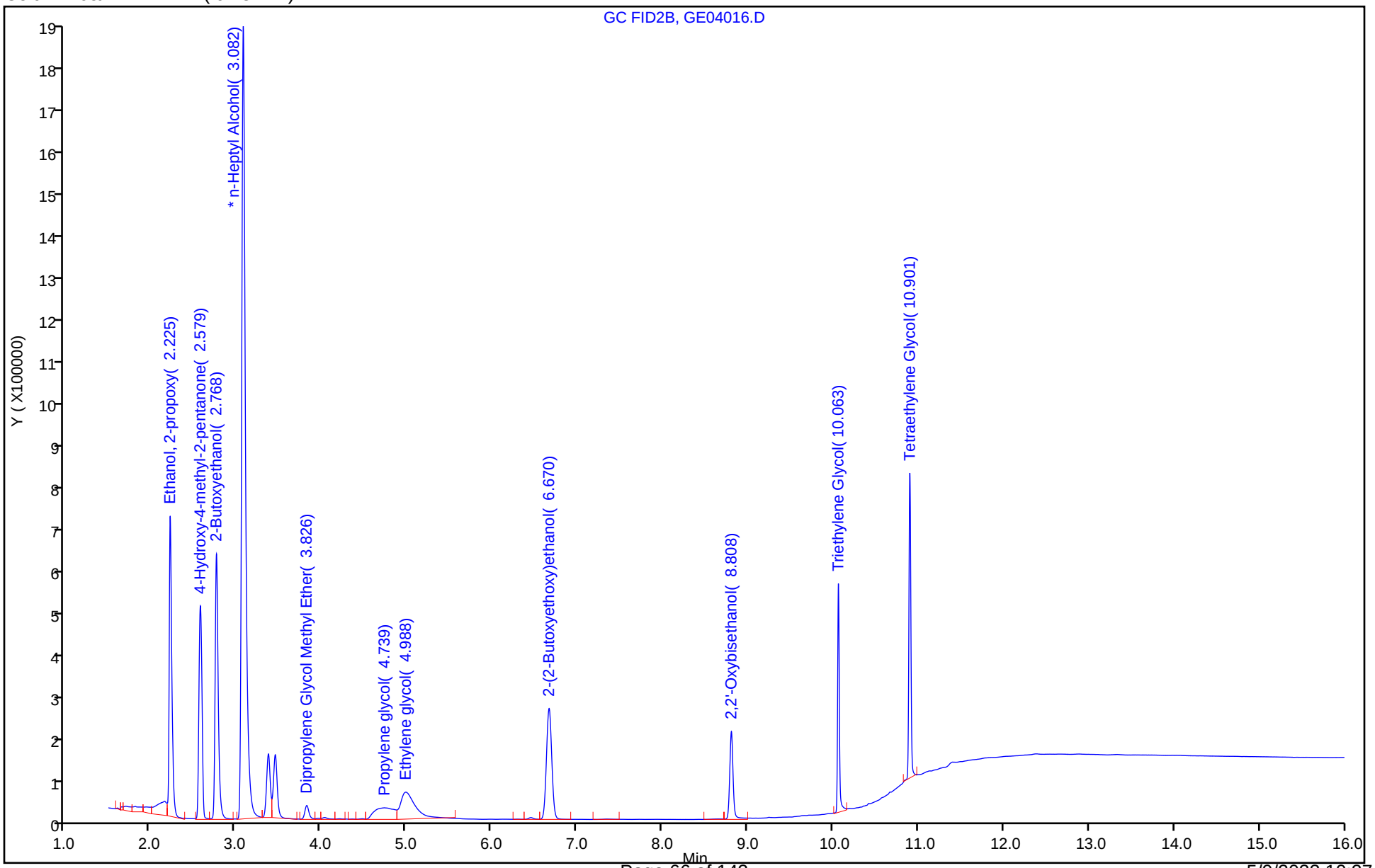
Report Date: 05-May-2023 12:21:10 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04016.D

Injection Date:	04-May-2023 19:54:50	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)



5/9/2023 10:27 AM

Manual Integration/User Assign Peak Report

Eurofins Savannah

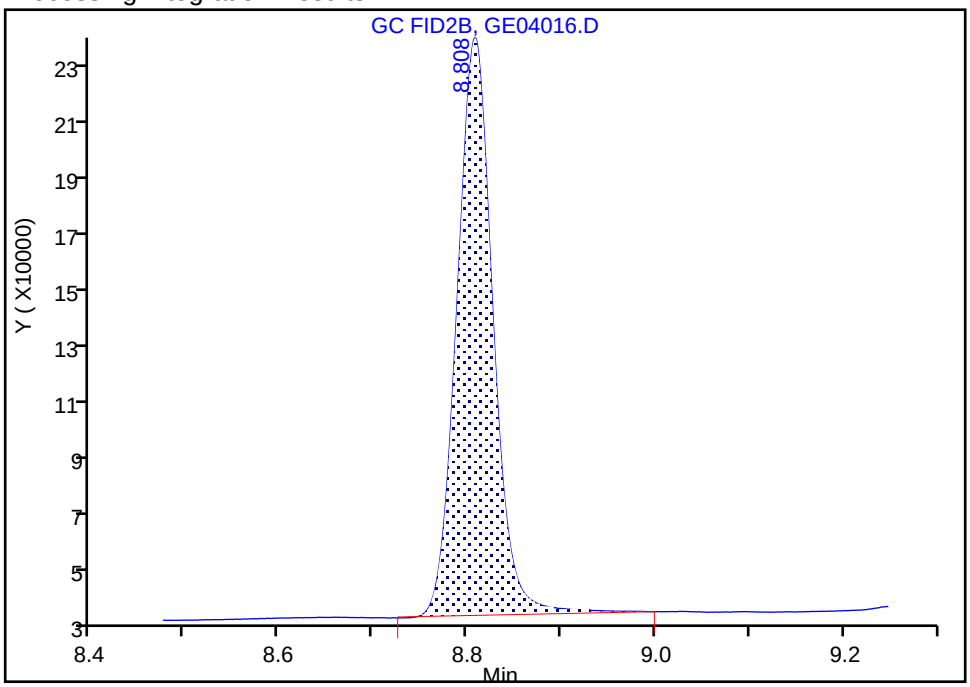
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04016.D
Injection Date: 04-May-2023 19:54:50 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

9 2,2'-Oxybisethanol, CAS: 111-46-6

Signal: 1

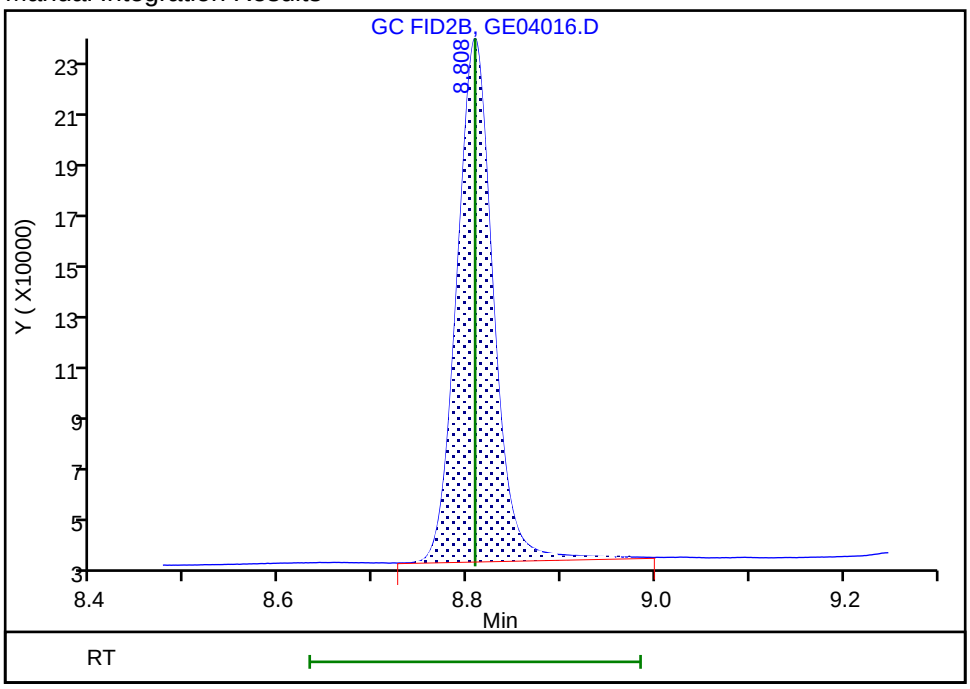
Processing Integration Results

RT: 8.81
Area: 535642
Amount: 20.011809
Amount Units: ug/ml



Manual Integration Results

RT: 8.81
Area: 541948
Amount: 20.260095
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:26:02
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

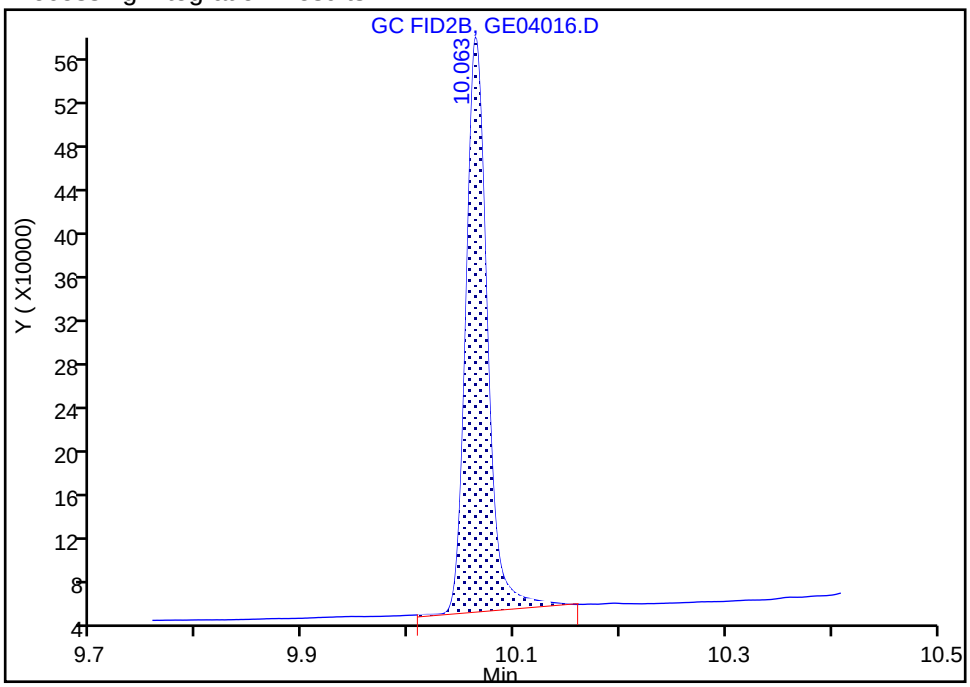
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04016.D
Injection Date: 04-May-2023 19:54:50 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

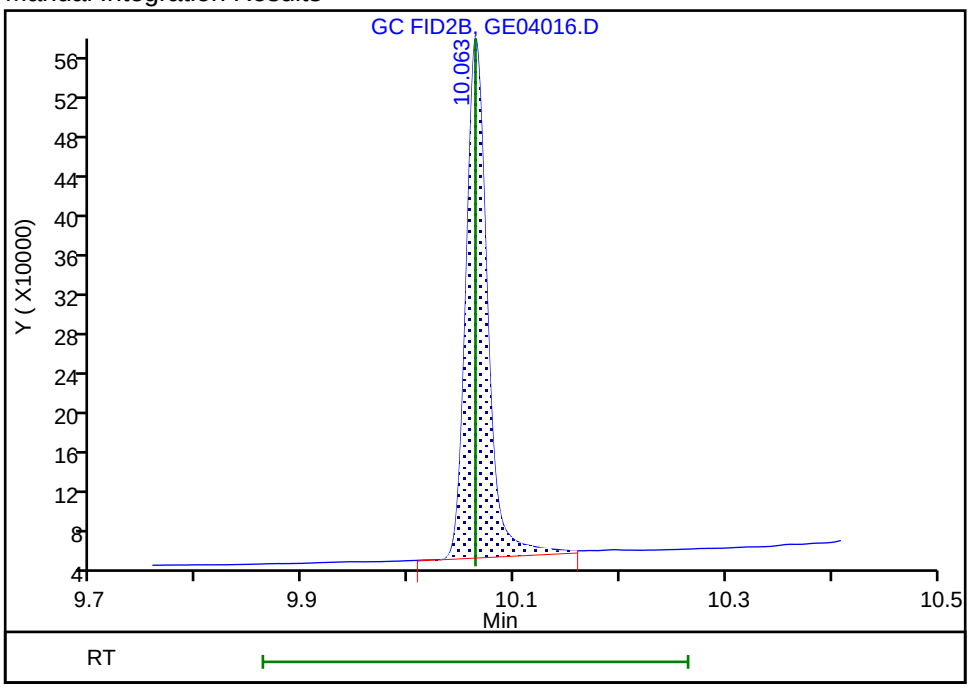
Processing Integration Results

RT: 10.06
Area: 729449
Amount: 23.453434
Amount Units: ug/ml



Manual Integration Results

RT: 10.06
Area: 743449
Amount: 24.229284
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 12:11:37
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04017.D
Lims ID: ic g3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 04-May-2023 20:18:05 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-008
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:21:11 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 11:29:20

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.226	2.225	0.001	741209	10.0	10.5	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.584	2.579	0.005	631103	10.0	10.7	
	3 2-Butoxyethanol						
	2.767	2.768	-0.001	743452	10.0	10.5	
*	4 n-Heptyl Alcohol						M
	3.074	3.082	-0.008	5345672	50.0	50.0	M
	5 Dipropylene Glycol Methyl Ether						
	3.832	3.826	0.006	52872	10.0	10.6	
	6 Propylene glycol						M
	4.757	4.739	0.018	166185	10.0	10.0	M
	7 Ethylene glycol						M
	4.994	4.988	0.006	306483	10.0	8.92	M
	8 2-(2-Butoxyethoxy)ethanol						M
	6.670	6.670	0.000	551776	10.0	10.4	M
	9 2,2'-Oxybisethanol						M
	8.807	8.808	-0.001	209902	10.0	8.46	M
	10 Triethylene Glycol						M
	10.064	10.063	0.001	293830	10.0	8.63	M
	11 Tetraethylene Glycol						
	10.901	10.901	0.000	439677	20.0	16.6	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00049	Amount Added:	5.00	Units: uL	
SG_GLY_ISTD_00116	Amount Added:	10.00	Units: uL	Run Reagent

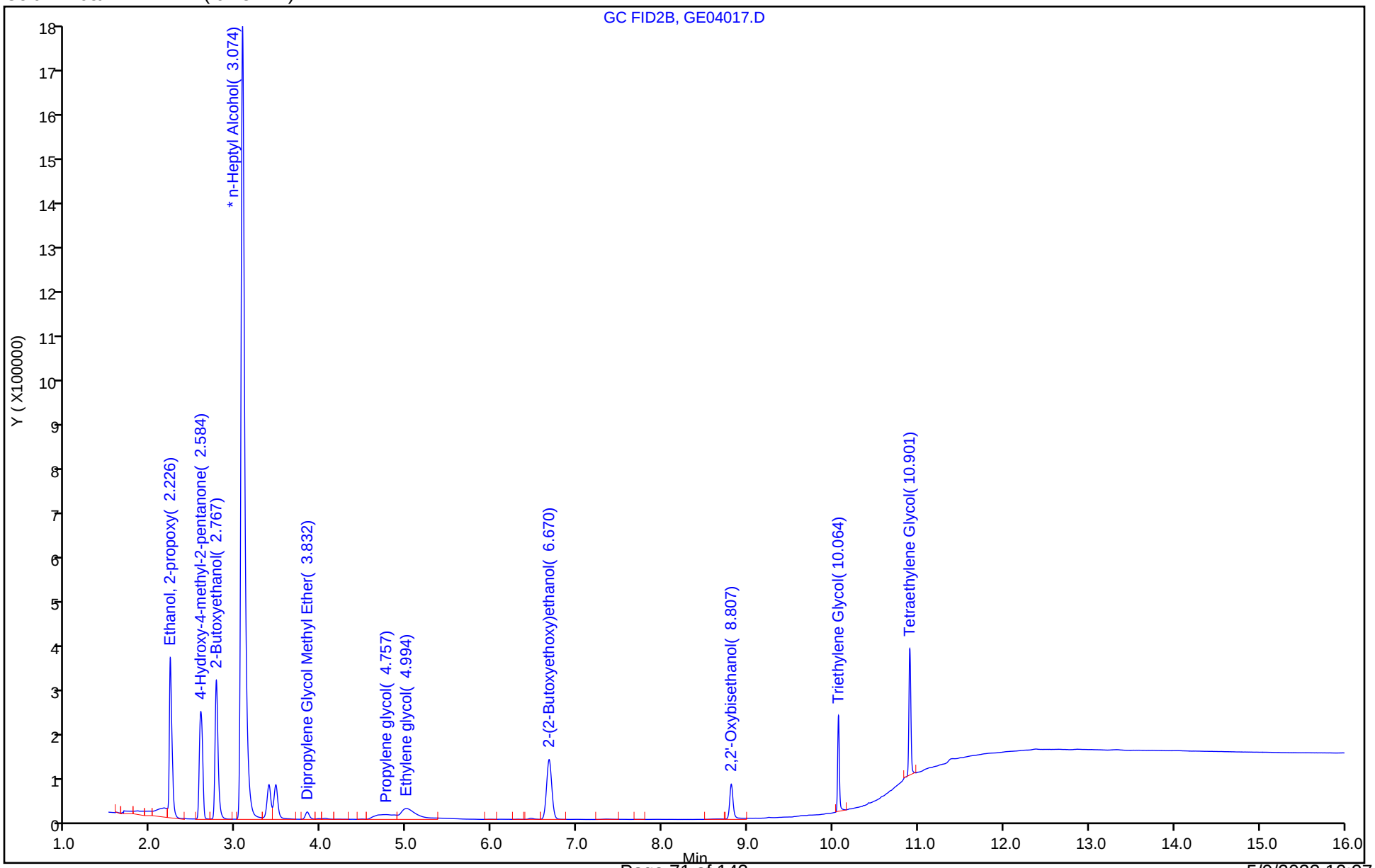
Report Date: 05-May-2023 12:21:11 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04017.D

Injection Date:	04-May-2023 20:18:05	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)



5/9/2023 10:27 AM

Eurofins Savannah

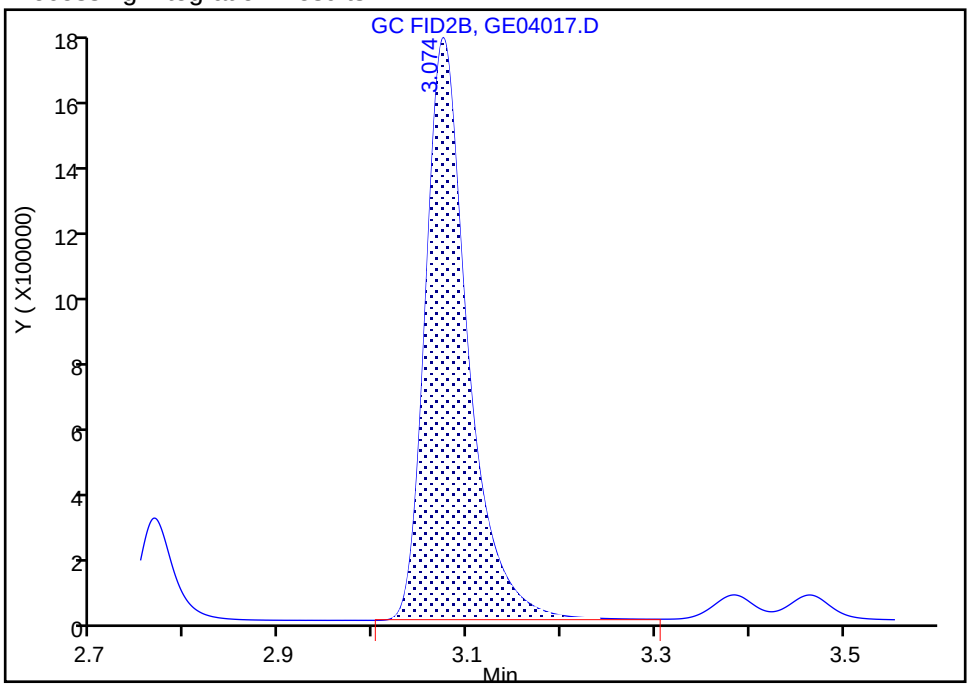
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04017.D
Injection Date: 04-May-2023 20:18:05 Instrument ID: CVGG2
Lims ID: ic g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

* 4 n-Heptyl Alcohol, CAS: 111-70-6

Signal: 1

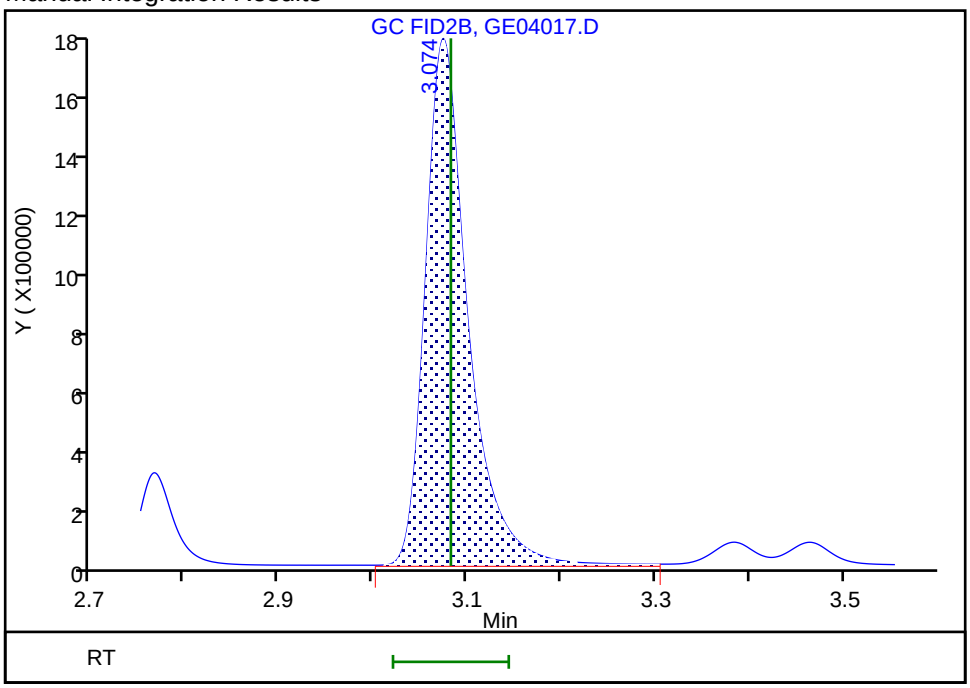
Processing Integration Results

RT: 3.07
Area: 5313777
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 3.07
Area: 5345672
Amount: 50.000000
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:29:06
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

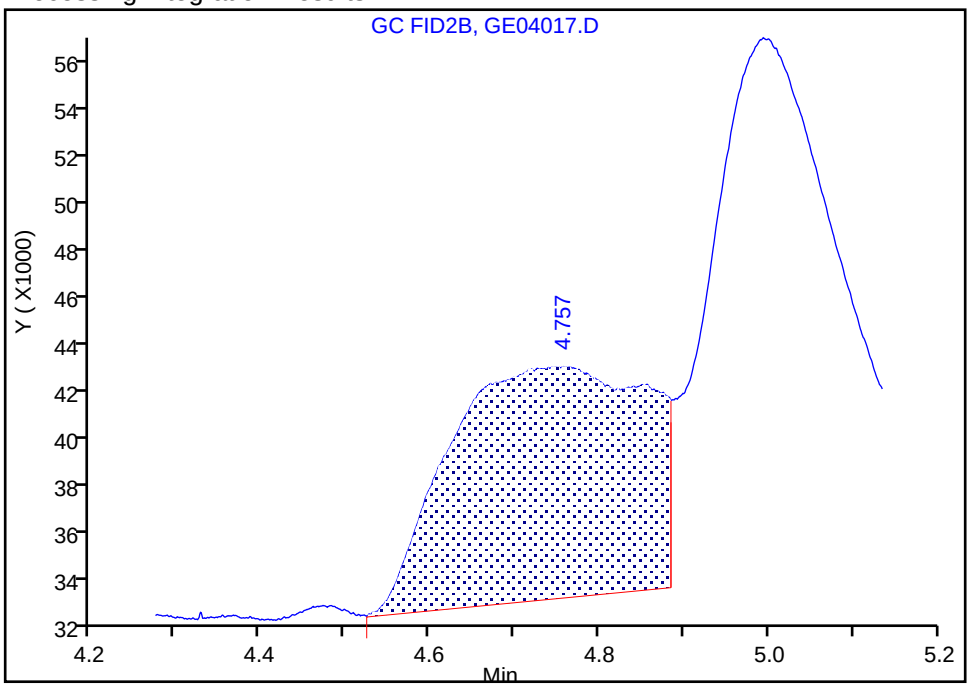
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04017.D
Injection Date: 04-May-2023 20:18:05 Instrument ID: CVGG2
Lims ID: ic g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

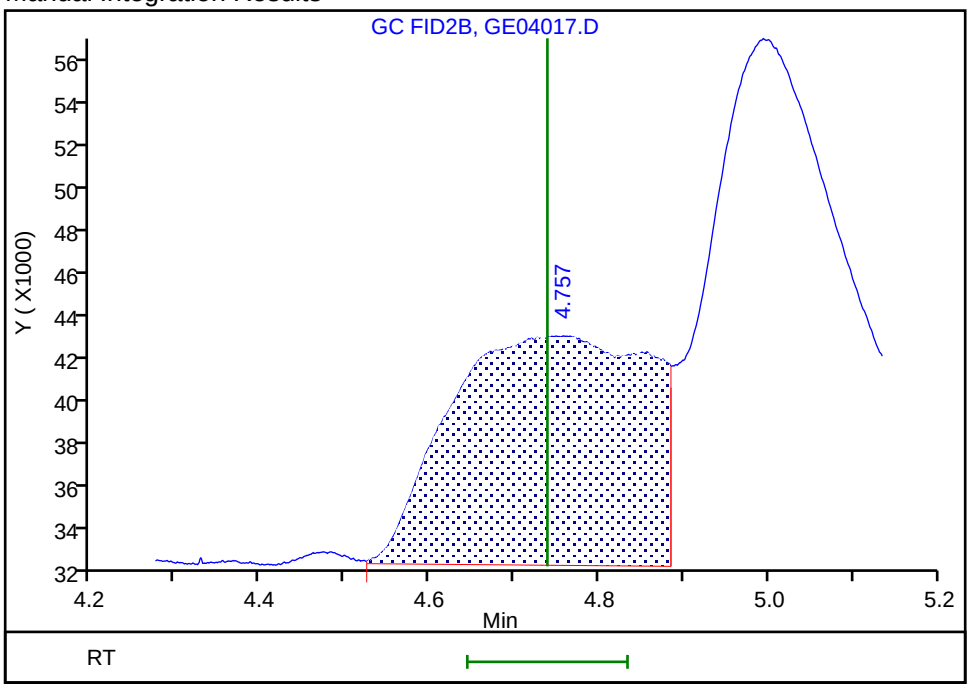
Processing Integration Results

RT: 4.76
Area: 149952
Amount: 9.579565
Amount Units: ug/ml



Manual Integration Results

RT: 4.76
Area: 166185
Amount: 10.024988
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:28:48
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

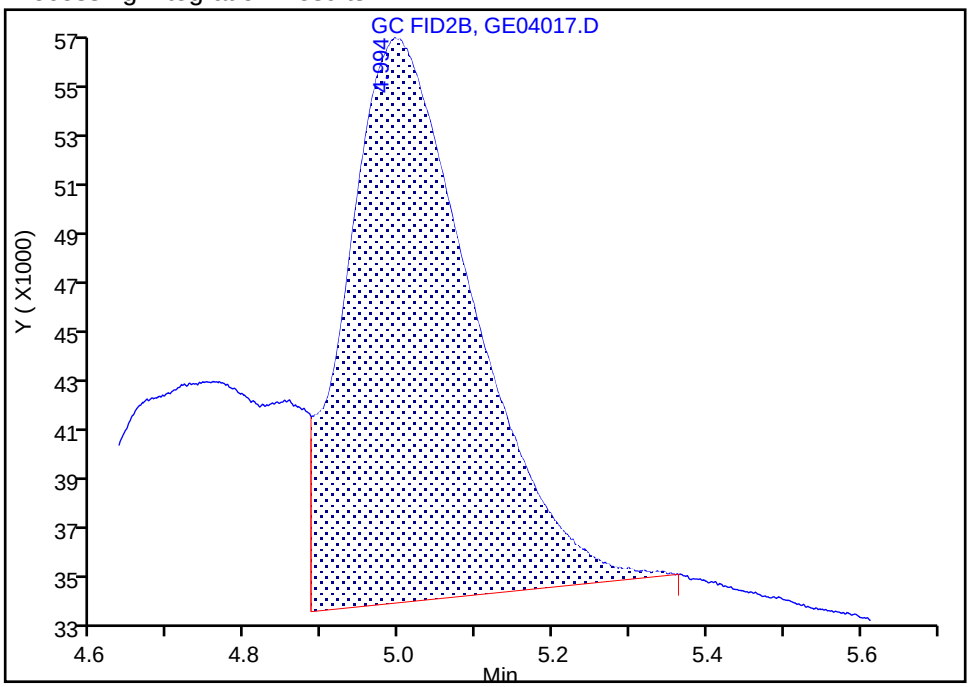
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04017.D				
Injection Date:	04-May-2023 20:18:05	Instrument ID:	CVGG2		
Lims ID:	ic g3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

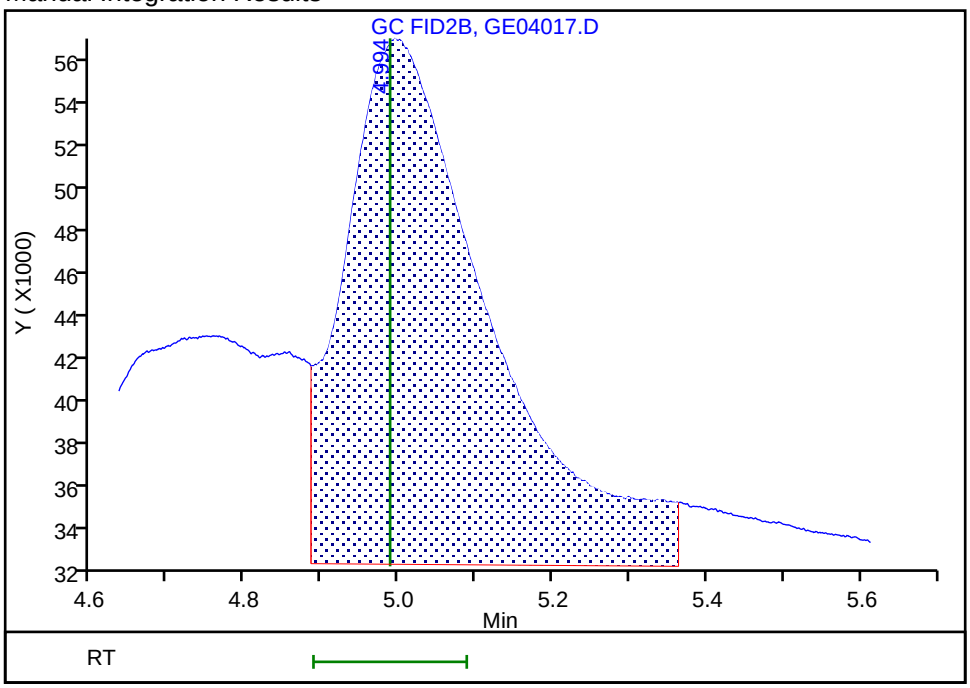
Processing Integration Results

RT: 4.99
Area: 247390
Amount: 8.023905
Amount Units: ug/ml



Manual Integration Results

RT: 4.99
Area: 306483
Amount: 8.923293
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:28:48
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

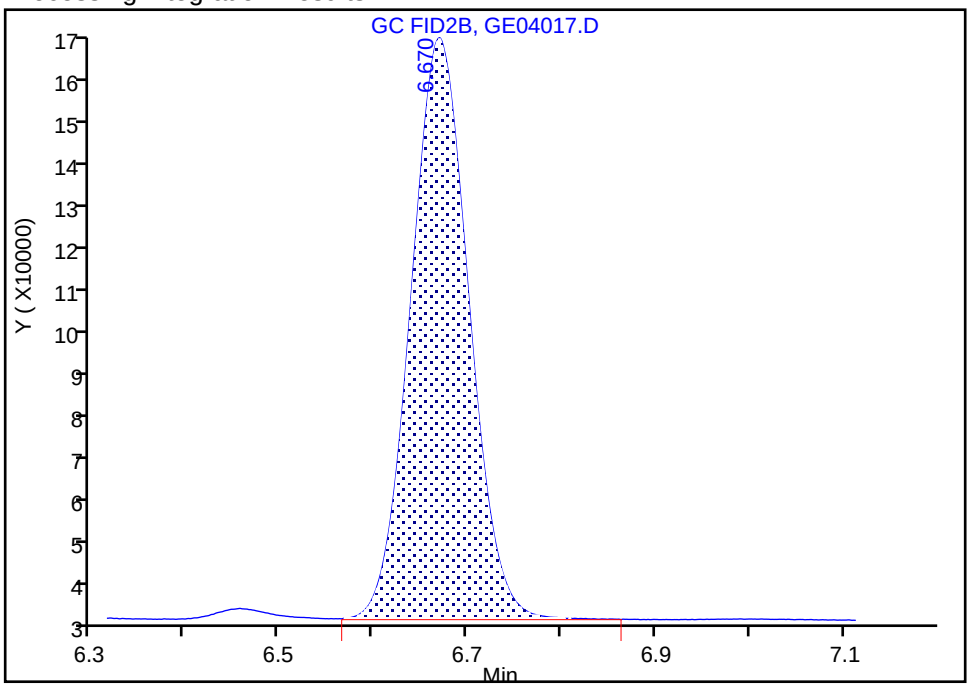
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04017.D				
Injection Date:	04-May-2023 20:18:05	Instrument ID:	CVGG2		
Lims ID:	ic g3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

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

Signal: 1

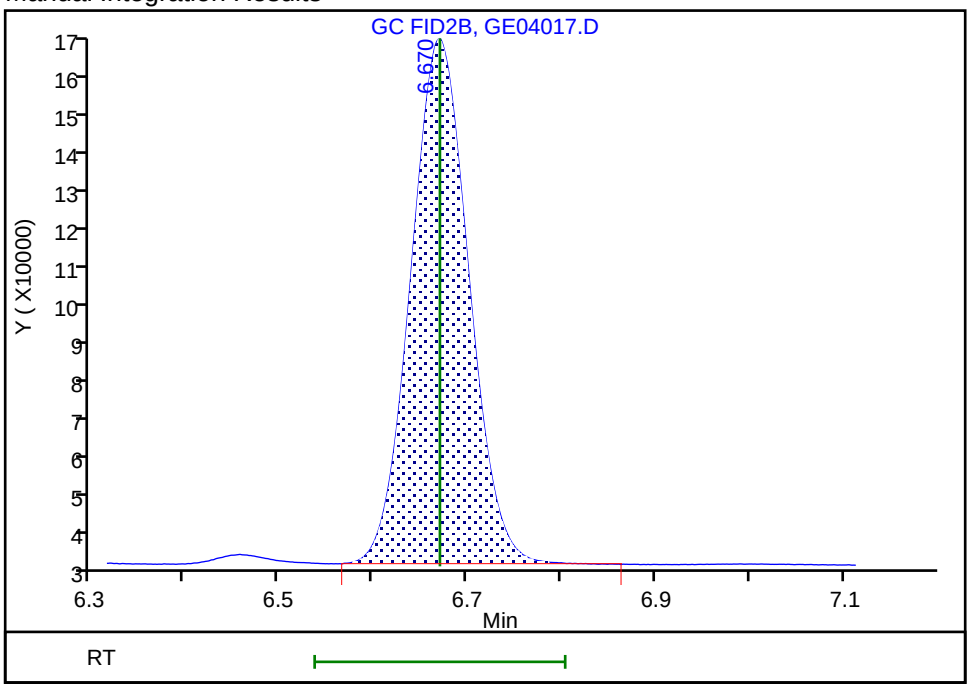
Processing Integration Results

RT: 6.67
Area: 550615
Amount: 10.439846
Amount Units: ug/ml



Manual Integration Results

RT: 6.67
Area: 551776
Amount: 10.413562
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:28:53
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

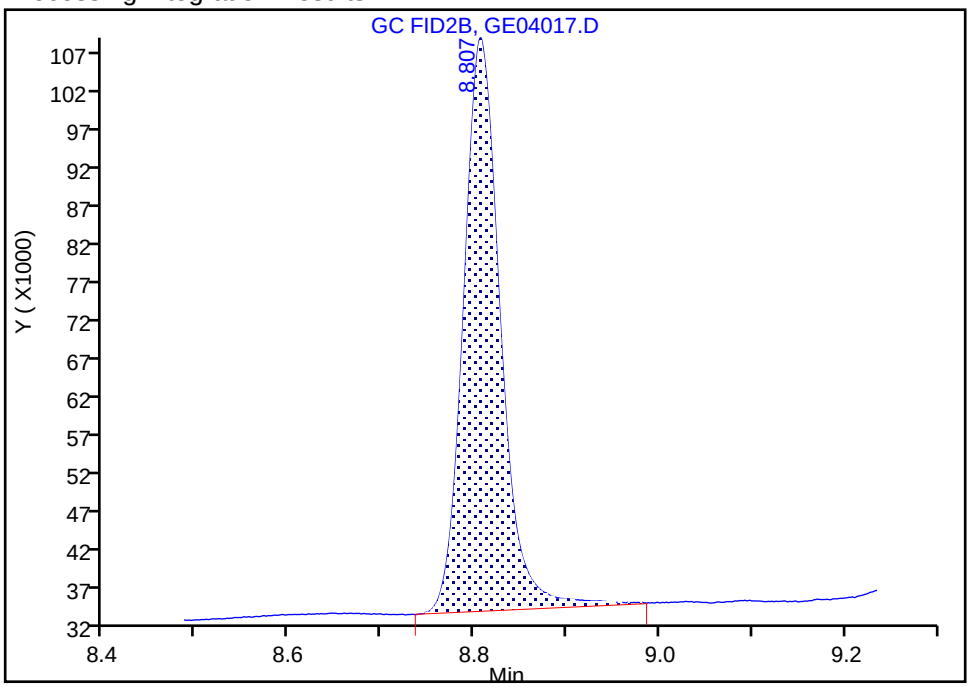
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04017.D
Injection Date: 04-May-2023 20:18:05 Instrument ID: CVGG2
Lims ID: ic g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

9 2,2'-Oxybisethanol, CAS: 111-46-6

Signal: 1

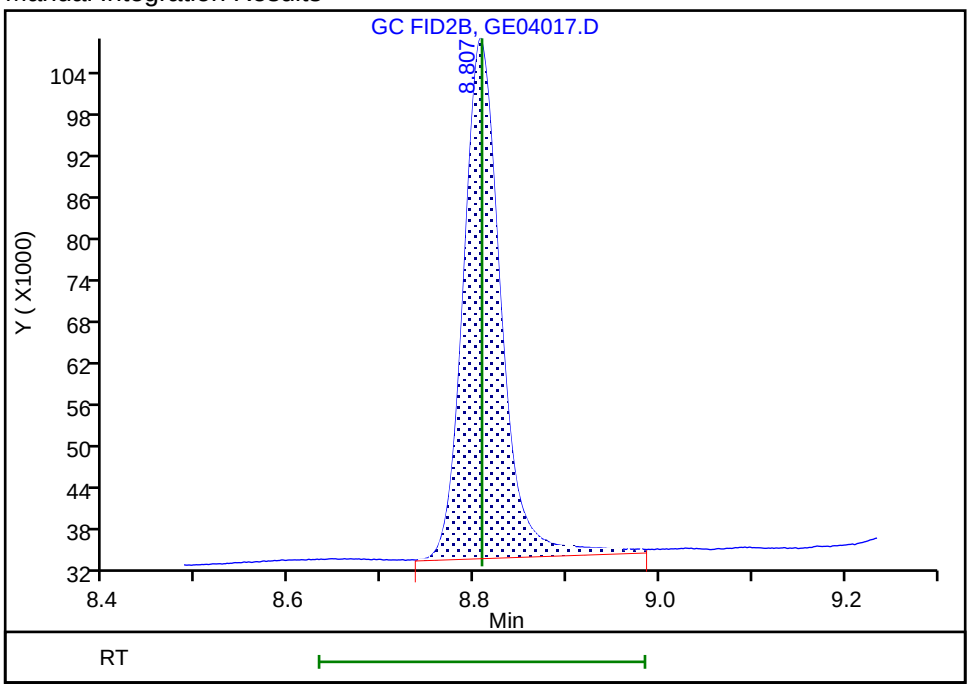
Processing Integration Results

RT: 8.81
Area: 206572
Amount: 8.346068
Amount Units: ug/ml



Manual Integration Results

RT: 8.81
Area: 209902
Amount: 8.461331
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:29:15
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

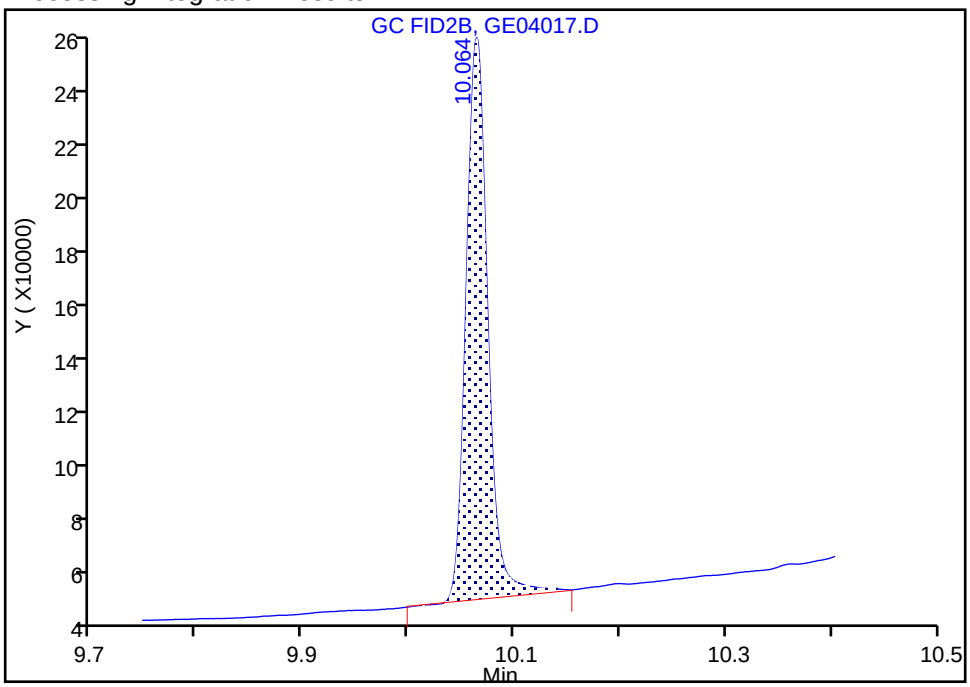
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04017.D
Injection Date: 04-May-2023 20:18:05 Instrument ID: CVGG2
Lims ID: ic g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

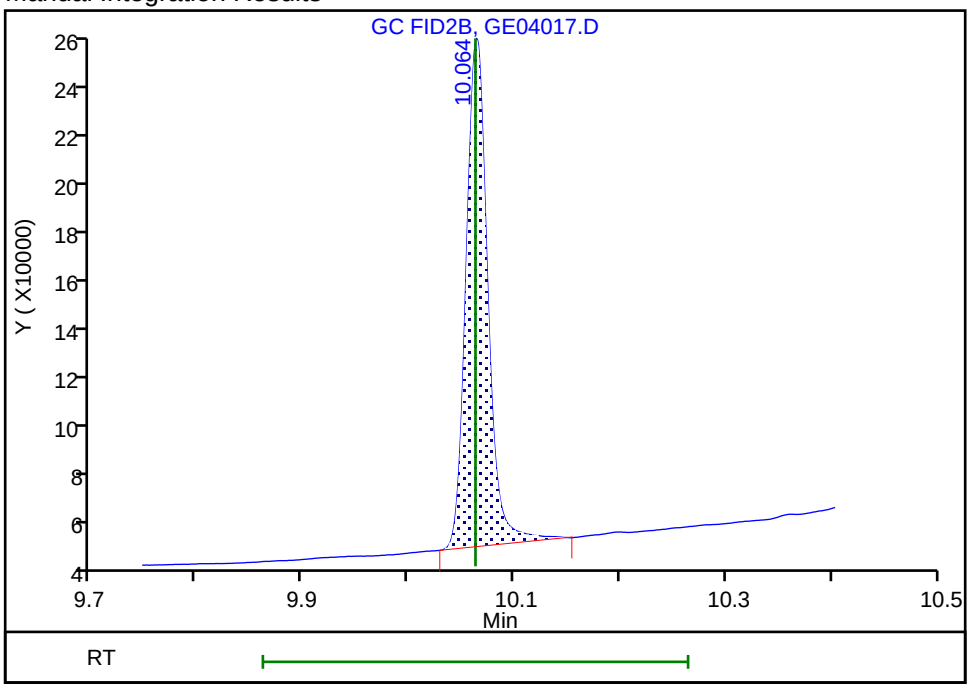
Processing Integration Results

RT: 10.06
Area: 293870
Amount: 8.941643
Amount Units: ug/ml



Manual Integration Results

RT: 10.06
Area: 293830
Amount: 8.633709
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 12:11:20
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04018.D
Lims ID: ic g2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 04-May-2023 20:41:17 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-009
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:21:13 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 11:29:33

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Ethanol, 2-propoxy						
	2.225	2.225	0.000	348962	5.00	4.70	
2	4-Hydroxy-4-methyl-2-pentanone						
	2.580	2.579	0.001	269856	5.00	4.92	
3	2-Butoxyethanol						
	2.768	2.768	0.000	336372	5.00	4.81	
* 4	n-Heptyl Alcohol						
	3.081	3.082	-0.001	4958989	50.0	50.0	
5	Dipropylene Glycol Methyl Ether						
	3.828	3.826	0.002	22596	5.00	4.89	
6	Propylene glycol						M
	4.762	4.739	0.023	46664	5.00	4.51	M
7	Ethylene glycol						M
	4.994	4.988	0.006	199874	5.00	6.02	M
8	2-(2-Butoxyethoxy)ethanol						
	6.670	6.670	0.000	249421	5.00	5.07	
9	2,2'-Oxybisethanol						
	8.807	8.808	-0.001	139477	5.00	6.07	
10	Triethylene Glycol						M
	10.063	10.063	0.000	191920	5.00	5.25	M
11	Tetraethylene Glycol						
	10.901	10.901	0.000	263229	10.0	10.7	

QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SG_Gly_CAL_00049	Amount Added:	2.50	Units: uL	
SG_GLY_ISTD_00116	Amount Added:	10.00	Units: uL	Run Reagent

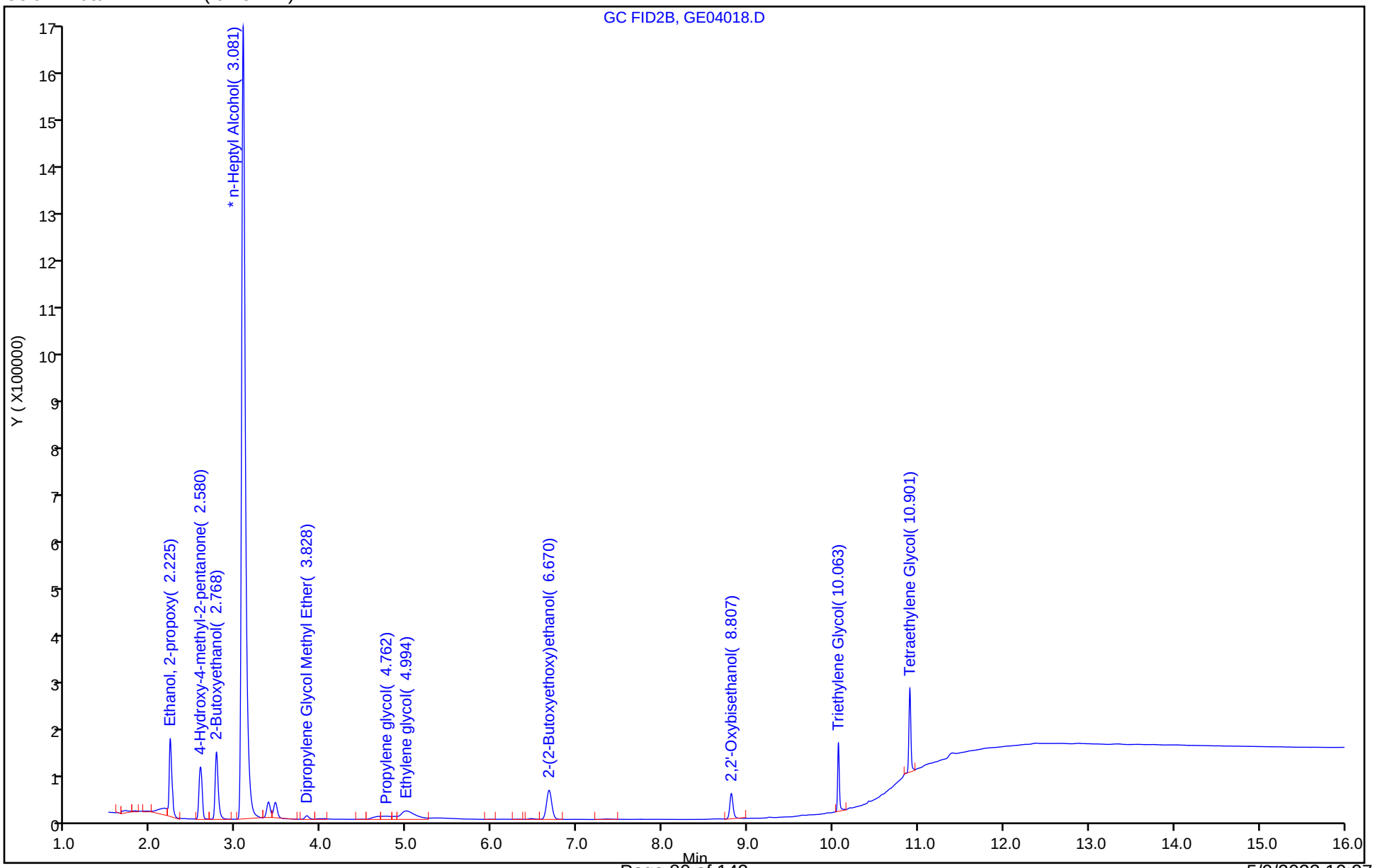
Report Date: 05-May-2023 12:21:13 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04018.D

Injection Date:	04-May-2023 20:41:17	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)



5/9/2023 10:27 AM

Manual Integration/User Assign Peak Report

Eurofins Savannah

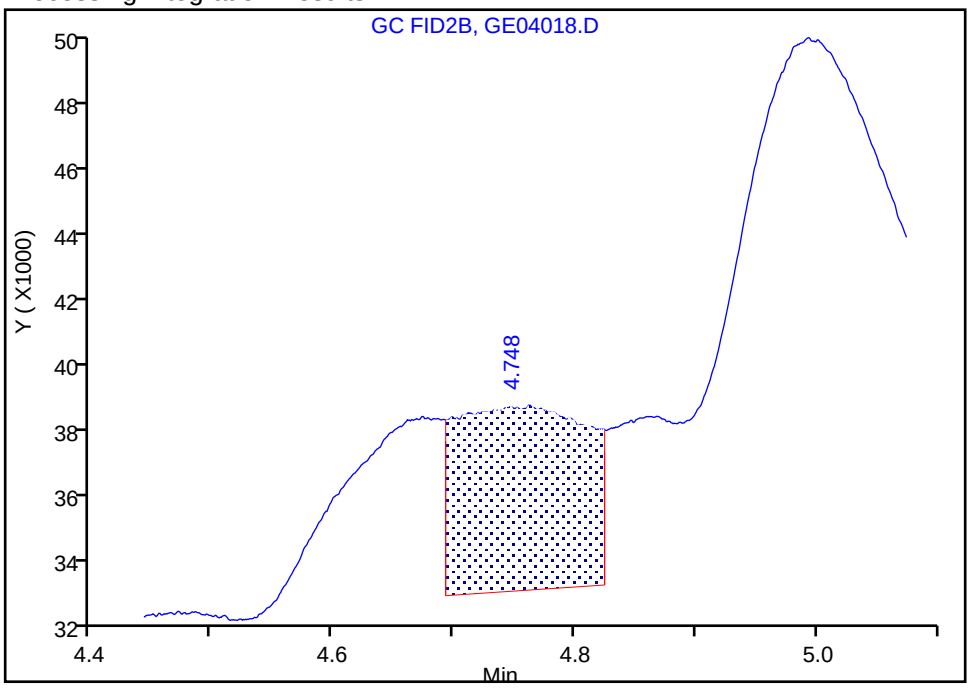
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04018.D
Injection Date: 04-May-2023 20:41:17 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

6 Propylene glycol, CAS: 57-55-6

Signal: 1

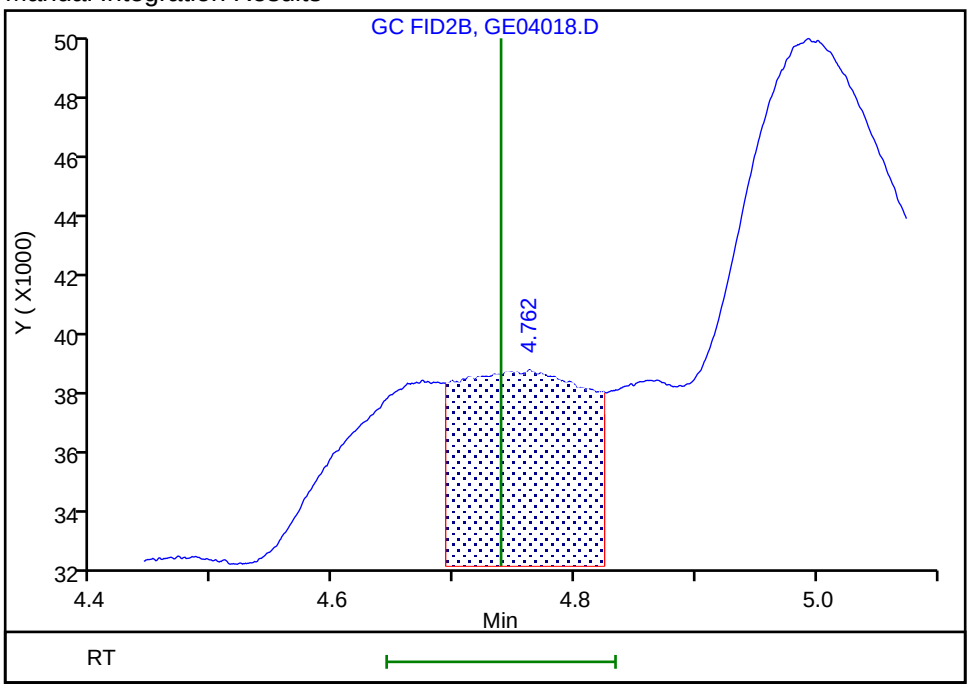
Processing Integration Results

RT: 4.75
Area: 39751
Amount: 4.346457
Amount Units: ug/ml



Manual Integration Results

RT: 4.76
Area: 46664
Amount: 4.510915
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:29:31
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

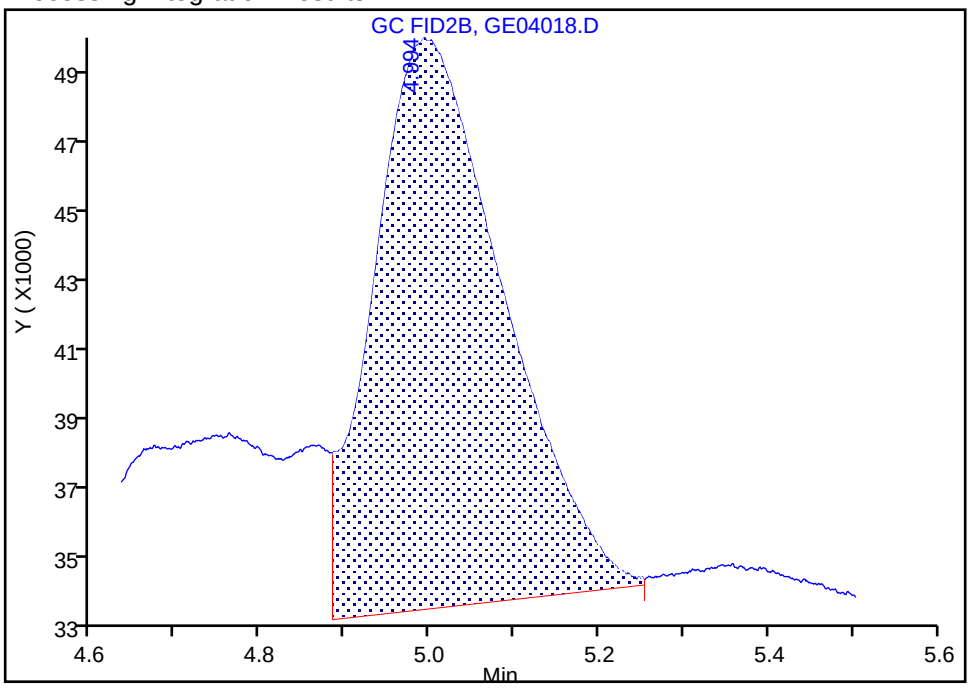
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04018.D				
Injection Date:	04-May-2023 20:41:17	Instrument ID:	CVGG2		
Lims ID:	ic g2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

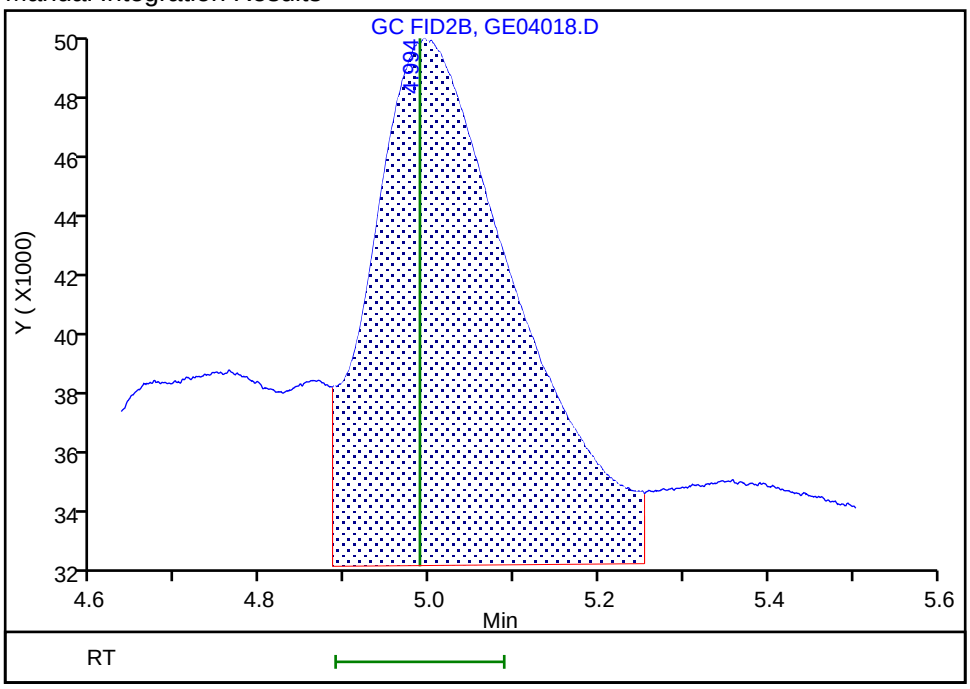
Processing Integration Results

RT: 4.99
Area: 162651
Amount: 4.994558
Amount Units: ug/ml



Manual Integration Results

RT: 4.99
Area: 199874
Amount: 6.015888
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:29:31
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

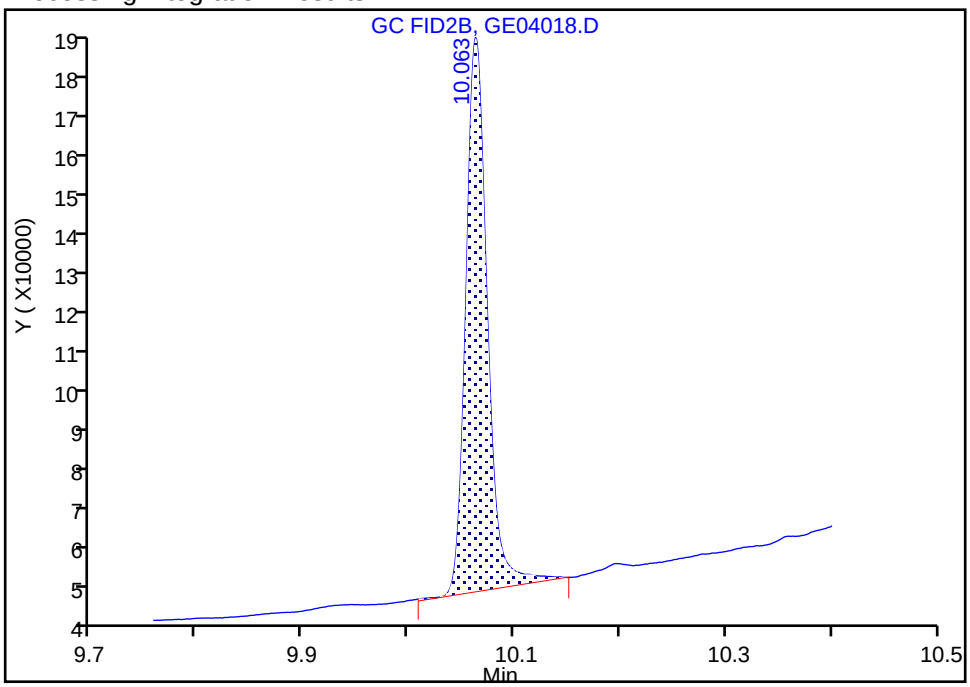
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04018.D
Injection Date: 04-May-2023 20:41:17 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

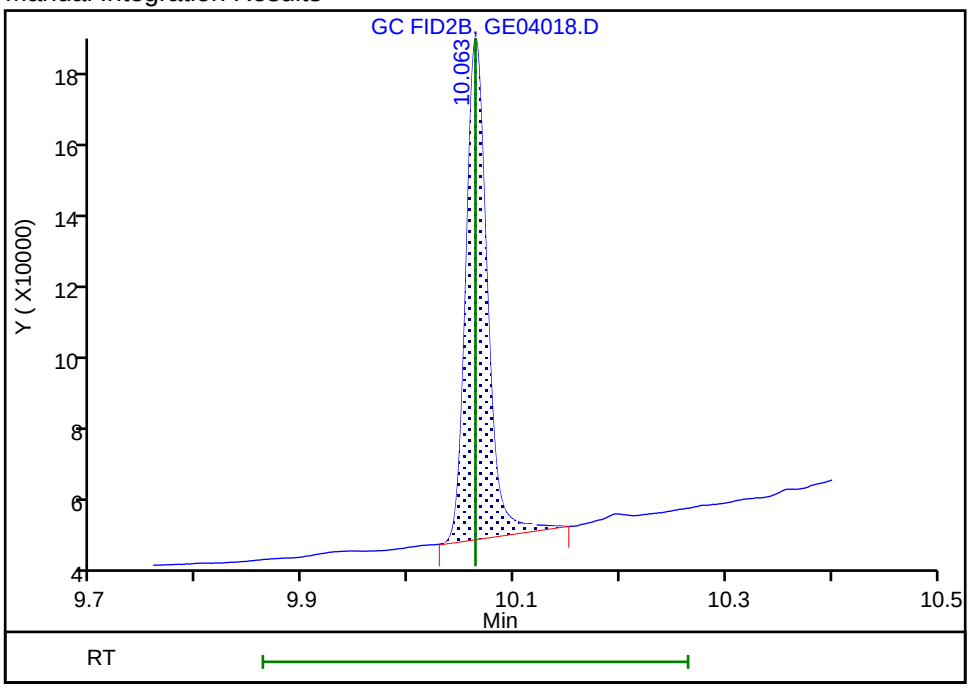
Processing Integration Results

RT: 10.06
Area: 191832
Amount: 5.723991
Amount Units: ug/ml



Manual Integration Results

RT: 10.06
Area: 191920
Amount: 5.252188
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 12:11:04
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D
Lims ID: ic g1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 04-May-2023 21:04:38 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-010
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:21:14 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 12:20:31

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Ethanol, 2-propoxy						
	2.224	2.225	-0.001	219781	2.00	2.03	
2	4-Hydroxy-4-methyl-2-pentanone						
	2.579	2.579	0.000	146502	2.00	2.36	
3	2-Butoxyethanol						
	2.766	2.768	-0.002	184986	2.00	2.01	
*	4 n-Heptyl Alcohol						
	3.078	3.082	-0.004	5615421	50.0	50.0	
5	Dipropylene Glycol Methyl Ether						
	3.829	3.826	0.003	11270	2.00	2.15	
6	Propylene glycol						M
	4.767	4.739	0.028	12451	2.00	2.67	M
7	Ethylene glycol						M
	4.995	4.988	0.007	79618	2.00	1.41	M
8	2-(2-Butoxyethoxy)ethanol						
	6.669	6.670	-0.001	123292	2.00	2.22	
9	2,2'-Oxybisethanol						
	8.809	8.808	0.001	63516	2.00	2.44	
10	Triethylene Glycol						M
	10.064	10.063	0.001	103427	2.00	1.01	M
11	Tetraethylene Glycol						
	10.902	10.901	0.001	115048	4.00	4.13	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00049	Amount Added:	1.00	Units: uL	
SG_GLY_ISTD_00116	Amount Added:	10.00	Units: uL	Run Reagent

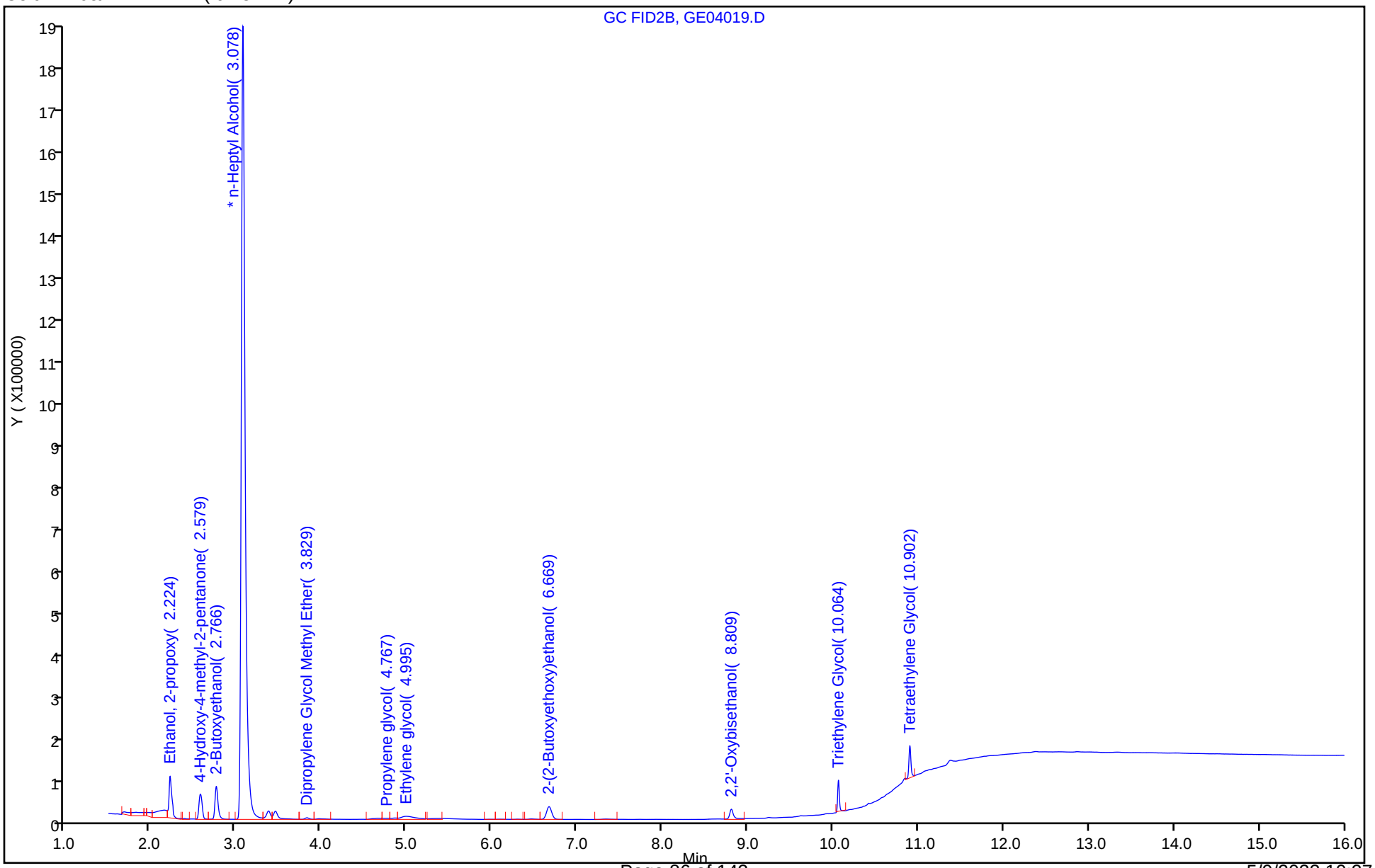
Report Date: 05-May-2023 12:21:15 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Injection Date:	04-May-2023 21:04:38	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)



5/9/2023 10:27 AM

Eurofins Savannah

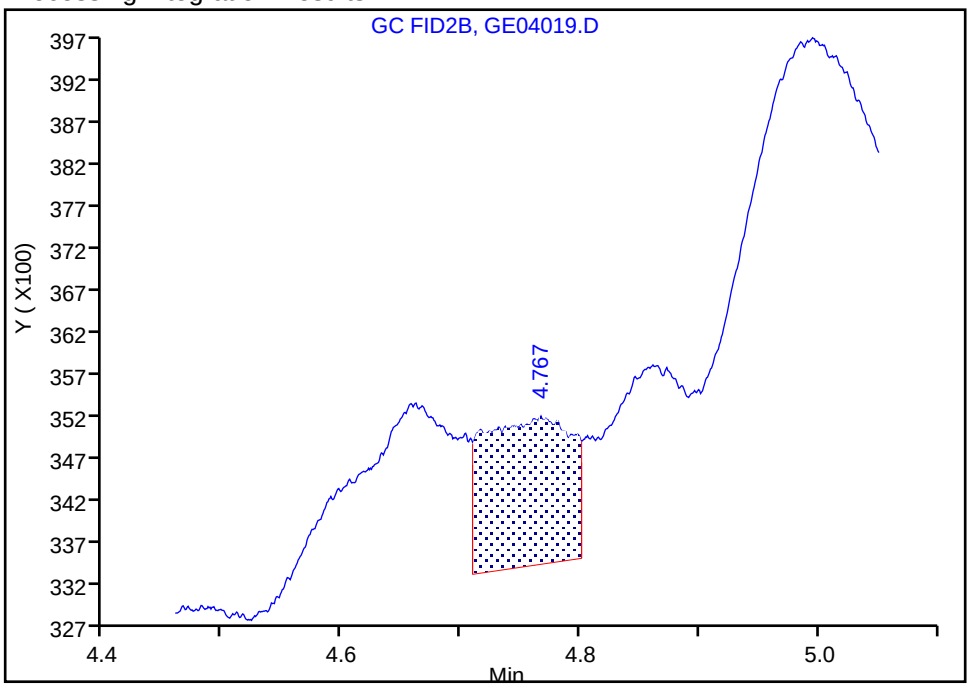
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D				
Injection Date:	04-May-2023 21:04:38	Instrument ID:	CVGG2		
Lims ID:	ic g1				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

6 Propylene glycol, CAS: 57-55-6

Signal: 1

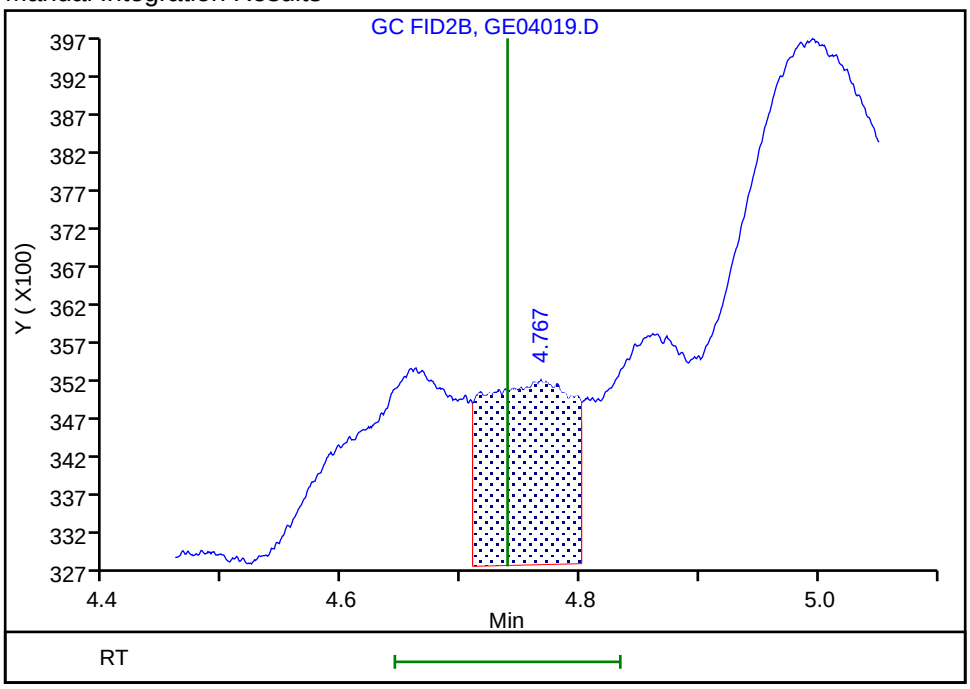
Processing Integration Results

RT: 4.77
Area: 8901
Amount: 2.603226
Amount Units: ug/ml



Manual Integration Results

RT: 4.77
Area: 12451
Amount: 2.667104
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:29:48
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

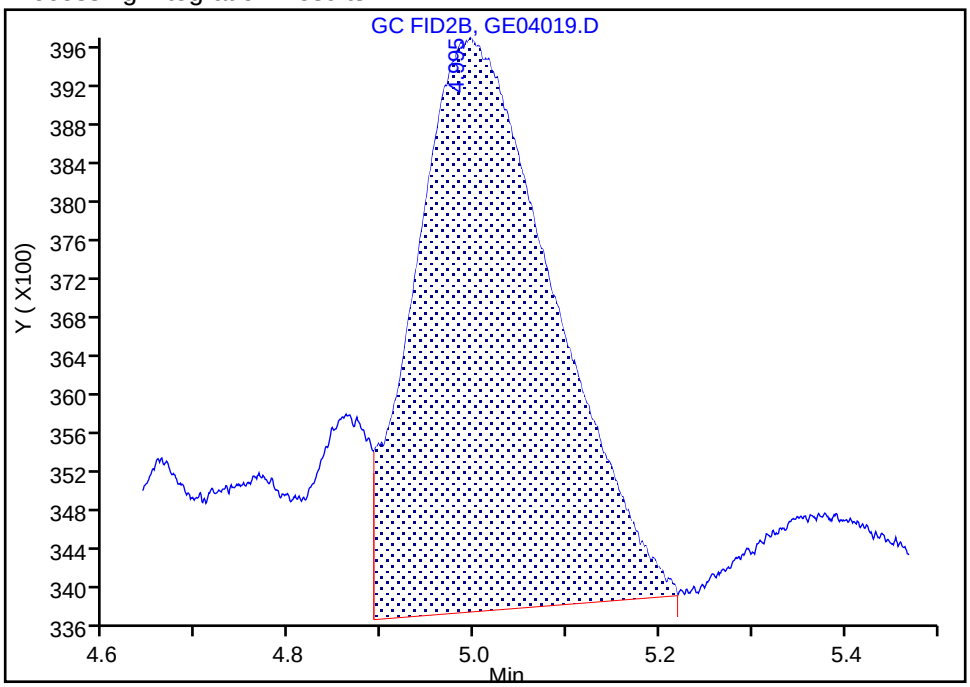
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D
Injection Date: 04-May-2023 21:04:38 Instrument ID: CVGG2
Lims ID: ic g1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

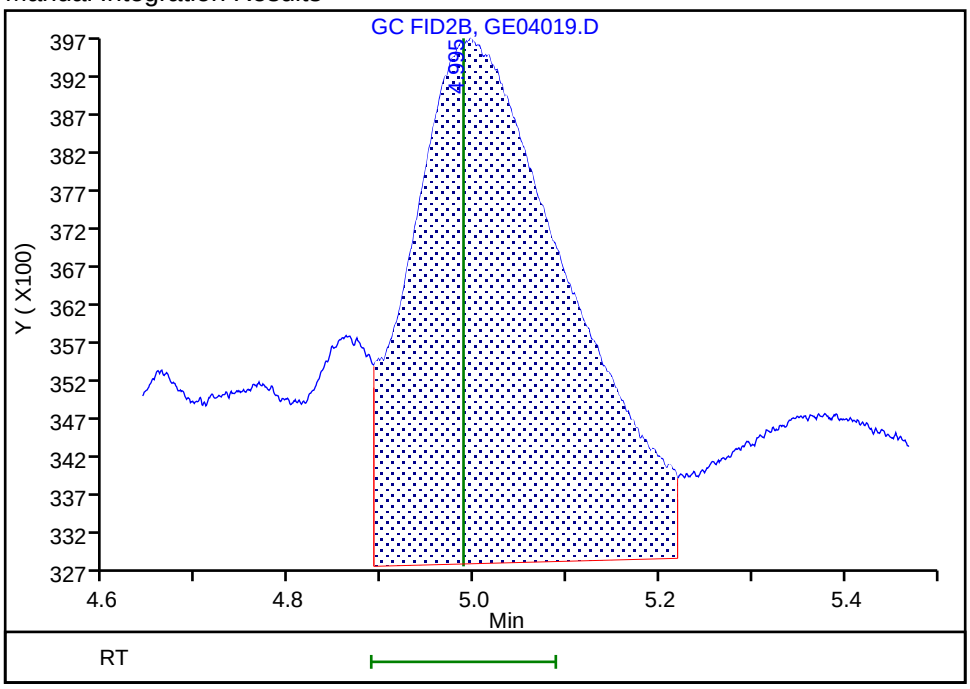
Processing Integration Results

RT: 5.00
Area: 60726
Amount: 1.594665
Amount Units: ug/ml



Manual Integration Results

RT: 5.00
Area: 79618
Amount: 1.411022
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:29:48
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Savannah

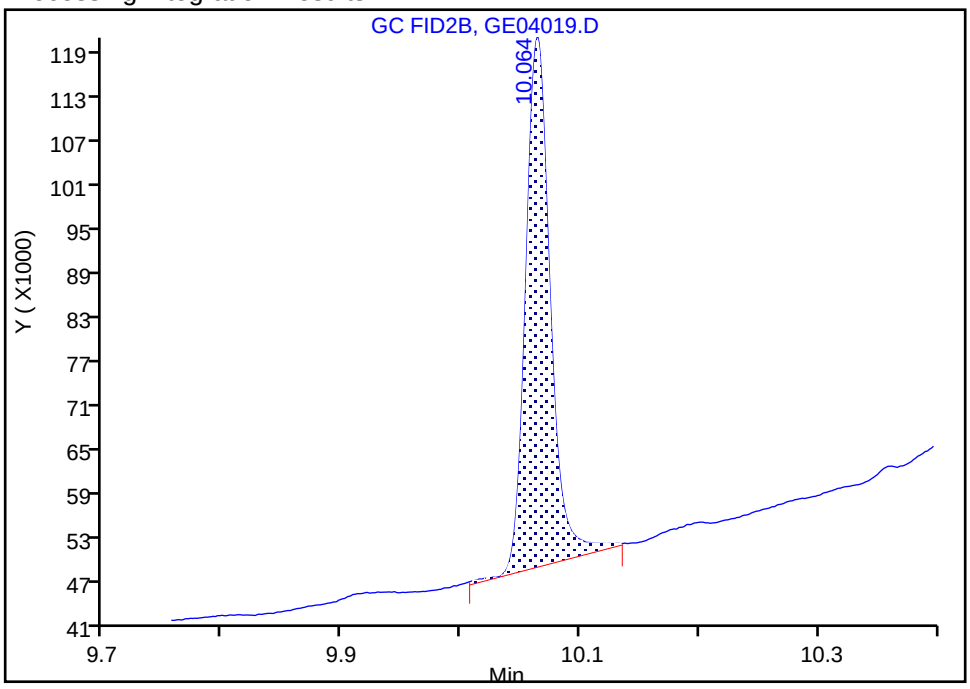
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D
Injection Date: 04-May-2023 21:04:38 Instrument ID: CVGG2
Lims ID: ic g1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

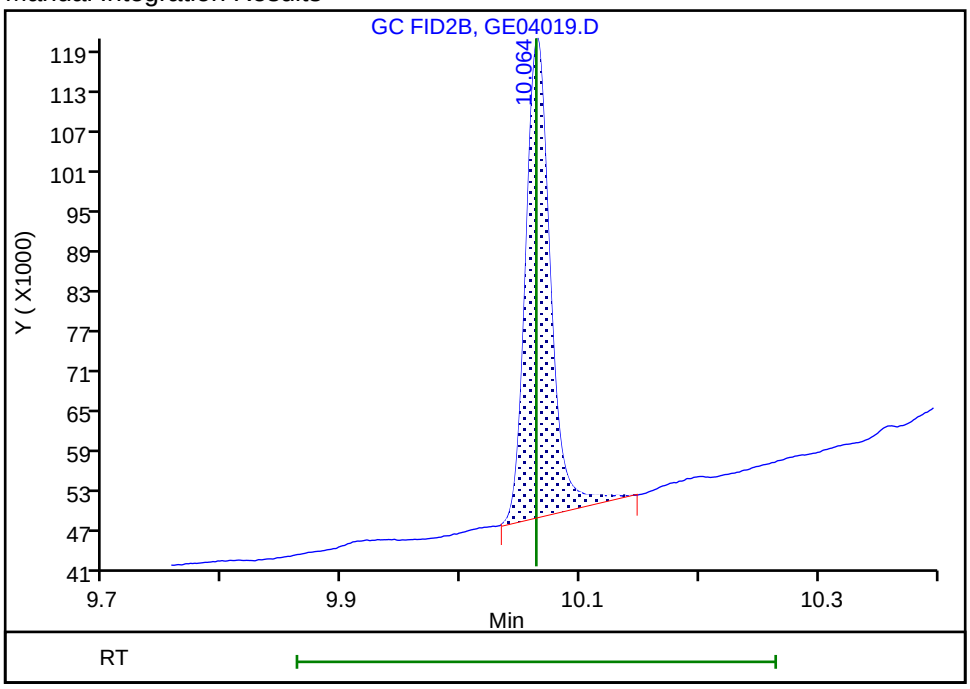
Processing Integration Results

RT: 10.06
Area: 102494
Amount: 1.708437
Amount Units: ug/ml



Manual Integration Results

RT: 10.06
Area: 103427
Amount: 1.014577
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 12:10:46
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Calibration / Ethanol, 2-propoxy

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

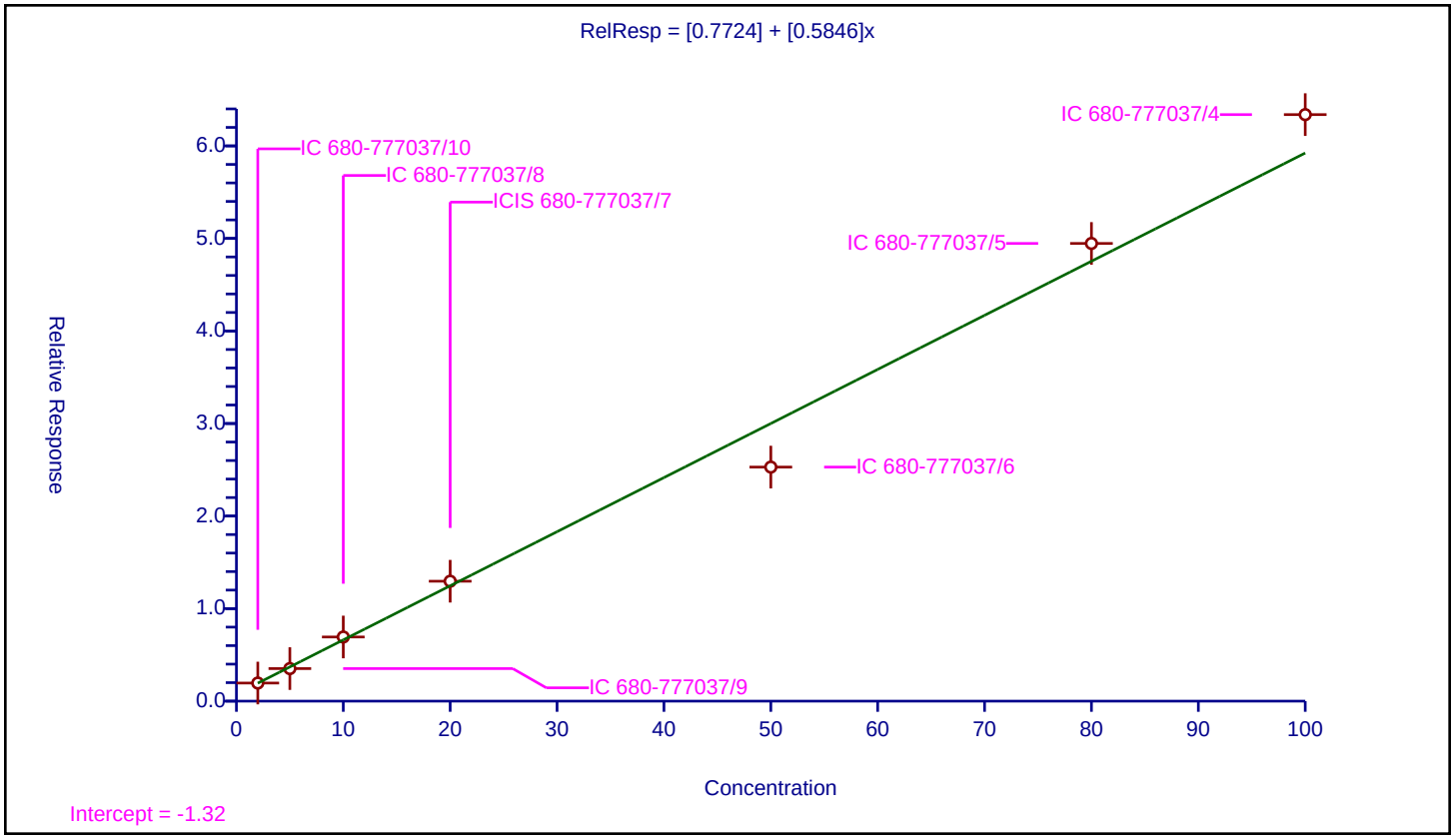
Curve Coefficients

Intercept:	0.7724
Slope:	0.5846

Error Coefficients

Standard Error:	3300000
Relative Standard Error:	9.1
Correlation Coefficient:	0.953
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777037/10	2.0	1.956941	50.0	5615421.0	0.978471	Y
2	IC 680-777037/9	5.0	3.518479	50.0	4958989.0	0.703696	Y
3	IC 680-777037/8	10.0	6.932795	50.0	5345672.0	0.69328	Y
4	ICIS 680-777037/7	20.0	12.960047	50.0	5680103.0	0.648002	Y
5	IC 680-777037/6	50.0	25.293138	50.0	4789036.0	0.505863	Y
6	IC 680-777037/5	80.0	49.460964	50.0	5001427.0	0.618262	Y
7	IC 680-777037/4	100.0	63.381189	50.0	3623228.0	0.633812	Y



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

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

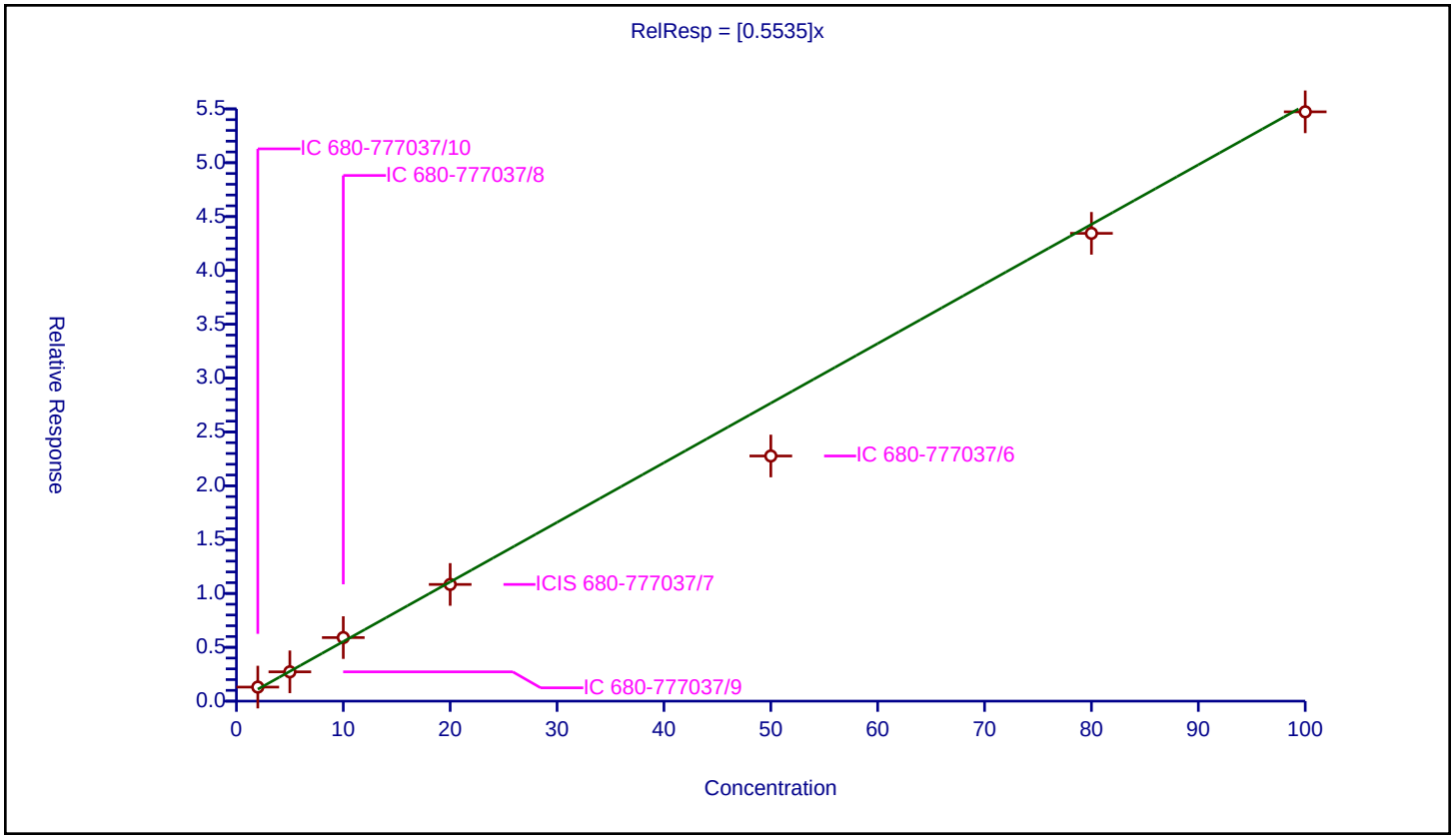
Curve Coefficients

Intercept:	0
Slope:	0.5535

Error Coefficients

Standard Error:	2630000
Relative Standard Error:	10.7
Correlation Coefficient:	0.951
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777037/10	2.0	1.304461	50.0	5615421.0	0.652231	Y
2	IC 680-777037/9	5.0	2.720877	50.0	4958989.0	0.544175	Y
3	IC 680-777037/8	10.0	5.902934	50.0	5345672.0	0.590293	Y
4	ICIS 680-777037/7	20.0	10.838325	50.0	5680103.0	0.541916	Y
5	IC 680-777037/6	50.0	22.765396	50.0	4789036.0	0.455308	Y
6	IC 680-777037/5	80.0	43.442981	50.0	5001427.0	0.543037	Y
7	IC 680-777037/4	100.0	54.727276	50.0	3623228.0	0.547273	Y



5/9/2023 10:27 AM

Calibration / 2-Butoxyethanol

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

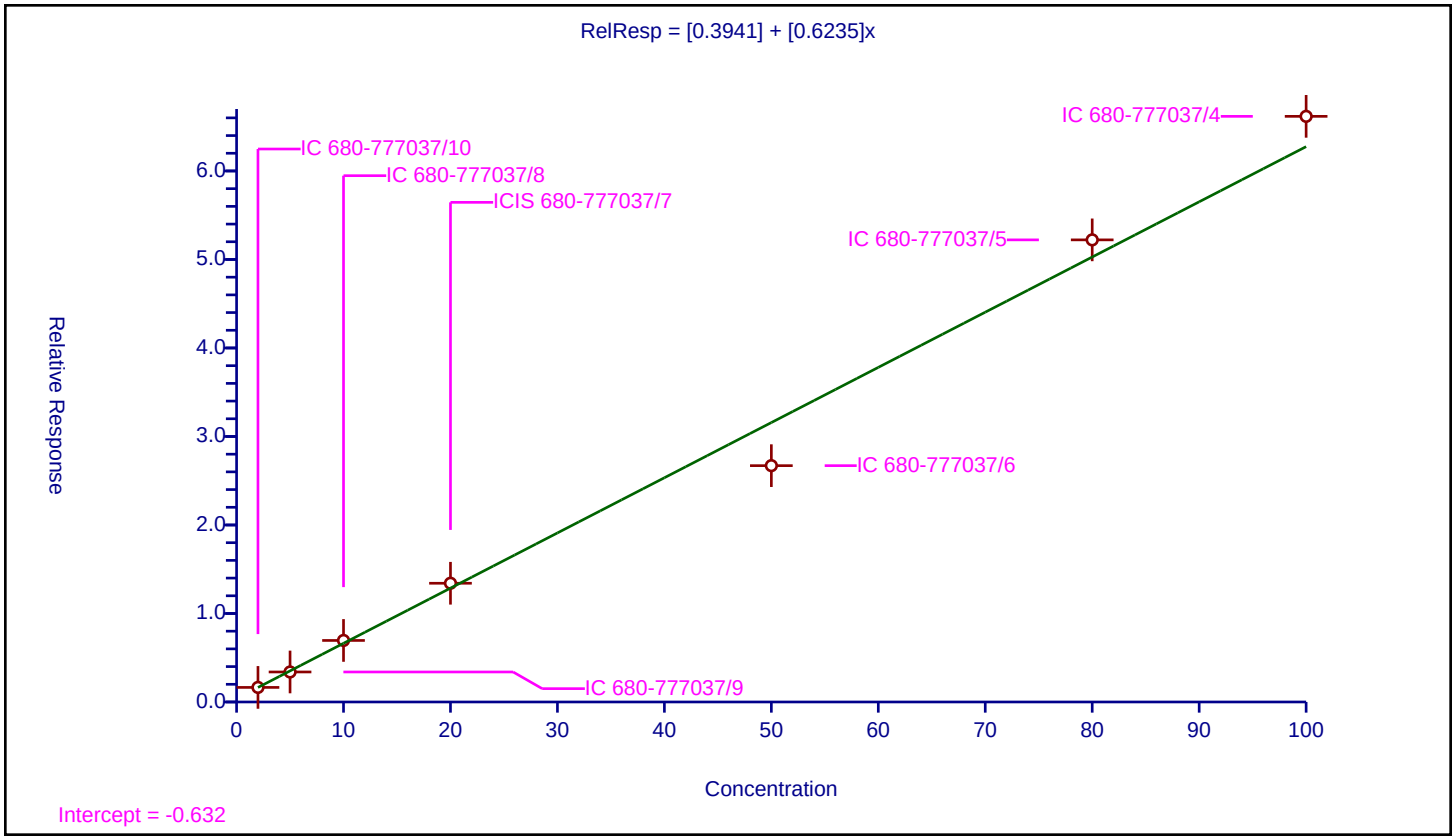
Curve Coefficients

Intercept:	0.3941
Slope:	0.6235

Error Coefficients

Standard Error:	3460000
Relative Standard Error:	8.4
Correlation Coefficient:	0.951
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777037/10	2.0	1.647125	50.0	5615421.0	0.823562	Y
2	IC 680-777037/9	5.0	3.391538	50.0	4958989.0	0.678308	Y
3	IC 680-777037/8	10.0	6.953775	50.0	5345672.0	0.695377	Y
4	ICIS 680-777037/7	20.0	13.415813	50.0	5680103.0	0.670791	Y
5	IC 680-777037/6	50.0	26.70385	50.0	4789036.0	0.534077	Y
6	IC 680-777037/5	80.0	52.214478	50.0	5001427.0	0.652681	Y
7	IC 680-777037/4	100.0	66.172416	50.0	3623228.0	0.661724	Y



Calibration / Dipropylene Glycol Methyl Ether

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

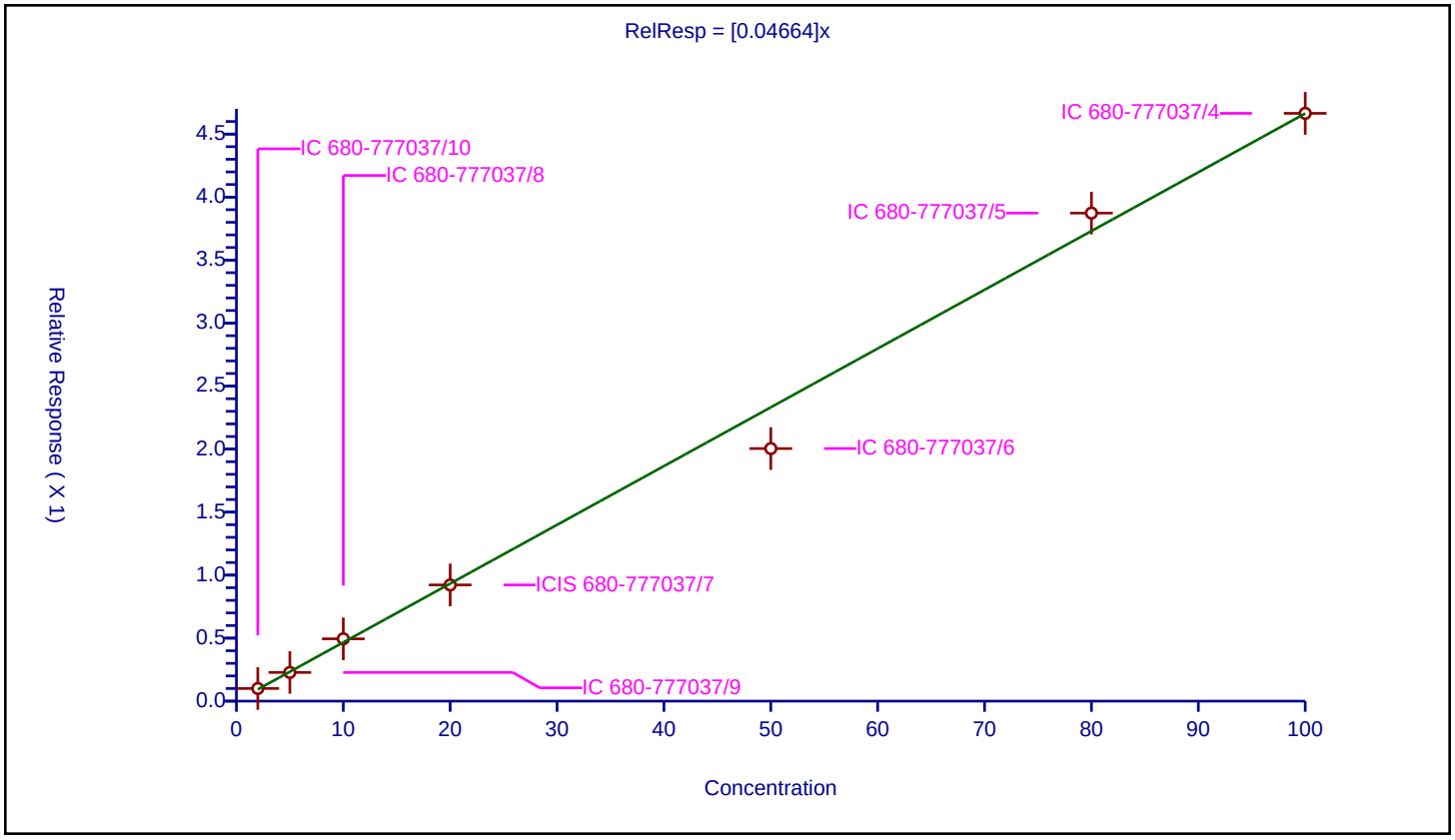
Curve Coefficients

Intercept:	0
Slope:	0.04664

Error Coefficients

Standard Error:	229000
Relative Standard Error:	7.2
Correlation Coefficient:	0.939
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777037/10	2.0	0.100349	50.0	5615421.0	0.050174	Y
2	IC 680-777037/9	5.0	0.227829	50.0	4958989.0	0.045566	Y
3	IC 680-777037/8	10.0	0.494531	50.0	5345672.0	0.049453	Y
4	ICIS 680-777037/7	20.0	0.922122	50.0	5680103.0	0.046106	Y
5	IC 680-777037/6	50.0	2.004443	50.0	4789036.0	0.040089	Y
6	IC 680-777037/5	80.0	3.873175	50.0	5001427.0	0.048415	Y
7	IC 680-777037/4	100.0	4.664777	50.0	3623228.0	0.046648	Y



Calibration / Propylene glycol

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

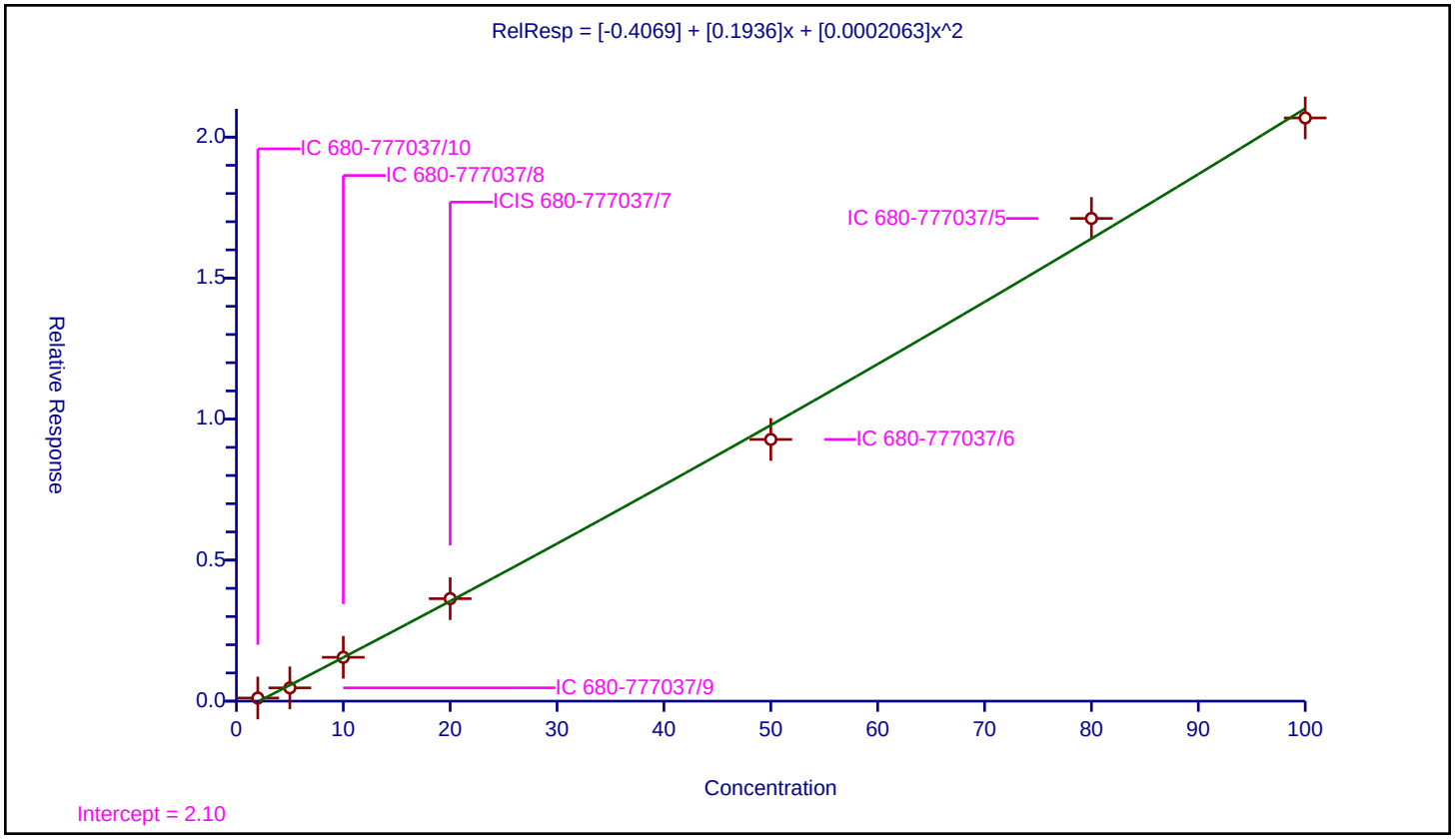
Curve Coefficients

Intercept:	-0.4069
Slope:	0.1936
Second Order:	0.0002063

Error Coefficients

Standard Error:	1240000
Relative Standard Error:	17.7
Correlation Coefficient:	0.937
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777037/10	2.0	0.110864	50.0	5615421.0	0.055432	Y
2	IC 680-777037/9	5.0	0.470499	50.0	4958989.0	0.0941	Y
3	IC 680-777037/8	10.0	1.554388	50.0	5345672.0	0.155439	Y
4	ICIS 680-777037/7	20.0	3.634705	50.0	5680103.0	0.181735	Y
5	IC 680-777037/6	50.0	9.278986	50.0	4789036.0	0.18558	Y
6	IC 680-777037/5	80.0	17.115455	50.0	5001427.0	0.213943	Y
7	IC 680-777037/4	100.0	20.678439	50.0	3623228.0	0.206784	Y



5/9/2023 10:27 AM

Calibration / Ethylene glycol

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

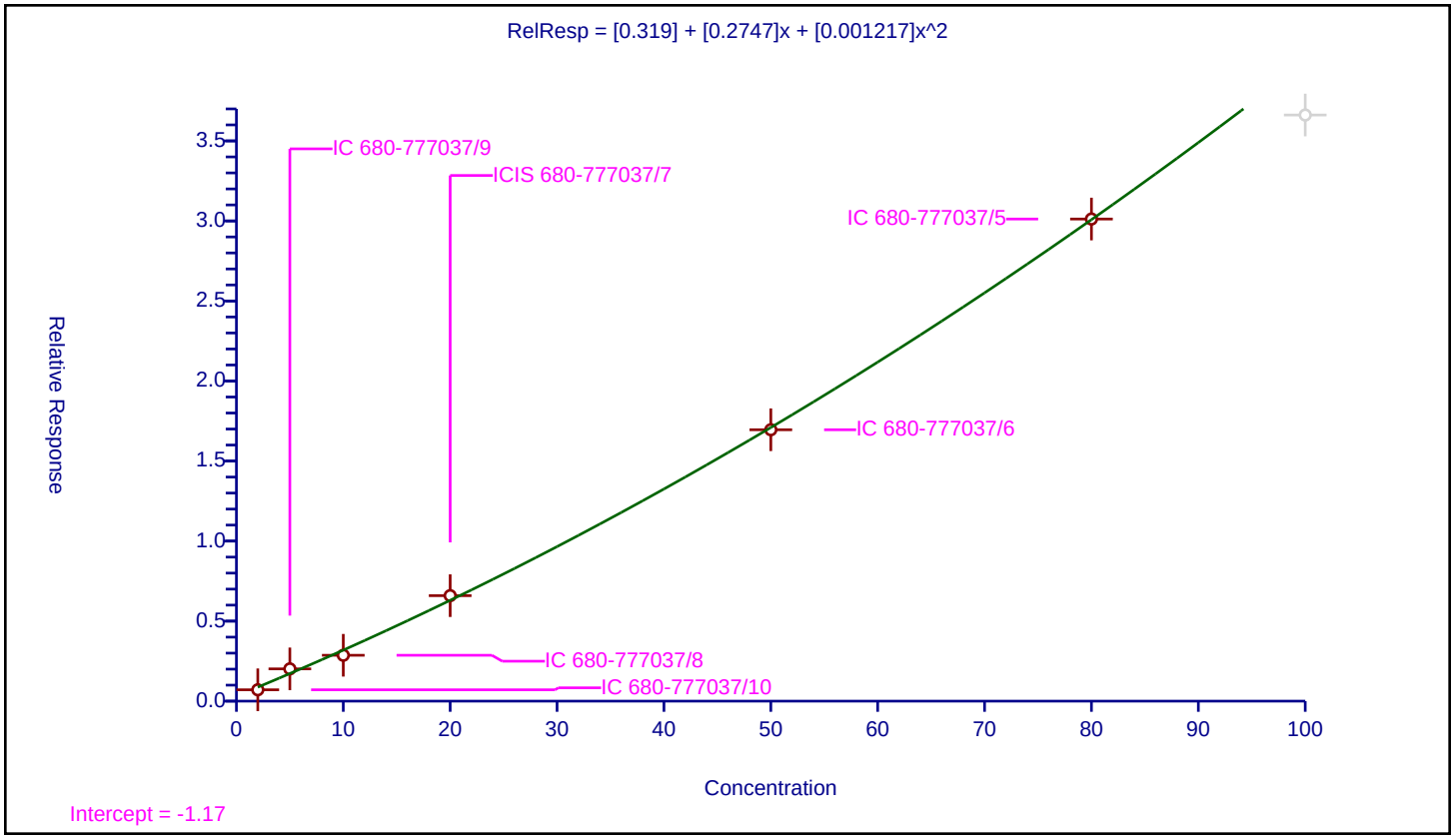
Curve Coefficients

Intercept:	0.319
Slope:	0.2747
Second Order:	0.001217

Error Coefficients

Standard Error:	2030000
Relative Standard Error:	21.7
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777037/10	2.0	0.708923	50.0	5615421.0	0.354461	Y
2	IC 680-777037/9	5.0	2.01527	50.0	4958989.0	0.403054	Y
3	IC 680-777037/8	10.0	2.866646	50.0	5345672.0	0.286665	Y
4	ICIS 680-777037/7	20.0	6.590189	50.0	5680103.0	0.329509	Y
5	IC 680-777037/6	50.0	16.954195	50.0	4789036.0	0.339084	Y
6	IC 680-777037/5	80.0	30.119794	50.0	5001427.0	0.376497	Y
7	IC 680-777037/4	100.0	36.617582	50.0	3623228.0	0.366176	N



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

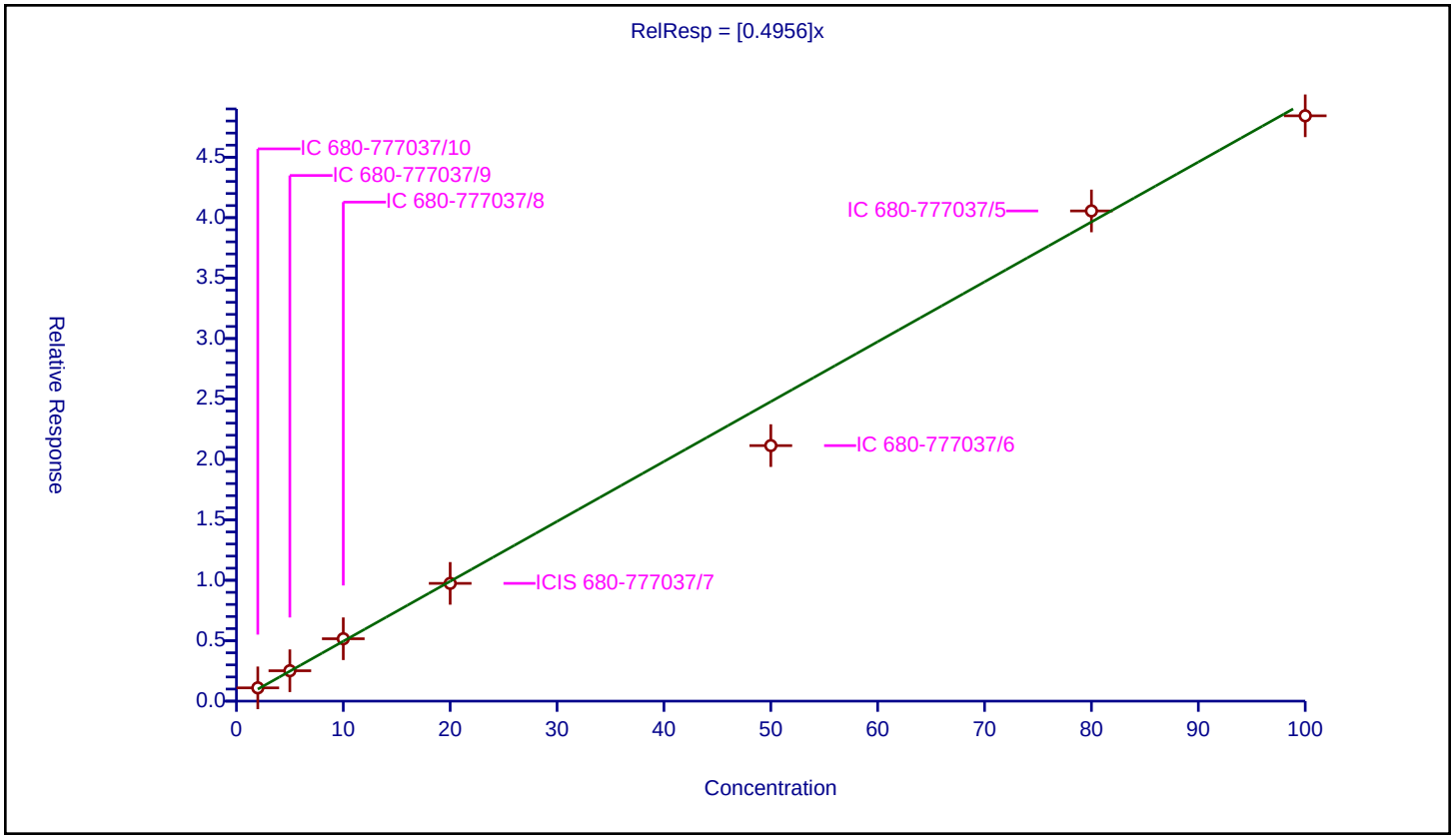
Curve Coefficients

Intercept:	0
Slope:	0.4956

Error Coefficients

Standard Error:	2400000
Relative Standard Error:	7.8
Correlation Coefficient:	0.936
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777037/10	2.0	1.097798	50.0	5615421.0	0.548899	Y
2	IC 680-777037/9	5.0	2.514837	50.0	4958989.0	0.502967	Y
3	IC 680-777037/8	10.0	5.16096	50.0	5345672.0	0.516096	Y
4	ICIS 680-777037/7	20.0	9.742508	50.0	5680103.0	0.487125	Y
5	IC 680-777037/6	50.0	21.142251	50.0	4789036.0	0.422845	Y
6	IC 680-777037/5	80.0	40.557905	50.0	5001427.0	0.506974	Y
7	IC 680-777037/4	100.0	48.429218	50.0	3623228.0	0.484292	Y



Calibration / 2,2'-Oxybisethanol

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

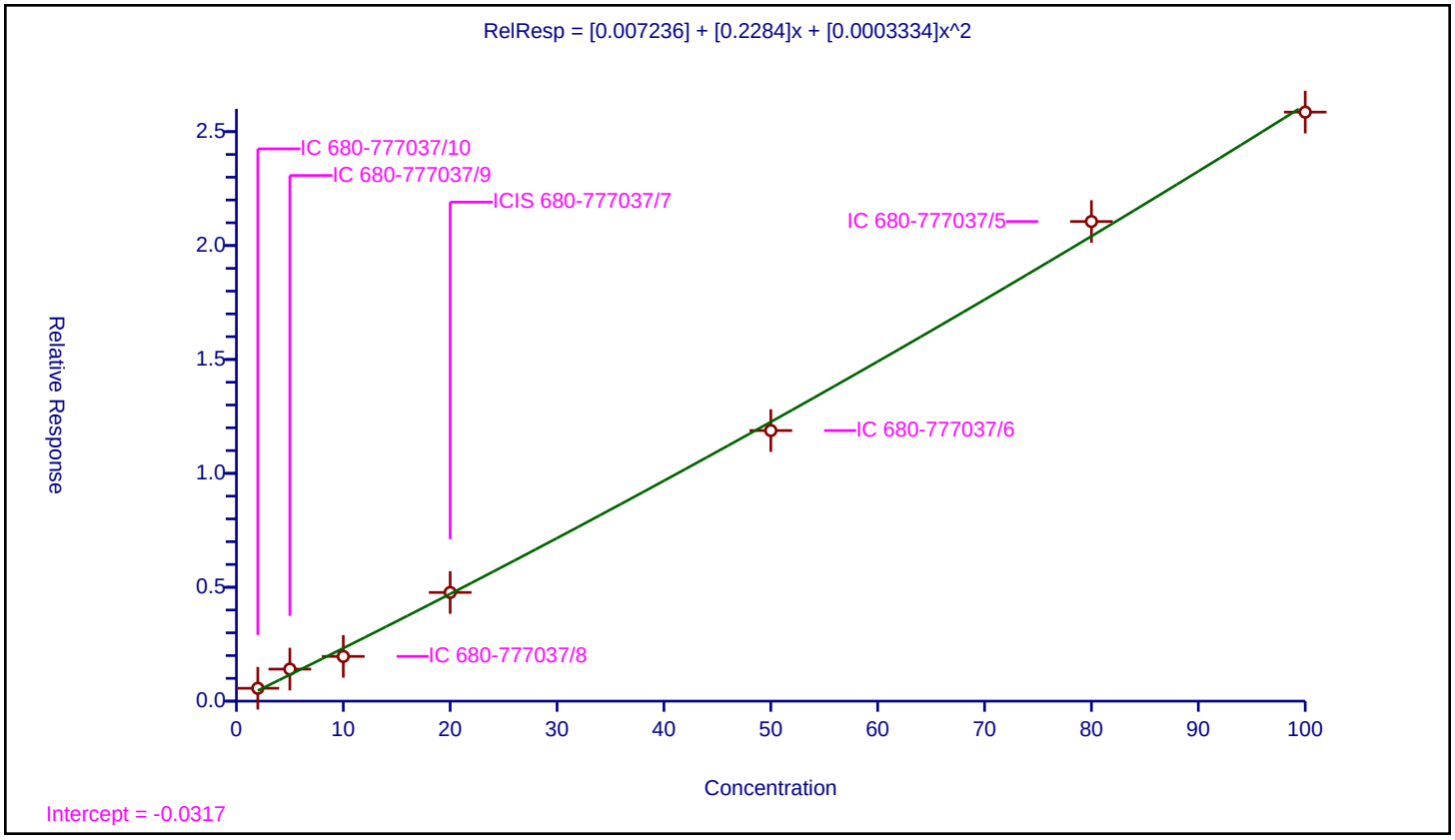
Curve Coefficients

Intercept:	0.007236
Slope:	0.2284
Second Order:	0.0003334

Error Coefficients

Standard Error:	1550000
Relative Standard Error:	17.3
Correlation Coefficient:	0.939
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777037/10	2.0	0.56555	50.0	5615421.0	0.282775	Y
2	IC 680-777037/9	5.0	1.406305	50.0	4958989.0	0.281261	Y
3	IC 680-777037/8	10.0	1.963289	50.0	5345672.0	0.196329	Y
4	ICIS 680-777037/7	20.0	4.770583	50.0	5680103.0	0.238529	Y
5	IC 680-777037/6	50.0	11.87927	50.0	4789036.0	0.237585	Y
6	IC 680-777037/5	80.0	21.056121	50.0	5001427.0	0.263202	Y
7	IC 680-777037/4	100.0	25.858558	50.0	3623228.0	0.258586	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

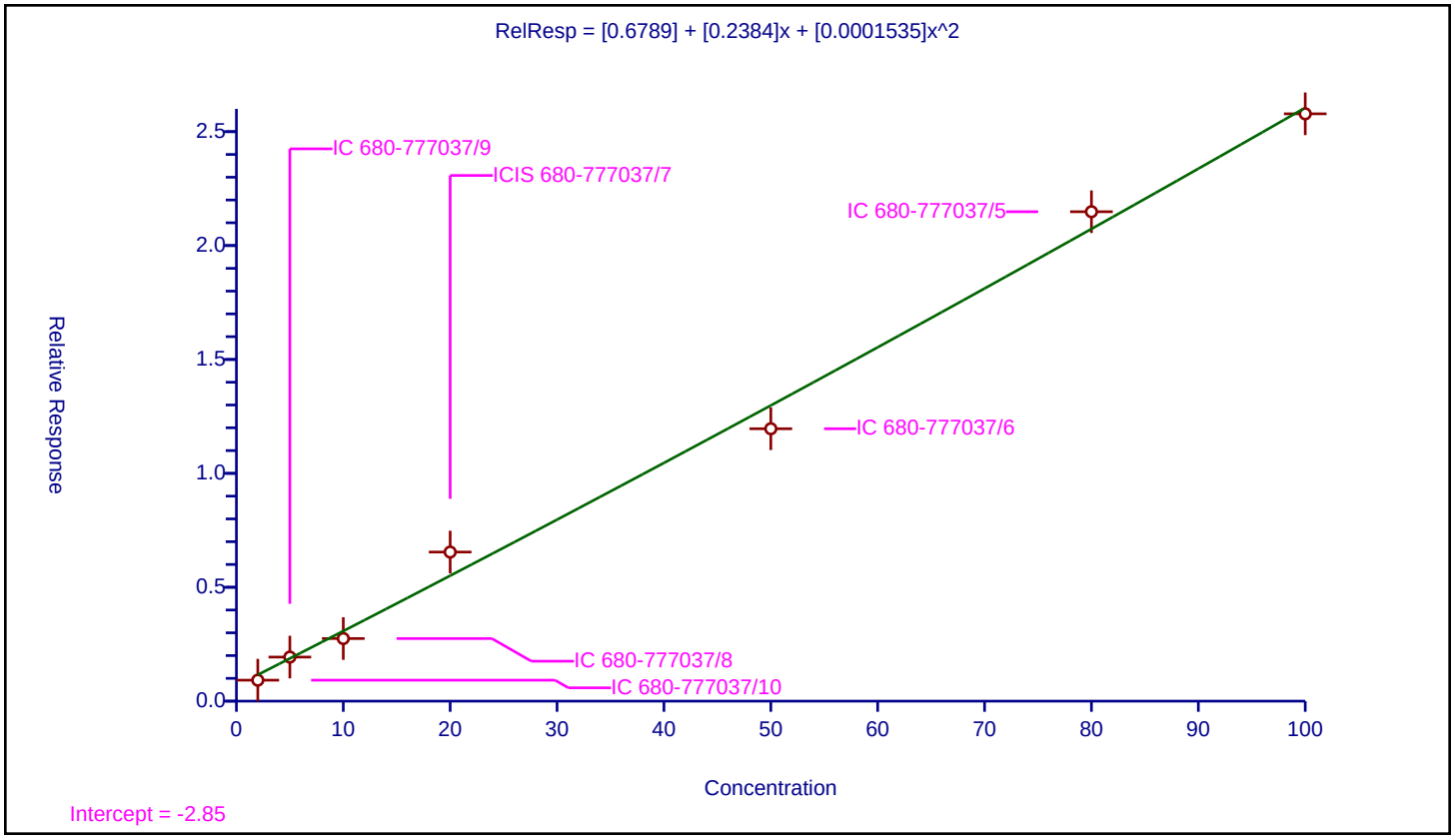
Curve Coefficients

Intercept:	0.6789
Slope:	0.2384
Second Order:	0.0001535

Error Coefficients

Standard Error:	1590000
Relative Standard Error:	28.1
Correlation Coefficient:	0.925
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777037/10	2.0	0.920919	50.0	5615421.0	0.46046	Y
2	IC 680-777037/9	5.0	1.935072	50.0	4958989.0	0.387014	Y
3	IC 680-777037/8	10.0	2.748298	50.0	5345672.0	0.27483	Y
4	ICIS 680-777037/7	20.0	6.544327	50.0	5680103.0	0.327216	Y
5	IC 680-777037/6	50.0	11.958993	50.0	4789036.0	0.23918	Y
6	IC 680-777037/5	80.0	21.485898	50.0	5001427.0	0.268574	Y
7	IC 680-777037/4	100.0	25.783348	50.0	3623228.0	0.257833	Y



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

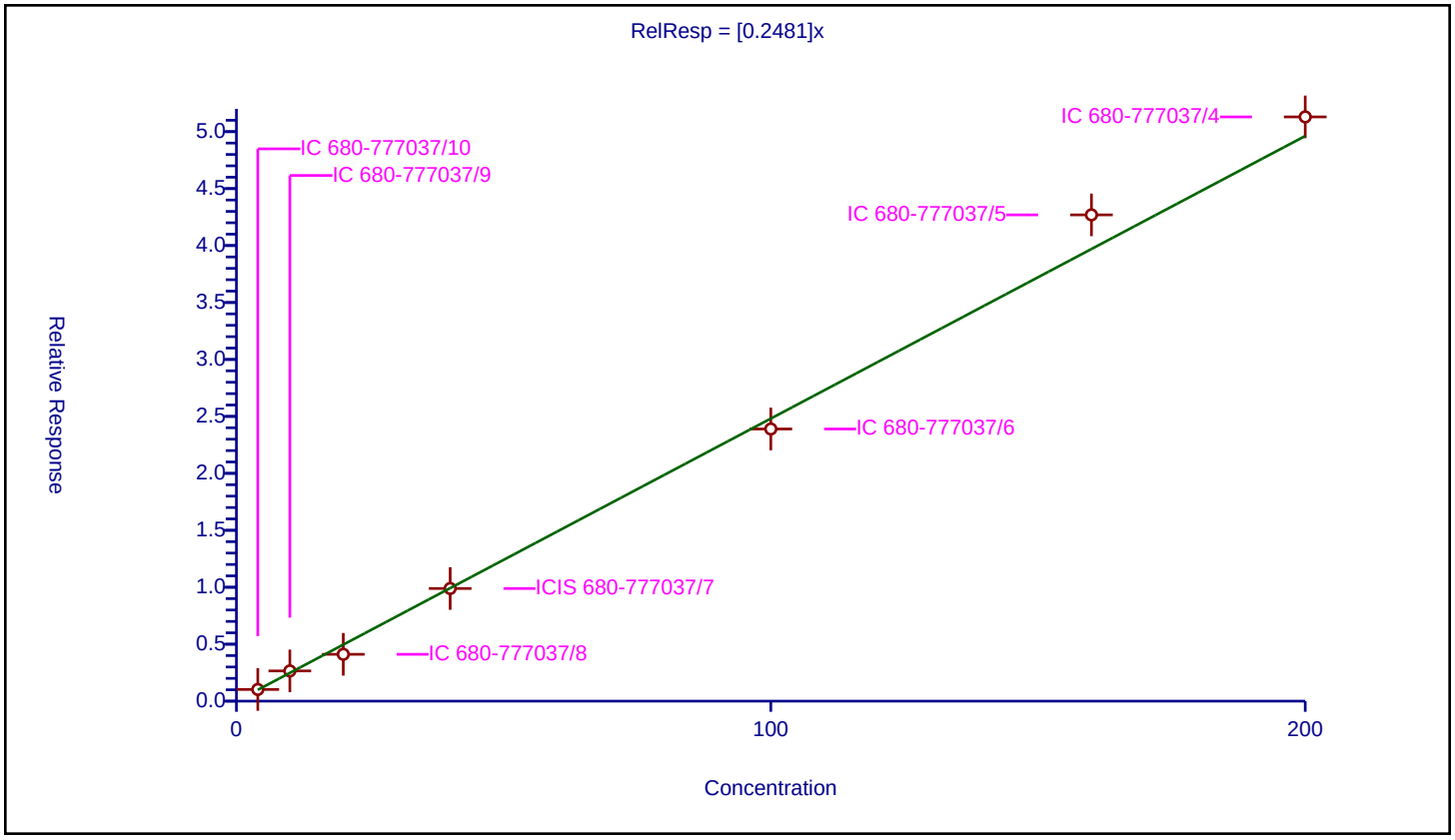
Curve Coefficients

Intercept:	0
Slope:	0.2481

Error Coefficients

Standard Error:	2540000
Relative Standard Error:	8.5
Correlation Coefficient:	0.941
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 680-777037/10	4.0	1.024393	50.0	5615421.0	0.256098	Y
2	IC 680-777037/9	10.0	2.654059	50.0	4958989.0	0.265406	Y
3	IC 680-777037/8	20.0	4.112458	50.0	5345672.0	0.205623	Y
4	ICIS 680-777037/7	40.0	9.891449	50.0	5680103.0	0.247286	Y
5	IC 680-777037/6	100.0	23.896281	50.0	4789036.0	0.238963	Y
6	IC 680-777037/5	160.0	42.695615	50.0	5001427.0	0.266848	Y
7	IC 680-777037/4	200.0	51.296441	50.0	3623228.0	0.256482	Y



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Lab Sample ID: ICV 680-777037/11 Calibration Date: 05/04/2023 21:27

Instrument ID: CVGG2 Calib Start Date: 05/04/2023 18:45

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 05/04/2023 21:04

Lab File ID: GE04020.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin2		0.7376		23.9	20.0	19.6	20.0
4-Hydroxy-4-methyl-2-pentanone	Ave	0.5535	0.6602		23.9	20.0	19.3	20.0
2-Butoxyethanol	Lin2		0.7869		24.6	20.0	23.0*	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0466	0.0525		22.5	20.0	12.6	20.0
Propylene glycol	Qua		0.1444		16.7	20.0	-16.4	20.0
Ethylene glycol	Qua		0.2640		16.8	20.0	-15.9	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.4956	0.5413		21.8	20.0	9.2	20.0
2,2'-Oxybisethanol	Qua		0.1612		13.8	20.0	-31.0*	20.0
Triethylene Glycol	Qua		0.1999		13.8	20.0	-31.0*	20.0
Tetraethylene Glycol	Ave	0.2481	0.1894		30.5	40.0	-23.6*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Lab Sample ID: ICV 680-777037/11 Calibration Date: 05/04/2023 21:27

Instrument ID: CVGG2 Calib Start Date: 05/04/2023 18:45

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 05/04/2023 21:04

Lab File ID: GE04020.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.23	2.18	2.27
4-Hydroxy-4-methyl-2-pentanone	2.59	2.53	2.63
2-Butoxyethanol	2.77	2.71	2.82
Dipropylene Glycol Methyl Ether	3.83	3.75	3.90
Propylene glycol	4.74	4.64	4.83
Ethylene glycol	4.99	4.89	5.09
2-(2-Butoxyethoxy)ethanol	6.67	6.54	6.80
2,2'-Oxybisethanol	8.81	8.63	8.98
Triethylene Glycol	10.06	9.86	10.26
Tetraethylene Glycol	10.90	10.68	11.12

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04020.D
Lims ID: icv glycol
Client ID:
Sample Type: CCV
Inject. Date: 04-May-2023 21:27:51 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-011
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:26:49 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 11:49:16

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	Ethanol, 2-propoxy						
	2.226	2.225	0.001	1610017	20.0	23.9	
2	4-Hydroxy-4-methyl-2-pentanone						
	2.586	2.579	0.007	1440981	20.0	23.9	
3	2-Butoxyethanol						M
	2.766	2.768	-0.002	1717668	20.0	24.6	M
*	4 n-Heptyl Alcohol						M
	3.073	3.082	-0.009	5457015	50.0	50.0	M
5	Dipropylene Glycol Methyl Ether						M
	3.832	3.826	0.006	114627	20.0	22.5	M
6	Propylene glycol						M
	4.743	4.739	0.004	315153	20.0	16.7	M
7	Ethylene glycol						M
	4.993	4.988	0.005	576295	20.0	16.8	M
8	2-(2-Butoxyethoxy)ethanol						
	6.671	6.670	0.001	1181599	20.0	21.8	
9	2,2'-Oxybisethanol						
	8.807	8.808	-0.001	351785	20.0	13.8	
10	Triethylene Glycol						M
	10.063	10.063	0.000	436311	20.0	13.8	M
11	Tetraethylene Glycol						
	10.901	10.901	0.000	827005	40.0	30.5	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_GlyICV_00057	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00116	Amount Added:	10.00	Units: uL	Run Reagent

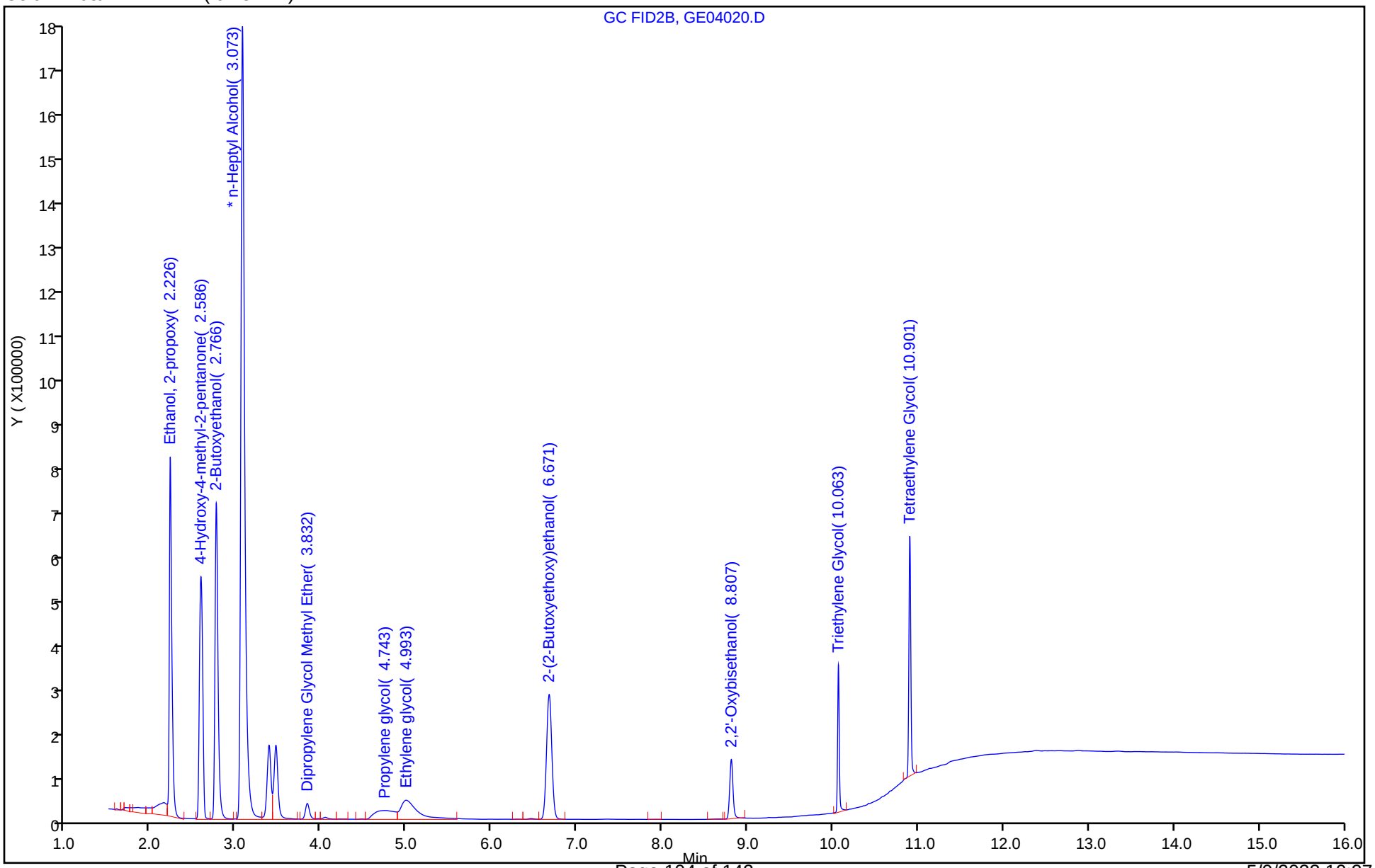
Report Date: 05-May-2023 12:26:49 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04020.D

Injection Date:	04-May-2023 21:27:51	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	icv glycol			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)



5/9/2023 10:27 AM

Manual Integration/User Assign Peak Report

Eurofins Savannah

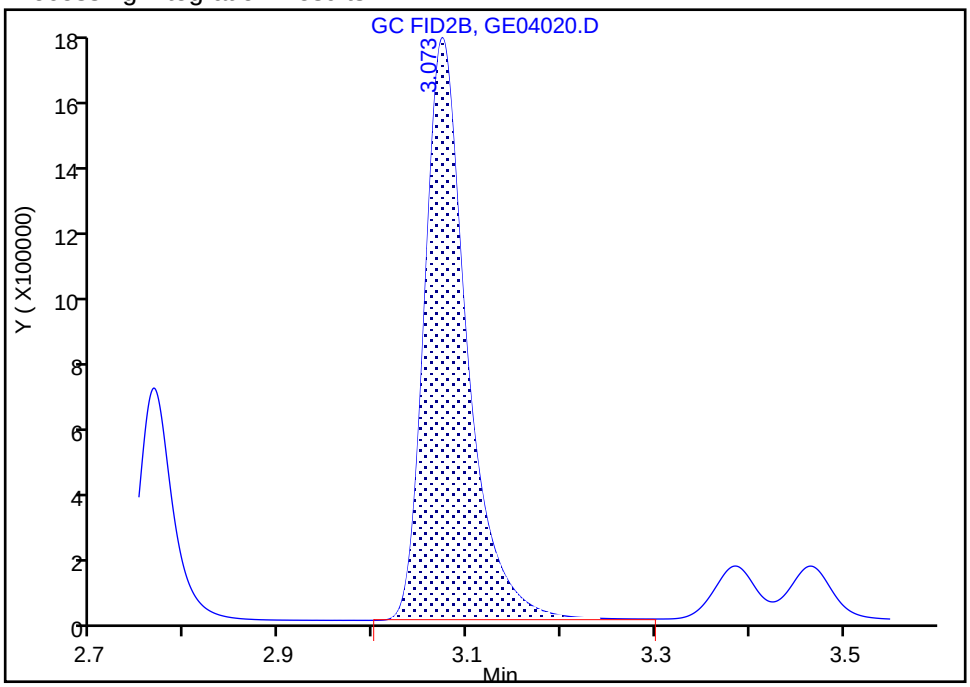
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04020.D
Injection Date: 04-May-2023 21:27:51 Instrument ID: CVGG2
Lims ID: icv glycol
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

* 4 n-Heptyl Alcohol, CAS: 111-70-6

Signal: 1

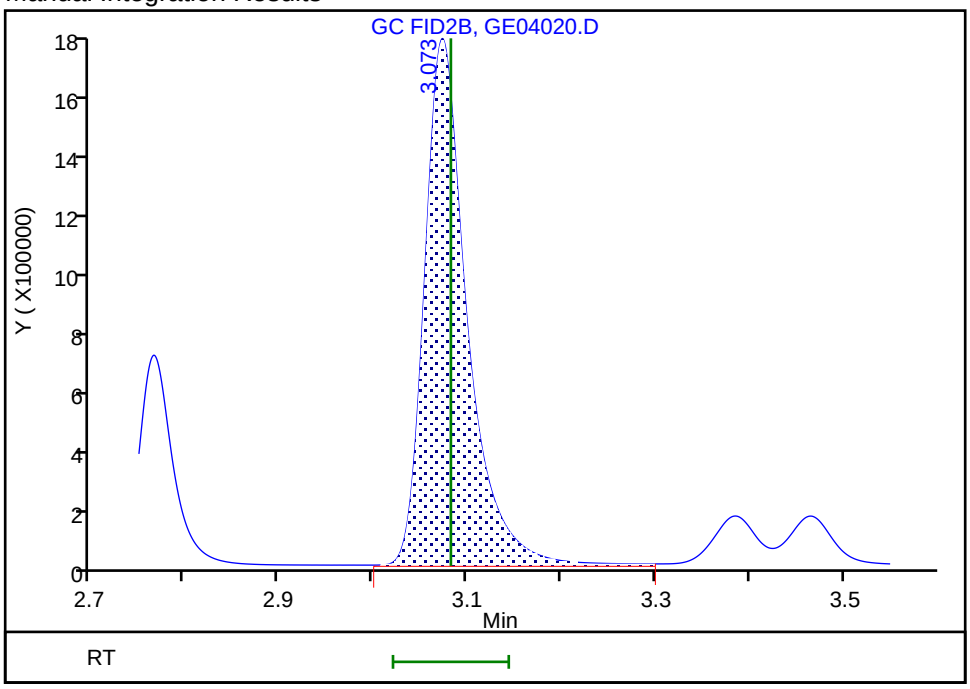
Processing Integration Results

RT: 3.07
Area: 5414220
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 3.07
Area: 5457015
Amount: 50.000000
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:46:34
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

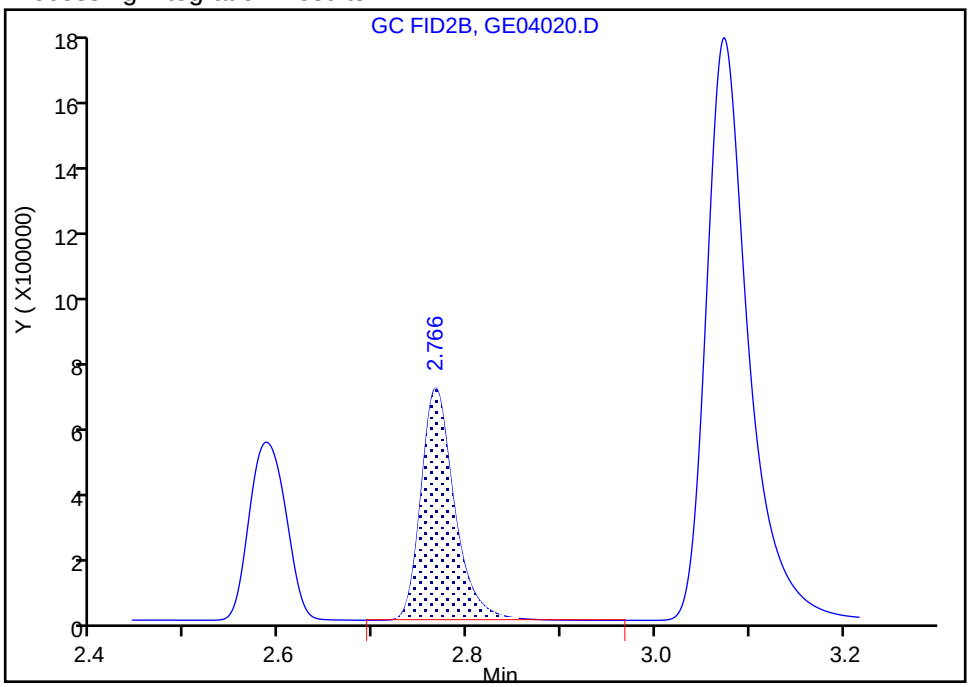
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04020.D
Injection Date: 04-May-2023 21:27:51 Instrument ID: CVGG2
Lims ID: icv glycol
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

3 2-Butoxyethanol, CAS: 111-76-2

Signal: 1

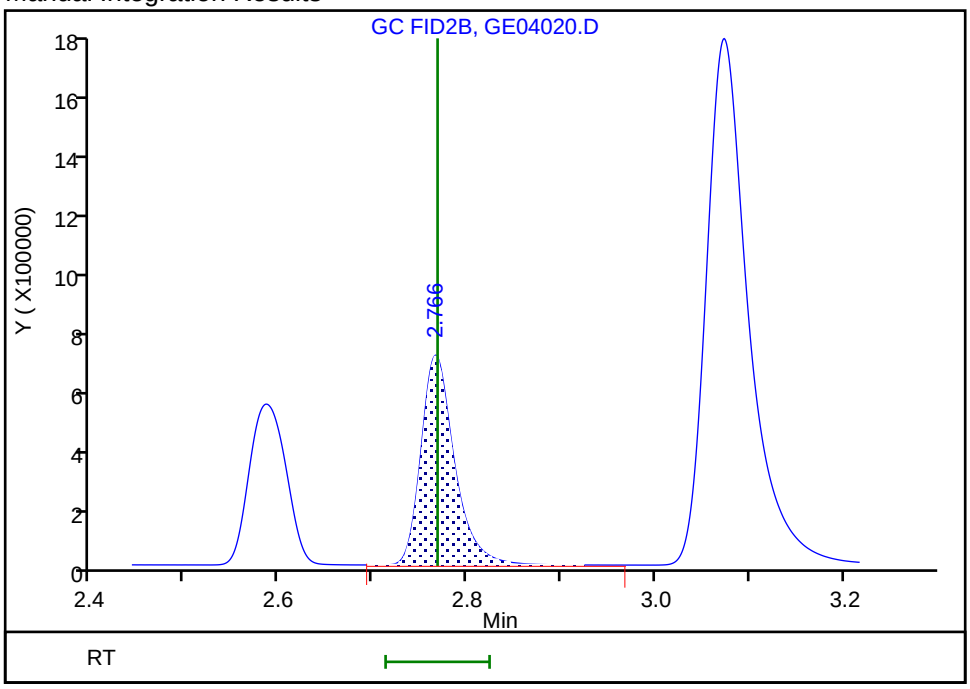
Processing Integration Results

RT: 2.77
Area: 1706448
Amount: 24.632044
Amount Units: ug/ml



Manual Integration Results

RT: 2.77
Area: 1717668
Amount: 24.607830
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:46:34
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

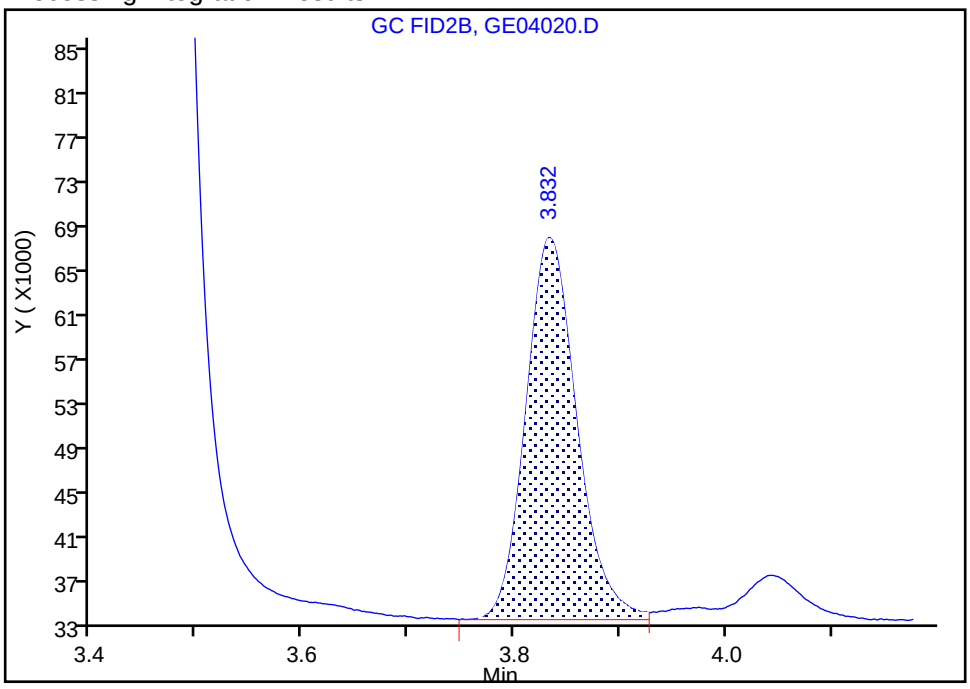
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04020.D
Injection Date: 04-May-2023 21:27:51 Instrument ID: CVGG2
Lims ID: icv glycol
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

5 Dipropylene Glycol Methyl Ether, CAS: 34590-94-8

Signal: 1

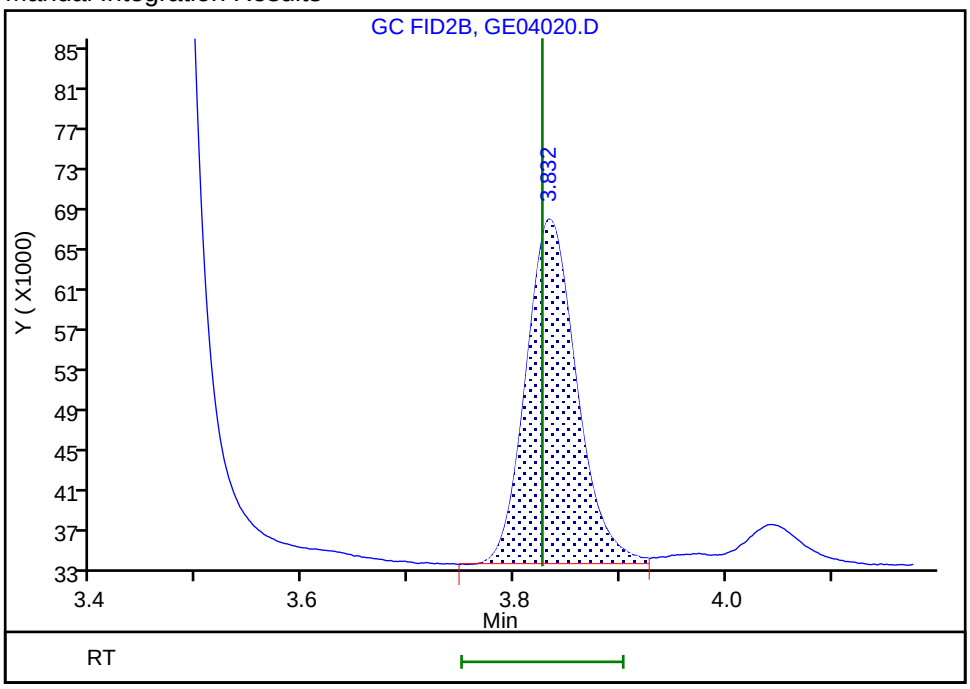
Processing Integration Results

RT: 3.83
Area: 114935
Amount: 22.741848
Amount Units: ug/ml



Manual Integration Results

RT: 3.83
Area: 114627
Amount: 22.520725
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:46:34
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

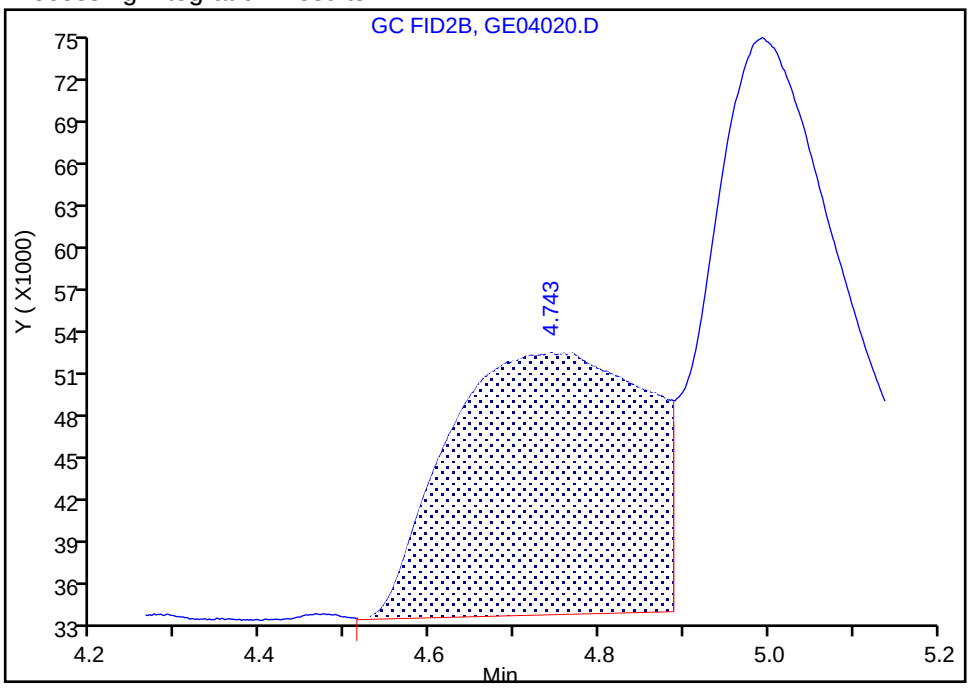
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04020.D				
Injection Date:	04-May-2023 21:27:51	Instrument ID:	CVGG2		
Lims ID:	icv glycol				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

6 Propylene glycol, CAS: 57-55-6

Signal: 1

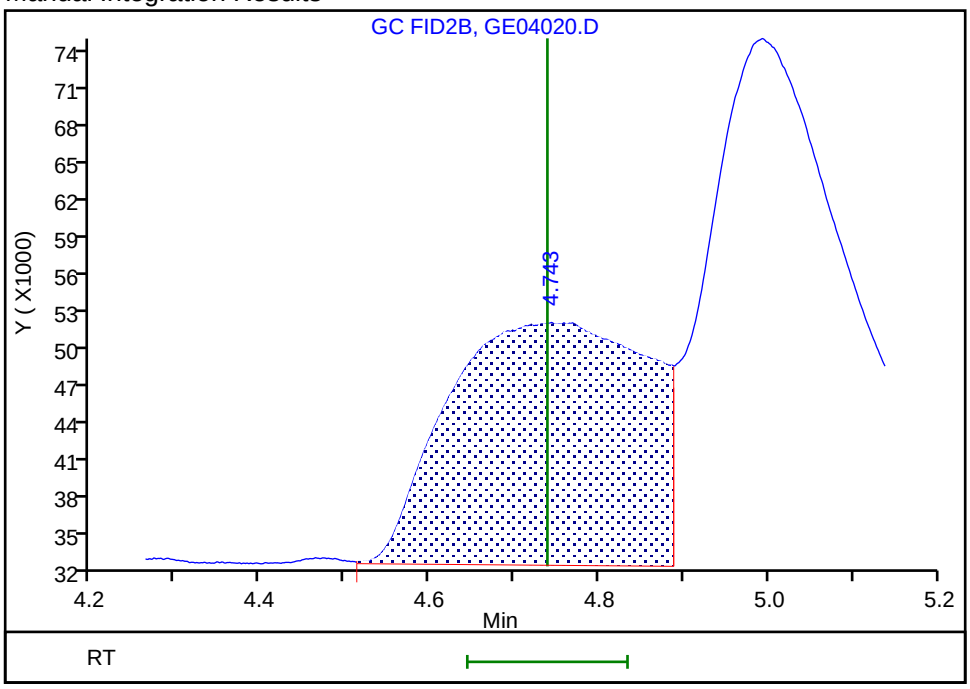
Processing Integration Results

RT: 4.74
Area: 304589
Amount: 16.172609
Amount Units: ug/ml



Manual Integration Results

RT: 4.74
Area: 315153
Amount: 16.721589
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:46:40
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

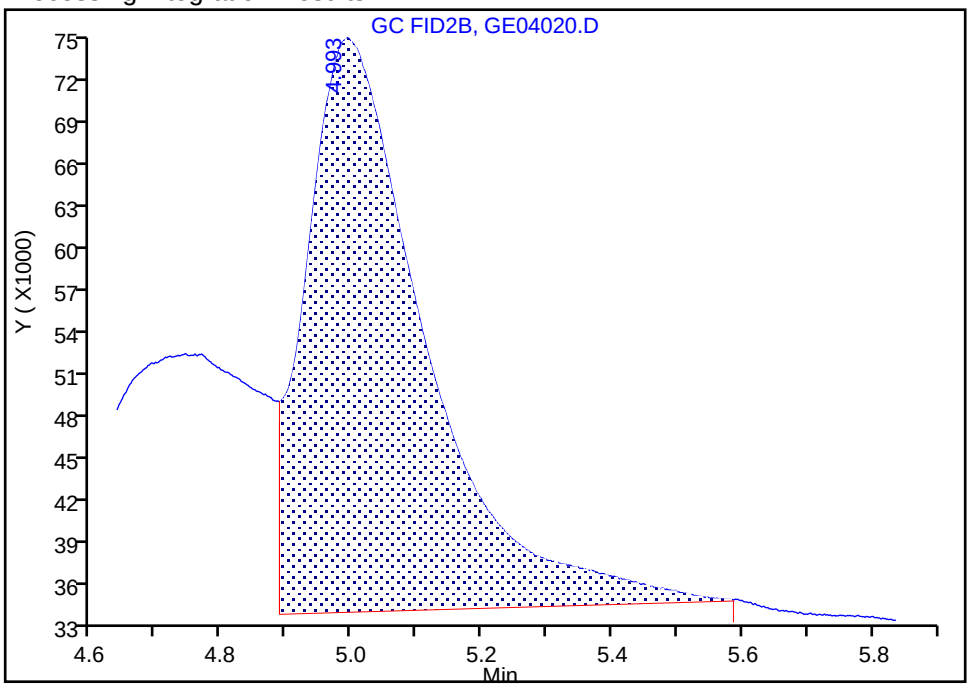
Data File:	\\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04020.D				
Injection Date:	04-May-2023 21:27:51	Instrument ID:	CVGG2		
Lims ID:	icv glycol				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8015_GLY_VGG	Limit Group:	8015C_DAI		
Column:	J&W DB WAX (0.45 mm)	Detector	GC FID2B		

7 Ethylene glycol, CAS: 107-21-1

Signal: 1

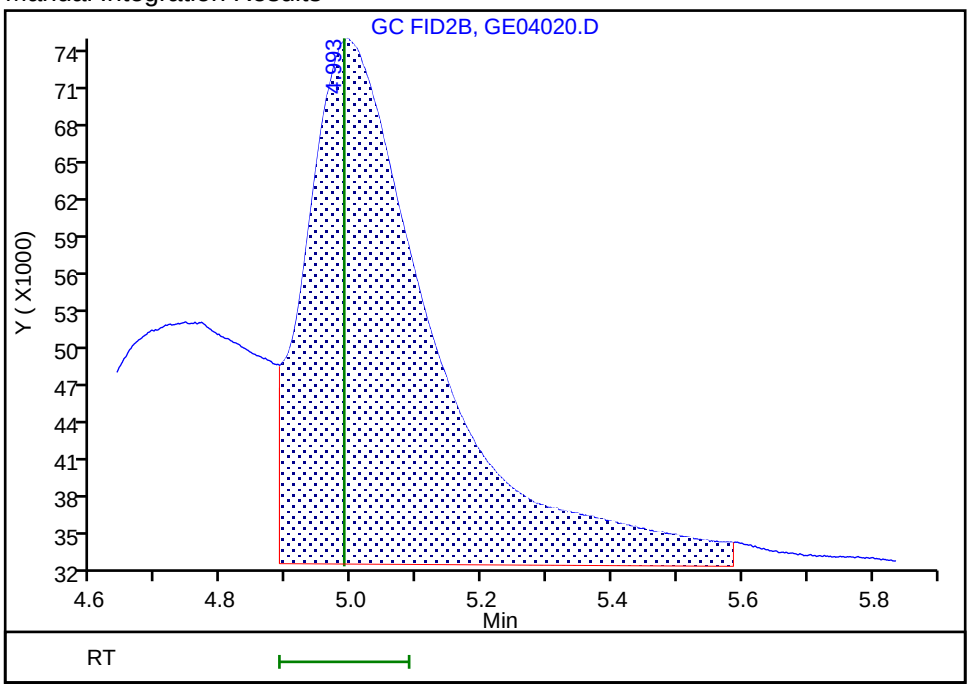
Processing Integration Results

RT: 4.99
Area: 523019
Amount: 13.649482
Amount Units: ug/ml



Manual Integration Results

RT: 4.99
Area: 576295
Amount: 16.811902
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 11:46:40
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Savannah

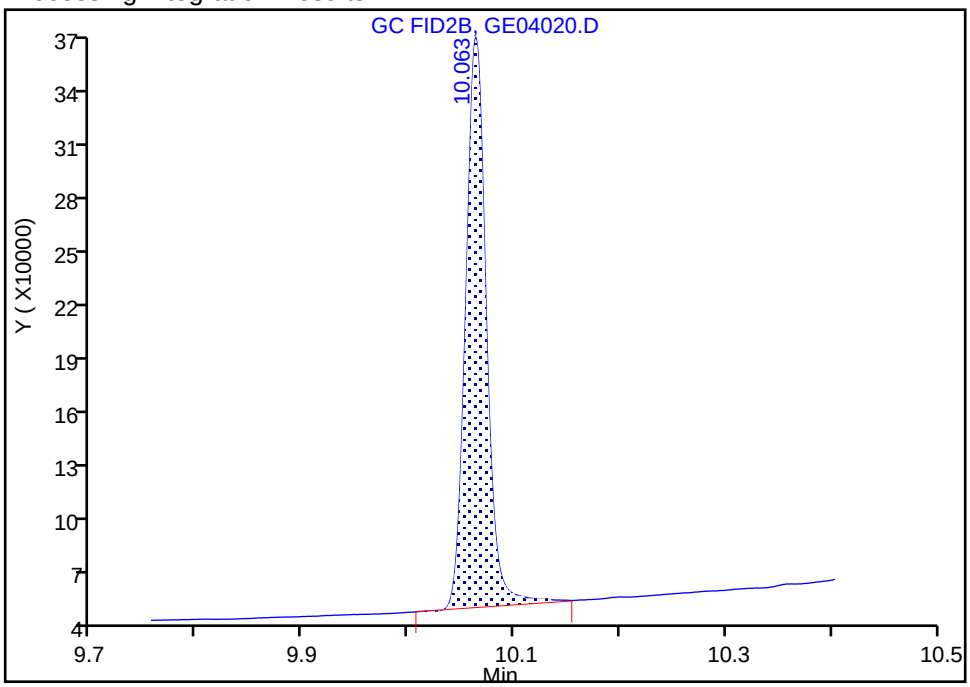
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04020.D
Injection Date: 04-May-2023 21:27:51 Instrument ID: CVGG2
Lims ID: icv glycol
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

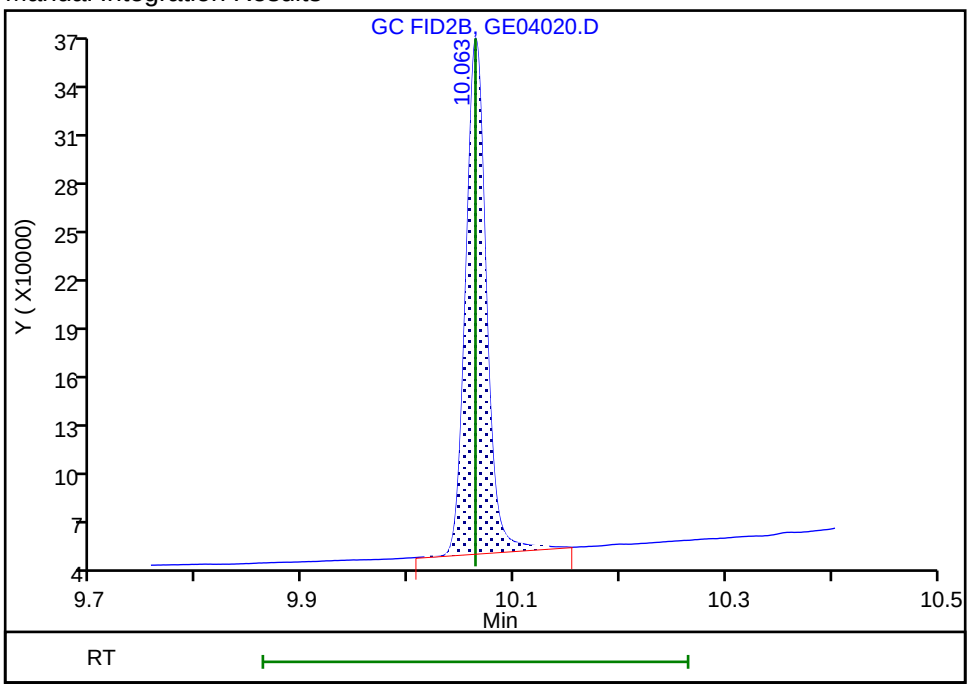
Processing Integration Results

RT: 10.06
Area: 434002
Amount: 13.713314
Amount Units: ug/ml



Manual Integration Results

RT: 10.06
Area: 436311
Amount: 13.800754
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 12:12:51
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Lab Sample ID: CCV 680-777037/27 Calibration Date: 05/05/2023 03:39

Instrument ID: CVGG2 Calib Start Date: 05/04/2023 18:45

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 05/04/2023 21:04

Lab File ID: GE04036.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol, 2-propoxy	Lin2		0.7278		23.6	20.0	17.9	20.0
4-Hydroxy-4-methyl-2-pentanone	Ave	0.5535	0.6644		24.0	20.0	20.0	20.0
2-Butoxyethanol	Lin2		0.7522		23.5	20.0	17.5	20.0
Dipropylene Glycol Methyl Ether	Ave	0.0466	0.0584		25.0	20.0	25.1*	20.0
Propylene glycol	Qua		0.1808		20.3	20.0	1.7	20.0
Ethylene glycol	Qua		0.3247		20.6	20.0	3.0	20.0
2-(2-Butoxyethoxy)ethanol	Ave	0.4956	0.5951		24.0	20.0	20.1*	20.0
2,2'-Oxybisethanol	Qua		0.1685		14.4	20.0	-27.9*	20.0
Triethylene Glycol	Qua		0.1639		10.8	20.0	-45.8*	20.0
Tetraethylene Glycol	Ave	0.2481	0.0334		5.39	40.0	-86.5*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Lab Sample ID: CCV 680-777037/27 Calibration Date: 05/05/2023 03:39

Instrument ID: CVGG2 Calib Start Date: 05/04/2023 18:45

GC Column: J&W DB WAX ID: 0.45(mm) Calib End Date: 05/04/2023 21:04

Lab File ID: GE04036.D

Analyte	RT	RT WINDOW	
		FROM	TO
Ethanol, 2-propoxy	2.23	2.19	2.28
4-Hydroxy-4-methyl-2-pentanone	2.59	2.54	2.64
2-Butoxyethanol	2.77	2.71	2.83
Dipropylene Glycol Methyl Ether	3.84	3.76	3.91
Propylene glycol	4.77	4.67	4.86
Ethylene glycol	5.00	4.90	5.10
2-(2-Butoxyethoxy)ethanol	6.67	6.54	6.80
2,2'-Oxybisethanol	8.81	8.63	8.98
Triethylene Glycol	10.07	9.86	10.27
Tetraethylene Glycol	10.90	10.69	11.12

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04036.D
Lims ID: ccv g4
Client ID:
Sample Type: CCV
Inject. Date: 05-May-2023 03:39:38 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-027
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:27:54 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.231	2.231	0.000	1599945	20.0	23.6	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.590	2.590	0.000	1460624	20.0	24.0	
	3 2-Butoxyethanol						
	2.770	2.770	0.000	1653639	20.0	23.5	
*	4 n-Heptyl Alcohol						
	3.074	3.074	0.000	5496144	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	3.836	3.836	0.000	128284	20.0	25.0	
	6 Propylene glycol						
	4.769	4.769	0.000	397383	20.0	20.3	
	7 Ethylene glycol						
	5.004	5.004	0.000	713856	20.0	20.6	
	8 2-(2-Butoxyethoxy)ethanol						
	6.670	6.670	0.000	1308407	20.0	24.0	
	9 2,2'-Oxybisethanol						
	8.807	8.807	0.000	370353	20.0	14.4	
	10 Triethylene Glycol						
	10.065	10.065	0.000	360426	20.0	10.8	
	11 Tetraethylene Glycol						
	10.903	10.903	0.000	146898	40.0	5.39	

Reagents:

SG_Gly_CAL_00049 Amount Added: 10.00 Units: uL
SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

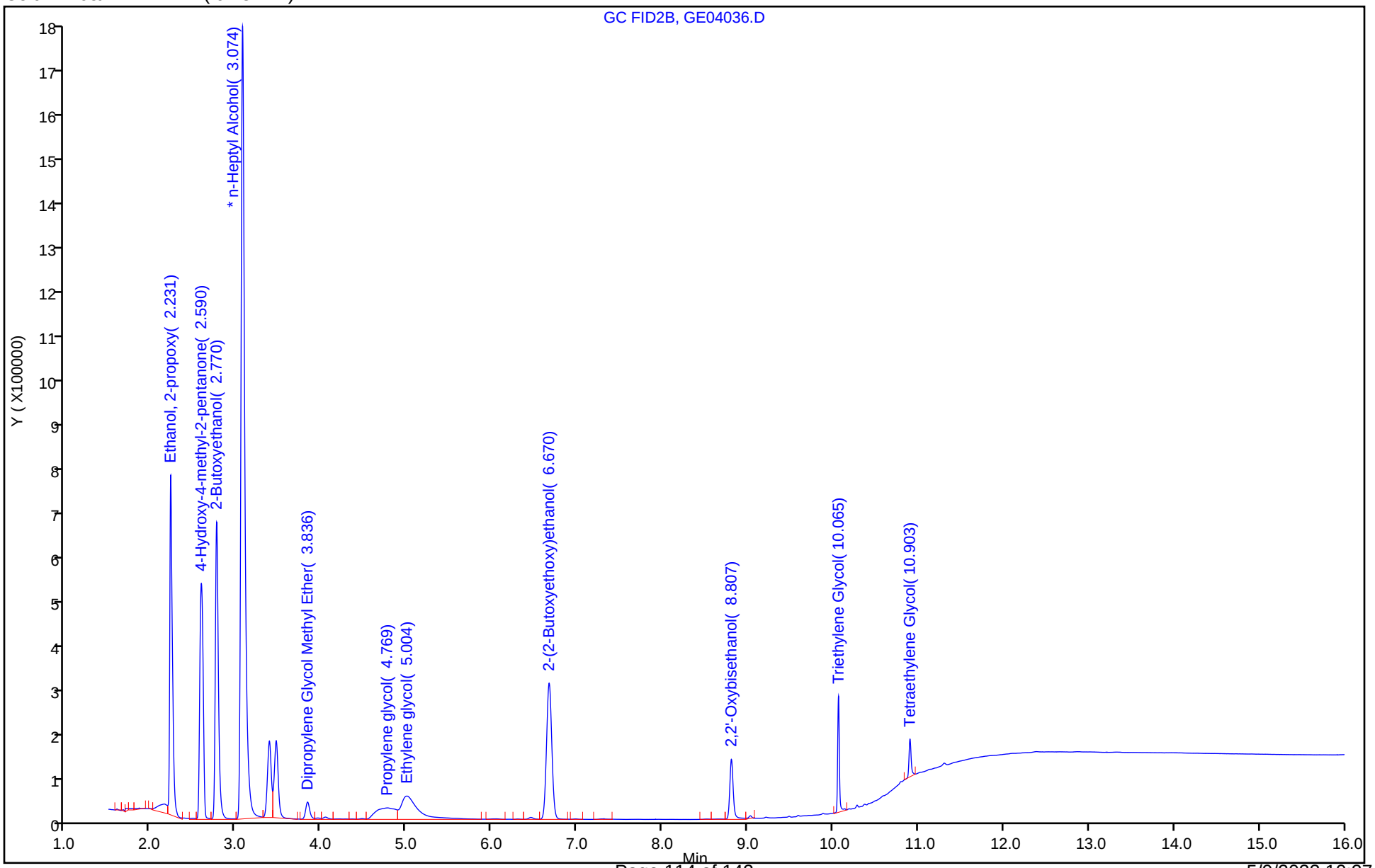
Report Date: 05-May-2023 12:27:54 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04036.D

Injection Date:	05-May-2023 03:39:38	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	ccv g4			Worklist Smp#:	27
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)



5/9/2023 10:27 AM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 680-777037/16

Matrix: Water Lab File ID: GE04025.D

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/04/2023 23:24

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.: 777037 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\20230504-85751.b\GE04025.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 04-May-2023 23:24:04 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-016
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:26:49 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 12:08:43

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3	2-Butoxyethanol						7
	2.767	2.768	-0.001	10214		-0.5031	7
	LOD =	0.5000					
* 4	n-Heptyl Alcohol						
	3.079	3.082	-0.003	6356297	50.0	50.0	
9	2,2'-Oxybisethanol						7
	8.807	8.808	-0.001	17432		0.5683	7
	LOD =	1.60					
10	Triethylene Glycol						7
	10.063	10.063	0.000	38340		-1.58	7
	LOD =	1.40					
11	Tetraethylene Glycol						7
	10.902	10.901	0.001	19185		0.6083	7
	LOD =	4.50					

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Reagents:

SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

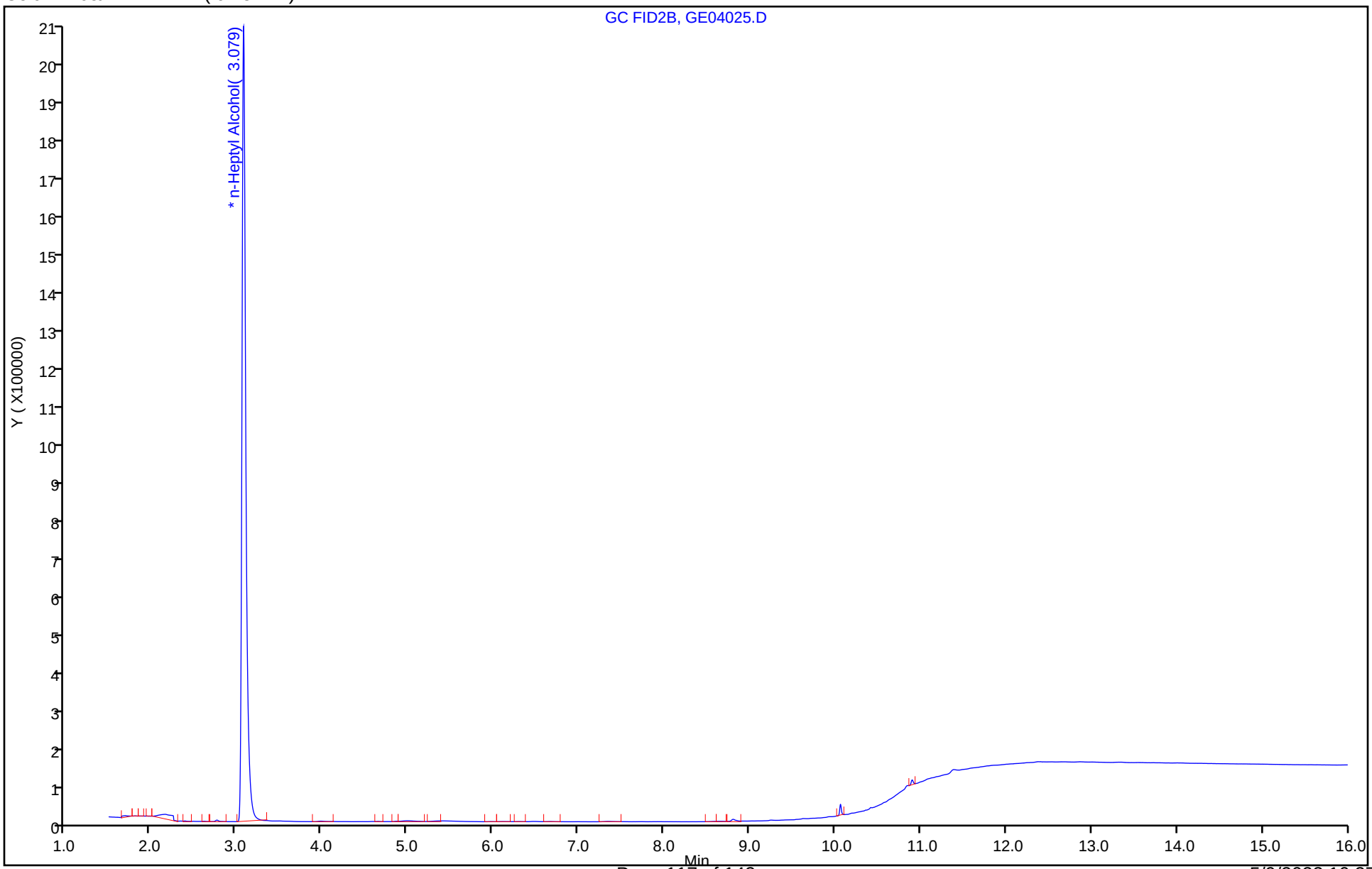
Report Date: 05-May-2023 12:26:51 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04025.D

Injection Date:	04-May-2023 23:24:04	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	mb			Worklist Smp#:	16
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)



5/9/2023 10:27 AM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 680-777037/12

Matrix: Water Lab File ID: GE04021.D

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/04/2023 21:51

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

Injection Volume: 1(uL) GC Column: J&W DB WAX ID: 0.45(mm)

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

Cleanup Factor:

Analysis Batch No.: 777037 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	23.3		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04021.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 04-May-2023 21:51:04 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-012
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:26:49 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 12:07:51

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.224	2.225	-0.001	1695819	20.0	24.4	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.580	2.579	0.001	1429174	20.0	22.9	
	3 2-Butoxyethanol						M
	2.765	2.768	-0.003	1746081	20.0	24.2	M
*	4 n-Heptyl Alcohol						M
	3.077	3.082	-0.005	5634454	50.0	50.0	M
	5 Dipropylene Glycol Methyl Ether						
	3.828	3.826	0.002	124679	20.0	23.7	
	6 Propylene glycol						
	4.742	4.739	0.003	499596	20.0	24.4	
	7 Ethylene glycol						
	4.990	4.988	0.002	992607	20.0	27.5	
	8 2-(2-Butoxyethoxy)ethanol						
	6.670	6.670	0.000	1298811	20.0	23.3	
	9 2,2'-Oxybisethanol						
	8.806	8.808	-0.002	679115	20.0	25.4	
	10 Triethylene Glycol						
	10.063	10.063	0.000	710476	20.0	23.3	
	11 Tetraethylene Glycol						
	10.901	10.901	0.000	1401606	40.0	50.1	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00049	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00116	Amount Added:	10.00	Units: uL	Run Reagent

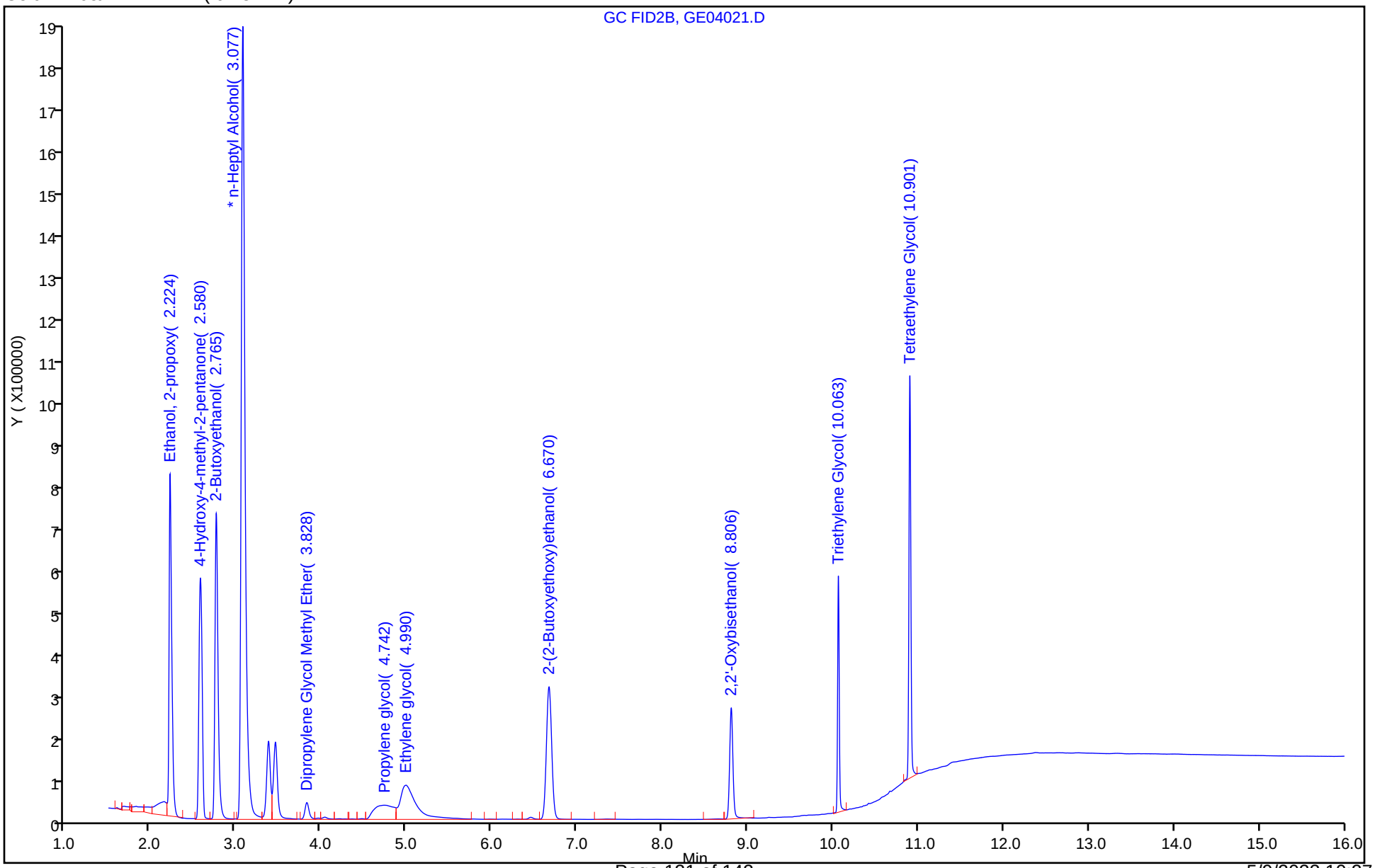
Report Date: 05-May-2023 12:26:50 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04021.D

Injection Date:	04-May-2023 21:51:04	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	12
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)



5/9/2023 10:27 AM

Manual Integration/User Assign Peak Report

Eurofins Savannah

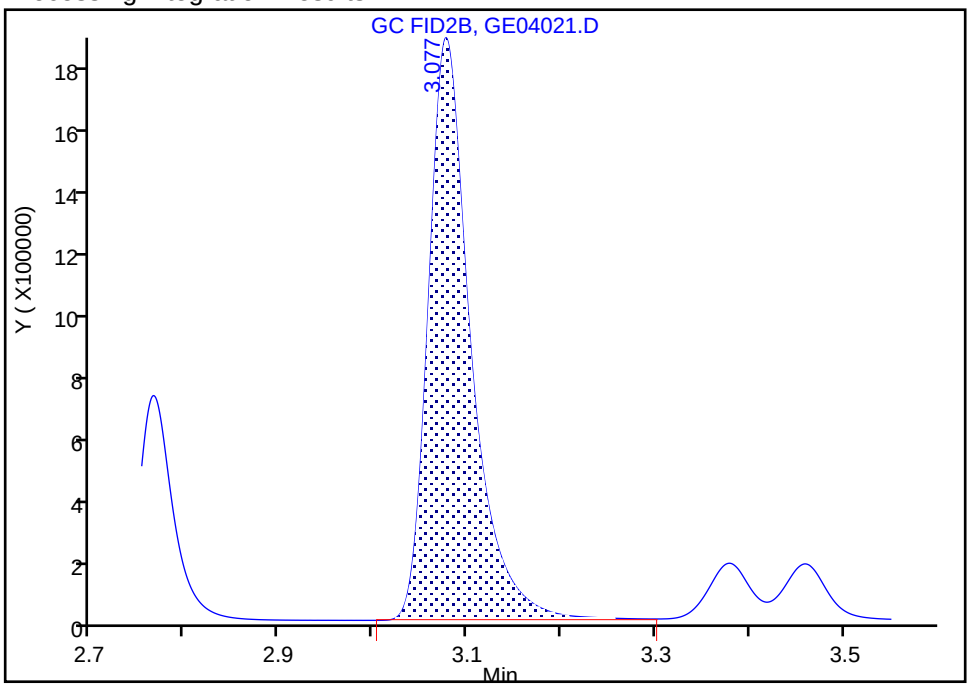
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04021.D
Injection Date: 04-May-2023 21:51:04 Instrument ID: CVGG2
Lims ID: lcs
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

* 4 n-Heptyl Alcohol, CAS: 111-70-6

Signal: 1

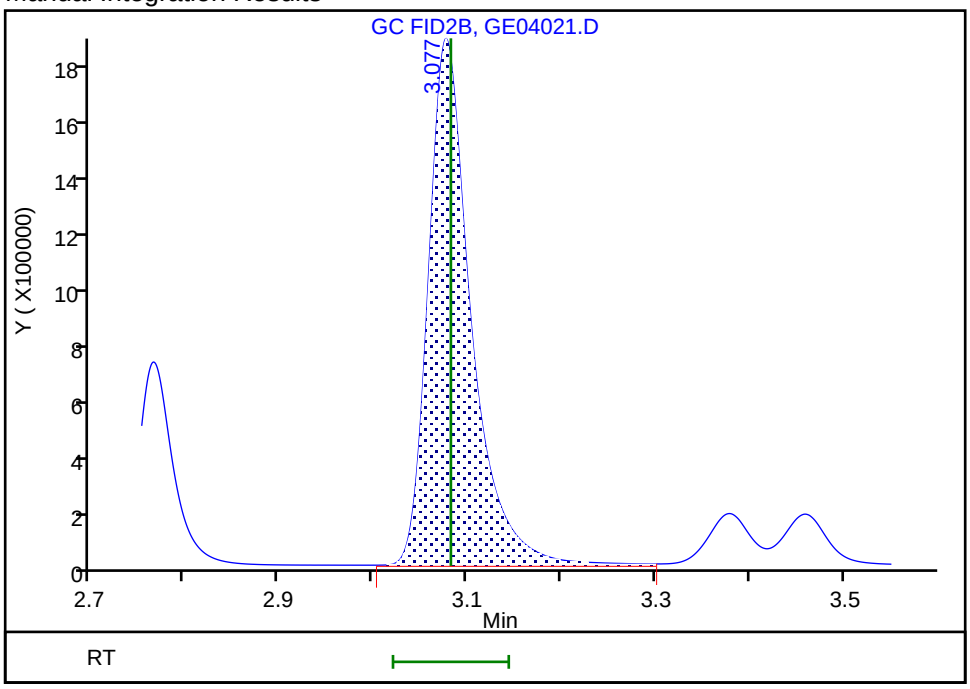
Processing Integration Results

RT: 3.08
Area: 5593570
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 3.08
Area: 5634454
Amount: 50.000000
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 12:07:43
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 680-777037/13

Matrix: Water Lab File ID: GE04022.D

Analysis Method: 8015C GLY Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/04/2023 22:14

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.: 777037 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	21.8		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04022.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 04-May-2023 22:14:21 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-013
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:26:49 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

First Level Reviewer: SK9U Date: 05-May-2023 12:08:09

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.225	2.225	0.000	1581706	20.0	22.9	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.581	2.579	0.002	1343319	20.0	21.8	
	3 2-Butoxyethanol						
	2.767	2.768	-0.001	1612202	20.0	22.6	
*	4 n-Heptyl Alcohol						M
	3.077	3.082	-0.005	5575091	50.0	50.0	M
	5 Dipropylene Glycol Methyl Ether						M
	3.829	3.826	0.003	114508	20.0	22.0	M
	6 Propylene glycol						M
	4.720	4.739	-0.019	474842	20.0	23.5	M
	7 Ethylene glycol						M
	4.986	4.988	-0.002	910464	20.0	25.7	M
	8 2-(2-Butoxyethoxy)ethanol						
	6.668	6.670	-0.002	1205516	20.0	21.8	
	9 2,2'-Oxybisethanol						
	8.807	8.808	-0.001	604270	20.0	22.9	
	10 Triethylene Glycol						
	10.062	10.063	-0.001	633671	20.0	20.7	
	11 Tetraethylene Glycol						
	10.902	10.901	0.001	1247028	40.0	45.1	

QC Flag Legend

Processing Flags

Review Flags
M - Manually Integrated

Reagents:

SG_Gly_CAL_00049	Amount Added:	10.00	Units: uL	
SG_GLY_ISTD_00116	Amount Added:	10.00	Units: uL	Run Reagent

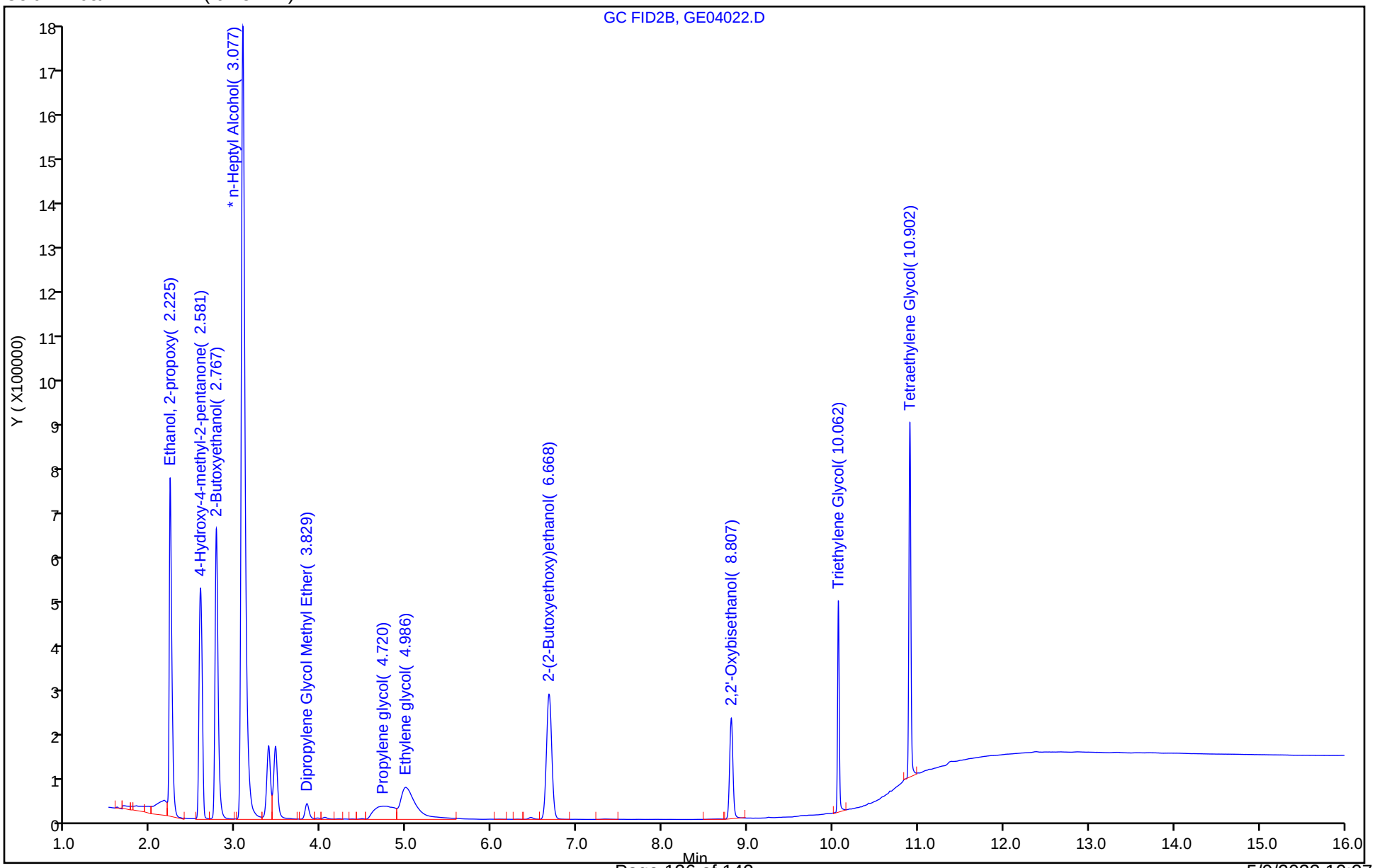
Report Date: 05-May-2023 12:26:51 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04022.D

Injection Date:	04-May-2023 22:14:21	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	lcsd			Worklist Smp#:	13
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)



5/9/2023 10:27 AM

Manual Integration/User Assign Peak Report

Eurofins Savannah

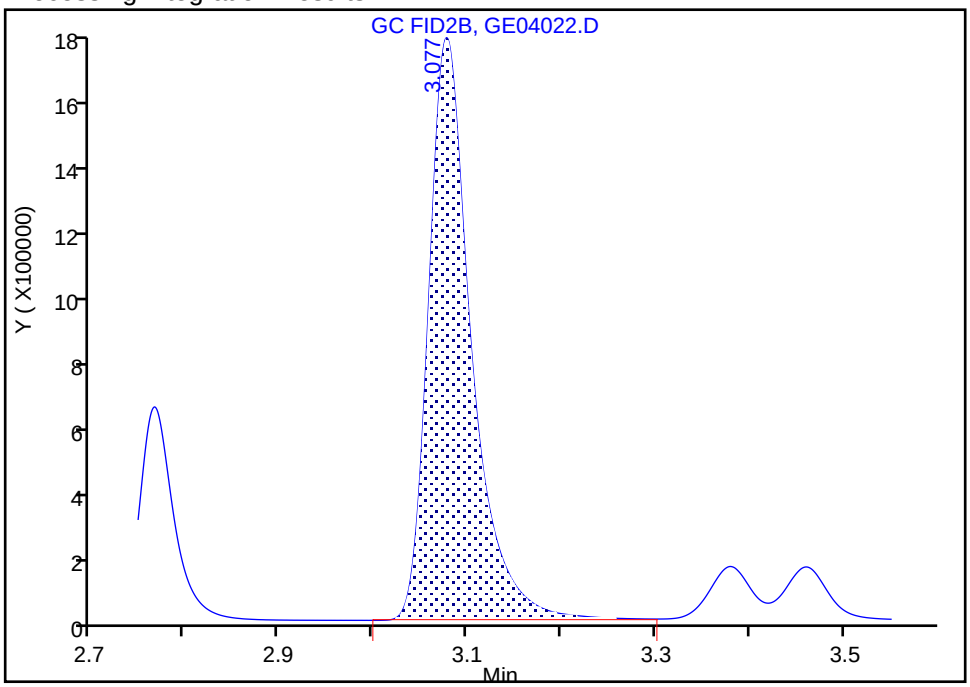
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04022.D
Injection Date: 04-May-2023 22:14:21 Instrument ID: CVGG2
Lims ID: lcsd
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX (0.45 mm) Detector GC FID2B

* 4 n-Heptyl Alcohol, CAS: 111-70-6

Signal: 1

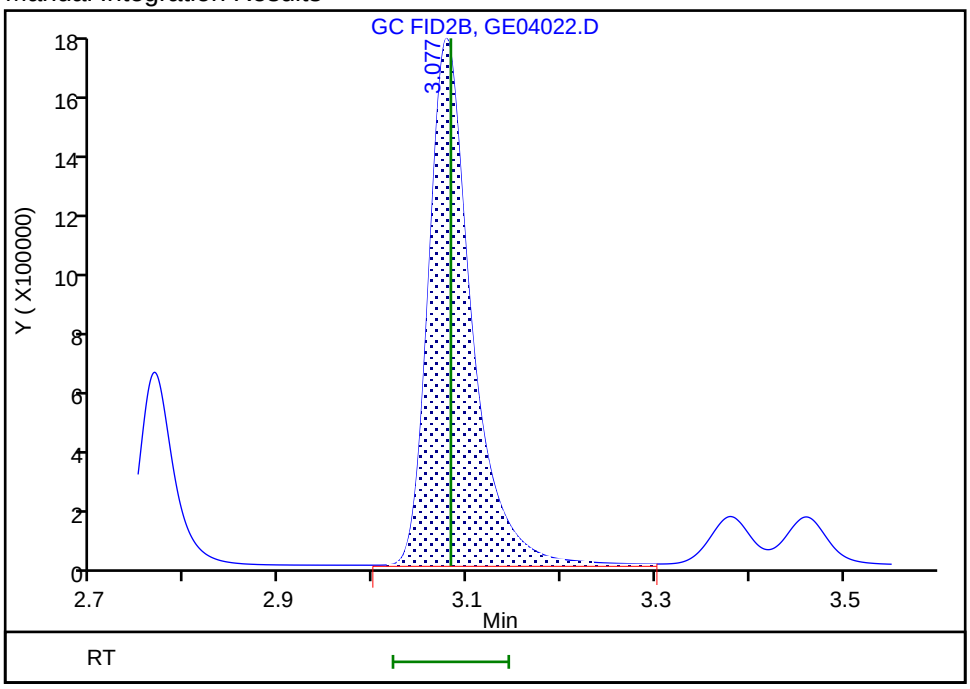
Processing Integration Results

RT: 3.08
Area: 5538247
Amount: 50.000000
Amount Units: ug/ml



Manual Integration Results

RT: 3.08
Area: 5575091
Amount: 50.000000
Amount Units: ug/ml



Reviewer: SK9U, 05-May-2023 12:08:02
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah | Job No.: 580-126724-1

SDG No.:

Client Sample ID: AF-RHMW02-WGN01LF-2304W4 MS | Lab Sample ID: 580-126724-2 MS

Matrix: Water | Lab File ID: GE04031.D

Analysis Method: 8015C GLY | Date Collected: 04/27/2023 09:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/05/2023 01:43

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.: 777037 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	21.7		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04031.D
Lims ID: 580-126724-C-2 MS
Client ID:
Sample Type: MS
Inject. Date: 05-May-2023 01:43:22 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-022
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:22:55 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.229	2.225	0.004	1665621	20.0	23.5	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.586	2.579	0.007	1455068	20.0	22.9	
	3 2-Butoxyethanol						
	2.770	2.768	0.002	1796537	20.0	24.5	
*	4 n-Heptyl Alcohol						
	3.079	3.082	-0.003	5740358	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	3.834	3.826	0.008	117569	20.0	22.0	
	6 Propylene glycol						
	4.789	4.739	0.050	358345	20.0	17.9	
	7 Ethylene glycol						
	4.999	4.988	0.011	686993	20.0	19.0	
	8 2-(2-Butoxyethoxy)ethanol						
	6.671	6.670	0.001	1235274	20.0	21.7	
	9 2,2'-Oxybisethanol						
	8.810	8.808	0.002	407855	20.0	15.2	
	10 Triethylene Glycol						
	10.064	10.063	0.001	252782	20.0	6.36	
	11 Tetraethylene Glycol						
	10.903	10.901	0.002	176651	40.0	6.20	

Reagents:

SG_GlyICV_00057 Amount Added: 10.00 Units: uL
SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

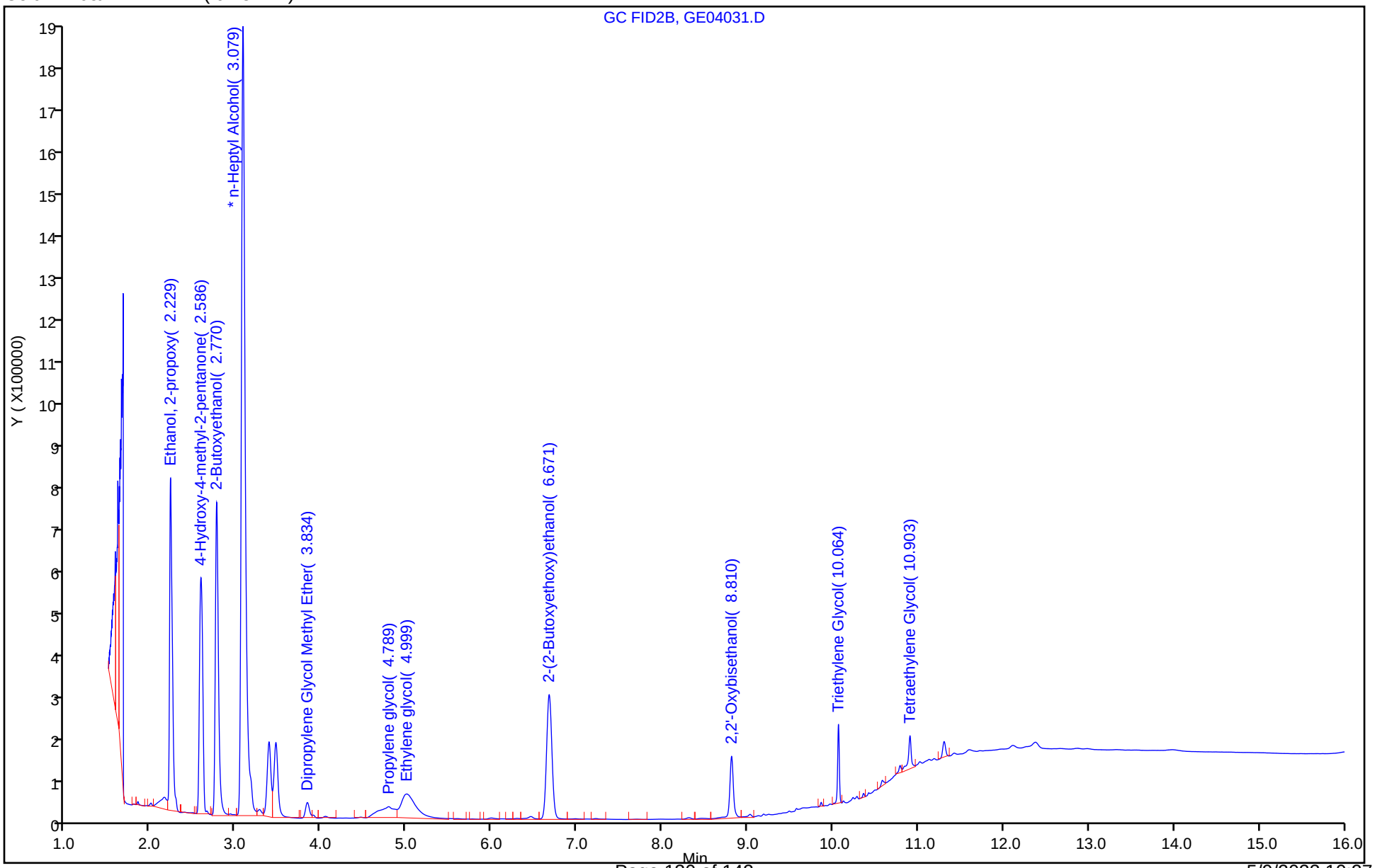
Report Date: 05-May-2023 12:26:48 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04031.D

Injection Date:	05-May-2023 01:43:22	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-126724-C-2 MS			Worklist Smp#:	22
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)



5/9/2023 10:27 AM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah | Job No.: 580-126724-1

SDG No.:

Client Sample ID: AF-RHMW02-WGN01LF-2304W4 MSD | Lab Sample ID: 580-126724-2 MSD

Matrix: Water | Lab File ID: GE04032.D

Analysis Method: 8015C GLY | Date Collected: 04/27/2023 09:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/05/2023 02:06

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.: 777037 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
112-34-5	2-(2-Butoxyethoxy)ethanol	25.4		5.0	3.0	1.1

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04032.D
Lims ID: 580-126724-C-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 05-May-2023 02:06:48 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0085751-023
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 05-May-2023 12:22:55 Calib Date: 04-May-2023 21:04:38
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04019.D

Column 1 : J&W DB WAX (0.45 mm) Det: GC FID2B
Process Host: CTX1676

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Ethanol, 2-propoxy						
	2.230	2.225	0.005	1630951	20.0	25.8	
	2 4-Hydroxy-4-methyl-2-pentanone						
	2.589	2.579	0.010	1475471	20.0	25.9	
	3 2-Butoxyethanol						
	2.770	2.768	0.002	1705670	20.0	26.0	
*	4 n-Heptyl Alcohol						
	3.074	3.082	-0.008	5141179	50.0	50.0	
	5 Dipropylene Glycol Methyl Ether						
	3.837	3.826	0.011	124020	20.0	25.9	
	6 Propylene glycol						
	4.789	4.739	0.050	398512	20.0	21.6	
	7 Ethylene glycol						
	5.002	4.988	0.014	762522	20.0	23.4	
	8 2-(2-Butoxyethoxy)ethanol						
	6.672	6.670	0.002	1294094	20.0	25.4	
	9 2,2'-Oxybisethanol						
	8.811	8.808	0.003	476088	20.0	19.7	
	10 Triethylene Glycol						
	10.064	10.063	0.001	287037	20.0	8.81	
	11 Tetraethylene Glycol						
	10.902	10.901	0.001	226800	40.0	8.89	

Reagents:

SG_GlyICV_00057 Amount Added: 10.00 Units: uL
SG_GLY_ISTD_00116 Amount Added: 10.00 Units: uL Run Reagent

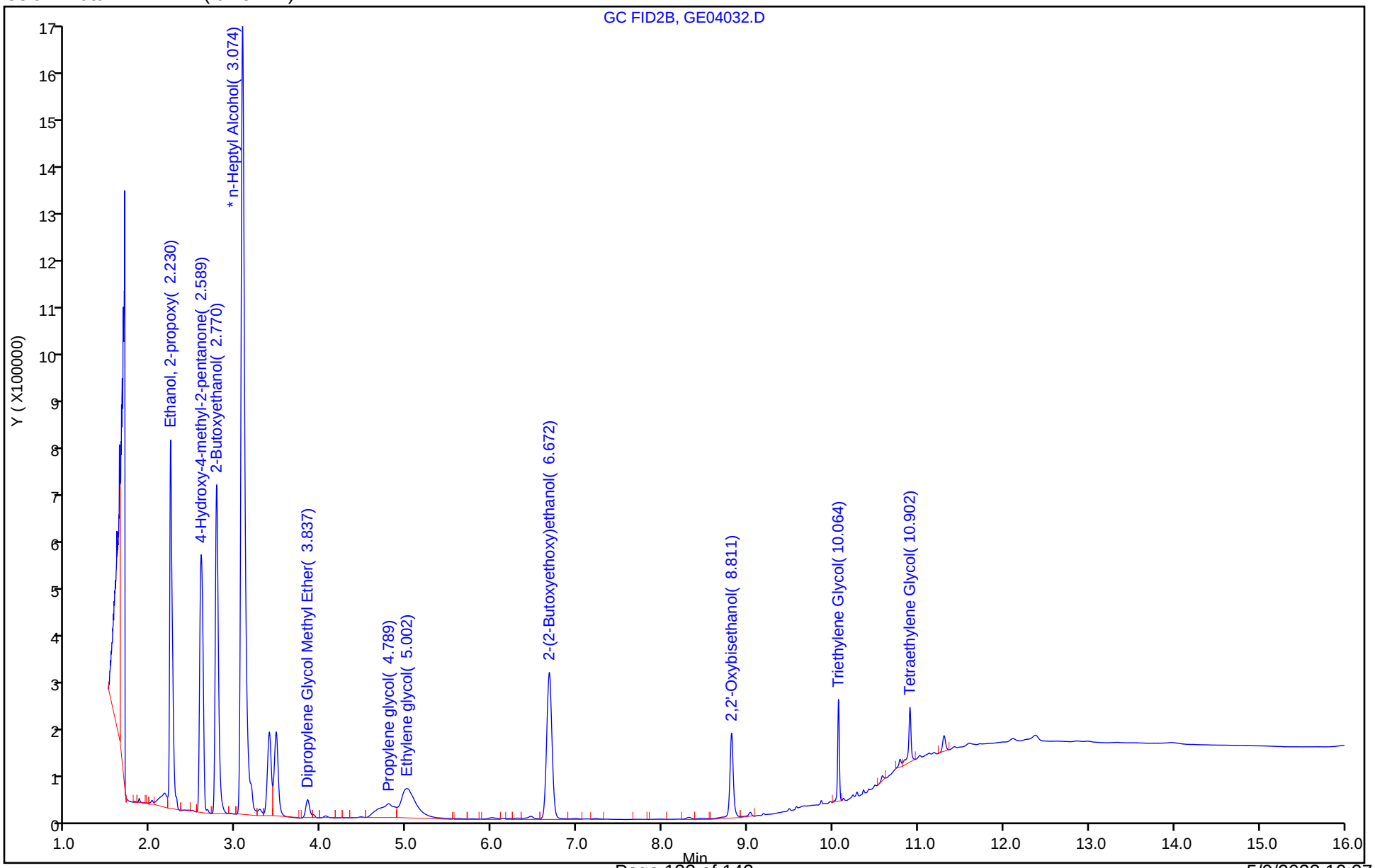
Report Date: 05-May-2023 12:26:48 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230504-85751.b\GE04032.D

Injection Date:	05-May-2023 02:06:48	Instrument ID:	CVGG2	Operator ID:	
Lims ID:	580-126724-C-2 MSD			Worklist Smp#:	23
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)



5/9/2023 10:27 AM

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Instrument ID: CVGG2 Start Date: 05/04/2023 18:45

Analysis Batch Number: 777037 End Date: 05/05/2023 03:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 680-777037/4		05/04/2023 18:45	1	GE04013.D	J&W DB WAX 0.45(mm)
IC 680-777037/5		05/04/2023 19:08	1	GE04014.D	J&W DB WAX 0.45(mm)
IC 680-777037/6		05/04/2023 19:31	1	GE04015.D	J&W DB WAX 0.45(mm)
ICIS 680-777037/7		05/04/2023 19:54	1	GE04016.D	J&W DB WAX 0.45(mm)
IC 680-777037/8		05/04/2023 20:18	1	GE04017.D	J&W DB WAX 0.45(mm)
IC 680-777037/9		05/04/2023 20:41	1	GE04018.D	J&W DB WAX 0.45(mm)
IC 680-777037/10		05/04/2023 21:04	1	GE04019.D	J&W DB WAX 0.45(mm)
ICV 680-777037/11 CCV		05/04/2023 21:27	1	GE04020.D	J&W DB WAX 0.45(mm)
LCS 680-777037/12		05/04/2023 21:51	1	GE04021.D	J&W DB WAX 0.45(mm)
LCSD 680-777037/13		05/04/2023 22:14	1	GE04022.D	J&W DB WAX 0.45(mm)
MB 680-777037/16		05/04/2023 23:24	1	GE04025.D	J&W DB WAX 0.45(mm)
ZZZZZ		05/04/2023 23:47	10000		J&W DB WAX 0.45(mm)
ZZZZZ		05/05/2023 00:10	10		J&W DB WAX 0.45(mm)
ZZZZZ		05/05/2023 00:33	10		J&W DB WAX 0.45(mm)
580-126724-1	AF-RHMW03-WGN01LF-230 4W4	05/05/2023 00:56	1	GE04029.D	J&W DB WAX 0.45(mm)
580-126724-2	AF-RHMW02-WGN01LF-230 4W4	05/05/2023 01:20	1	GE04030.D	J&W DB WAX 0.45(mm)
580-126724-2 MS	AF-RHMW02-WGN01LF-230 4W4 MS	05/05/2023 01:43	1	GE04031.D	J&W DB WAX 0.45(mm)
580-126724-2 MSD	AF-RHMW02-WGN01LF-230 4W4 MSD	05/05/2023 02:06	1	GE04032.D	J&W DB WAX 0.45(mm)
CCV 680-777037/27		05/05/2023 03:39	1	GE04036.D	J&W DB WAX 0.45(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah Job No.: 580-126724-1

SDG No.:

Batch Number: 777037 Batch Start Date: 05/04/23 18:45 Batch Analyst: Meincke, Griffin E

Batch Method: 8015C GLY Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SG_Gly_CAL 00049	SG_GLY_ISTD 00116	SG_GlyICV 00057		
IC 680-777037/4		8015C GLY		1 mL	50 uL	10 uL			
IC 680-777037/5		8015C GLY		1 mL	40 uL	10 uL			
IC 680-777037/6		8015C GLY		1 mL	25 uL	10 uL			
ICIS 680-777037/7		8015C GLY		1 mL	10 uL	10 uL			
IC 680-777037/8		8015C GLY		1 mL	5 uL	10 uL			
IC 680-777037/9		8015C GLY		1 mL	2.5 uL	10 uL			
IC 680-777037/10		8015C GLY		1 mL	1 uL	10 uL			
ICV 680-777037/11 CCV		8015C GLY		1 mL		10 uL	10 uL		
LCS 680-777037/12		8015C GLY		1 mL	10 uL	10 uL			
LCSD 680-777037/13		8015C GLY		1 mL	10 uL	10 uL			
MB 680-777037/16		8015C GLY		1 mL		10 uL			
580-126724-A-1	AF-RHMW03-WGN01L F-2304W4	8015C GLY	T	1 mL		10 uL			
580-126724-C-2	AF-RHMW02-WGN01L F-2304W4	8015C GLY	T	1 mL		10 uL			
580-126724-C-2 MS	AF-RHMW02-WGN01L F-2304W4	8015C GLY	T	1 mL		10 uL	10 uL		
580-126724-C-2 MSD	AF-RHMW02-WGN01L F-2304W4	8015C GLY	T	1 mL		10 uL	10 uL		
CCV 680-777037/27		8015C GLY		1 mL	10 uL	10 uL			

Batch Notes	

Basis	Basis Description
T	Total/NA

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

Subcontract Data

Shipping and Receiving Documents

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Matt Yim	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2304W4AFEA02
Client Contact:	Phone: 808-349-4738	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, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015C_DAI_GL_DS/ 2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
AF-RHMW03-WGN01LF-2304W4	4/27/23	1125	G	W	N	N	X	3	

MY 4/27/23
MY 4/27/23

580-126724 Chain of Custody

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

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

Deliverable Requested: I, II, III, IV, Other (specify) Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQuIS EDD.

Special Instructions/QC Requirements: DOD QSM project.

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Matt Yim Matt Yim	4/27/23 1235	AECOM	Britthany Tominez	04/27/23 1235	AECOM
Britthany Tominez	04/27/23 1255	AECOM	[signature]	5/2/23 10:30	EuroFin

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.5/4.1

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: Matt Yim	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2304W4AFEA01
Client Contact:	Phone: 808-349-4738	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	Analysis Requested
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#:	

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_DAL_GL_DS/ 2-(2-butoxyethoxy)-ethanol	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
AF-RHMW02-WGN01LF-2304W4	4/27/23	0955	G	W	N	N	X	3	

MY 4/27/23

MY 4/27/23

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:	

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

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

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

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

Special Instructions/QC Requirements: DOD QSM project.

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
Relinquished by: Matt Yim Matt Yim	Date/Time: 4/27/23 1235	Company AECOM	Received by: BrittanyTominez	Date/Time: 04/27/23 1235	Company AECOM		
Relinquished by: BrittanyTominez	Date/Time: 04/27/23 1255	Company AECOM	Received by:	Date/Time: 5/2/23 10:30	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.5 / 4.1

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: Matt Ylm	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 2304W4AFEA02
Client Contact:	Phone: 808-349-4738	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: AECOM	PWSID:	Analysis Requested		Job #:
Address: 1001 Bishop St Suite 1600	Due Date Requested: see subcontract			Preservation Codes: A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify); Other:
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#:			

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-RHMW03-WGN01LF-2304W4	4/27/23	1125	G	W	N	N	X	3	
MY 4/27/23									

MY 4/27/23

580-126724 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:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
Matt Ylm Matt Ylm	4/27/23 1235	AECOM	Brittany Tominez	4/27/23 1235	AECOM
Relinquished by: Brittany Tominez	Date/Time: 4/27/23 1255	Company: AECOM	Received by:	Date/Time: 5/2/23 10:30	Company: Eurofins
Relinquished by	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 3.5 / 4.1

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: Matt Yim	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No.: 2304W4AFEA01
Client Contact.	Phone: 808-349-4738	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: AECOM	PWSID	Analysis Requested		Job #
Address: 1001 Bishop St Suite 1600	Due Date Requested: see subcontract			Preservation Codes: A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify); Other:
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#:			

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 RHMW02 WGN01LF-2304W4	4/27/23	0955	G	W	N	N	X	3	

MY 4/27/23

MY 4/27/23

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.

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by: Matt Yim	4/27/23 1235	AECOM	Brittany Tominez	04/27/23 1235	AECOM
Relinquished by: Brittany Tominez	04/27/23 1255	AECOM		5/2/23 10:36	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 3.5 / 4.1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-126724-1

Login Number: 126724
List Number: 2
Creator: Drake, Victoria

List Source: Eurofins Savannah
List Creation: 05/03/23 09:47 AM

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