eurofins | Environment Testing

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Terri Choy
AECOM
1001 Bishop Street
Honolulu HI 96813

Generated 7/19/2023 7:32 PM

## JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

## JOB NUMBER

580-129328-1

Eurofins Seattle
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

# Eurofins Seattle

## Job Notes

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

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

## Authorization

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Authorized for release by
Marie E Walker, Senior Project Manager
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253 248-4972

# Table of Contents

# Table of Contents

## Qualifiers

### GC Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| 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: 580-129328-1

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**

One sample was received on 7/12/2023 10:00 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.4º C.

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

**GLYCOLS**

**Sample AF-HDMW225303-WGN01LF-2307 (580-129328-1) was analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI.** The samples were analyzed on 07/17/2023.

The continuing calibration verification (CCV) associated with batch 680-788635 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. The associated sample is impacted: AF-HDMW225303-WGN01LF-2307 (580-129328-1).

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: 580-129328-1
Project/Site: Red Hill - AFFF Assessment Sampling

**Client Sample ID: AF-HDMW225303-WGN01LF-2307** **Lab Sample ID: 580-129328-1**

No Detections.

This Detection Summary does not include radiochemical test results.

## Client Sample ID: AF-HDMW225303-WGN01LF-2307
## Lab Sample ID: 580-129328-1

**Date Collected: 07/11/23 10:55**
**Matrix: Water**
**Date Received: 07/12/23 10:00**

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

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2-(2-Butoxyethoxy)ethanol | 3.0 | U Q | 5.0 | 1.1 | mg/L | | | 07/17/23 21:48 | 1 |

# Default Detection Limits

Client: AECOM
Job ID: 580-129328-1
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 680-788635/11**
**Matrix: Water**
**Analysis Batch: 788635**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2-(2-Butoxyethoxy)ethanol | 3.0 | U | 5.0 | 1.1 | mg/L | | | 07/17/23 19:06 | 1 |

**Lab Sample ID: LCS 680-788635/5**
**Matrix: Water**
**Analysis Batch: 788635**

**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 | 24.0 | | mg/L | | 120 | 50 - 150 | | |

**Lab Sample ID: LCSD 680-788635/6**
**Matrix: Water**
**Analysis Batch: 788635**

**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 | 26.6 | | mg/L | | 133 | 50 - 150 | 10 | 50 |

**Lab Sample ID: 580-129328-1 MS**
**Matrix: Water**
**Analysis Batch: 788635**

**Client Sample ID: AF-HDMW225303-WGN01LF-2307**
**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 | 25.5 | | mg/L | | 127 | 50 - 150 | | |

**Lab Sample ID: 580-129328-1 MSD**
**Matrix: Water**
**Analysis Batch: 788635**

**Client Sample ID: AF-HDMW225303-WGN01LF-2307**
**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 | 25.6 | | mg/L | | 128 | 50 - 150 | 1 | 50 |

# QC Association Summary

Client: AECOM
Job ID: 580-129328-1
Project/Site: Red Hill - AFFF Assessment Sampling

## GC Semi VOA

### Analysis Batch: 788635

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 580-129328-1 | AF-HDMW225303-WGN01LF-2307 | Total/NA | Water | 8015C GLY | |
| MB 680-788635/11 | Method Blank | Total/NA | Water | 8015C GLY | |
| LCS 680-788635/5 | Lab Control Sample | Total/NA | Water | 8015C GLY | |
| LCSD 680-788635/6 | Lab Control Sample Dup | Total/NA | Water | 8015C GLY | |
| 580-129328-1 MS | AF-HDMW225303-WGN01LF-2307 | Total/NA | Water | 8015C GLY | |
| 580-129328-1 MSD | AF-HDMW225303-WGN01LF-2307 | Total/NA | Water | 8015C GLY | |

# Lab Chronicle

Client: AECOM
Job ID: 580-129328-1
Project/Site: Red Hill - AFFF Assessment Sampling

## Client Sample ID: AF-HDMW225303-WGN01LF-2307
## Lab Sample ID: 580-129328-1

**Date Collected: 07/11/23 10:55**
**Matrix: Water**
**Date Received: 07/12/23 10:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8015C GLY | | 1 | 788635 | JCK | EET SAV | 07/17/23 21:48 |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: AECOM
Job ID: 580-129328-1
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: 580-129328-1
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: 580-129328-1
Project/Site: Red Hill - AFFF Assessment Sampling

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 580-129328-1 | AF-HDMW225303-WGN01LF-2307 | Water | 07/11/23 10:55 | 07/12/23 10:00 |

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-129328-1

SDG No.:

Instrument ID: CVGG2 Analysis Batch Number: 788122

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Instrument ID: CVGG2  Analysis Batch Number: 788122

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

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

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

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

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

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

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Instrument ID: CVGG2  Analysis Batch Number: 788635

Lab Sample ID: CCVIS 680-788635/4  Client Sample ID:

Date Analyzed: 07/17/23 15:40  Lab File ID: 1GG13004.D  GC Column: J&W DB WAX  ID: 0.45(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Propylene glycol | 3.50 | Peak assignment corrected | AR8P | 07/17/23 16:31 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Savannah Job No.: 580-129328-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **SG_Gly_CAL_00051** | 08/08/23 | o2si, Lot 480919 | | | (Purchased Reagent) | | 2-(2-Butoxyethoxy)ethanol | 2000 ug/mL |
| **SG_Gly_CAL_00053** | 12/27/23 | o2si, Lot 480919 | | | (Purchased Reagent) | | 2,2'-Oxybisethanol | 2000 ug/mL |
| | | | | | | | 2-(2-Butoxyethoxy)ethanol | 2000 ug/mL |
| | | | | | | | 2-Butoxyethanol | 2000 ug/mL |
| | | | | | | | 4-Hydroxy-4-methyl-2-pentanone | 2000 ug/mL |
| | | | | | | | Dipropylene Glycol Methyl Ether | 2000 ug/mL |
| | | | | | | | Ethanol, 2-propoxy | 2000 ug/mL |
| | | | | | | | Ethylene glycol | 2000 ug/mL |
| | | | | | | | Propylene glycol | 2000 ug/mL |
| | | | | | | | Tetraethylene Glycol | 4000 ug/mL |
| | | | | | | | Triethylene Glycol | 2000 ug/mL |
| **SG_GLY_ISTD_00124** | 01/12/24 | Agilent, Lot 0006738806 | | | (Purchased Reagent) | | n-Heptyl Alcohol | 5000 ug/mL |
| **SG_GlyICV_00061** | 08/01/23 | o2si, Lot 454407 | | | (Purchased Reagent) | | 2-(2-Butoxyethoxy)ethanol | 2000 ug/mL |

# Reagent

# SG_Gly_CAL_00051

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

o2si
smart solutions®

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Rev 0

# Certificate of Analysis



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

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

**Container:**
1 ml Ampule, Amber Glass

## Certified Values:

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

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

## Intended Uses:

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

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

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

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

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

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

## Method of Preparation:

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

## Packaging and Storage:

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

## Glassware Calibration:

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

## Weights and Balance Calibration:

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

## Homogeneity:

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

## Hazardous Information:

Refer to MSDS.

## Calculation of Uncertainty:

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

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

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

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

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

## Expiration Information:

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

## Quality Standard Documentation:

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

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

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

# Reagent

# SG_Gly_CAL_00053

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

o2si
smart solutions®

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Cert. No. 3031.02

Rev 0

# Certificate of Analysis



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

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

**Container:**
1 ml Ampule, Amber Glass

## Certified Values:

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

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

## Intended Uses:

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

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

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

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

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

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

## Method of Preparation:

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

## Packaging and Storage:

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

## Glassware Calibration:

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

## Weights and Balance Calibration:

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

## Homogeneity:

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

## Hazardous Information:

Refer to MSDS.

## Calculation of Uncertainty:

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

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

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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 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** |

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# Reagent

# SG_GLY_ISTD_00124

Agilent

Trusted Answers

**ISO 17034**

# Reference Material Certificate

## Product Information Sheet

**Product Name:** Custom Standard

**Product Number:** CUS-6046

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

**Lot Number:** 0006738806

**Lot Issue Date:** 05-Apr-2023

**Expiration Date:** 31-May-2025

| Component Name | Concentration | | Uncertainty | CAS# | Analyte Lot |
|---|---|---|---|---|---|
| n-heptanol | 5008 | ± | 25 µg/mL | 000111-70-6 | RM04540 |

**Matrix:** methanol (methyl alcohol)

**Description:**
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above. Purity values are taken from approved vendor raw material certificates.

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

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

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

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

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

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

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

**Sample lot approver:**

Monica Bourgeois
QMS Representative

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

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



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

ISO 17025

# Method 8015C - DAI Glycols

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

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: 1GG13005.D

Lab ID: LCS 680-788635/5  Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 2-(2-Butoxyethoxy)ethanol | 20.0 | 24.0 | 120 | 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.: 580-129328-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: 1GG13006.D

Lab ID: LCSD 680-788635/6  Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCSD CONCENTRATION (mg/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 2-(2-Butoxyethoxy)ethanol | 20.0 | 26.6 | 133 | 10 | 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.: 580-129328-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 1GG13019.D

Lab ID: 580-129328-1 MS Client ID: AF-HDMW225303-WGN01LF-2307 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 | 25.5 | 127 | 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.: 580-129328-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: 1GG13020.D

Lab ID: 580-129328-1 MSD  Client ID: AF-HDMW225303-WGN01LF-2307 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 | 25.6 | 128 | 1 | 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.: 580-129328-1

SDG No.:

Lab Sample ID: MB 680-788635/11

Matrix: Water  Date Extracted:

Lab File ID:(1) 1GG13011.D  Lab File ID:(2)

Date Analyzed:(1) 07/17/2023 19:06  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 680-788635/5 | 07/17/2023 16:04 | |
| | LCSD 680-788635/6 | 07/17/2023 16:27 | |
| AF-HDMW225303-WGN01LF-2307 | 580-129328-1 | 07/17/2023 21:48 | |
| AF-HDMW225303-WGN01LF-2307 MS | 580-129328-1 MS | 07/17/2023 22:11 | |
| AF-HDMW225303-WGN01LF-2307 MSD | 580-129328-1 MSD | 07/17/2023 22:34 | |

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

Lab Name: Eurofins Savannah Job No.: 580-129328-1

SDG No.:

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

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

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

Calibration ID: 91431

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

nHPA = n-Heptyl Alcohol

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

# Column used to flag values outside QC limits

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

Lab Name: Eurofins Savannah Job No.: 580-129328-1

SDG No.:

Sample No.: CCVIS 680-788635/4 Date Analyzed: 07/17/2023 15:40

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

Lab File ID (Standard): 1GG13004.D Heated Purge: (Y/N) N

Calibration ID: 91431

| | | nHPA | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| 12/24 HOUR STD | | 5003182 | 2.41 | | | | |
| UPPER LIMIT | | 10006364 | 2.91 | | | | |
| LOWER LIMIT | | 2501591 | 1.91 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| LCS 680-788635/5 | | 5136314 | 2.41 | | | | |
| LCSD 680-788635/6 | | 4691588 | 2.41 | | | | |
| MB 680-788635/11 | | 3488319 | 2.40 | | | | |
| 580-129328-1 | AF-HDMW225303-WGN01 LF-2307 | 5152172 | 2.40 | | | | |
| 580-129328-1 MS | AF-HDMW225303-WGN01 LF-2307 MS | 4555715 | 2.40 | | | | |
| 580-129328-1 MSD | AF-HDMW225303-WGN01 LF-2307 MSD | 4824712 | 2.40 | | | | |
| CCV 680-788635/22 | | 4808249 | 2.40 | | | | |
| CCV 680-788635/23 | | 5001025 | 2.40 | | | | |

nHPA = n-Heptyl Alcohol

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

# Column used to flag values outside QC limits

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah | Job No.: 580-129328-1

SDG No.:

Client Sample ID: AF-HDMW225303-WGN01LF-2307 | Lab Sample ID: 580-129328-1

Matrix: Water | Lab File ID: 1GG13018.D

Analysis Method: 8015C GLY | Date Collected: 07/11/2023 10:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 07/17/2023 21:48

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

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

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

Cleanup Factor:

Analysis Batch No.: 788635 | 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\20230717-87508.b\1GG13018.D
Lims ID: 580-129328-C-1
Client ID: AF-HDMW225303-WGN01LF-2307
Sample Type: Client
Inject. Date: 17-Jul-2023 21:48:02 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087508-018
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Jul-2023 14:58:44 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B
Process Host: CTX1615

First Level Reviewer: SWK1 Date: 18-Jul-2023 14:58:26

| | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| * | 4 n-Heptyl Alcohol | | | | | |
| | 2.400 | 2.404 | -0.004 | 5152172 | 50.0 | |
| | 7 Ethylene glycol | | | | | |
| | 3.787 | 3.790 | -0.003 | 30701 | 1.78 | |
| | 9 2,2'-Oxybisethanol | | | | | 7 |
| | 7.277 | 7.283 | -0.006 | 13773 | 0.3988 | 7 |
| | LOD = | 1.60 | | | | |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

SG_GLY_ISTD_00124 Amount Added: 10.00 Units: uL Run Reagent

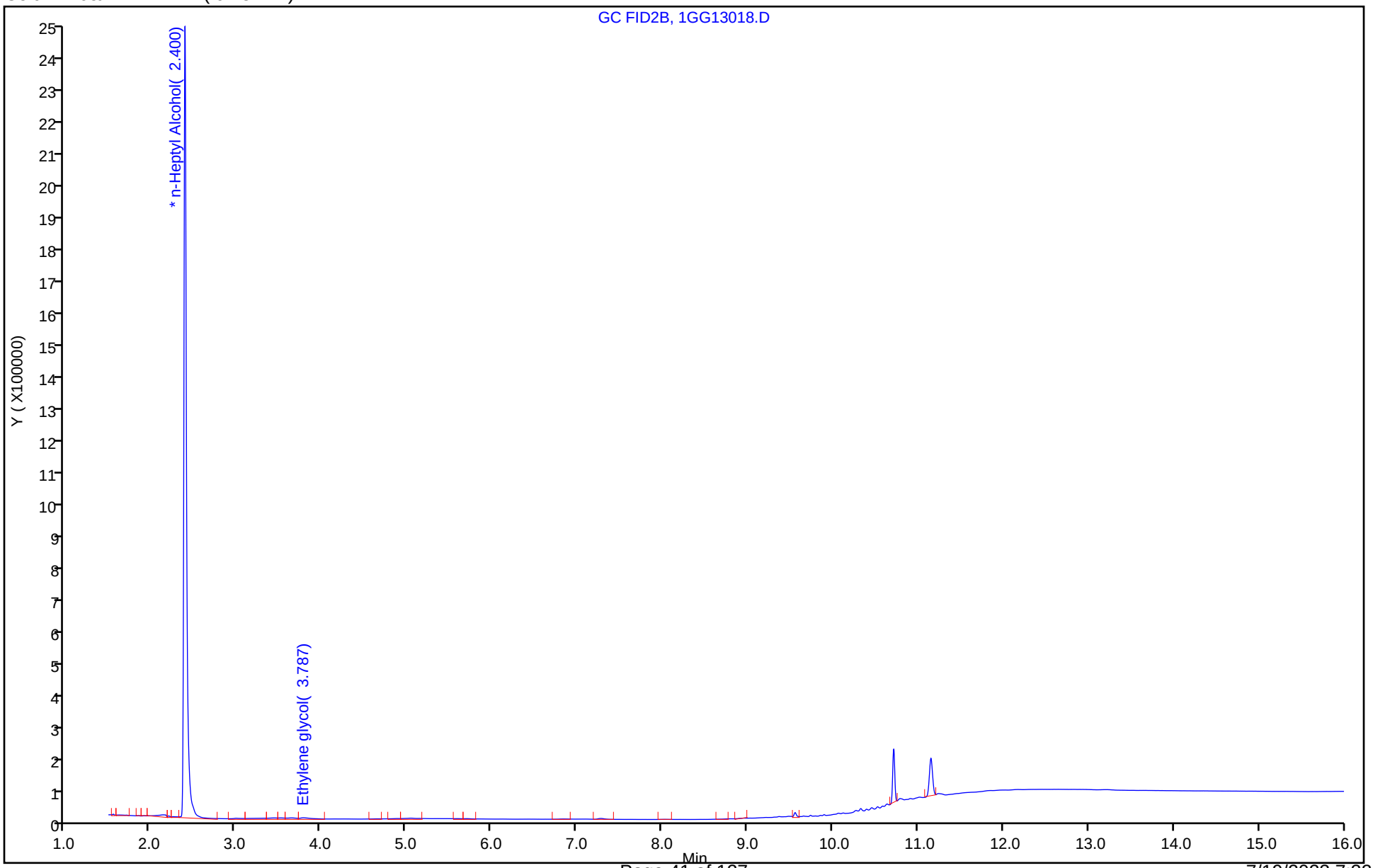
Report Date: 18-Jul-2023 15:03:59 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13018.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Jul-2023 21:48:02 | Instrument ID: | CVGG2 | Operator ID: | |
| Lims ID: | 580-129328-C-1 | Lab Sample ID: | 680-129328-1 | Worklist Smp#: | 18 |
| Client ID: | AF-HDMW225303-WGN01LF-2307 | | | | |
| 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)






7/19/2023 7:32 PM

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

Lab Name: Eurofins Savannah Job No.: 580-129328-1 Analy Batch No.: 788122

SDG No.:

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

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

Calibration Files

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

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Ethanol, 2-propoxy | 0.8965 0.5127 | 0.7463 0.4762 | 0.6557 | 0.6019 | 0.5002 | Qua | 1.0363 | 0.5362 | -0.000651 | | | | | | 0.9980 | | 0.9900 |
| 4-Hydroxy-4-methyl-2-pentanone | 1.2568 0.5141 | 0.8334 0.4583 | 0.7027 | 0.6148 | 0.4992 | Lin2 | 1.5576 | 0.4985 | | | | | | | 0.9920 | | 0.9900 |
| 2-Butoxyethanol | 0.9977 0.5468 | 0.8089 0.5243 | 0.7045 | 0.6585 | 0.5482 | Lin2 | 0.9318 | 0.5653 | | | | | | | 0.9900 | | 0.9900 |
| Dipropylene Glycol Methyl Ether | 0.0721 0.0405 | 0.0661 0.0369 | 0.0526 | 0.0480 | 0.0415 | Qua | 0.0724 | 0.0460 | -0.000095 | | | | | | 0.9990 | | 0.9900 |
| Propylene glycol | 0.2266 0.1641 | 0.2477 0.1545 | 0.2028 | 0.1723 | 0.1936 | Qua | -0.058 | 0.2168 | -0.000620 | | | | | | 0.9970 | | 0.9900 |
| Ethylene glycol | 0.4994 0.2976 | 0.4076 0.2684 | 0.3375 | 0.2758 | 0.3539 | Qua | -0.428 | 0.4106 | -0.001357 | | | | | | 0.9940 | | 0.9900 |
| 2-(2-Butoxyethoxy)ethanol | 0.7690 0.4119 | 0.6338 0.3797 | 0.5219 | 0.4910 | 0.4310 | Qua | 0.6317 | 0.4772 | -0.001009 | | | | | | 0.9990 | | 0.9900 |
| 2,2'-Oxybisethanol | 0.4054 0.2009 | 0.3285 0.1850 | 0.2567 | 0.2159 | 0.2422 | Qua | 0.0245 | 0.2741 | -0.000892 | | | | | | 0.9960 | | 0.9900 |
| Triethylene Glycol | 0.6015 0.2034 | 0.4298 0.1880 | 0.3033 | 0.2350 | 0.2488 | Qua | 0.5031 | 0.2692 | -0.000865 | | | | | | 0.9960 | | 0.9900 |
| Tetraethylene Glycol | 0.5248 0.2099 | 0.3198 0.2008 | 0.2511 | 0.2478 | 0.2550 | Lin1 | 1.2499 | 0.2073 | | | | | | | 0.9910 | | 0.9900 |

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

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

Lab Name: Eurofins Savannah Job No.: 580-129328-1 Analy Batch No.: 788122

SDG No.:

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

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

Calibration Files

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

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

Curve Type Legend

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

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

Lab Name: Eurofins Savannah Job No.: 580-129328-1 Analy Batch No.: 788122

SDG No.:

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

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

Calibration Files

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

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

Eurofins Savannah
Target Compound Quantitation Report

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

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

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

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

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

## QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

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

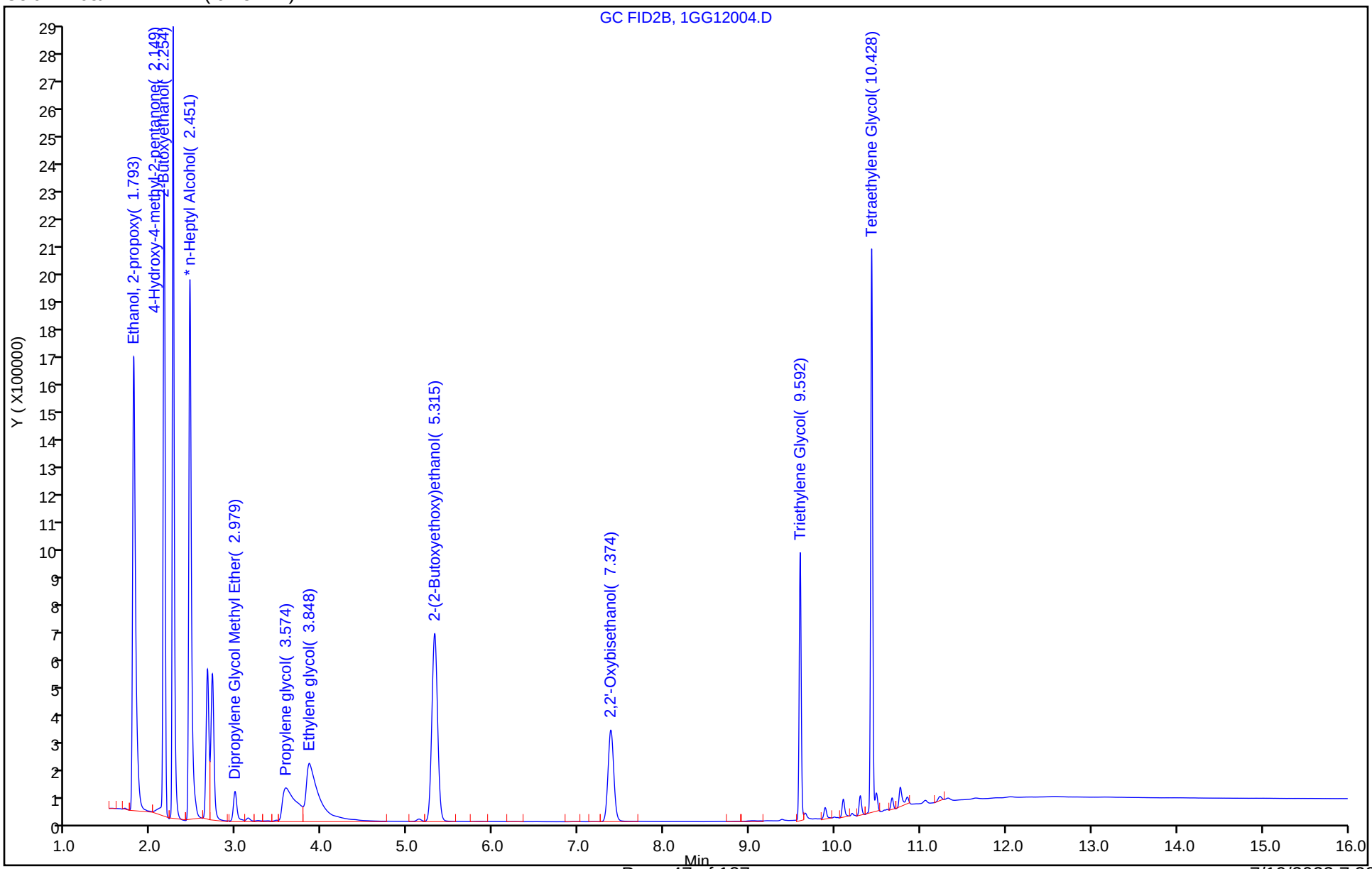
Report Date: 13-Jul-2023 19:33:08 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

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

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

Column: J&W DB WAX ( 0.45 mm)



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Manual Integration/User Assign Peak Report

Eurofins Savannah

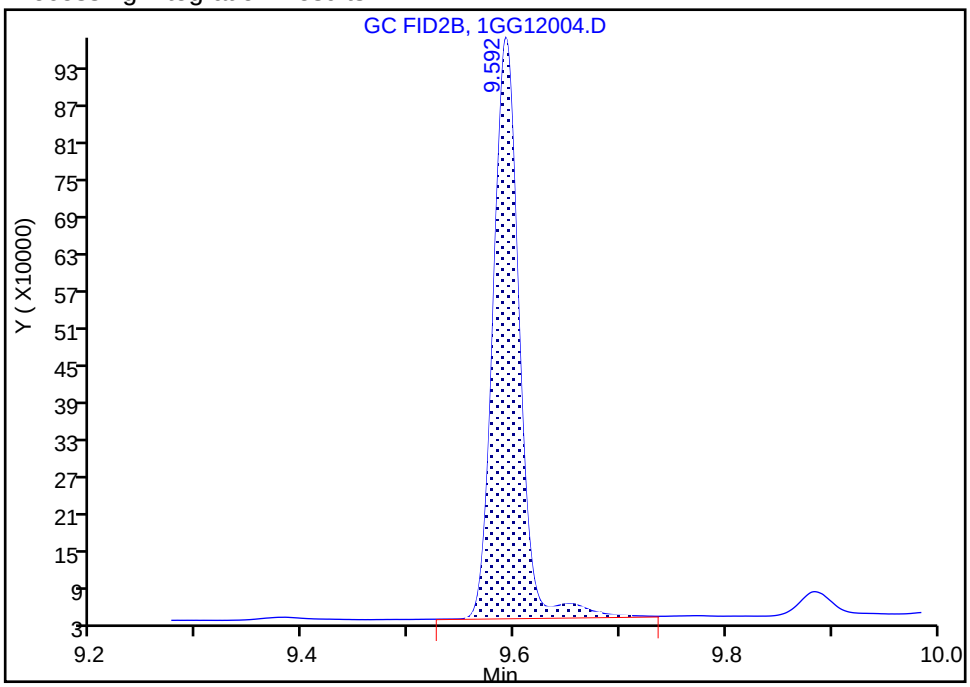
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12004.D
Injection Date: 13-Jul-2023 12:19:47 Instrument ID: CVGG2
Lims ID: ic g7
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W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

## 10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

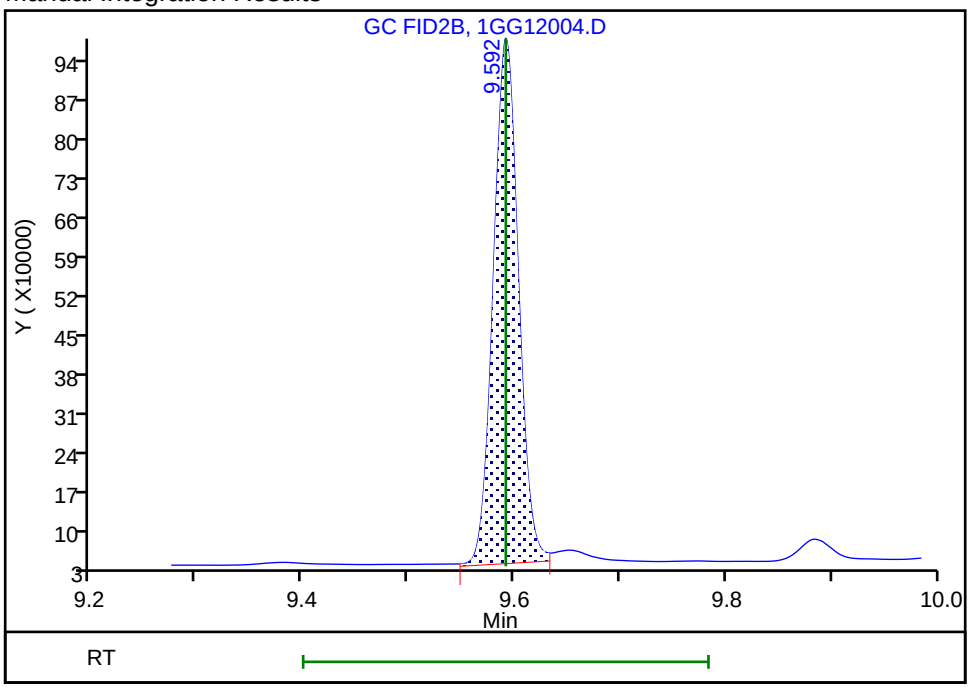
Processing Integration Results

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




Manual Integration Results

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




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

Eurofins Savannah
Target Compound Quantitation Report

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

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

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

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

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

## QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

## Reagents:

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

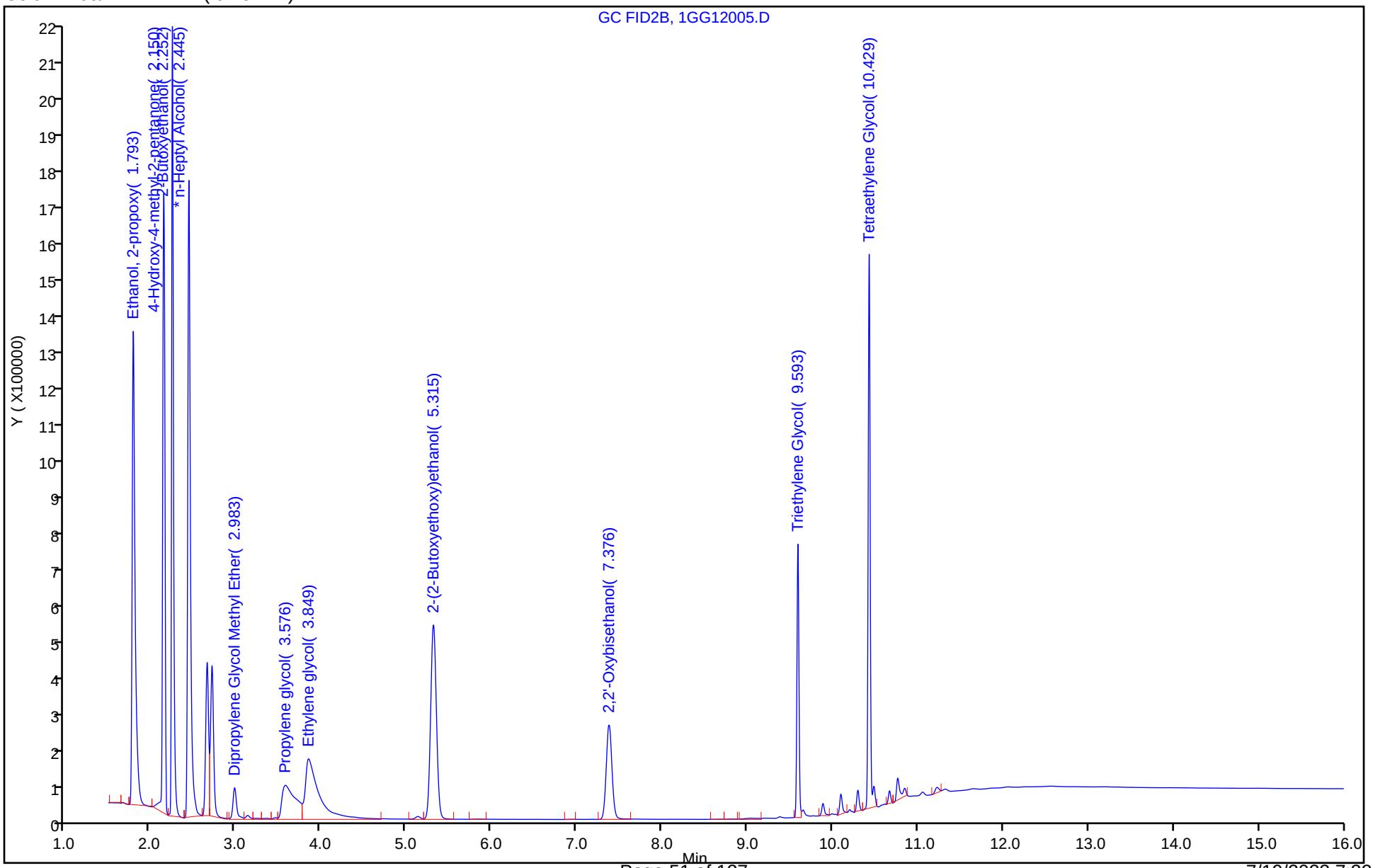
Report Date: 13-Jul-2023 19:33:09 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

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

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

Column: J&W DB WAX ( 0.45 mm)



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Eurofins Savannah

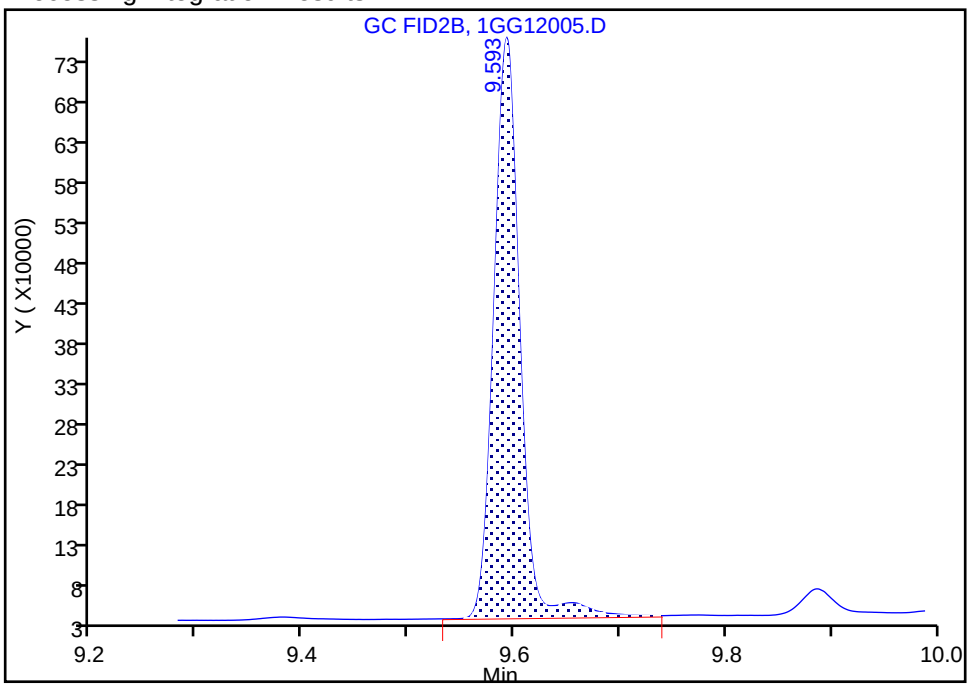
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12005.D
Injection Date: 13-Jul-2023 12:42:52 Instrument ID: CVGG2
Lims ID: ic g6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W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

## 10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

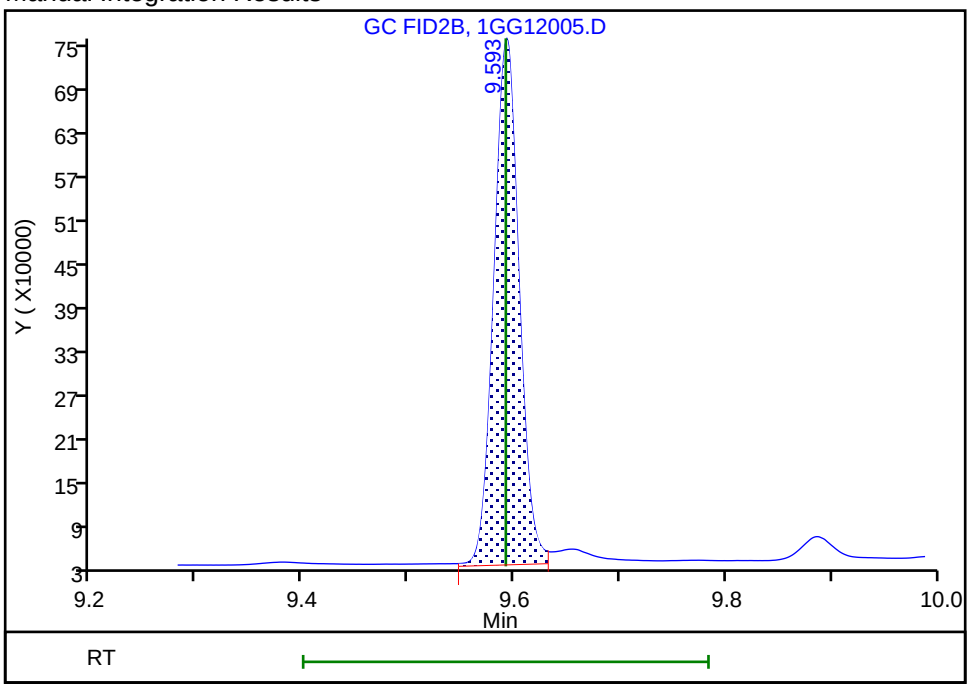
Processing Integration Results

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




Manual Integration Results

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




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

Eurofins Savannah
Target Compound Quantitation Report

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

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

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

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

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

## QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

## Reagents:

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

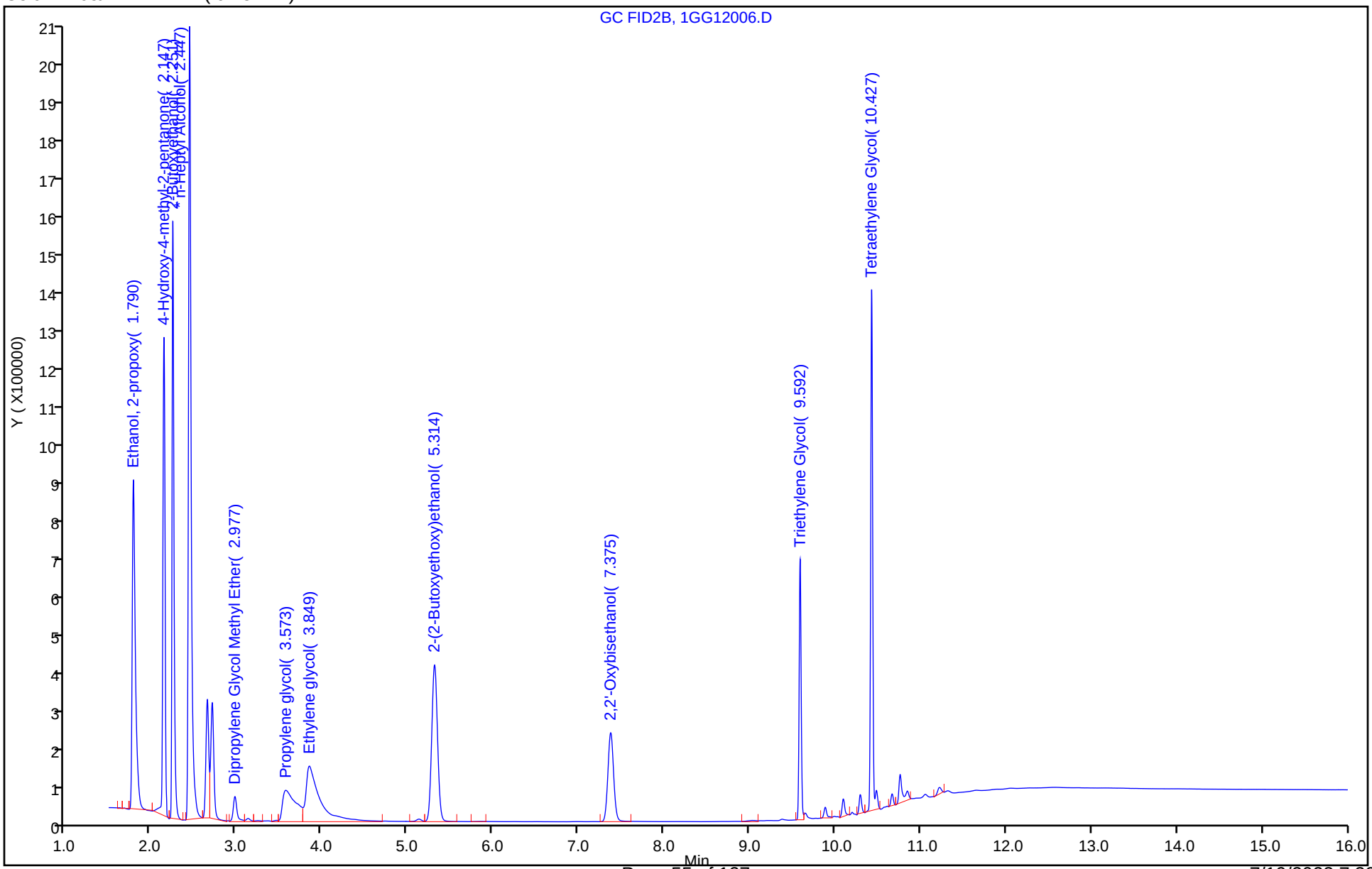
Report Date: 13-Jul-2023 19:33:09 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

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

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

Column: J&W DB WAX ( 0.45 mm)



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Eurofins Savannah

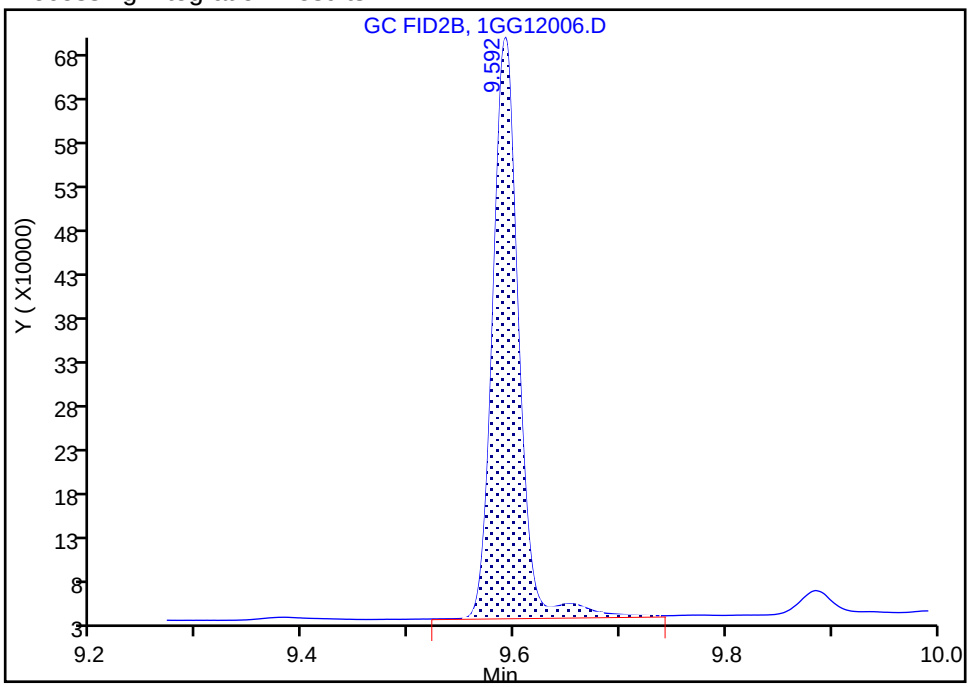
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12006.D
Injection Date: 13-Jul-2023 13:05:59 Instrument ID: CVGG2
Lims ID: ic g5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W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

## 10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

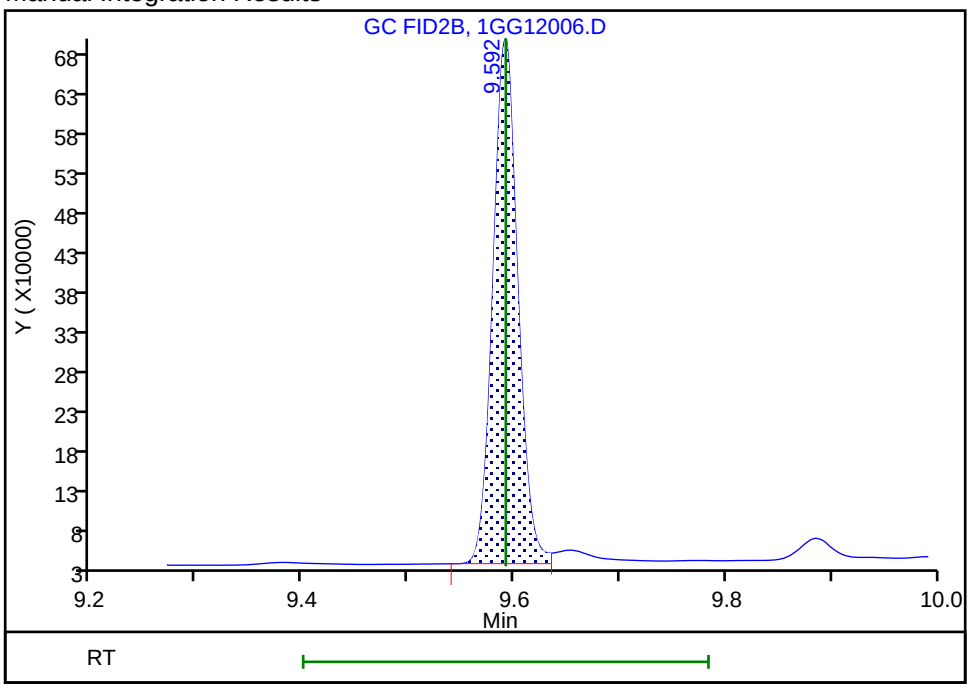
Processing Integration Results

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




Manual Integration Results

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




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

Eurofins Savannah
Target Compound Quantitation Report

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

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

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

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

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

## QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

## Reagents:

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

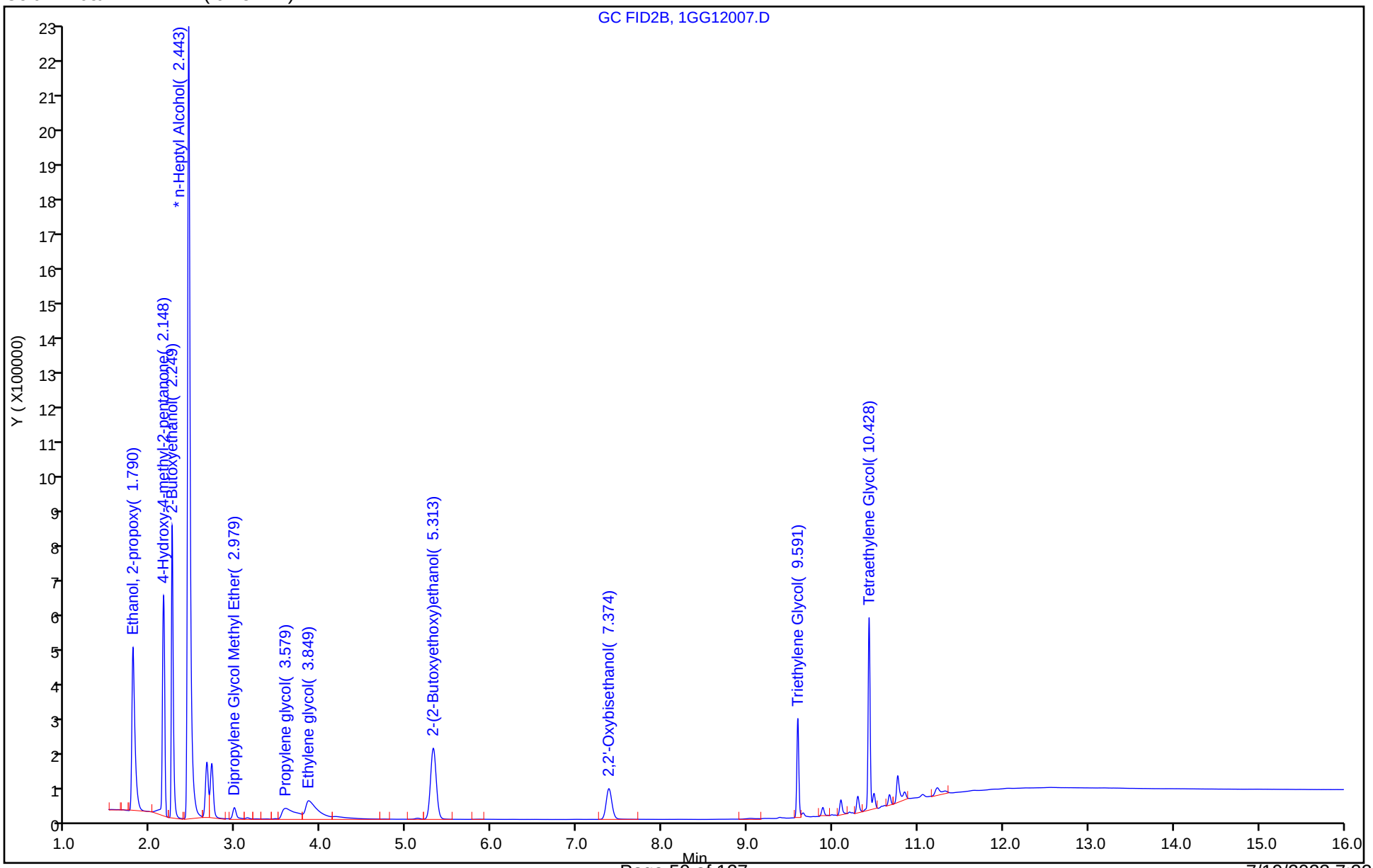
Report Date: 13-Jul-2023 19:33:10 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

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

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

Column: J&W DB WAX ( 0.45 mm)



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Eurofins Savannah

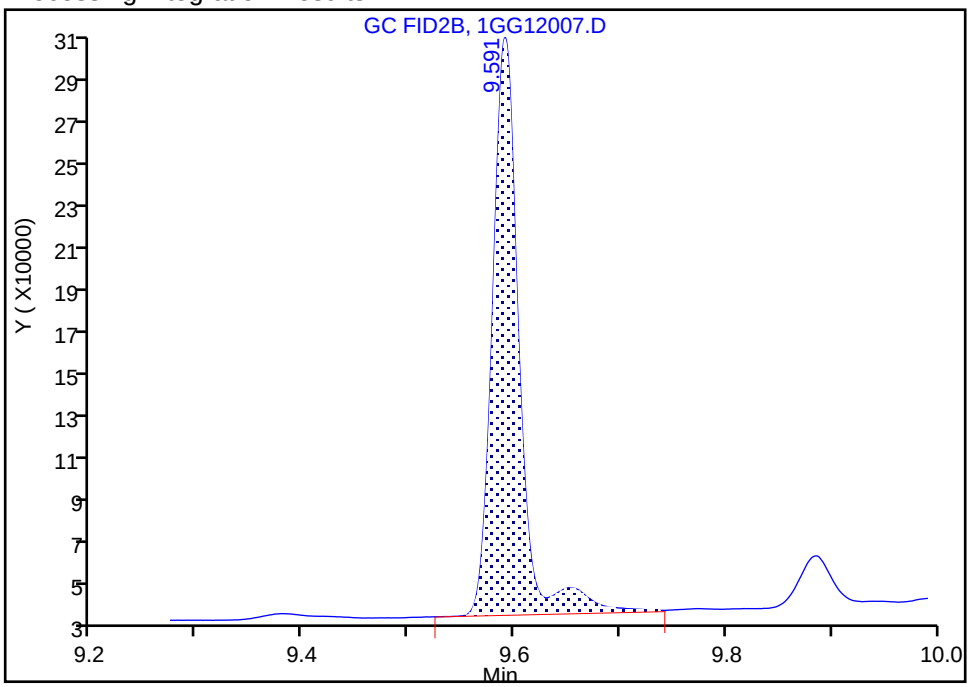
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12007.D
Injection Date: 13-Jul-2023 13:29:12 Instrument ID: CVGG2
Lims ID: icis g4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W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

## 10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

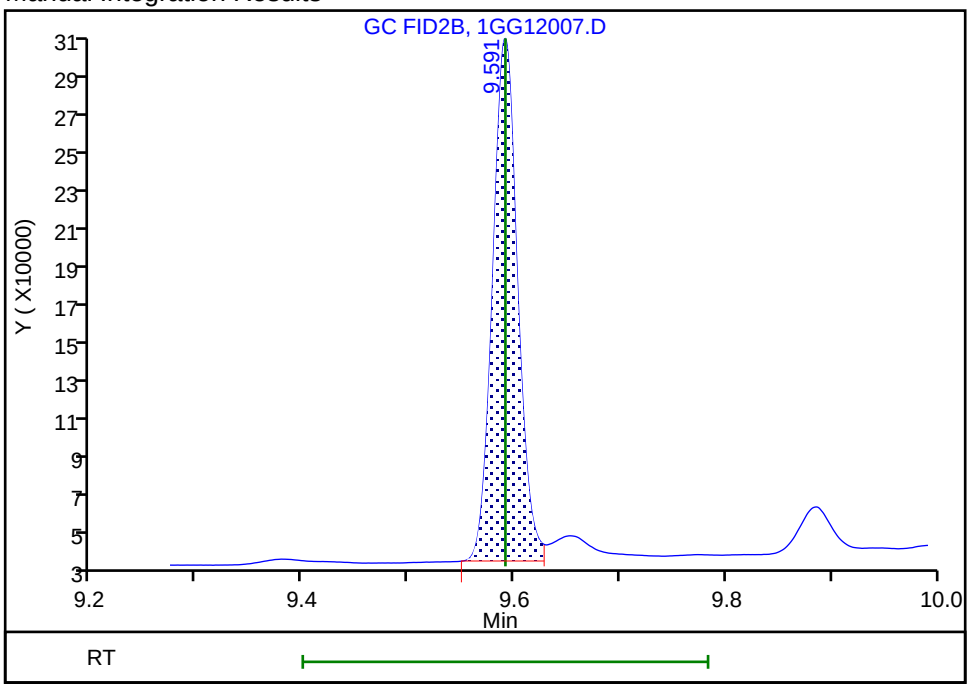
Processing Integration Results

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




Manual Integration Results

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




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

Eurofins Savannah
Target Compound Quantitation Report

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

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

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

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

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

## QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

## Reagents:

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

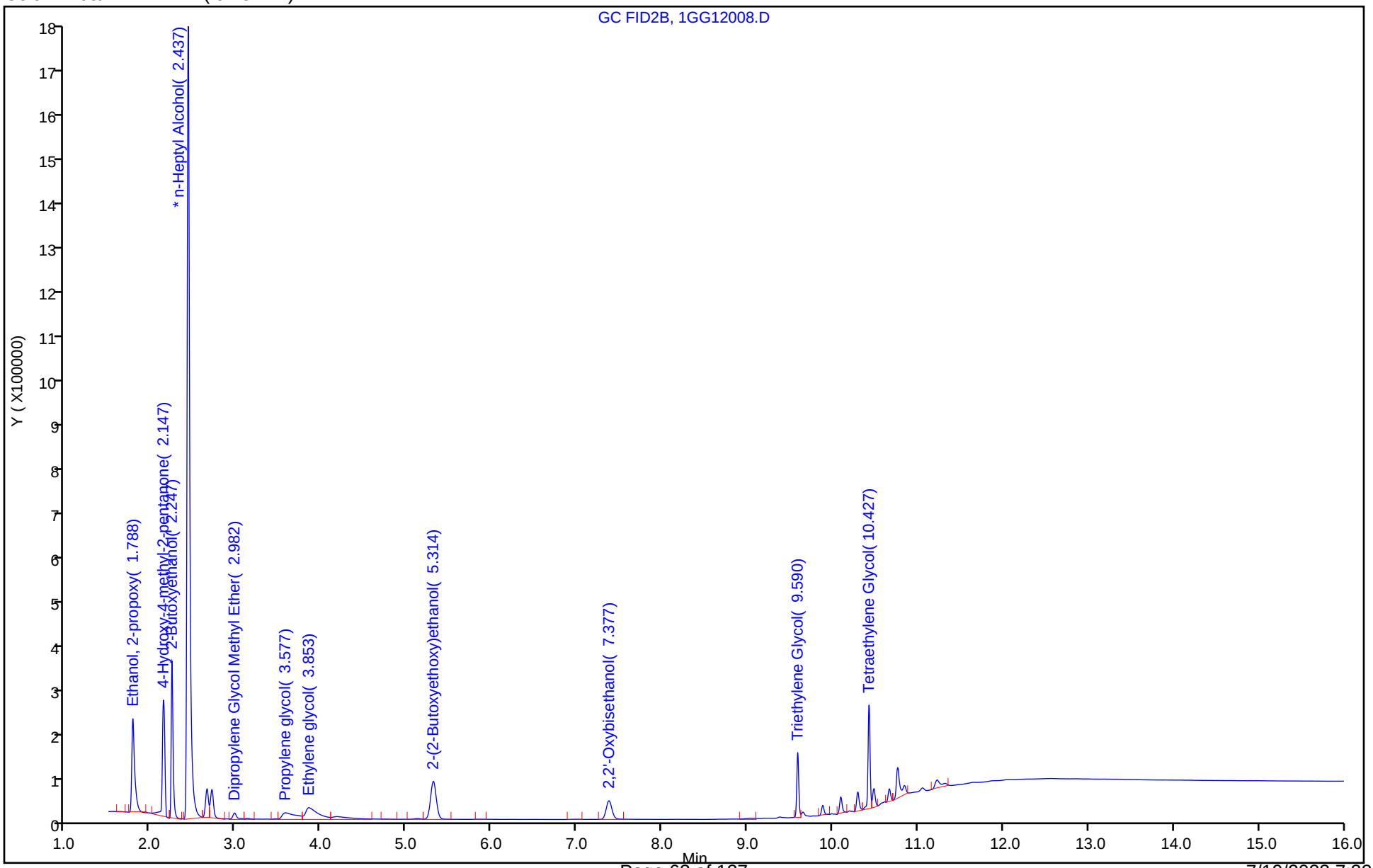
Report Date: 13-Jul-2023 19:33:10 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

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

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

Column: J&W DB WAX ( 0.45 mm)






7/19/2023 7:32 PM

Eurofins Savannah

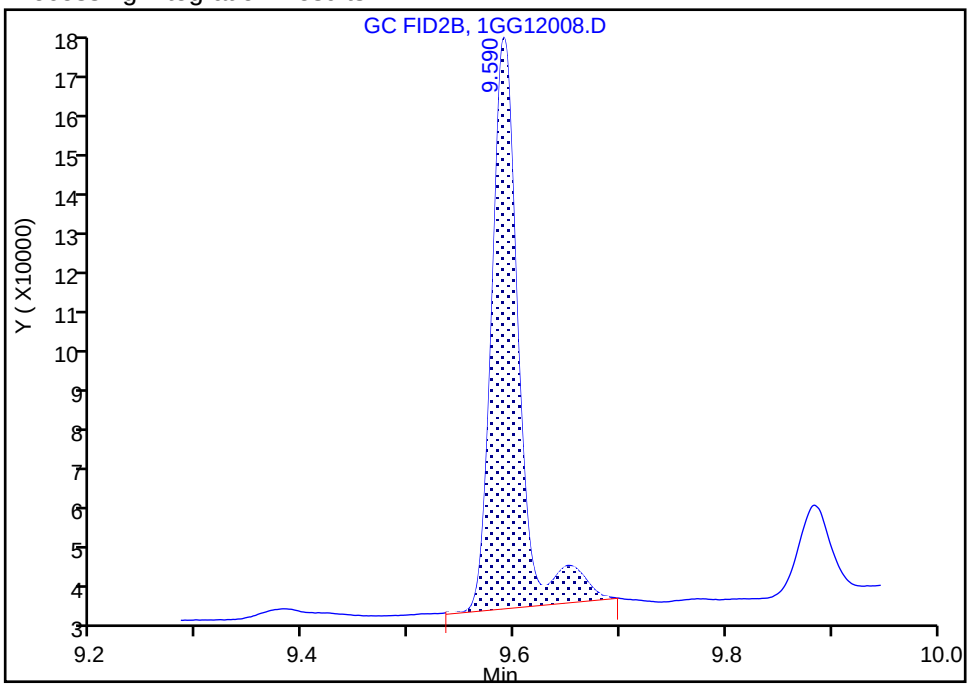
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12008.D
Injection Date: 13-Jul-2023 13:52:21 Instrument ID: CVGG2
Lims ID: ic g3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W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

## 10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

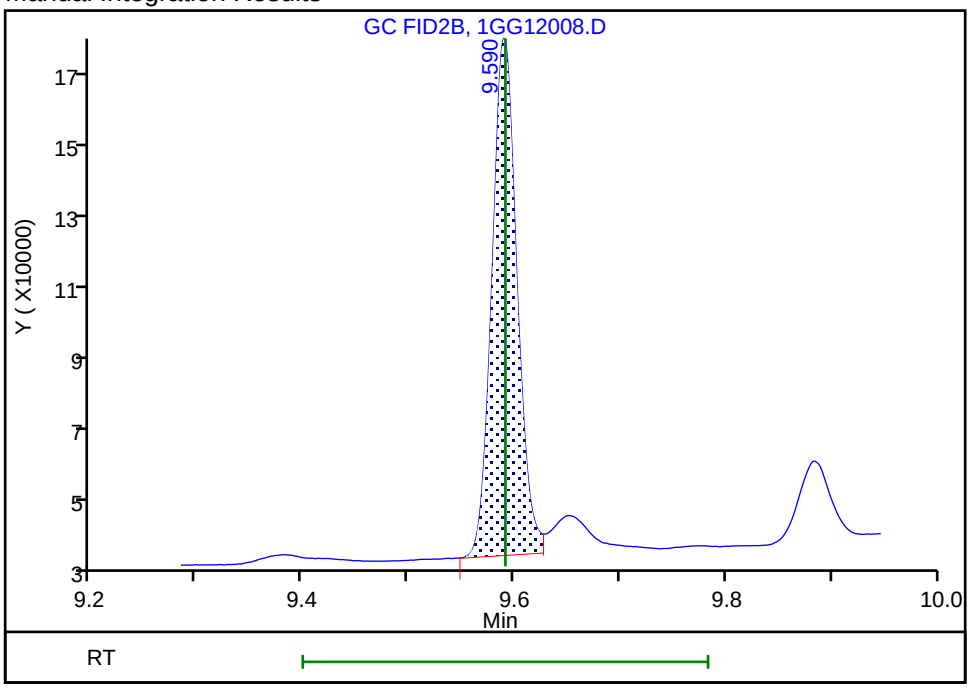
Processing Integration Results

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




Manual Integration Results

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




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

Eurofins Savannah
Target Compound Quantitation Report

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

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

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

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

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

## QC Flag Legend
Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

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

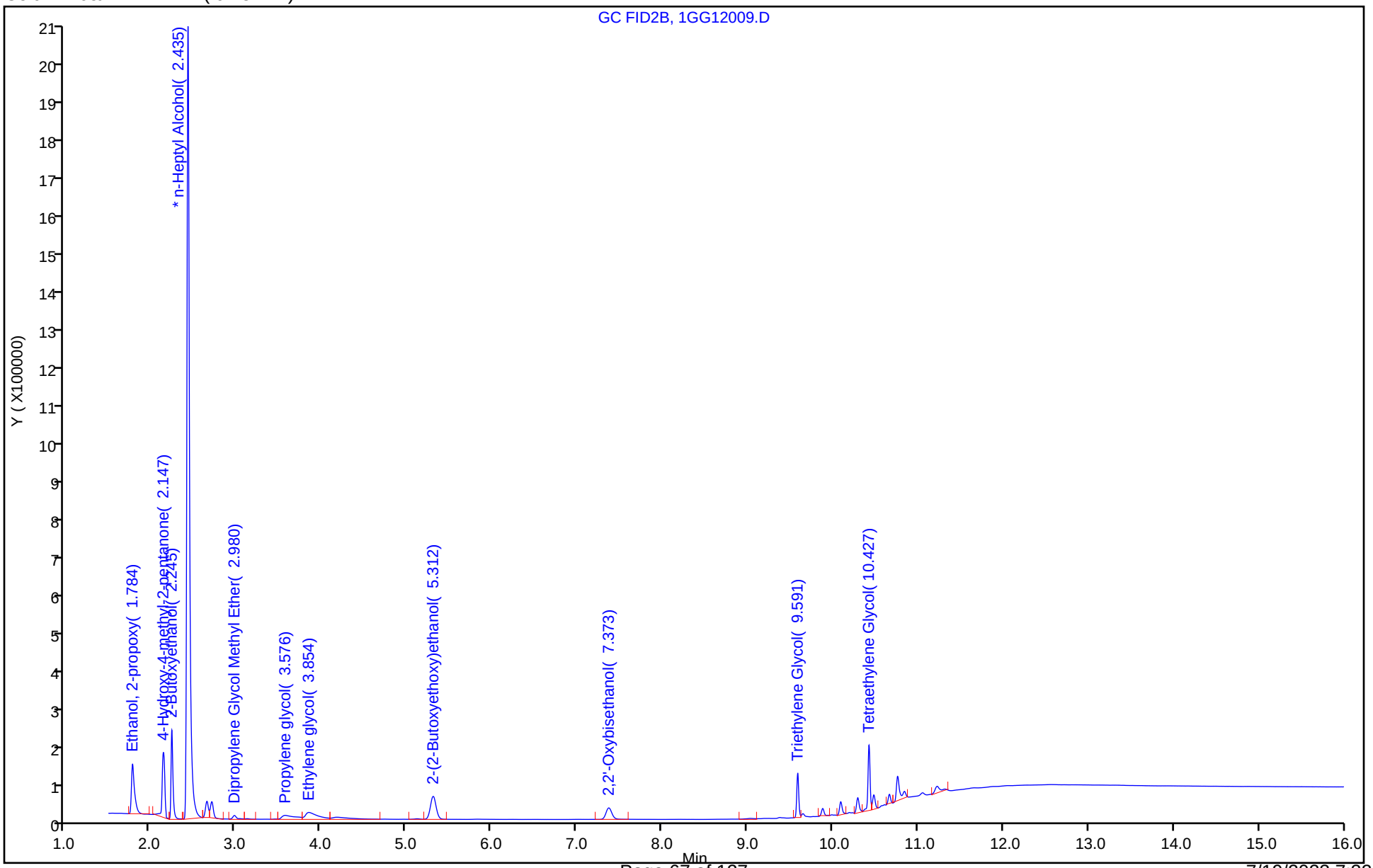
Report Date: 13-Jul-2023 19:33:11 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

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

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

Column: J&W DB WAX ( 0.45 mm)



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Eurofins Savannah

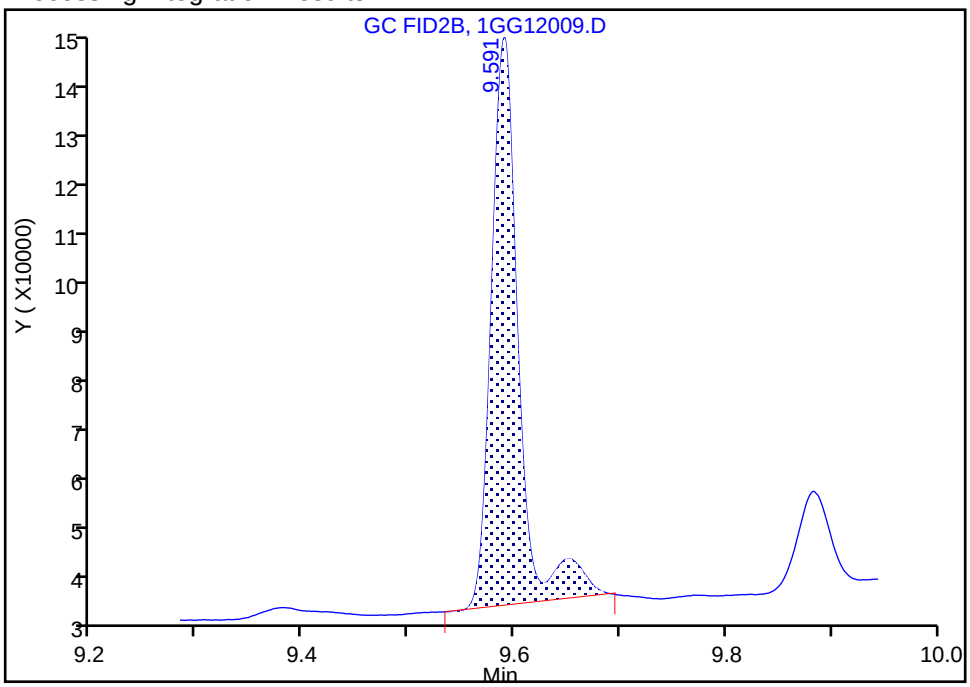
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12009.D
Injection Date: 13-Jul-2023 14:15:28 Instrument ID: CVGG2
Lims ID: ic g2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W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

## 10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

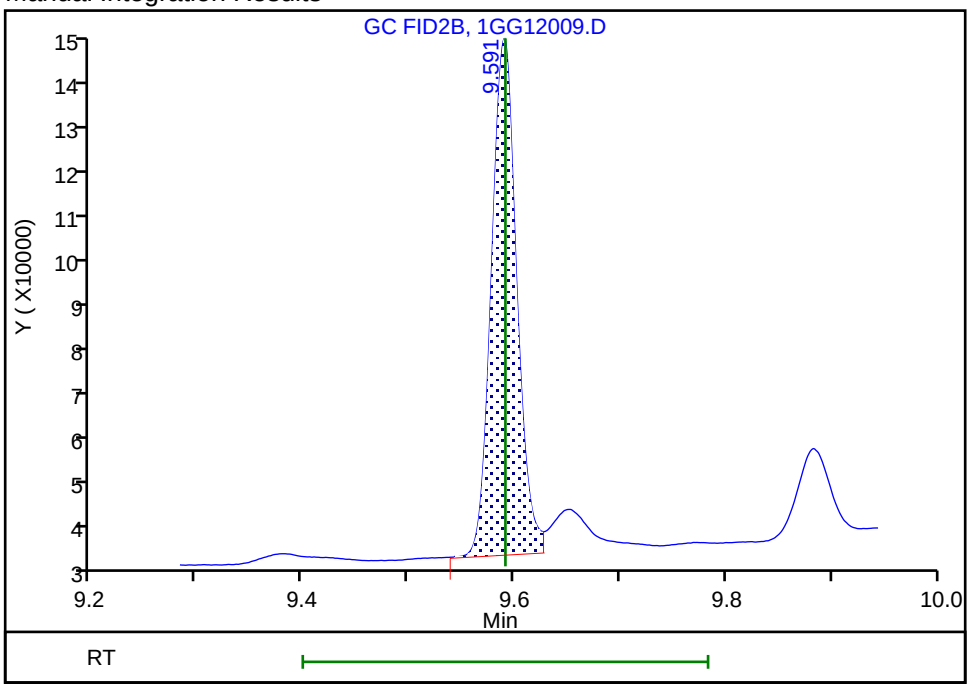
Processing Integration Results

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




Manual Integration Results

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




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

Eurofins Savannah
Target Compound Quantitation Report

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

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

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

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

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

## QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

## Reagents:

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

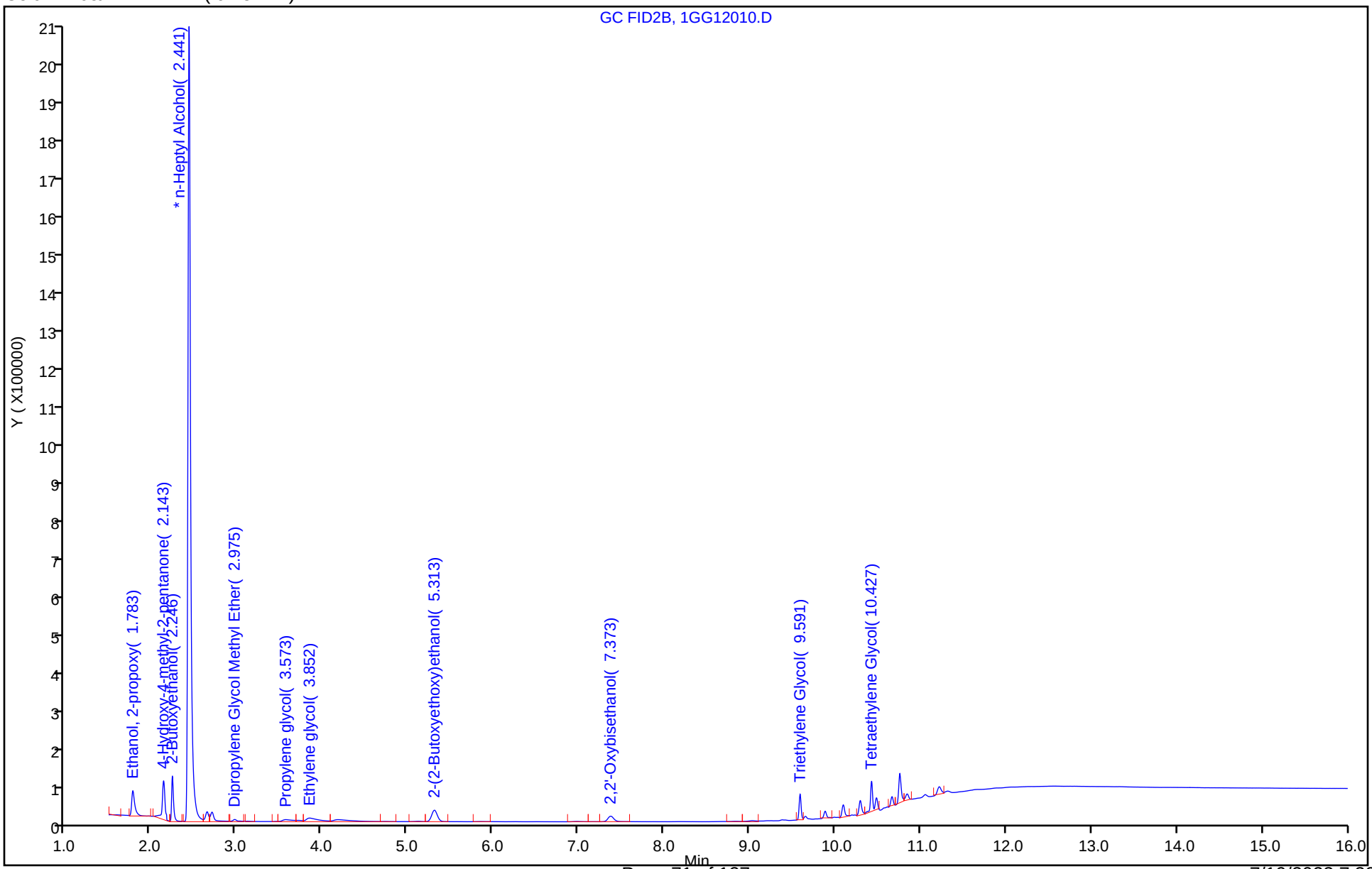
Report Date: 13-Jul-2023 19:33:12 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

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

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

Column: J&W DB WAX ( 0.45 mm)






7/19/2023 7:32 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

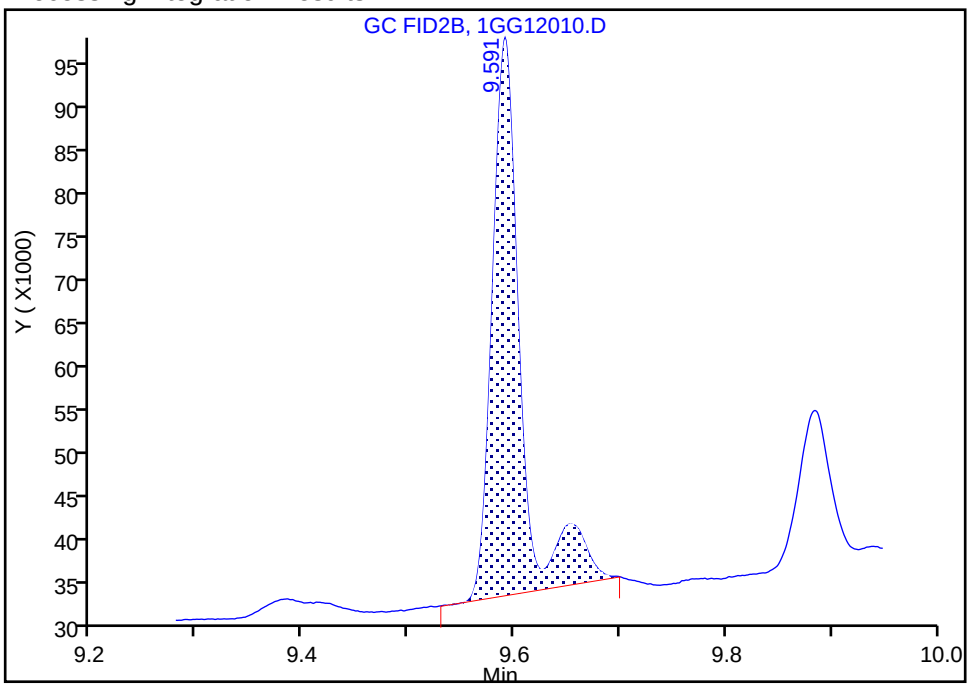
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D
Injection Date: 13-Jul-2023 14:38:41 Instrument ID: CVGG2
Lims ID: ic g1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W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

## 10 Triethylene Glycol, CAS: 112-27-6

Signal: 1

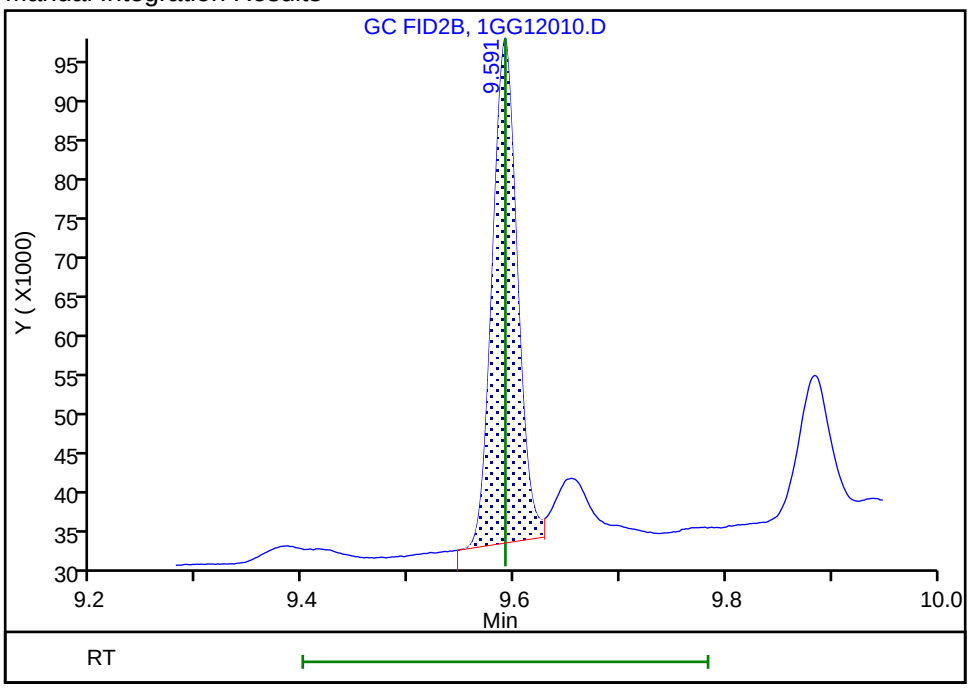
Processing Integration Results

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




Manual Integration Results

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




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

## Calibration / Ethanol, 2-propoxy

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

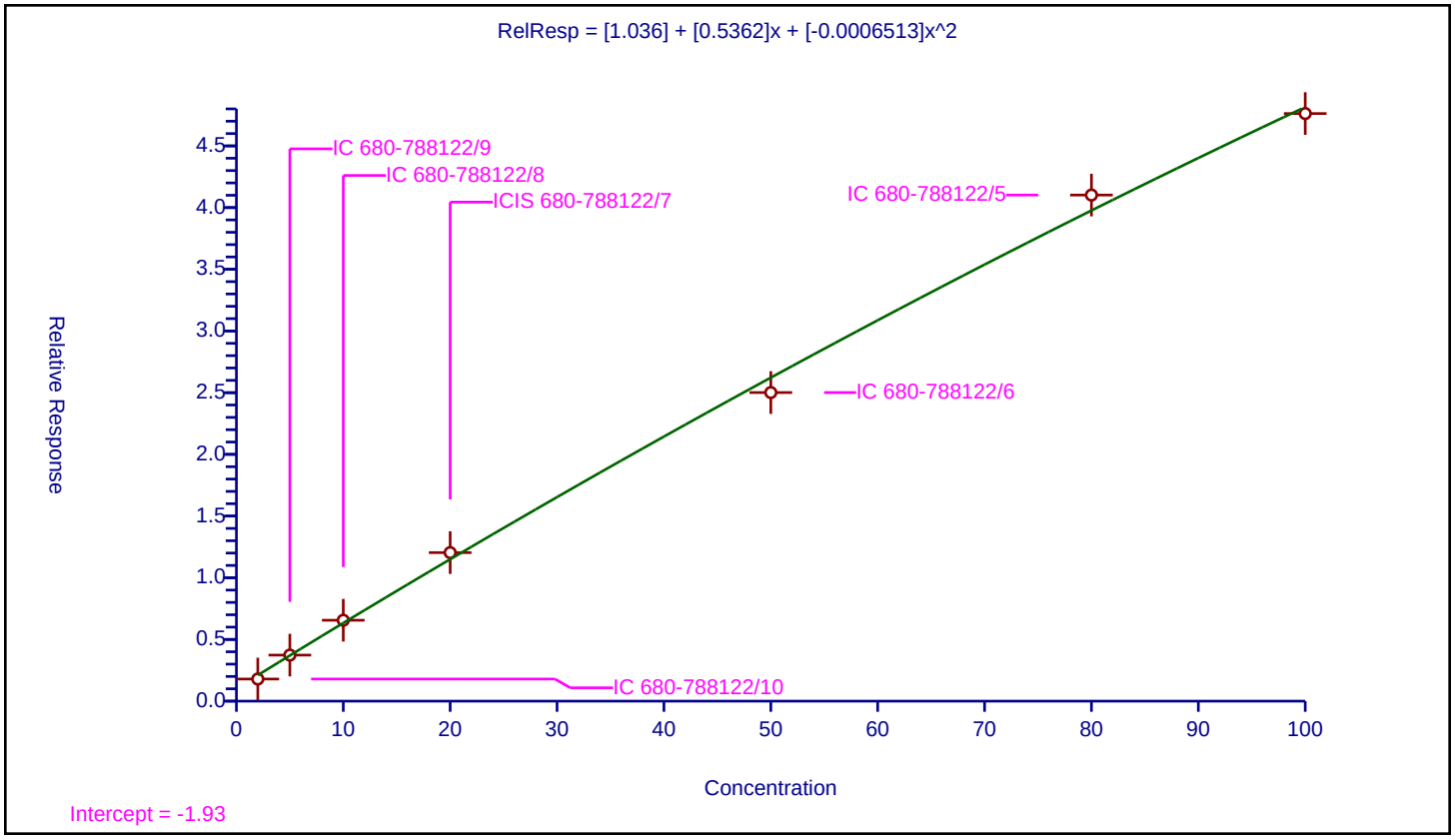
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 1.036 |
| **Slope:** | 0.5362 |
| **Second Order:** | -0.0006513 |

**Error Coefficients**

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

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



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

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

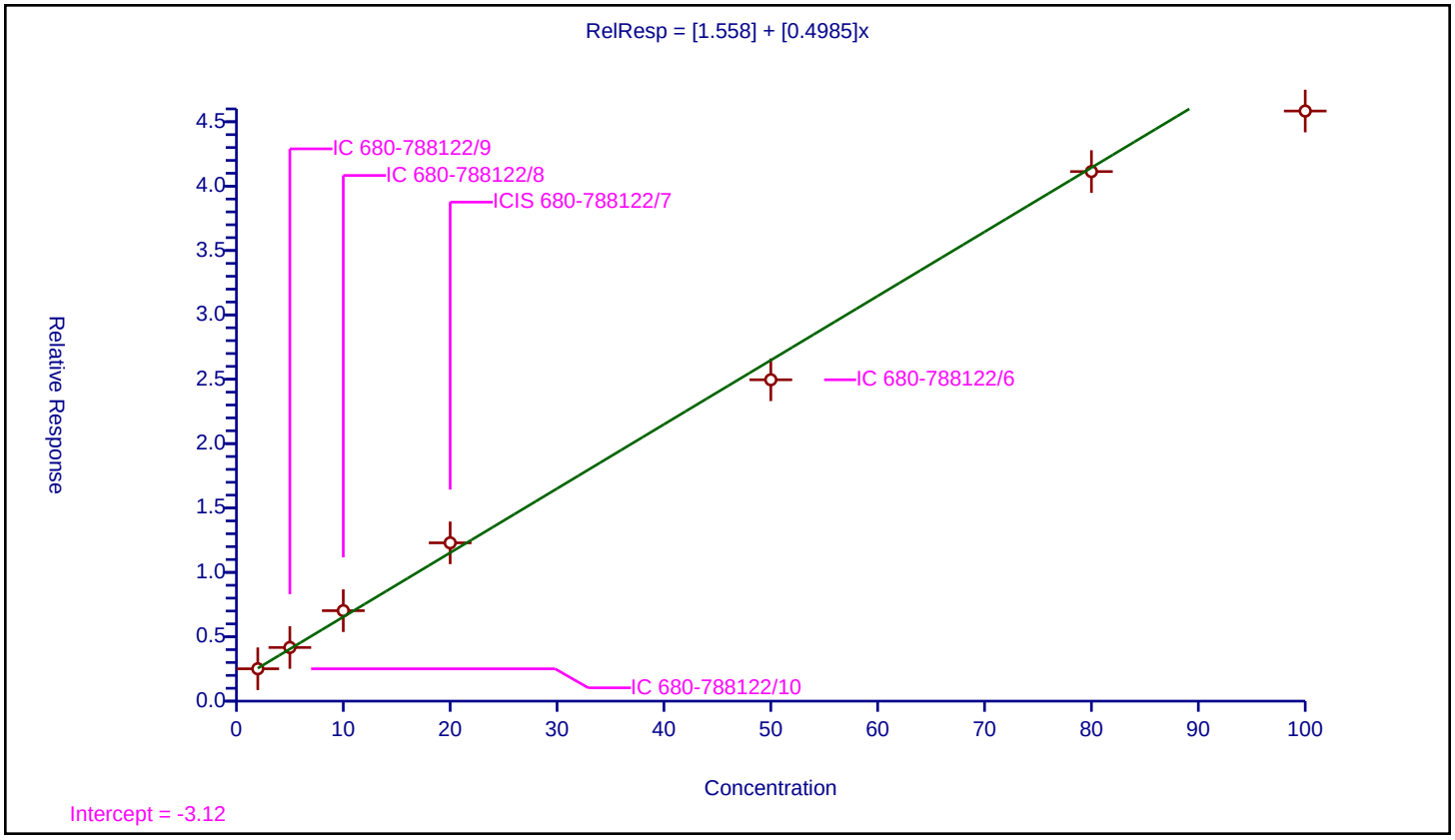
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 1.558 |
| **Slope:** | 0.4985 |

**Error Coefficients**

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

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



## Calibration / 2-Butoxyethanol

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

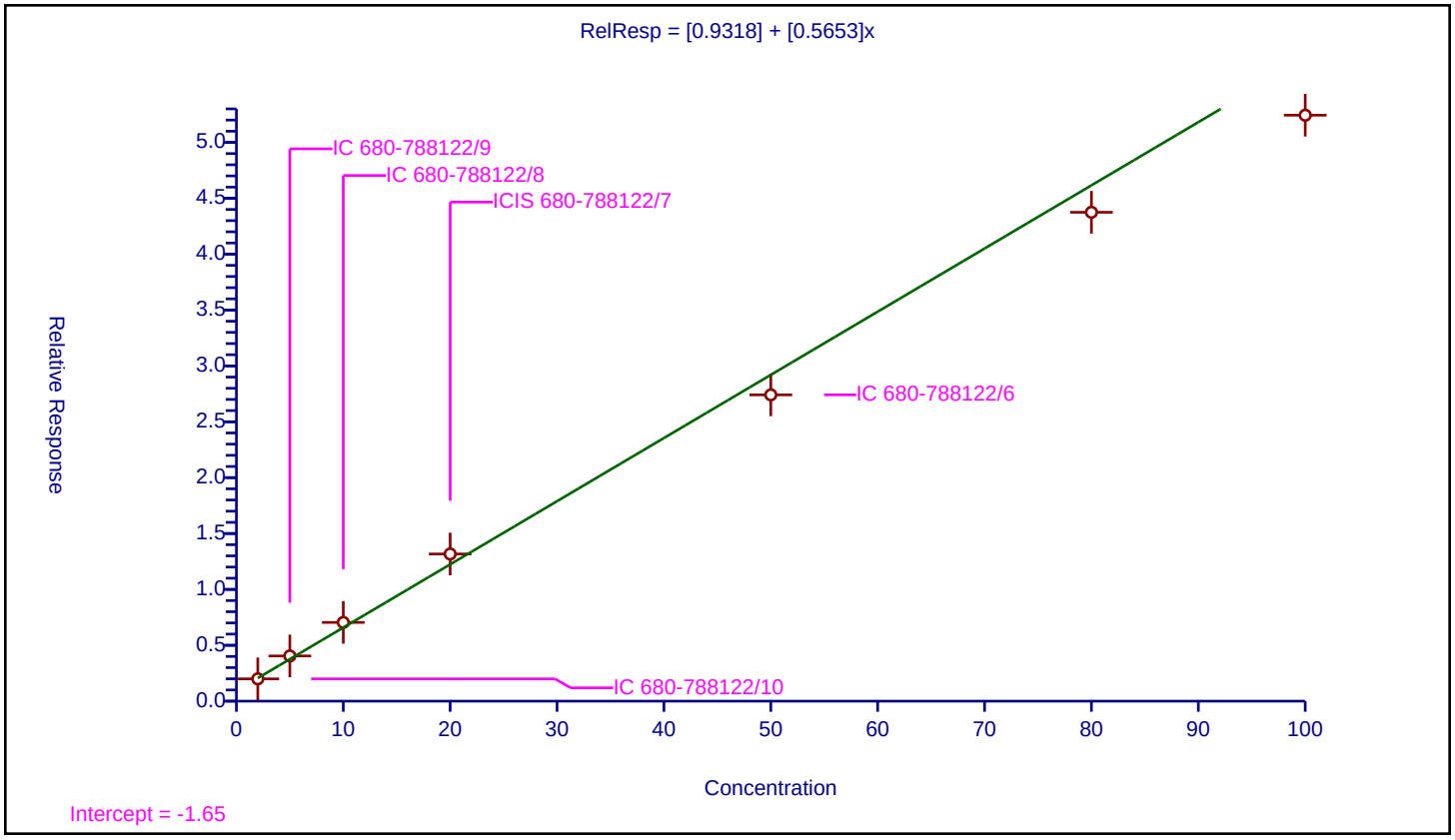
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.9318 |
| **Slope:** | 0.5653 |

**Error Coefficients**

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

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



## Calibration / Dipropylene Glycol Methyl Ether

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

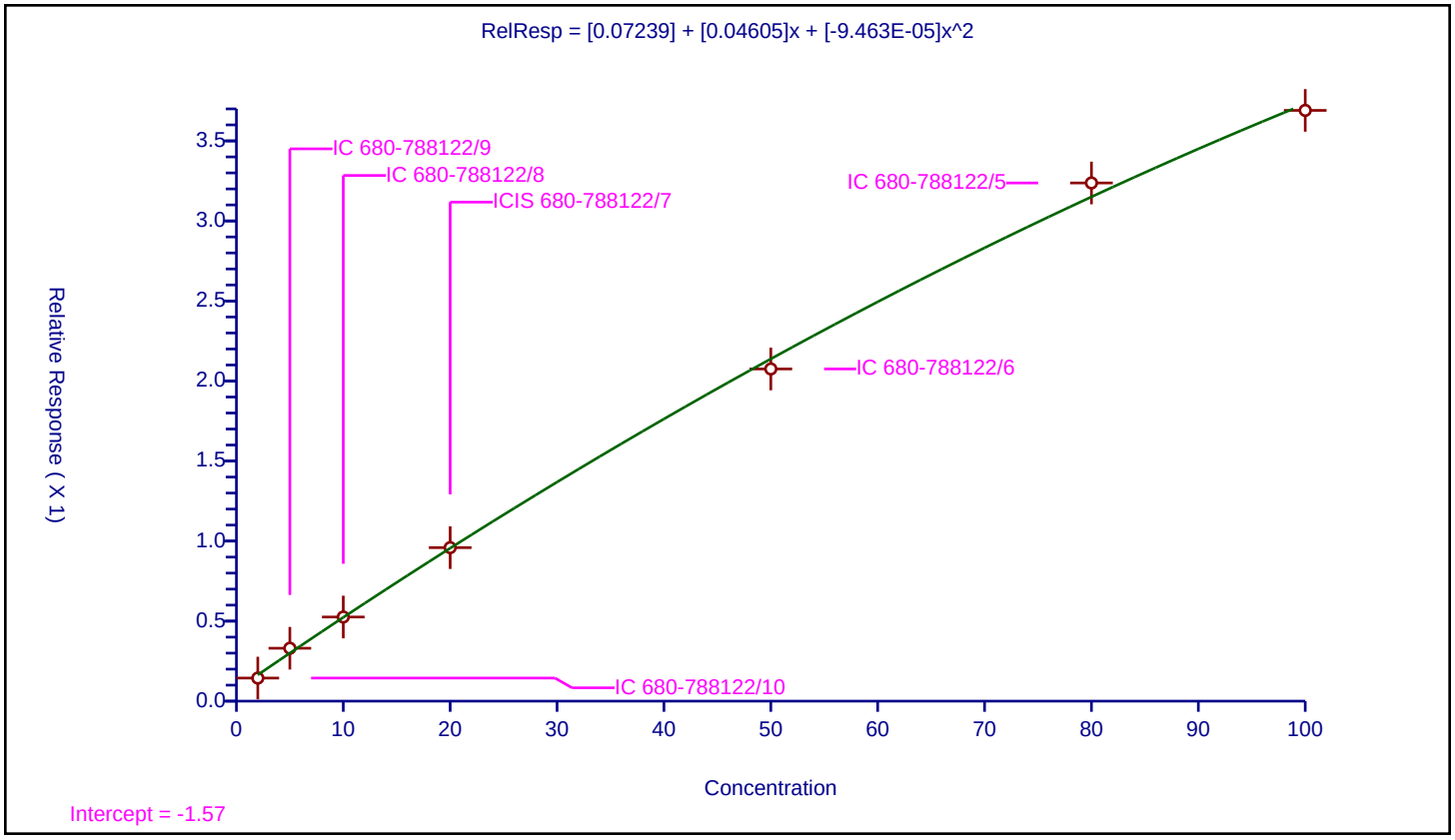
**Curve Coefficients**

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

**Error Coefficients**

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

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



## Calibration / Propylene glycol

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

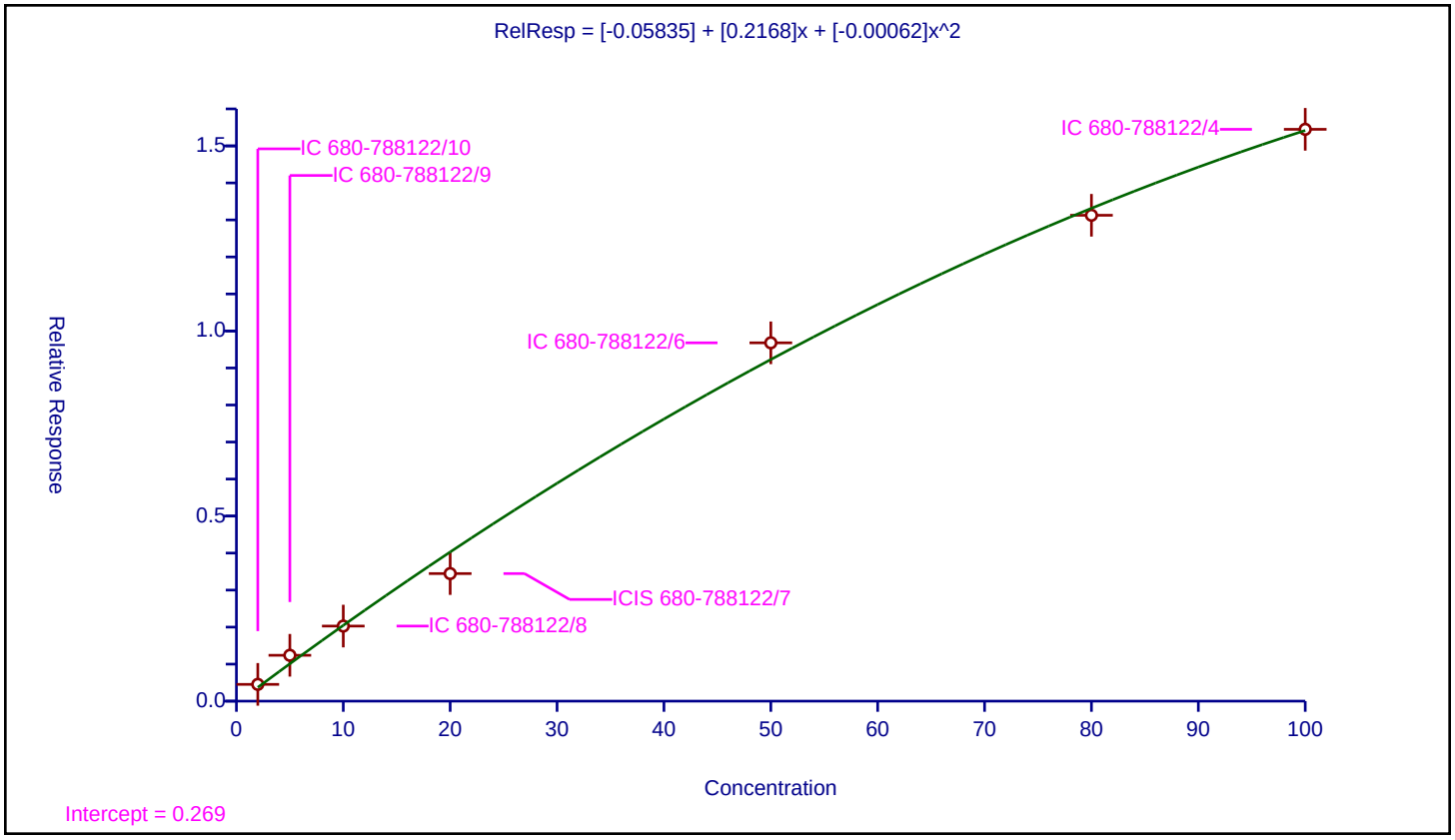
**Curve Coefficients**

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

**Error Coefficients**

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

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






7/19/2023 7:32 PM

## Calibration / Ethylene glycol

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

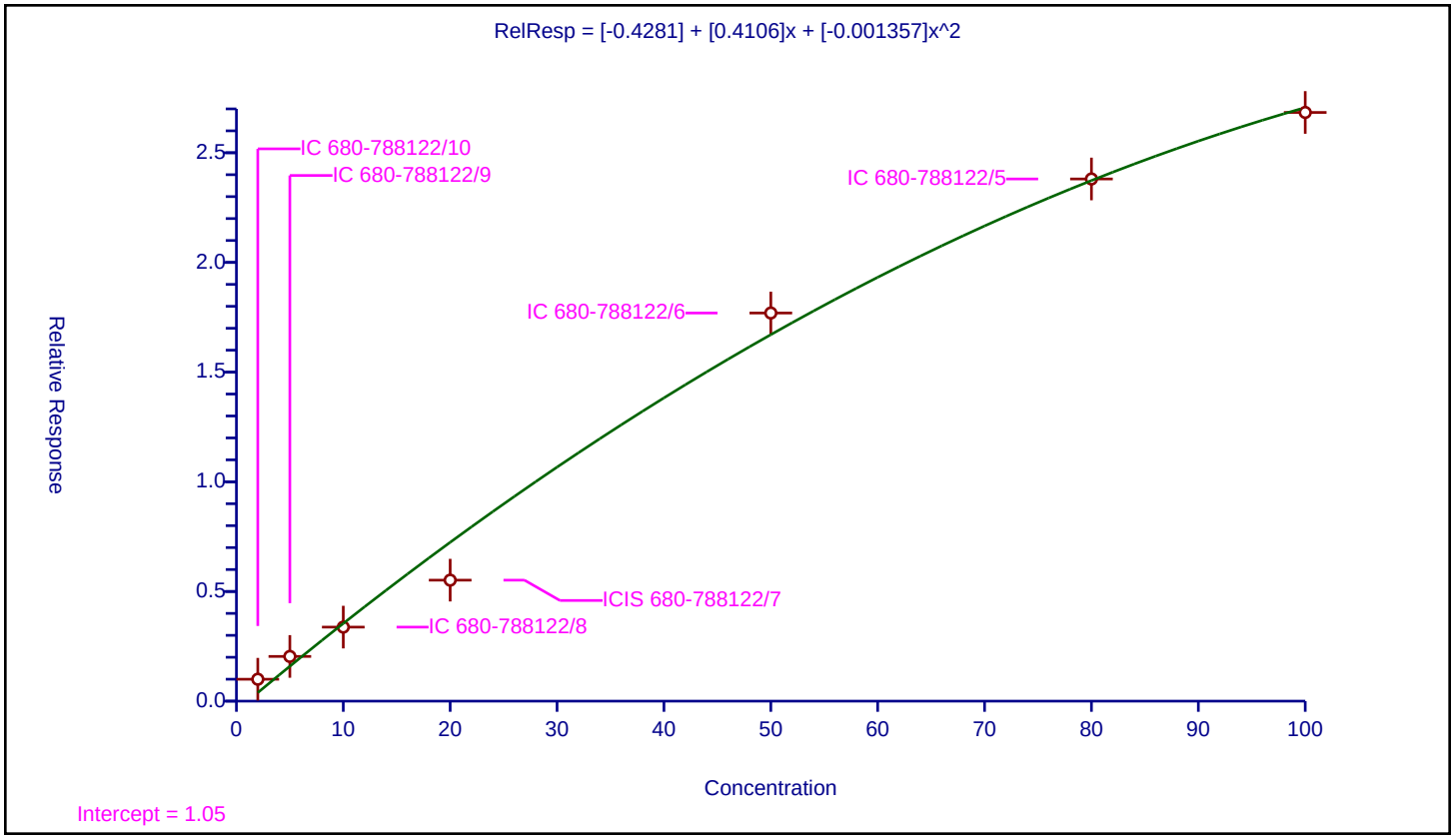
**Curve Coefficients**

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

**Error Coefficients**

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

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



## Calibration / 2-(2-Butoxyethoxy)ethanol

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

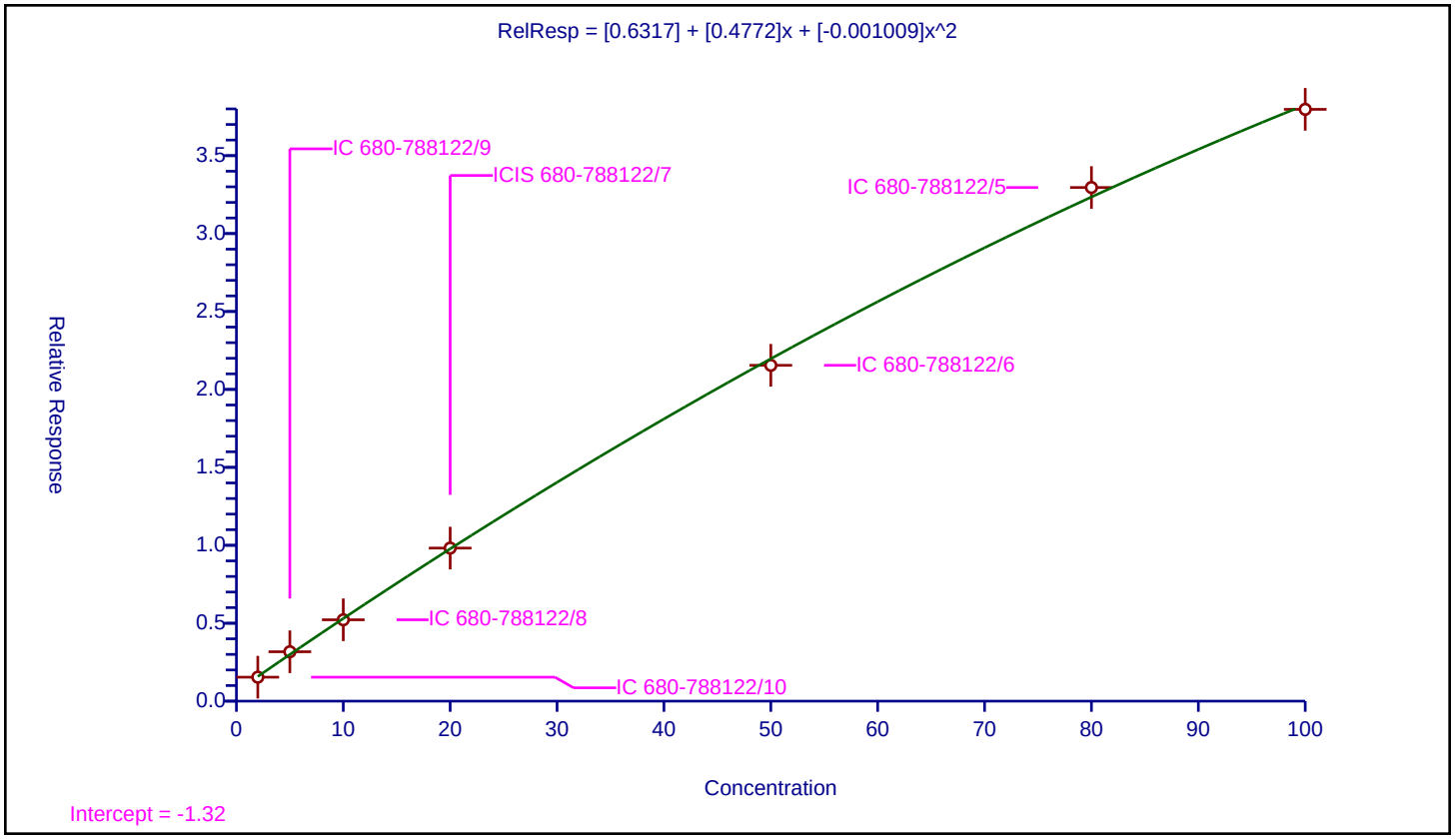
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.6317 |
| **Slope:** | 0.4772 |
| **Second Order:** | -0.001009 |

**Error Coefficients**

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

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



## Calibration / 2,2'-Oxybisethanol

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

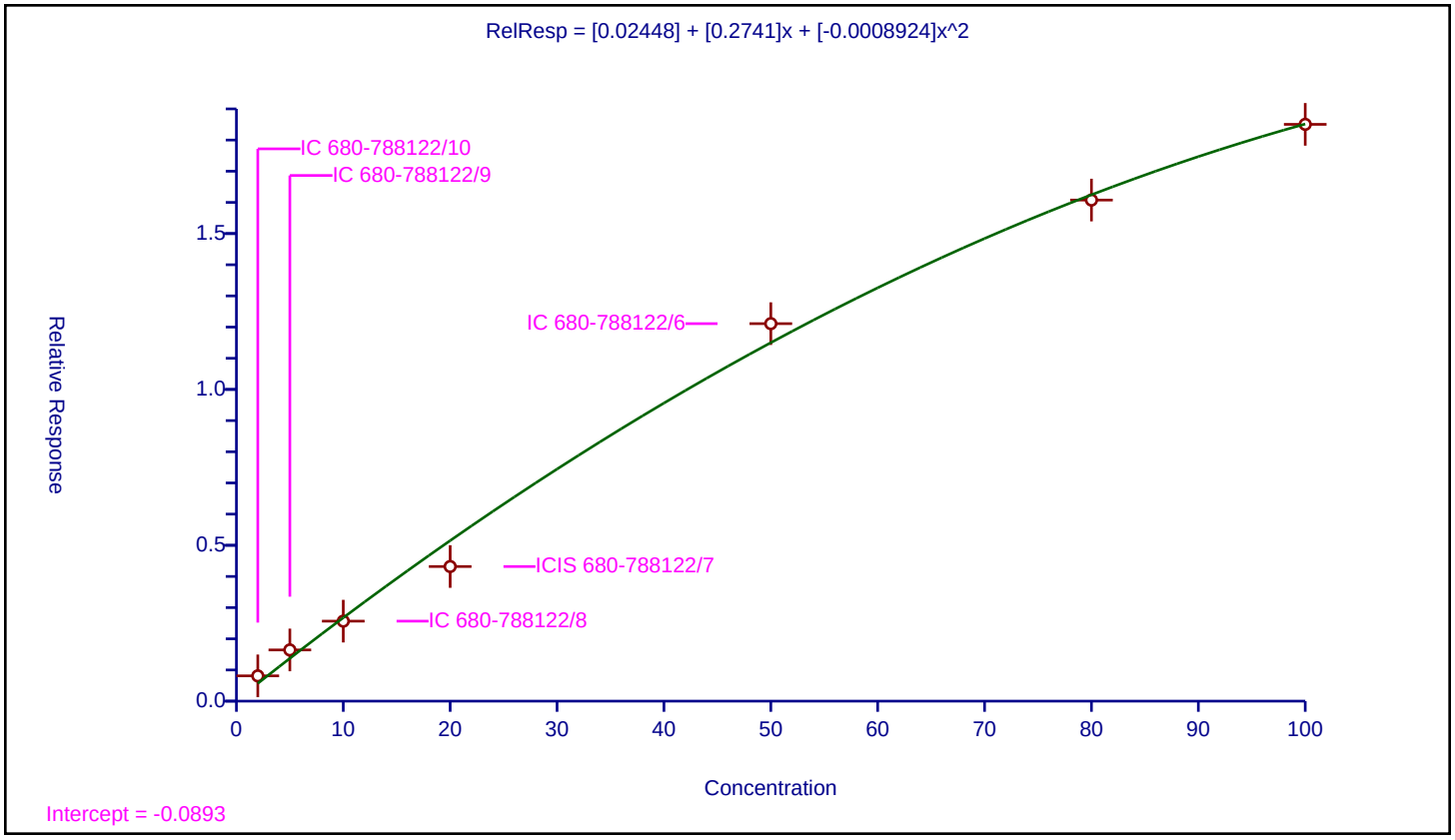
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.02448 |
| **Slope:** | 0.2741 |
| **Second Order:** | -0.0008924 |

**Error Coefficients**

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

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



## Calibration / Triethylene Glycol

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

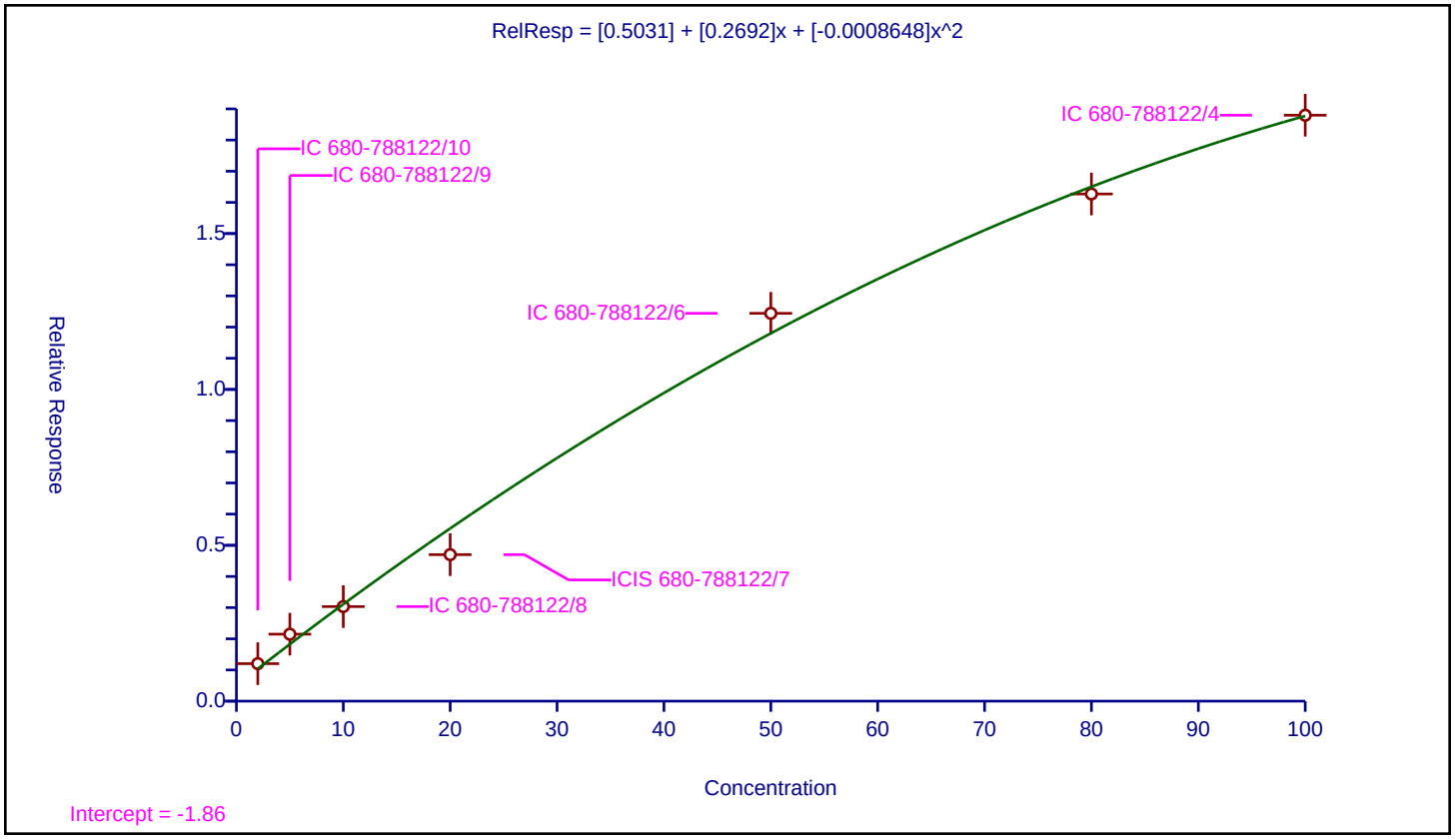
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.5031 |
| **Slope:** | 0.2692 |
| **Second Order:** | -0.0008648 |

**Error Coefficients**

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

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



## Calibration / Tetraethylene Glycol

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

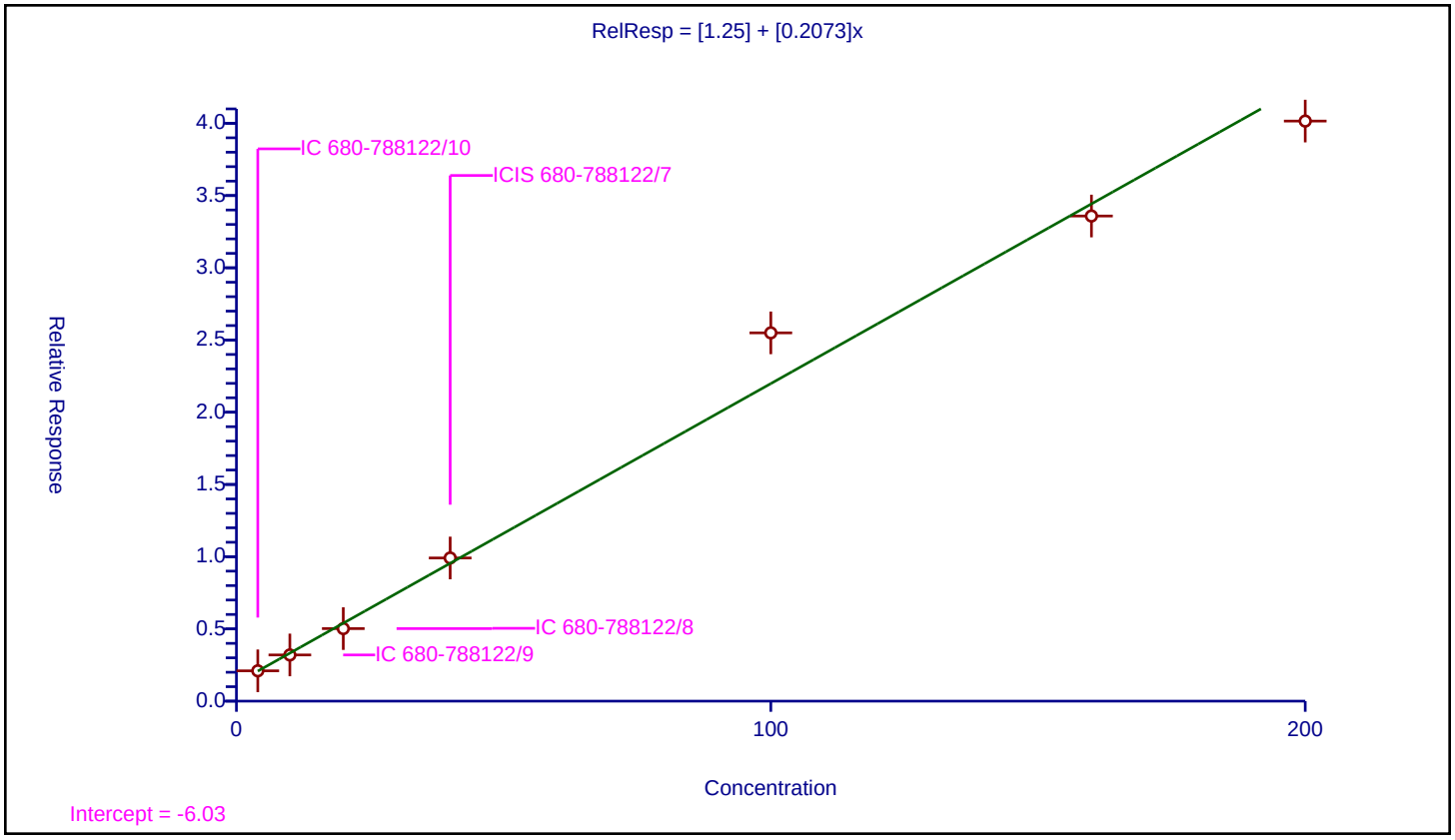
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 1.25 |
| **Slope:** | 0.2073 |

**Error Coefficients**

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

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



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-129328-1

SDG No.:

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

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

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

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

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

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

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

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

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

Lab File ID: 1GG12011.D

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

Eurofins Savannah
Target Compound Quantitation Report

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

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

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

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

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

## QC Flag Legend
Processing Flags

## Reagents:

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

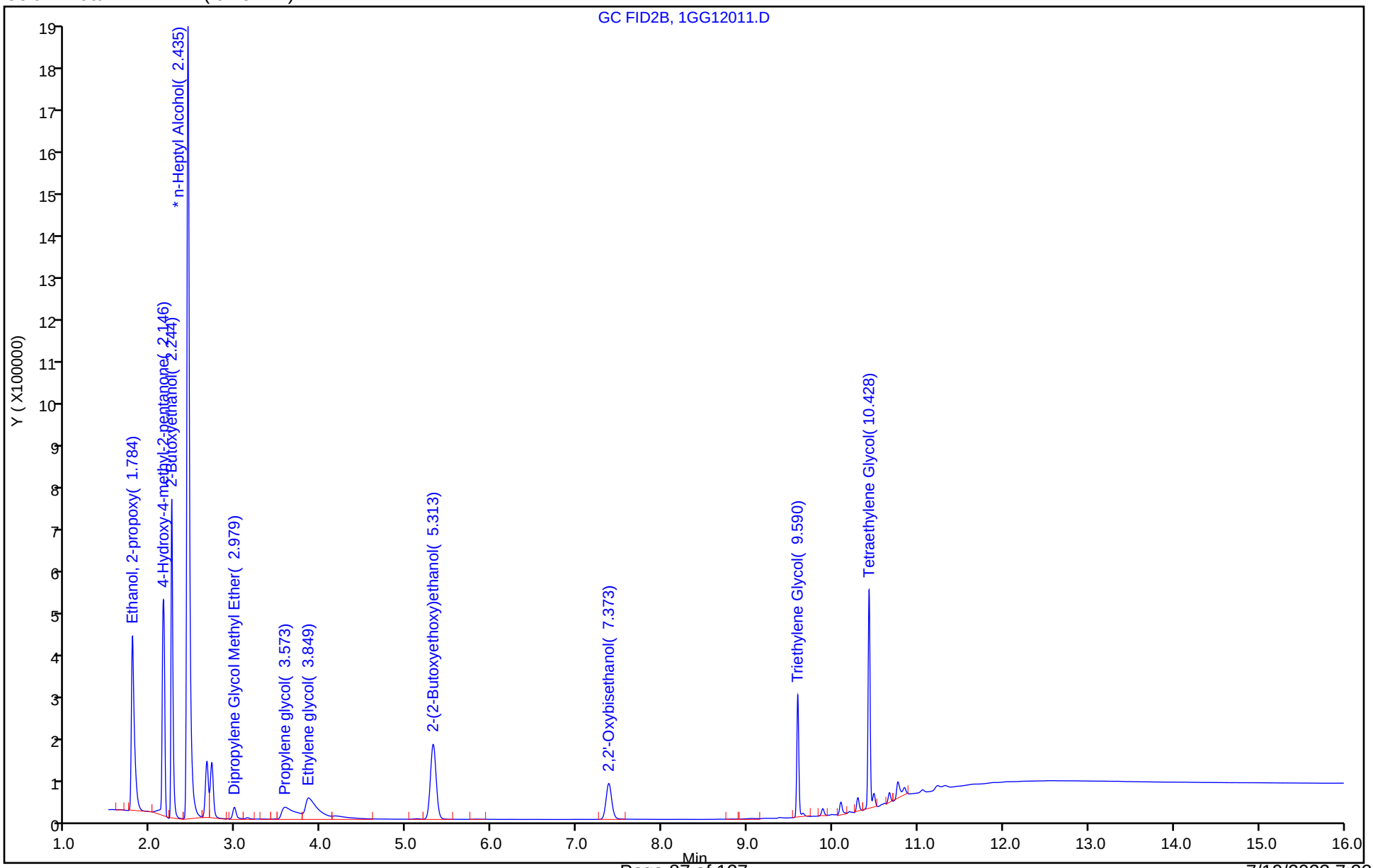
Report Date: 18-Jul-2023 09:23:16 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

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

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

Column: J&W DB WAX ( 0.45 mm)






7/19/2023 7:32 PM

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah Job No.: 580-129328-1

SDG No.:

Lab Sample ID: CCVIS 680-788635/4 Calibration Date: 07/17/2023 15:40

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

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

Lab File ID: 1GG13004.D Conc. Units: mg/L

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Ethanol, 2-propoxy | Qua | | 0.7076 | | 25.2 | 20.0 | 26.2* | 20.0 |
| 4-Hydroxy-4-methyl-2-pentanone | Lin2 | | 0.7218 | | 25.8 | 20.0 | 29.2* | 20.0 |
| 2-Butoxyethanol | Lin2 | | 0.7487 | | 24.8 | 20.0 | 24.2* | 20.0 |
| Dipropylene Glycol Methyl Ether | Qua | | 0.0646 | | 28.1 | 20.0 | 40.6* | 20.0 |
| Propylene glycol | Qua | | 0.2580 | | 26.0 | 20.0 | 30.0* | 20.0 |
| Ethylene glycol | Qua | | 0.3807 | | 21.0 | 20.0 | 5.2 | 20.0 |
| 2-(2-Butoxyethoxy)ethanol | Qua | | 0.6759 | | 28.8 | 20.0 | 43.8* | 20.0 |
| 2,2'-Oxybisethanol | Qua | | 0.3146 | | 24.9 | 20.0 | 24.4* | 20.0 |
| Triethylene Glycol | Qua | | 0.3731 | | 28.4 | 20.0 | 42.2* | 20.0 |
| Tetraethylene Glycol | Lin1 | | 0.3187 | | 55.5 | 40.0 | 38.6* | 20.0 |

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Lab Sample ID: CCVIS 680-788635/4  Calibration Date: 07/17/2023 15:40

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

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

Lab File ID: 1GG13004.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Ethanol, 2-propoxy | 1.77 | 1.73 | 1.80 |
| 4-Hydroxy-4-methyl-2-pentanone | 2.15 | 2.10 | 2.19 |
| 2-Butoxyethanol | 2.23 | 2.19 | 2.28 |
| Dipropylene Glycol Methyl Ether | 2.95 | 2.89 | 3.01 |
| Propylene glycol | 3.50 | 3.43 | 3.58 |
| Ethylene glycol | 3.79 | 3.71 | 3.87 |
| 2-(2-Butoxyethoxy)ethanol | 5.23 | 5.13 | 5.34 |
| 2,2'-Oxybisethanol | 7.28 | 7.13 | 7.42 |
| Triethylene Glycol | 9.56 | 9.37 | 9.75 |
| Tetraethylene Glycol | 10.40 | 10.19 | 10.61 |

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13004.D
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 17-Jul-2023 15:40:50 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087508-004
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Jul-2023 15:04:06 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B
Process Host: CTX1615

First Level Reviewer: AR8P Date: 17-Jul-2023 16:32:36

| | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| | 1 Ethanol, 2-propoxy | | | | | | |
| | 1.769 | 1.769 | 0.000 | 1416064 | 20.0 | 25.2 | |
| | 2 4-Hydroxy-4-methyl-2-pentanone | | | | | | |
| | 2.147 | 2.147 | 0.000 | 1444610 | 20.0 | 25.8 | |
| | 3 2-Butoxyethanol | | | | | | |
| | 2.233 | 2.233 | 0.000 | 1498308 | 20.0 | 24.8 | |
| * | 4 n-Heptyl Alcohol | | | | | | |
| | 2.409 | 2.409 | 0.000 | 5003182 | 50.0 | 50.0 | |
| | 5 Dipropylene Glycol Methyl Ether | | | | | | |
| | 2.946 | 2.946 | 0.000 | 129349 | 20.0 | 28.1 | |
| | 6 Propylene glycol | | | | | | a |
| | 3.504 | 3.504 | 0.000 | 516267 | 20.0 | 26.0 | a |
| | 7 Ethylene glycol | | | | | | |
| | 3.790 | 3.790 | 0.000 | 761813 | 20.0 | 21.0 | |
| | 8 2-(2-Butoxyethoxy)ethanol | | | | | | |
| | 5.231 | 5.231 | 0.000 | 1352569 | 20.0 | 28.8 | |
| | 9 2,2'-Oxybisethanol | | | | | | |
| | 7.275 | 7.275 | 0.000 | 629573 | 20.0 | 24.9 | |
| | 10 Triethylene Glycol | | | | | | |
| | 9.558 | 9.558 | 0.000 | 746603 | 20.0 | 28.4 | |
| | 11 Tetraethylene Glycol | | | | | | |
| | 10.397 | 10.397 | 0.000 | 1275647 | 40.0 | 55.5 | |

## QC Flag Legend
Processing Flags

Review Flags
a - User Assigned ID

## Reagents:

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

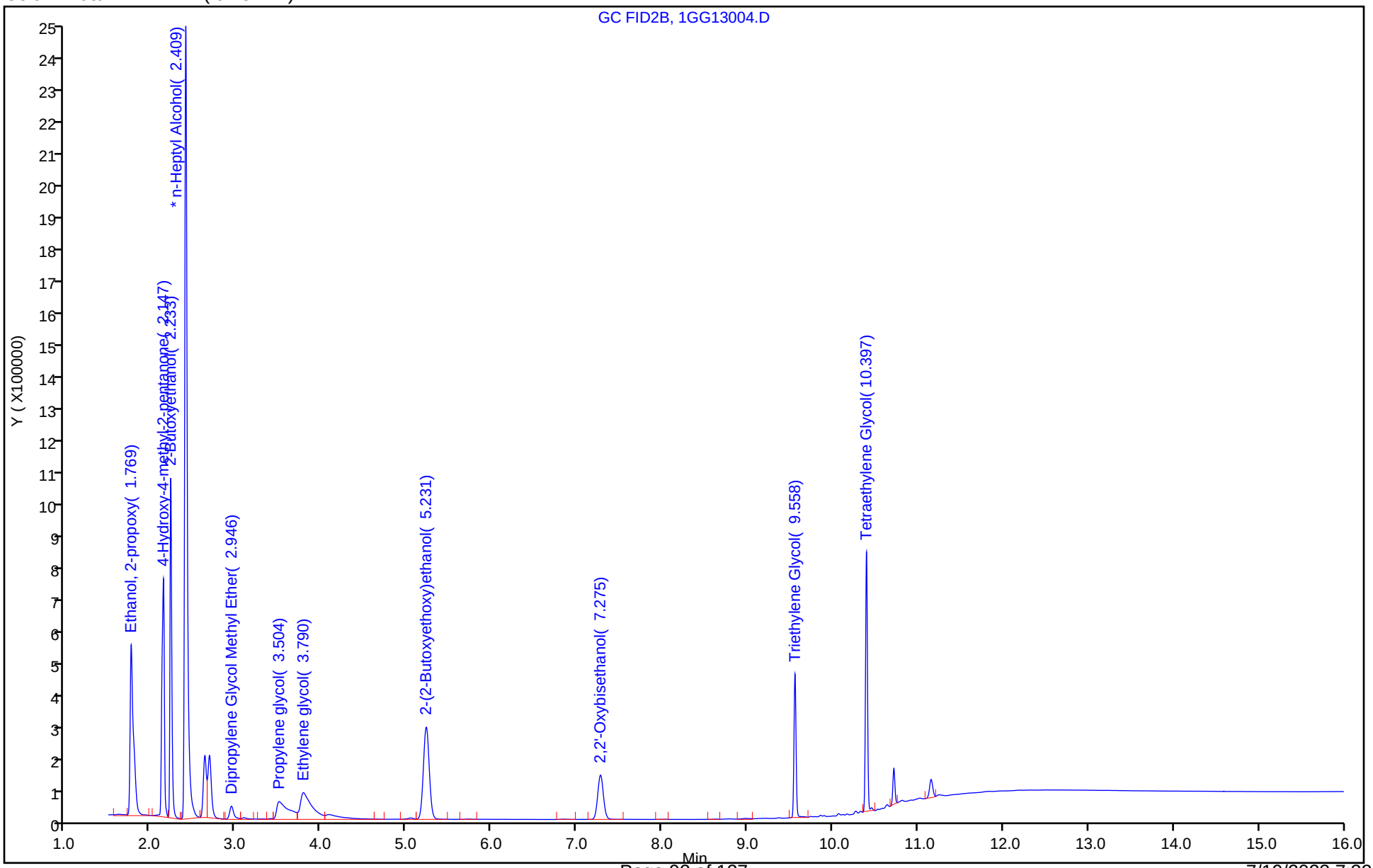
Report Date: 18-Jul-2023 15:04:06 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13004.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Jul-2023 15:40:50 | Instrument ID: | CVGG2 | Operator ID: | |
| Lims ID: | ccvis | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 8015_GLY_VGG | Limit Group: | 8015C_DAI | | |

Column: J&W DB WAX ( 0.45 mm)






7/19/2023 7:32 PM

Manual Integration/User Assign Peak Report

Eurofins Savannah

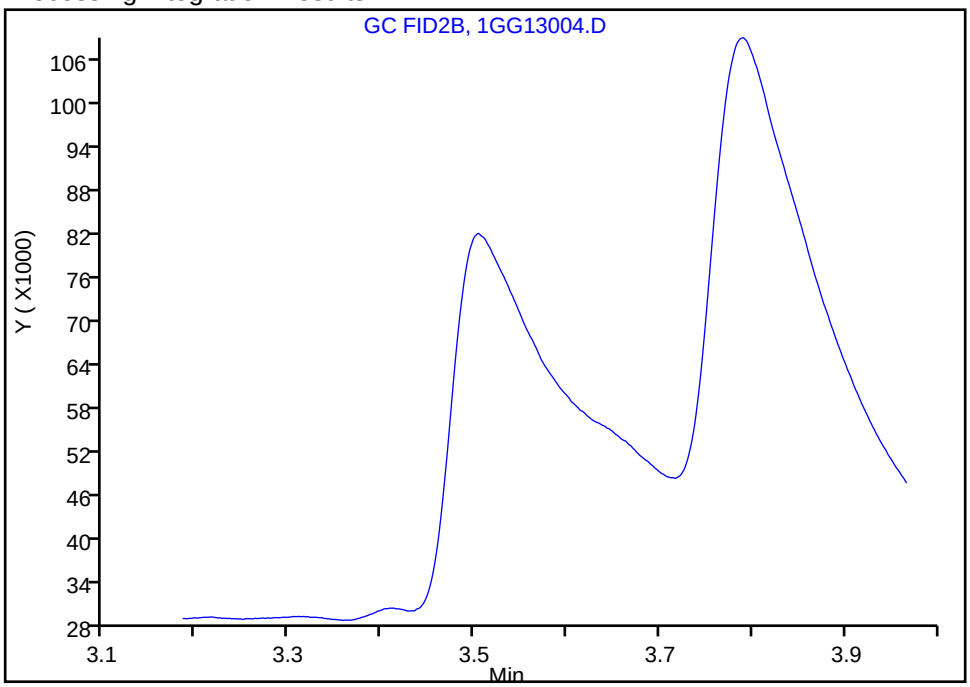
Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13004.D
Injection Date: 17-Jul-2023 15:40:50 Instrument ID: CVGG2
Lims ID: ccvis
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8015_GLY_VGG Limit Group: 8015C_DAI
Column: J&W DB WAX ( 0.45 mm) Detector GC FID2B

## 6 Propylene glycol, CAS: 57-55-6

Signal: 1

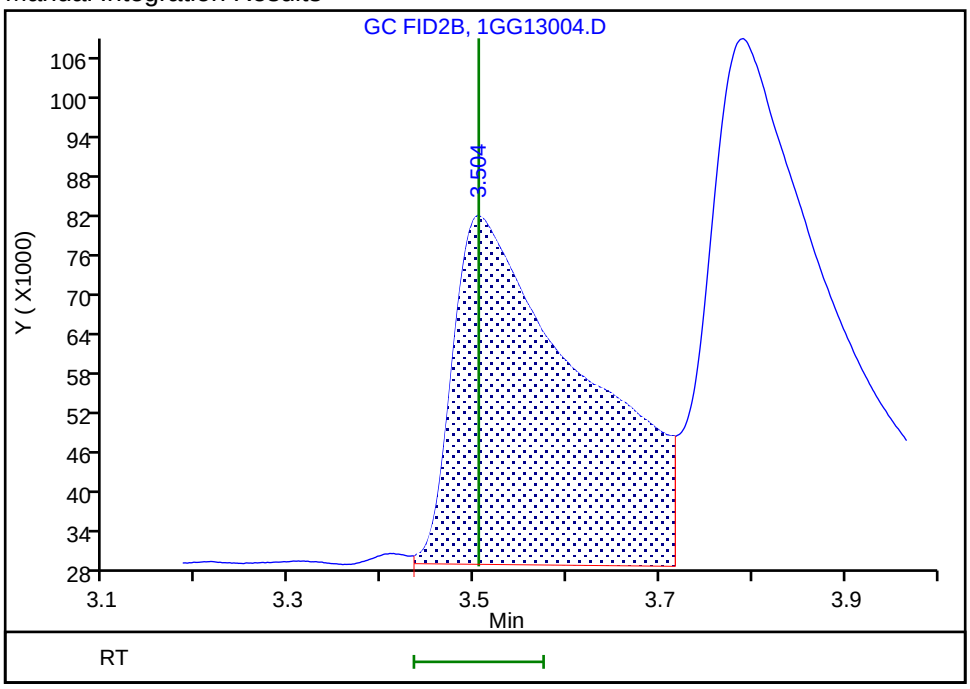
Not Detected
Expected RT: 3.50

Processing Integration Results




Manual Integration Results

RT: 3.50
Area: 516267
Amount: 26.006129
Amount Units: ug/ml




Reviewer: AR8P, 17-Jul-2023 16:31:59 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Lab Sample ID: CCV 680-788635/22  Calibration Date: 07/17/2023 23:20

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

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

Lab File ID: 1GG13022.D  Conc. Units: mg/L

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Ethanol, 2-propoxy | Qua | | 0.5685 | | 19.7 | 20.0 | -1.3 | 20.0 |
| 4-Hydroxy-4-methyl-2-pentanone | Lin2 | | 0.5759 | | 20.0 | 20.0 | -0.0 | 20.0 |
| 2-Butoxyethanol | Lin2 | | 0.5989 | | 19.5 | 20.0 | -2.3 | 20.0 |
| Dipropylene Glycol Methyl Ether | Qua | | 0.0524 | | 22.2 | 20.0 | 11.1 | 20.0 |
| Propylene glycol | Qua | | 0.2028 | | 20.1 | 20.0 | 0.7 | 20.0 |
| Ethylene glycol | Qua | | 0.3905 | | 21.6 | 20.0 | 8.0 | 20.0 |
| 2-(2-Butoxyethoxy)ethanol | Qua | | 0.5290 | | 21.9 | 20.0 | 9.3 | 20.0 |
| 2,2'-Oxybisethanol | Qua | | 0.2646 | | 20.6 | 20.0 | 3.0 | 20.0 |
| Triethylene Glycol | Qua | | 0.2857 | | 20.7 | 20.0 | 3.7 | 20.0 |
| Tetraethylene Glycol | Lin1 | | 0.1649 | | 25.8 | 40.0 | -35.5* | 20.0 |

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Lab Sample ID: CCV 680-788635/22  Calibration Date: 07/17/2023 23:20

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

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

Lab File ID: 1GG13022.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Ethanol, 2-propoxy | 1.76 | 1.72 | 1.79 |
| 4-Hydroxy-4-methyl-2-pentanone | 2.14 | 2.10 | 2.18 |
| 2-Butoxyethanol | 2.23 | 2.18 | 2.27 |
| Dipropylene Glycol Methyl Ether | 2.94 | 2.88 | 3.00 |
| Propylene glycol | 3.52 | 3.45 | 3.59 |
| Ethylene glycol | 3.79 | 3.72 | 3.87 |
| 2-(2-Butoxyethoxy)ethanol | 5.23 | 5.13 | 5.34 |
| 2,2'-Oxybisethanol | 7.28 | 7.13 | 7.43 |
| Triethylene Glycol | 9.56 | 9.37 | 9.75 |
| Tetraethylene Glycol | 10.40 | 10.19 | 10.61 |

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13022.D
Lims ID: ccv L4
Client ID:
Sample Type: CCV
Inject. Date: 17-Jul-2023 23:20:32 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087508-022
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Jul-2023 15:04:01 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B
Process Host: CTX1615

| | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| | 1 Ethanol, 2-propoxy | | | | | | |
| | 1.755 | 1.755 | 0.000 | 1093369 | 20.0 | 19.7 | |
| | 2 4-Hydroxy-4-methyl-2-pentanone | | | | | | |
| | 2.138 | 2.138 | 0.000 | 1107677 | 20.0 | 20.0 | |
| | 3 2-Butoxyethanol | | | | | | |
| | 2.226 | 2.226 | 0.000 | 1151778 | 20.0 | 19.5 | |
| * | 4 n-Heptyl Alcohol | | | | | | |
| | 2.401 | 2.401 | 0.000 | 4808249 | 50.0 | 50.0 | |
| | 5 Dipropylene Glycol Methyl Ether | | | | | | |
| | 2.942 | 2.942 | 0.000 | 100873 | 20.0 | 22.2 | |
| | 6 Propylene glycol | | | | | | |
| | 3.521 | 3.521 | 0.000 | 390126 | 20.0 | 20.1 | |
| | 7 Ethylene glycol | | | | | | |
| | 3.793 | 3.793 | 0.000 | 751073 | 20.0 | 21.6 | |
| | 8 2-(2-Butoxyethoxy)ethanol | | | | | | |
| | 5.231 | 5.231 | 0.000 | 1017444 | 20.0 | 21.9 | |
| | 9 2,2'-Oxybisethanol | | | | | | |
| | 7.280 | 7.280 | 0.000 | 508879 | 20.0 | 20.6 | |
| | 10 Triethylene Glycol | | | | | | |
| | 9.558 | 9.558 | 0.000 | 549576 | 20.0 | 20.7 | |
| | 11 Tetraethylene Glycol | | | | | | |
| | 10.398 | 10.398 | 0.000 | 634396 | 40.0 | 25.8 | |

## Reagents:

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

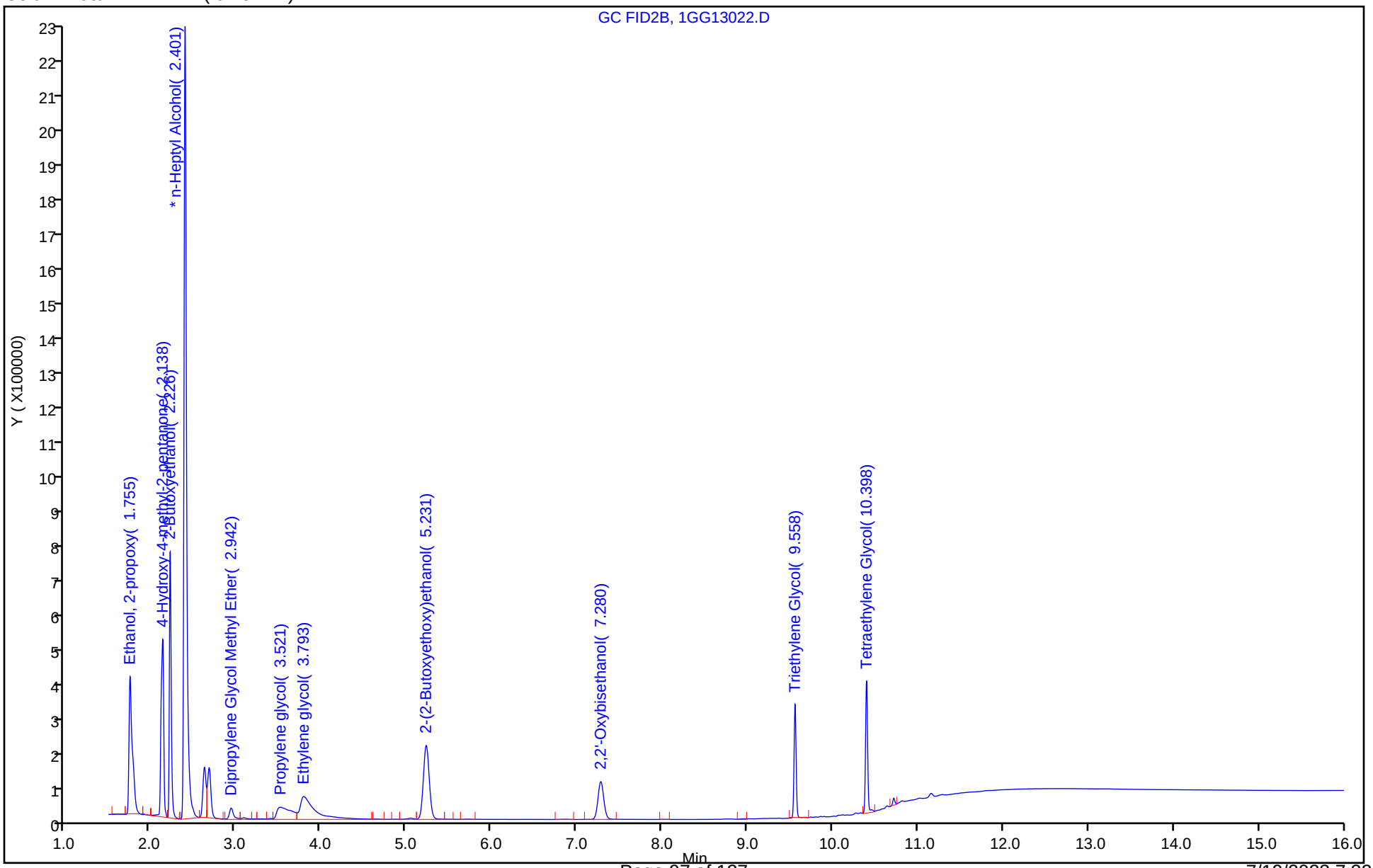
Report Date: 18-Jul-2023 15:04:01 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13022.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Jul-2023 23:20:32 | Instrument ID: | CVGG2 | Operator ID: | |
| Lims ID: | ccv L4 | | | 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)






7/19/2023 7:32 PM

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Lab Sample ID: CCV 680-788635/23  Calibration Date: 07/17/2023 23:43

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

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

Lab File ID: 1GG13023.D  Conc. Units: mg/L

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Ethanol, 2-propoxy | Qua | | 0.9181 | | 1.49 | 2.00 | -25.3* | 20.0 |
| 4-Hydroxy-4-methyl-2-pentanone | Lin2 | | 0.9836 | | 0.822 | 2.00 | -58.9* | 20.0 |
| 2-Butoxyethanol | Lin2 | | 0.9786 | | 1.81 | 2.00 | -9.3 | 20.0 |
| Dipropylene Glycol Methyl Ether | Qua | | 0.0939 | | 2.52 | 2.00 | 26.0* | 20.0 |
| Propylene glycol | Qua | | 0.3323 | | 3.37 | 2.00 | 68.4* | 20.0 |
| Ethylene glycol | Qua | | 0.5416 | | 3.73 | 2.00 | 86.3* | 20.0 |
| 2-(2-Butoxyethoxy)ethanol | Qua | | 0.7743 | | 1.93 | 2.00 | -3.5 | 20.0 |
| 2,2'-Oxybisethanol | Qua | | 0.5406 | | 3.90 | 2.00 | 95.2* | 20.0 |
| Triethylene Glycol | Qua | | 0.8705 | | 4.67 | 2.00 | 133.4* | 20.0 |
| Tetraethylene Glycol | Lin1 | | 0.5370 | | 10.0 | 4.00 | 8.3 | 20.0 |

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Lab Sample ID: CCV 680-788635/23  Calibration Date: 07/17/2023 23:43

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

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

Lab File ID: 1GG13023.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Ethanol, 2-propoxy | 1.75 | 1.72 | 1.79 |
| 4-Hydroxy-4-methyl-2-pentanone | 2.13 | 2.09 | 2.17 |
| 2-Butoxyethanol | 2.23 | 2.18 | 2.27 |
| Dipropylene Glycol Methyl Ether | 2.94 | 2.88 | 3.00 |
| Propylene glycol | 3.52 | 3.45 | 3.59 |
| Ethylene glycol | 3.79 | 3.71 | 3.87 |
| 2-(2-Butoxyethoxy)ethanol | 5.24 | 5.13 | 5.34 |
| 2,2'-Oxybisethanol | 7.28 | 7.14 | 7.43 |
| Triethylene Glycol | 9.56 | 9.37 | 9.75 |
| Tetraethylene Glycol | 10.40 | 10.19 | 10.61 |

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13023.D
Lims ID: ccv L1
Client ID:
Sample Type: CCV
Inject. Date: 17-Jul-2023 23:43:37 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087508-023
Operator ID: Instrument ID: CVGG2
Sublist: chrom-8015_GLY_VGG*sub2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Jul-2023 15:04:02 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B
Process Host: CTX1615

| | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| | 1 Ethanol, 2-propoxy | | | | | | |
| | 1.754 | 1.754 | 0.000 | 183667 | 2.00 | 1.49 | |
| | 2 4-Hydroxy-4-methyl-2-pentanone | | | | | | |
| | 2.130 | 2.130 | 0.000 | 196751 | 2.00 | 0.8215 | |
| | 3 2-Butoxyethanol | | | | | | |
| | 2.225 | 2.225 | 0.000 | 195754 | 2.00 | 1.81 | |
| * | 4 n-Heptyl Alcohol | | | | | | |
| | 2.404 | 2.404 | 0.000 | 5001025 | 50.0 | 50.0 | |
| | 5 Dipropylene Glycol Methyl Ether | | | | | | |
| | 2.938 | 2.938 | 0.000 | 18788 | 2.00 | 2.52 | |
| | 6 Propylene glycol | | | | | | |
| | 3.524 | 3.524 | 0.000 | 66469 | 2.00 | 3.37 | |
| | 7 Ethylene glycol | | | | | | |
| | 3.790 | 3.790 | 0.000 | 108340 | 2.00 | 3.73 | |
| | 8 2-(2-Butoxyethoxy)ethanol | | | | | | |
| | 5.235 | 5.235 | 0.000 | 154900 | 2.00 | 1.93 | |
| | 9 2,2'-Oxybisethanol | | | | | | |
| | 7.283 | 7.283 | 0.000 | 108143 | 2.00 | 3.90 | |
| | 10 Triethylene Glycol | | | | | | |
| | 9.559 | 9.559 | 0.000 | 174128 | 2.00 | 4.67 | |
| | 11 Tetraethylene Glycol | | | | | | |
| | 10.398 | 10.398 | 0.000 | 214826 | 4.00 | 4.33 | |

## Reagents:

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

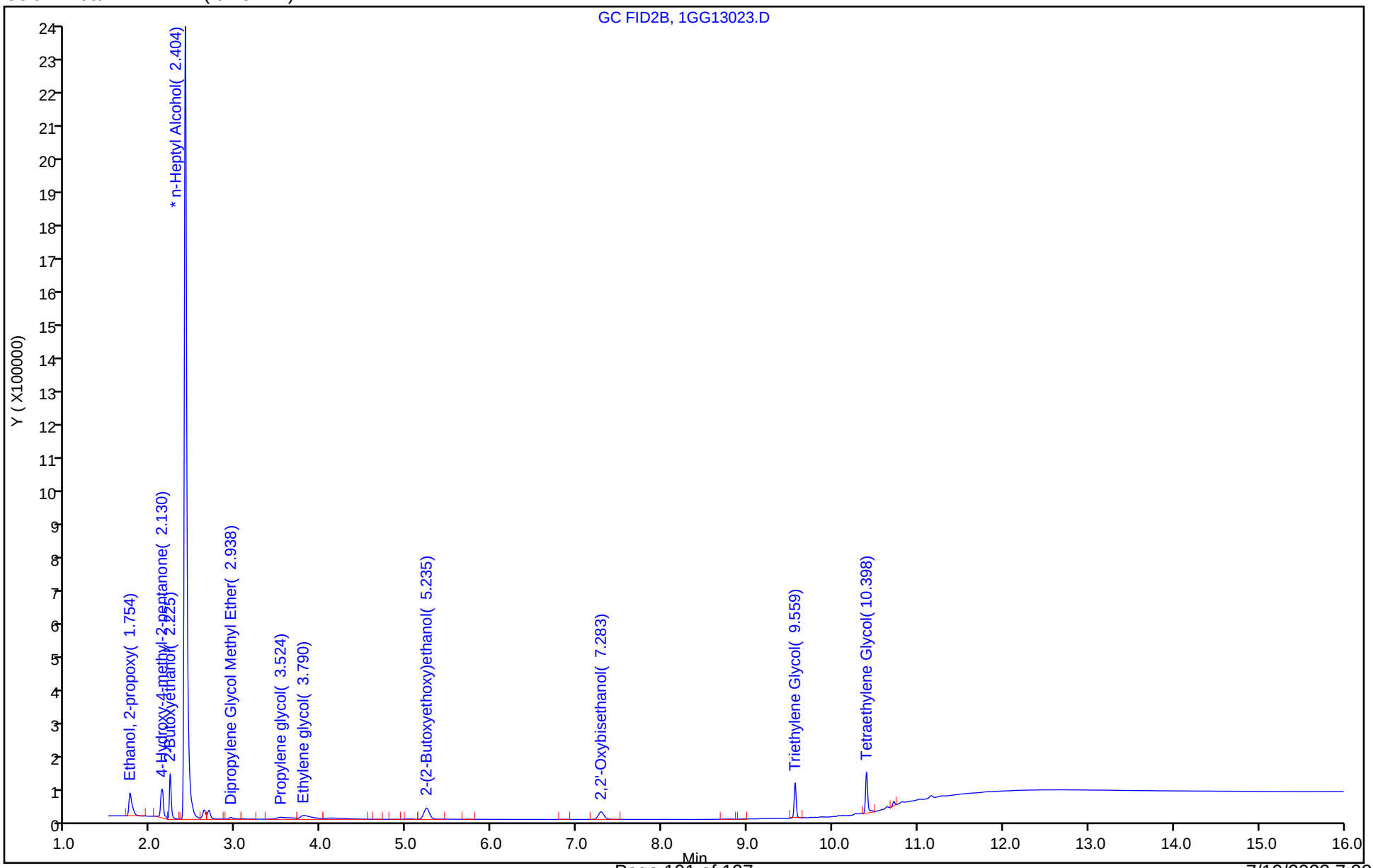
Report Date: 18-Jul-2023 15:04:02 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13023.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Jul-2023 23:43:37 | Instrument ID: | CVGG2 | Operator ID: | |
| Lims ID: | ccv L1 | | | 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)






7/19/2023 7:32 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 680-788635/11

Matrix: Water  Lab File ID: 1GG13011.D

Analysis Method: 8015C GLY  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 1(mL)  Date Analyzed: 07/17/2023 19:06

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.: 788635  Units: mg/L

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

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13011.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 17-Jul-2023 19:06:17 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087508-011
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Jul-2023 14:58:44 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B
Process Host: CTX1615

First Level Reviewer: SWK1 Date: 18-Jul-2023 14:57:50

| | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| * | 4 n-Heptyl Alcohol | | | | | | |
| | 2.403 | 2.404 | -0.001 | 3488319 | 50.0 | 50.0 | |
| | 6 Propylene glycol | | | | | | |
| | 3.523 | 3.524 | -0.001 | 3673 | | 0.5128 | |
| | 7 Ethylene glycol | | | | | | |
| | 3.784 | 3.790 | -0.006 | 7492 | | 1.31 | |
| | 9 2,2'-Oxybisethanol | | | | | | 7 |
| | 7.288 | 7.283 | 0.005 | 11827 | | 0.5300 | 7 |
| | LOD = | 1.60 | | | | | |
| | 10 Triethylene Glycol | | | | | | |
| | 9.559 | 9.559 | 0.000 | 87488 | | 2.81 | |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

SG_GLY_ISTD_00124 Amount Added: 10.00 Units: uL Run Reagent

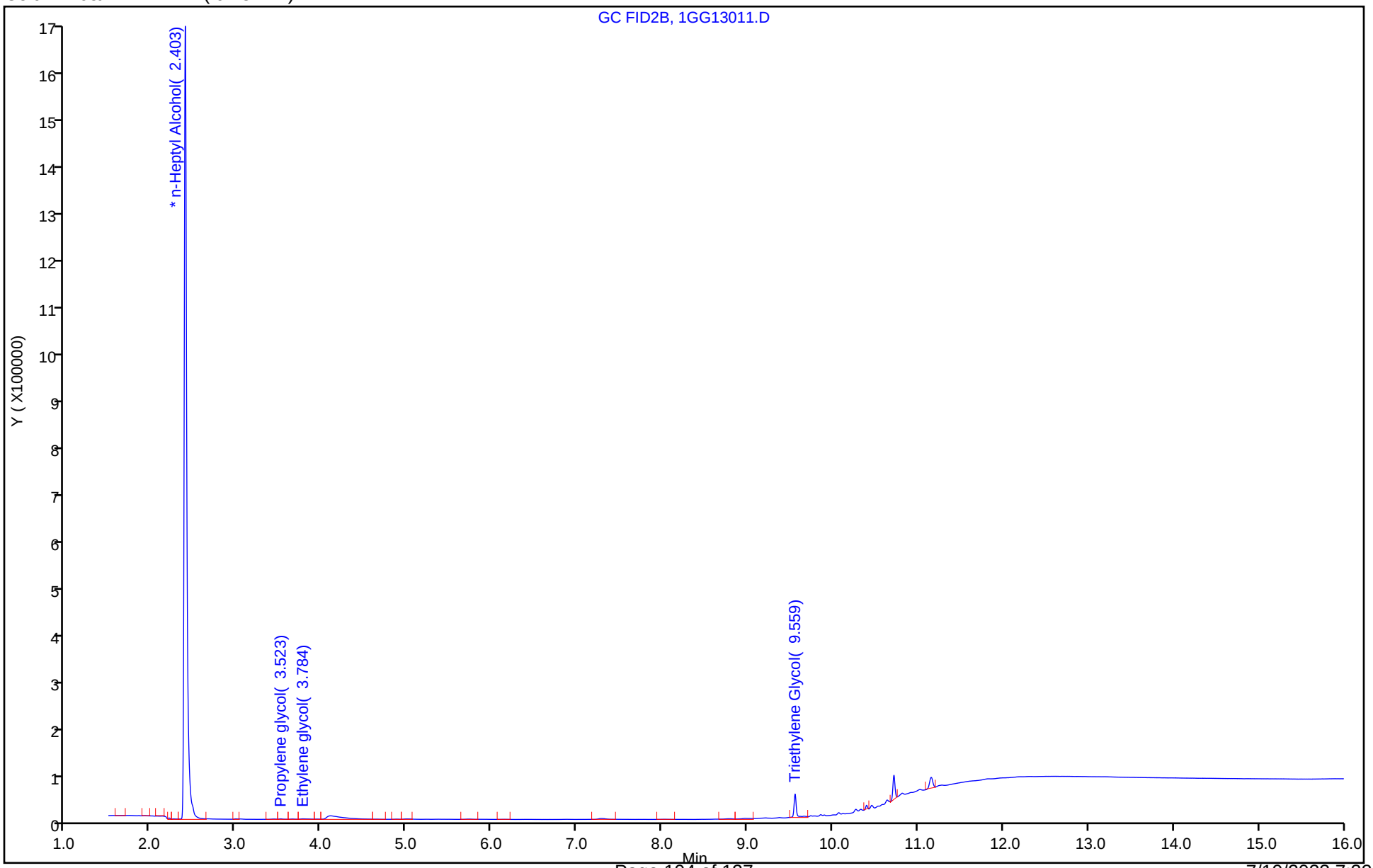
Report Date: 18-Jul-2023 15:03:56 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13011.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Jul-2023 19:06:17 | Instrument ID: | CVGG2 | Operator ID: | |
| Lims ID: | mb | | | 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)






7/19/2023 7:32 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 680-788635/5

Matrix: Water  Lab File ID: 1GG13005.D

Analysis Method: 8015C GLY  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 1(mL)  Date Analyzed: 07/17/2023 16:04

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.: 788635  Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 112-34-5 | 2-(2-Butoxyethoxy)ethanol | 24.0 | | 5.0 | 3.0 | 1.1 |

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13005.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 17-Jul-2023 16:04:03 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087508-005
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Jul-2023 15:04:06 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B
Process Host: CTX1615

| | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| | 1 Ethanol, 2-propoxy | | | | | | |
| | 1.767 | 1.769 | -0.002 | 1326091 | 20.0 | 22.8 | |
| | 2 4-Hydroxy-4-methyl-2-pentanone | | | | | | |
| | 2.147 | 2.147 | 0.000 | 1325965 | 20.0 | 22.8 | |
| | 3 2-Butoxyethanol | | | | | | |
| | 2.232 | 2.233 | -0.001 | 1415740 | 20.0 | 22.7 | |
| * | 4 n-Heptyl Alcohol | | | | | | |
| | 2.408 | 2.409 | -0.001 | 5136314 | 50.0 | 50.0 | |
| | 5 Dipropylene Glycol Methyl Ether | | | | | | |
| | 2.948 | 2.946 | 0.002 | 115661 | 20.0 | 24.1 | |
| | 6 Propylene glycol | | | | | | |
| | 3.508 | 3.504 | 0.004 | 455639 | 20.0 | 22.1 | |
| | 7 Ethylene glycol | | | | | | |
| | 3.788 | 3.790 | -0.002 | 680736 | 20.0 | 18.3 | |
| | 8 2-(2-Butoxyethoxy)ethanol | | | | | | |
| | 5.233 | 5.231 | 0.002 | 1182109 | 20.0 | 24.0 | |
| | 9 2,2'-Oxybisethanol | | | | | | |
| | 7.278 | 7.275 | 0.003 | 561127 | 20.0 | 21.3 | |
| | 10 Triethylene Glycol | | | | | | |
| | 9.558 | 9.558 | 0.000 | 622743 | 20.0 | 22.2 | |
| | 11 Tetraethylene Glycol | | | | | | |
| | 10.398 | 10.397 | 0.001 | 1157006 | 40.0 | 48.3 | |

## Reagents:

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

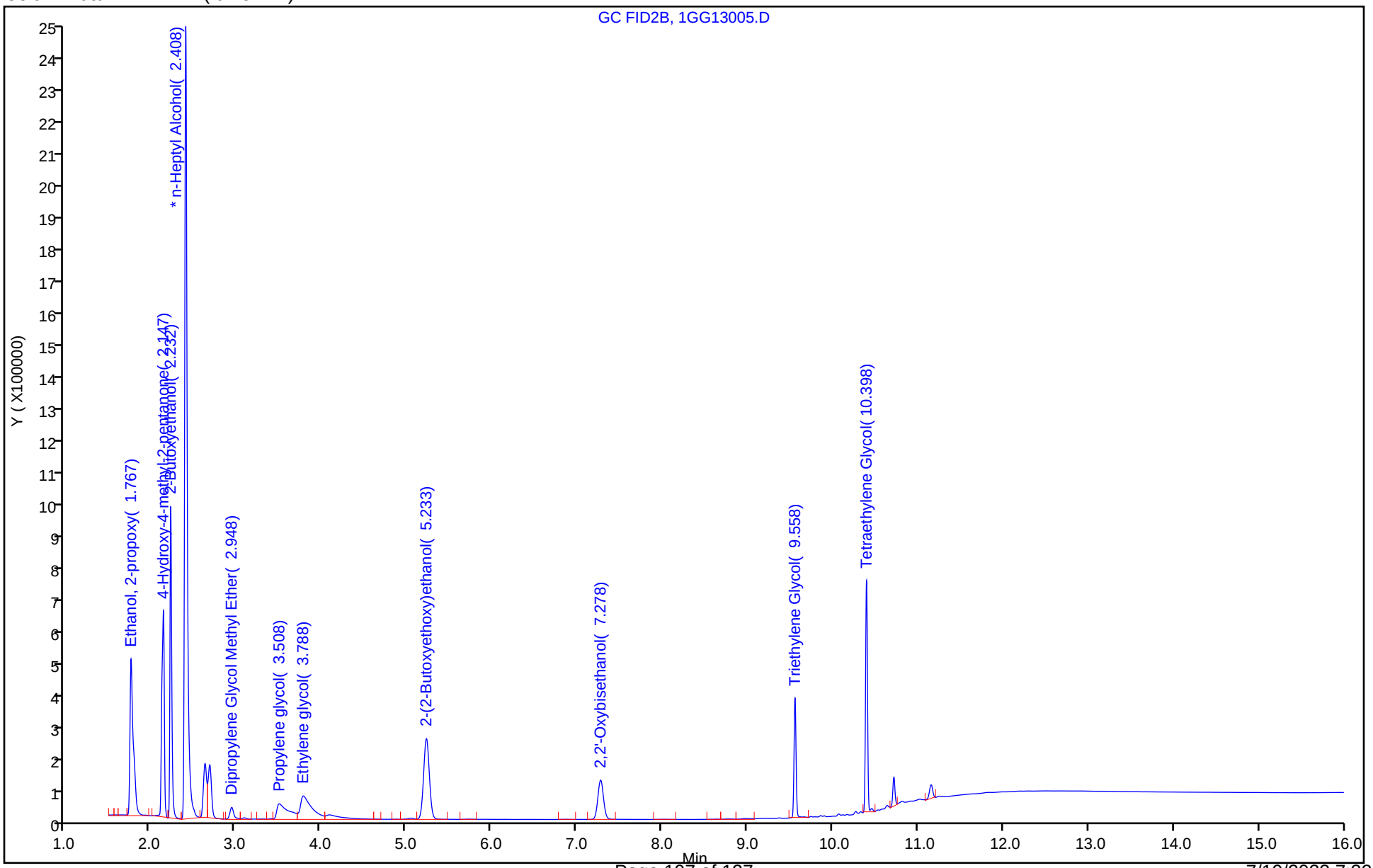
Report Date: 18-Jul-2023 15:04:07 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13005.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Jul-2023 16:04:03 | Instrument ID: | CVGG2 | Operator ID: | |
| Lims ID: | lcs | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 8015_GLY_VGG | Limit Group: | 8015C_DAI | | |

Column: J&W DB WAX ( 0.45 mm)






7/19/2023 7:32 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 680-788635/6

Matrix: Water  Lab File ID: 1GG13006.D

Analysis Method: 8015C GLY  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 1(mL)  Date Analyzed: 07/17/2023 16:27

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.: 788635  Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 112-34-5 | 2-(2-Butoxyethoxy)ethanol | 26.6 | | 5.0 | 3.0 | 1.1 |

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13006.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 17-Jul-2023 16:27:08 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087508-006
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Jul-2023 15:04:06 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B
Process Host: CTX1615

First Level Reviewer: SWK1 Date: 18-Jul-2023 14:57:23

| | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| | 1 Ethanol, 2-propoxy | | | | | | |
| | 1.762 | 1.769 | -0.007 | 1287003 | 20.0 | 24.4 | |
| | 2 4-Hydroxy-4-methyl-2-pentanone | | | | | | |
| | 2.143 | 2.147 | -0.004 | 1301340 | 20.0 | 24.7 | |
| | 3 2-Butoxyethanol | | | | | | |
| | 2.229 | 2.233 | -0.004 | 1366053 | 20.0 | 24.1 | |
| * | 4 n-Heptyl Alcohol | | | | | | |
| | 2.407 | 2.409 | -0.002 | 4691588 | 50.0 | 50.0 | |
| | 5 Dipropylene Glycol Methyl Ether | | | | | | |
| | 2.946 | 2.946 | 0.000 | 115559 | 20.0 | 26.6 | |
| | 6 Propylene glycol | | | | | | a |
| | 3.503 | 3.504 | -0.001 | 461487 | 20.0 | 24.7 | a |
| | 7 Ethylene glycol | | | | | | |
| | 3.787 | 3.790 | -0.003 | 680077 | 20.0 | 20.0 | |
| | 8 2-(2-Butoxyethoxy)ethanol | | | | | | |
| | 5.231 | 5.231 | 0.000 | 1182297 | 20.0 | 26.6 | |
| | 9 2,2'-Oxybisethanol | | | | | | |
| | 7.276 | 7.275 | 0.001 | 568633 | 20.0 | 23.9 | |
| | 10 Triethylene Glycol | | | | | | |
| | 9.558 | 9.558 | 0.000 | 618423 | 20.0 | 24.6 | |
| | 11 Tetraethylene Glycol | | | | | | |
| | 10.397 | 10.397 | 0.000 | 1160409 | 40.0 | 53.6 | |

## QC Flag Legend

Processing Flags

Review Flags
a - User Assigned ID

## Reagents:

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

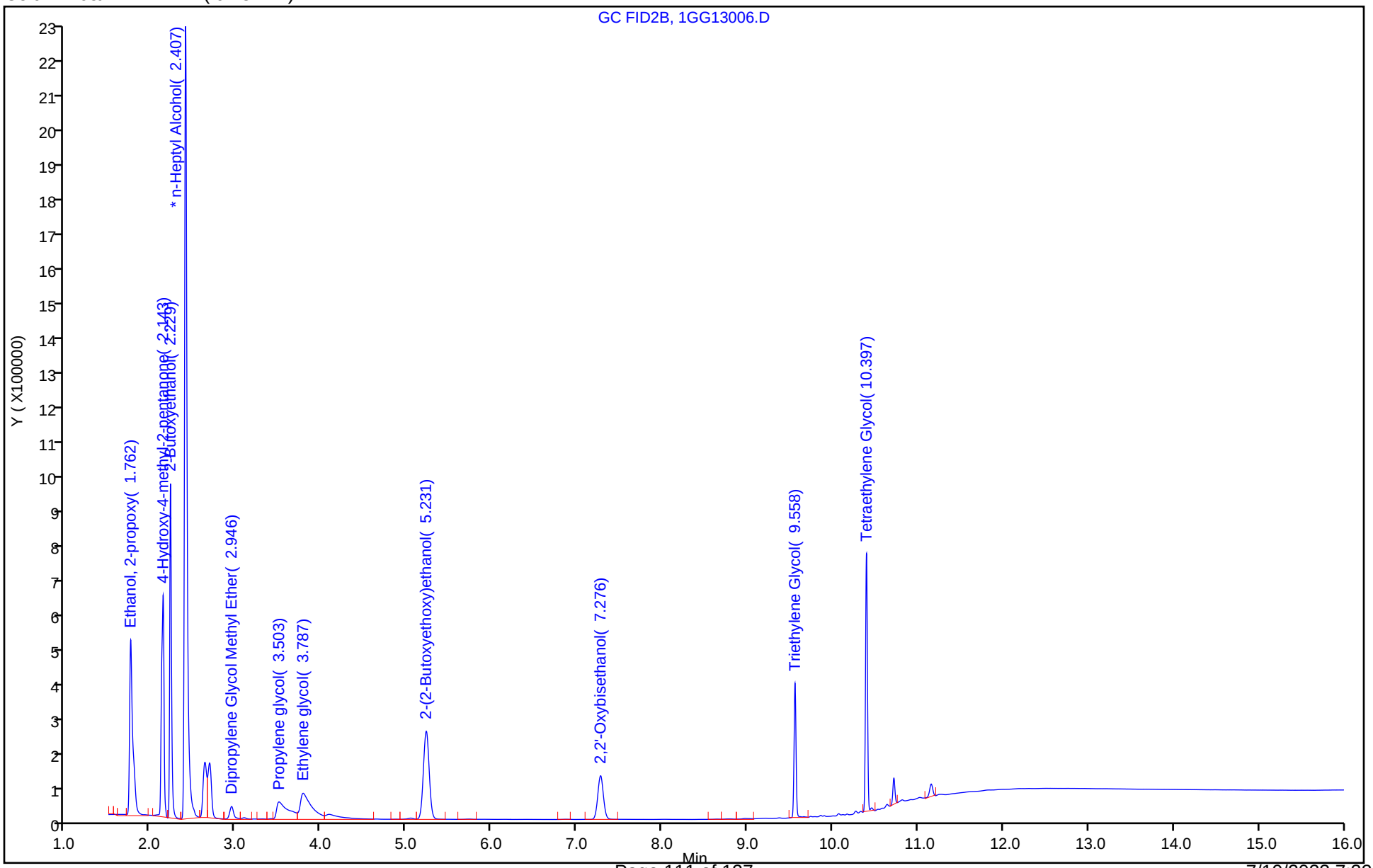
Report Date: 18-Jul-2023 15:04:08 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13006.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Jul-2023 16:27:08 | Instrument ID: | CVGG2 | Operator ID: | |
| Lims ID: | lcsd | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 8015_GLY_VGG | Limit Group: | 8015C_DAI | | |

Column: J&W DB WAX ( 0.45 mm)






7/19/2023 7:32 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah | Job No.: 580-129328-1

SDG No.:

Client Sample ID: AF-HDMW225303-WGN01LF-2307 MS | Lab Sample ID: 580-129328-1 MS

Matrix: Water | Lab File ID: 1GG13019.D

Analysis Method: 8015C GLY | Date Collected: 07/11/2023 10:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 07/17/2023 22:11

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.: 788635 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 112-34-5 | 2-(2-Butoxyethoxy)ethanol | 25.5 | | 5.0 | 3.0 | 1.1 |

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13019.D
Lims ID: 580-129328-C-1 MS
Client ID:
Sample Type: MS
Inject. Date: 17-Jul-2023 22:11:12 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087508-019
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Jul-2023 14:58:44 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B
Process Host: CTX1615

First Level Reviewer: SWK1 Date: 18-Jul-2023 14:58:44

| | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 | Ethanol, 2-propoxy | | | | | | |
| | 1.753 | 1.754 | -0.001 | 1229611 | 20.0 | 23.9 | |
| 2 | 4-Hydroxy-4-methyl-2-pentanone | | | | | | |
| | 2.135 | 2.130 | 0.005 | 1239726 | 20.0 | 24.2 | |
| 3 | 2-Butoxyethanol | | | | | | |
| | 2.225 | 2.225 | 0.000 | 1310448 | 20.0 | 23.8 | |
| * | 4 n-Heptyl Alcohol | | | | | | |
| | 2.403 | 2.404 | -0.001 | 4555715 | 50.0 | 50.0 | |
| 5 | Dipropylene Glycol Methyl Ether | | | | | | |
| | 2.935 | 2.938 | -0.003 | 99746 | 20.0 | 23.3 | |
| 6 | Propylene glycol | | | | | | a |
| | 3.506 | 3.524 | -0.018 | 440304 | 20.0 | 24.2 | a |
| 7 | Ethylene glycol | | | | | | |
| | 3.785 | 3.790 | -0.005 | 713113 | 20.0 | 21.7 | |
| 8 | 2-(2-Butoxyethoxy)ethanol | | | | | | |
| | 5.228 | 5.235 | -0.007 | 1105283 | 20.0 | 25.5 | |
| 9 | 2,2'-Oxybisethanol | | | | | | |
| | 7.277 | 7.283 | -0.006 | 417776 | 20.0 | 17.7 | |
| 10 | Triethylene Glycol | | | | | | |
| | 9.559 | 9.559 | 0.000 | 291397 | 20.0 | 10.4 | |
| 11 | Tetraethylene Glycol | | | | | | 7 |
| | 10.399 | 10.398 | 0.001 | 198640 | 40.0 | 4.49 | 7 |
| | LOD = | 4.50 | | | | | |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
a - User Assigned ID

## Reagents:

| | | | | |
|---|---|---|---|---|
| SG_Gly_CAL_00051 | Amount Added: | 10.00 | Units: uL | |
| SG_GLY_ISTD_00124 | Amount Added: | 10.00 | Units: uL | Run Reagent |

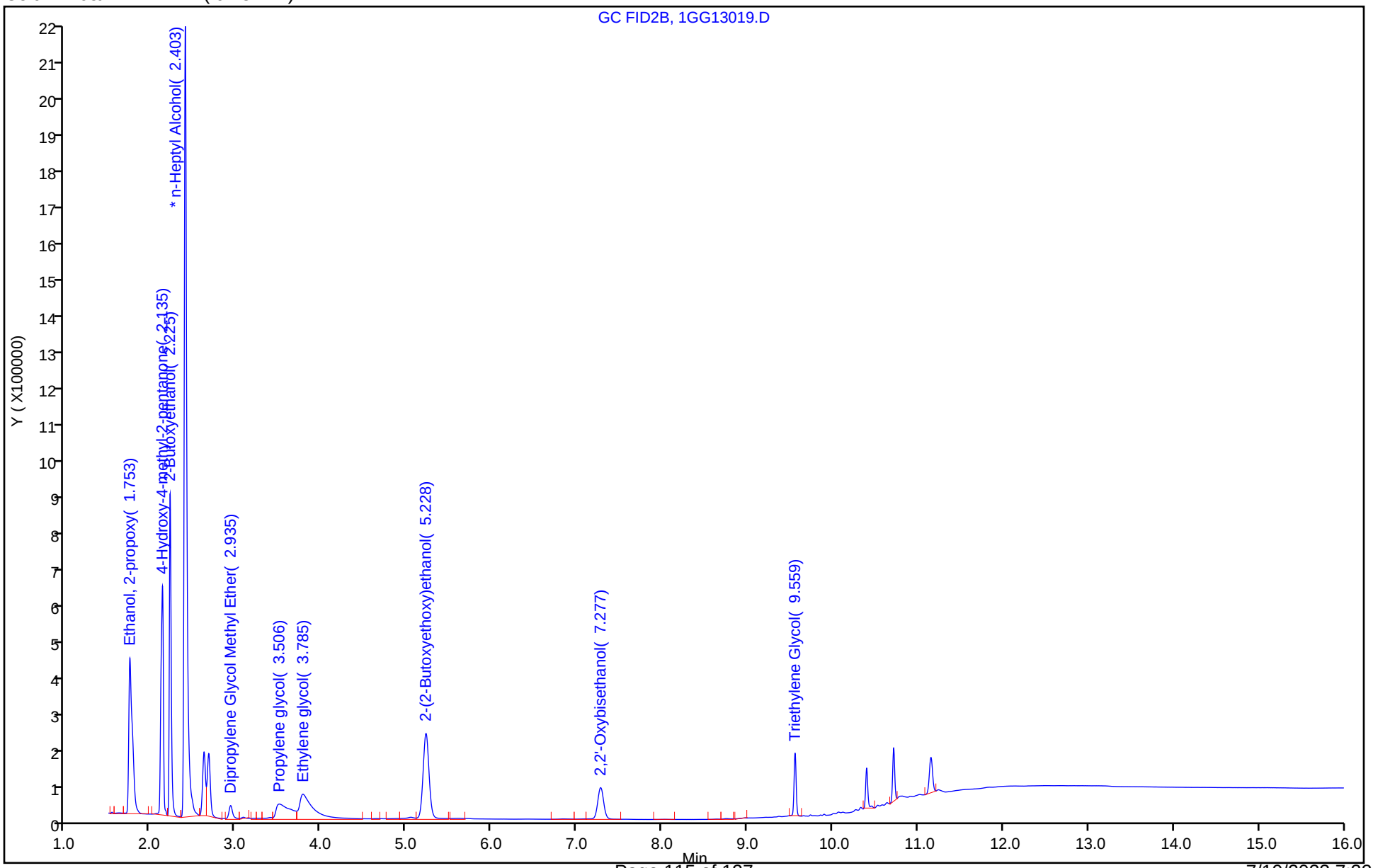
Report Date: 18-Jul-2023 15:04:00 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13019.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Jul-2023 22:11:12 | Instrument ID: | CVGG2 | Operator ID: | |
| Lims ID: | 580-129328-C-1 MS | | | Worklist Smp#: | 19 |
| 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)






7/19/2023 7:32 PM

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Savannah | Job No.: 580-129328-1

SDG No.:

Client Sample ID: AF-HDMW225303-WGN01LF-2307 MSD | Lab Sample ID: 580-129328-1 MSD

Matrix: Water | Lab File ID: 1GG13020.D

Analysis Method: 8015C GLY | Date Collected: 07/11/2023 10:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 07/17/2023 22:34

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.: 788635 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 112-34-5 | 2-(2-Butoxyethoxy)ethanol | 25.6 | | 5.0 | 3.0 | 1.1 |

Eurofins Savannah
Target Compound Quantitation Report

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13020.D
Lims ID: 580-129328-C-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 17-Jul-2023 22:34:18 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 680-0087508-020
Operator ID: Instrument ID: CVGG2

Method: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\8015_GLY_VGG.m
Limit Group: 8015C_DAI
Last Update: 18-Jul-2023 14:58:44 Calib Date: 13-Jul-2023 14:38:41
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Savannah\ChromData\CVGG2\20230713-87436.b\1GG12010.D

Column 1 : J&W DB WAX ( 0.45 mm) Det: GC FID2B
Process Host: CTX1615

First Level Reviewer: SWK1 Date: 18-Jul-2023 14:59:05

| | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| | 1 Ethanol, 2-propoxy | | | | | | |
| | 1.756 | 1.754 | 0.002 | 1213077 | 20.0 | 22.1 | |
| | 2 4-Hydroxy-4-methyl-2-pentanone | | | | | | |
| | 2.139 | 2.130 | 0.009 | 1274390 | 20.0 | 23.4 | |
| | 3 2-Butoxyethanol | | | | | | |
| | 2.226 | 2.225 | 0.001 | 1295542 | 20.0 | 22.1 | |
| * | 4 n-Heptyl Alcohol | | | | | | |
| | 2.402 | 2.404 | -0.002 | 4824712 | 50.0 | 50.0 | |
| | 5 Dipropylene Glycol Methyl Ether | | | | | | |
| | 2.940 | 2.938 | 0.002 | 110433 | 20.0 | 24.5 | |
| | 6 Propylene glycol | | | | | | |
| | 3.512 | 3.524 | -0.012 | 490253 | 20.0 | 25.6 | |
| | 7 Ethylene glycol | | | | | | |
| | 3.787 | 3.790 | -0.003 | 814657 | 20.0 | 23.4 | |
| | 8 2-(2-Butoxyethoxy)ethanol | | | | | | |
| | 5.230 | 5.235 | -0.005 | 1176740 | 20.0 | 25.6 | |
| | 9 2,2'-Oxybisethanol | | | | | | |
| | 7.280 | 7.283 | -0.003 | 571401 | 20.0 | 23.3 | |
| | 10 Triethylene Glycol | | | | | | |
| | 9.560 | 9.559 | 0.001 | 477854 | 20.0 | 17.5 | |
| | 11 Tetraethylene Glycol | | | | | | |
| | 10.400 | 10.398 | 0.002 | 407091 | 40.0 | 14.3 | |

## QC Flag Legend
Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| SG_Gly_CAL_00051 | Amount Added: | 10.00 | Units: uL | |
| SG_GLY_ISTD_00124 | Amount Added: | 10.00 | Units: uL | Run Reagent |

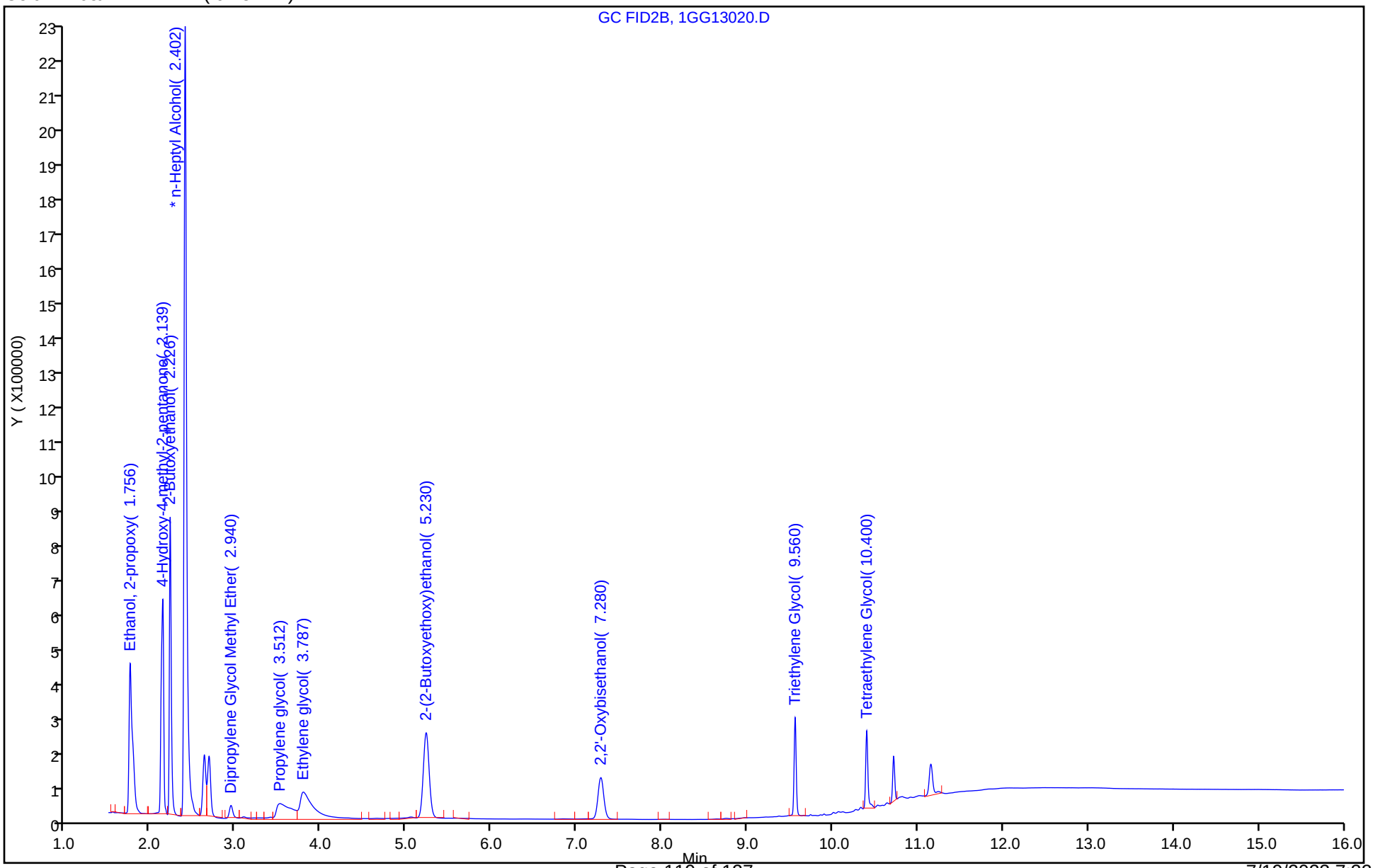
Report Date: 18-Jul-2023 15:04:00 Chrom Revision: 2.3 21-Jun-2023 17:36:34

Eurofins Savannah

Data File: \\chromfs\Savannah\ChromData\CVGG2\20230717-87508.b\1GG13020.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 17-Jul-2023 22:34:18 | Instrument ID: | CVGG2 | Operator ID: | |
| Lims ID: | 580-129328-C-1 MSD | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 8015_GLY_VGG | Limit Group: | 8015C_DAI | | |

Column: J&W DB WAX ( 0.45 mm)






7/19/2023 7:32 PM

# GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

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

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

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

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins Savannah Job No.: 580-129328-1

SDG No.:

Instrument ID: CVGG2 Start Date: 07/17/2023 15:40

Analysis Batch Number: 788635 End Date: 07/18/2023 02:25

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCVIS 680-788635/4 | | 07/17/2023 15:40 | 1 | 1GG13004.D | J&W DB WAX 0.45(mm) |
| LCS 680-788635/5 | | 07/17/2023 16:04 | 1 | 1GG13005.D | J&W DB WAX 0.45(mm) |
| LCSD 680-788635/6 | | 07/17/2023 16:27 | 1 | 1GG13006.D | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/17/2023 17:33 | 1 | | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/17/2023 17:56 | 1 | | J&W DB WAX 0.45(mm) |
| MB 680-788635/11 | | 07/17/2023 19:06 | 1 | 1GG13011.D | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/17/2023 19:29 | 1 | | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/17/2023 19:52 | 1 | | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/17/2023 20:15 | 1 | | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/17/2023 20:38 | 1 | | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/17/2023 21:01 | 1 | | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/17/2023 21:24 | 1 | | J&W DB WAX 0.45(mm) |
| 580-129328-1 | AF-HDMW225303-WGN01LF-2307 | 07/17/2023 21:48 | 1 | 1GG13018.D | J&W DB WAX 0.45(mm) |
| 580-129328-1 MS | AF-HDMW225303-WGN01LF-2307 MS | 07/17/2023 22:11 | 1 | 1GG13019.D | J&W DB WAX 0.45(mm) |
| 580-129328-1 MSD | AF-HDMW225303-WGN01LF-2307 MSD | 07/17/2023 22:34 | 1 | 1GG13020.D | J&W DB WAX 0.45(mm) |
| CCV 680-788635/22 | | 07/17/2023 23:20 | 1 | 1GG13022.D | J&W DB WAX 0.45(mm) |
| CCV 680-788635/23 | | 07/17/2023 23:43 | 1 | 1GG13023.D | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/18/2023 00:29 | 1 | | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/18/2023 00:52 | 1 | | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/18/2023 01:16 | 1 | | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/18/2023 01:39 | 1 | | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/18/2023 02:02 | 1 | | J&W DB WAX 0.45(mm) |
| ZZZZZ | | 07/18/2023 02:25 | 1 | | J&W DB WAX 0.45(mm) |

# GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

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

Batch Method: 8015C GLY  Batch End Date:

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

| Batch Notes | |
|---|---|
| | |

| Basis | Basis Description |
|---|---|
| | |

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

# GC SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins Savannah  Job No.: 580-129328-1

SDG No.:

Batch Number: 788635  Batch Start Date: 07/17/23 15:40  Batch Analyst: Kellar, Joshua C

Batch Method: 8015C GLY  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | FinalAmount | SG_Gly_CAL 00051 | SG_Gly_CAL 00053 | SG_GLY_ISTD 00124 | | |
|---|---|---|---|---|---|---|---|---|---|
| CCVIS 680-788635/4 | | 8015C GLY | | 1 mL | | 10 uL | 10 uL | | |
| LCS 680-788635/5 | | 8015C GLY | | 1 mL | | 10 uL | 10 uL | | |
| LCSD 680-788635/6 | | 8015C GLY | | 1 mL | | 10 uL | 10 uL | | |
| MB 680-788635/11 | | 8015C GLY | | 1 mL | | | 10 uL | | |
| 580-129328-C-1 | AF-HDMW225303-WGN01LF-2307 | 8015C GLY | T | 1 mL | | | 10 uL | | |
| 580-129328-C-1 MS | AF-HDMW225303-WGN01LF-2307 | 8015C GLY | T | 1 mL | 10 uL | | 10 uL | | |
| 580-129328-C-1 MSD | AF-HDMW225303-WGN01LF-2307 | 8015C GLY | T | 1 mL | 10 uL | | 10 uL | | |
| CCV 680-788635/22 | | 8015C GLY | | 1 mL | | 10 uL | 10 uL | | |
| CCV 680-788635/23 | | 8015C GLY | | 1 mL | | 1 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

129328

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

# Chain of Custody Record

eurofins Environment Testing America

| Client Information | Sampler | Lab PM | Carrier Tracking No(s) | COC No |
|---|---|---|---|---|
| Client Contact | Chris Womack | Elaine Walker | FedEx | 2307AFEA04 |
| Company: AECOM | Phone: 916.769.9323 | E-Mail: M.Elaine.Walker@EurofinsET.com | State of Origin: Hawaii | Page: Page 1 of 1 |
| Address: 1001 Bishop St. Suite 1600 | PWSID: | Due Date Requested: see subcontract | | Job # |
| 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@aecom.com)/ Mark.Kromis@aecom.com) | | WO # | | |
| Project Name: CTO N6274223F0104 | | Project #: 60697810 | | |
| Site: RHSF | | SSOW# | | |

**Analysis Requested**

**Preservation Codes:**

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

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (Wwater, Ssolid, Oowaste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | 8015C_DAI_GL_DS: 2-(2-butoxyethoxy)-ethanol | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | A | | |
| AF-HDMW225303-WGN01LF-2307 | 07/11/23 | 1055 | G | W | N | X | 3 | |

CW 07/11/23

CW 07/11/23

**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:

| Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|
| Chris Womack | 7/11/23 1230 | AECOM | Miranda DeGarmo | 7/11/23 1230 | AECOM |
| Miranda DeGarmo | 7/11/23 1240 | AECOM | | | |
| | | | | | |

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

Ver: 01/16/2019

# Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-129328-1

**Login Number: 129328**
**List Number: 1**
**Creator: Presley, Kim A**

**List Source: Eurofins Seattle**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | N/A | |
| Samples were received on ice. | N/A | |
| Cooler Temperature is acceptable. | N/A | |
| Cooler Temperature is recorded. | N/A | |
| 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? | N/A | |
| There are no discrepancies between the containers received and the COC. | N/A | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | N/A | |
| Containers are not broken or leaking. | N/A | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | N/A | |
| Sample bottles are completely filled. | N/A | |
| Sample Preservation Verified. | N/A | |
| 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"). | N/A | |
| Multiphasic samples are not present. | N/A | |
| Samples do not require splitting or compositing. | N/A | |
| Residual Chlorine Checked. | N/A | |